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The Environmental Assessment and Management (TEAM) Guide: Montana Supplement

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Abstract: Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency.

Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide.

The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The Montana Supplement was developed to be used in conjunction with the TEAM Guide, using existing Montana state environmental legislation and regulations as well as suggested management practices.

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FOREWORD

This is ERDC/CERL SR-05-38. The report is based on the information available on Enflex Federal and State Regulations of 1 February 2010.

The research was performed for AEC MIPR 0010005589, technical monitor Mark DITmore; ANG MIPR F9WFEV0028G001, technical monitor is Chuck Smith; AGB W45XMA00130245, technical monitor is Phil Dao; Army Reserve MIPR10CODCD201, technical monitor is Roc Tschirhart; Commerce MIPR 1301-09-SA00110, technical monitor is Greg Falzetta; USACE Fund account 96x3123, technical monitor is John Coho; DHS IAG HSHQDC-08-X-00456, technical monitor is Peter Wixted; DLA MIPR SP1001090, technical monitor is Pam Hillis; USPS MOA-05-CERL-01, technical monitor is Sharon Marsh; and, State Department IAG F3NF369350G002, technical monitor is Janice Smith.

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CERL is an element of the U.S. Army Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers. The Director of ERDC is Dr. James R. Houston, and the Commander is COL Gary Johnson.

NOTICE

This manual is intended as general guidance for personnel at Federal facilities. It is not, nor is it intended to be, a complete treatise on environmental laws and regulations. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained herein. For any specific questions about, or interpretations of, the legal references herein, consult appropriate legal counsel.

Comment Form

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SECTION 1

AIR EMISSIONS MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Air Emissions Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Federal Regulations Incorporated by Reference

In the Administrative Rules of Montana (ARM), the State of Montana 17.8.102. Lists the following incorporation by reference publication dates (ARM 17.8.102) [Added February 2009]:

1. Unless expressly provided otherwise, in this chapter where the board has:
 - a. adopted a federal regulation by reference, the reference is to the July 1, 2008, edition of the Code of Federal Regulations (CFR);
 - b. adopted a section of the United States Code (USC) by reference, the reference is to the 2000 edition of the USC and Supplement V (2005);
 - c. adopted another rule of the department or of another agency of the state of Montana by reference, the reference is to the December 31, 2008, edition of the Administrative Rules of Montana (ARM).
2. For purposes of this chapter, the following subparts, or portions thereof, of 40 CFR Part 60, are excluded from incorporation by reference:
 - a. 40 CFR 60, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced After November 30, 1999, or for which Modification or Reconstruction is Commenced on or After June 1, 2001 (40 CFR 60.2000 through 60.2265, and all associated appendices and tables), as vacated June 8, 2007, by the U.S. Circuit Court of Appeals, D.C. Circuit, ruling.
 - b. 40 CFR Part 60, Subpart HHHH, Emission Guidelines and Compliance Times for Coal-fired Electric Steam Generating Units
3. For purposes of this chapter, the following subparts, or portions thereof, of 40 CFR Part 63 are excluded from incorporation by reference:
 - a. 40 CFR 63, Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing (40 CFR 63.8380 through 63.8515, and all associated appendices and tables), as vacated March 13, 2007, by the U.S. Circuit Court of Appeals, D.C. Circuit;
 - b. 40 CFR 63, Subpart KKKK, National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing (40 CFR 63.8530 through 63.8665, and all associated appendices and tables), as vacated March 13, 2007, by the U.S. Circuit Court of Appeals, D.C. Circuit;
 - c. 40 CFR 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7480 through 63.7575, and all associated appendices and tables), as vacated June 8, 2007, by the U.S. Circuit Court of Appeals, D.C. Circuit;
 - d. Portions of 40 CFR 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products, as vacated June 19, 2007, by the U.S. Circuit Court of Appeals, D.C. Circuit.

In the Administrative Rules of Montana (ARM), the State of Montana incorporates by reference the following Federal regulations (2004) [Revised April 2002; Revised January 2003; Revised January 2006; Revised February 2008; Revised February 2010]:

- 40 CFR Part 50, specifying the national ambient air quality standards and ambient air quality monitoring reference methods (ARM 17.8.202)

- 40 CFR Part 50, Appendix B, pertaining to the reference method for the determination of suspended particulate matter in the atmosphere (high-volume method) (ARM 17.8.103)
- 40 CFR Part 50, Appendix J, pertaining to reference methods for the determination of particulate matter as PM-10 in the atmosphere (ARM 17.8.103)
- 40 CFR 51.102, pertaining to requirements for public hearings for state programs (ARM 17.8.802)
- 40 CFR Part 51, Appendix M, pertaining to recommended test methods for state implementation plans (ARM 17.8.103)
- 40 CFR Part 51, Appendix P, pertaining to EPA minimum emission monitoring requirements (ARM 17.8.103)
- 40 CFR Part 53, specifying ambient air monitoring reference methods and equivalent methods (ARM 17.8.103 and 17.8.202)
- 40 CFR Part 58, including Appendices A through G, specifying criteria and requirements for ambient air quality monitoring and reporting (ARM 17.8.202)
- 40 CFR Part 58, Appendix B, pertaining to quality assurance requirements for prevention of significant deterioration air monitoring (ARM 17.8.802)
- 40 CFR Part 60, pertaining to standards of performance for new stationary sources (ARM 17.8.302, 17.8.802 and 17.8.902, 17.8.1002)
 - 40 CFR Part 60, Appendix A, pertaining to EPA emission source reference test methods for stationary sources (ARM 17.8.103)
 - 40 CFR Part 60, Appendix B, pertaining to EPA performance specification and test procedures for continuous emission monitoring systems (ARM 17.8.103)
- 40 CFR Part 61, pertaining to emission standards for hazardous air pollutants (ARM 17.8.302, 17.8.802, 17.8.902, and 17.8.1002)
 - 40 CFR Part 61, Appendix B, pertaining to EPA emission source reference test methods for sources subject to national emission standards for hazardous air pollutants (ARM 17.8.103)
- 40 CFR Part 63, pertaining to emission standards for hazardous air pollutant source categories (ARM 17.8.103 and 17.8.302)
- 40 CFR 70.3 - sources and source categories requiring an operating permit pursuant to Title V of the FCAA (ARM 17.8.1202)
- 40 CFR 81.327, pertaining to the air quality attainment status designations for Montana (ARM 17.8.302 and 17.8.1002)
- 42 USC 7412, pertaining to substances designated as hazardous air pollutants

Definitions

- *Administrator* - the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or Administrator of a State Air Pollution Control Agency (Title 40 of the Code of Federal Regulations, Part 60.2875 (40 CFR 60.2875)) [Added April 2002].
- *Agricultural Waste* - vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations (40 CFR 60.2875) [Added April 2002].
- *Airborne Particulate Matter* - any particulate matter discharged into the outdoor atmosphere that is not discharged from the normal exit of a stack or chimney for which a sources test can be performed in accordance with Federal standards (ARM 17.8.301).
- *Air Curtain Incinerator* - an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with

conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.) (40 CFR 60.2875) [Added April 2002].

- *Auxiliary Fuel* - natural gas, liquified petroleum gas, fuel oil, or diesel fuel (40 CFR 60.2875) [Added April 2002].
- *Bag Leak Detection System* - an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings (40 CFR 60.2875) [Added April 2002].
- *Batch Municipal Waste Combustion Unit* - a municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 h per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion (40 CFR 60.1940) [Added April 2002].
- *Best Available Control Technology (BACT)* - an emission limitation (including a visible emission standard), based on the maximum degree of reduction for each pollutant subject to regulation under the federal Clean Air Act or the Montana Clean Air Act, that would be emitted from any proposed emitting unit or modification which the Department, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such emitting unit or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such contaminant. In no event may application of BACT result in emission of any regulated air pollutant that would exceed the emissions allowed by any applicable standard under ARM 17.8.340, and ARM.17.8., subchapter 7. If the department determines that technological or economic limitations on the application of measurement methodology to a particular class of emitting units would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or operational standard or combination thereof, to require the application of BACT. Such standard must, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and must provide for compliance by means that achieve equivalent results (ARM 17.8.740) [Revised February 2003].
- *Best Available Control Technology (for open burning sources)* - those techniques and methods of controlling emission of pollutants from an existing or proposed open burning source which limit those emissions to the maximum degree which the Department determines, on a case-by-case basis, is achievable for that source, taking into account impacts on energy use, the environment, and the economy, and any other costs, including cost to the source. Such techniques and methods may include the following (ARM 17.8.601) [Added February 2003; Revised February 2004]:
 - i. scheduling of burning during periods and seasons of good ventilation
 - ii. applying dispersion forecasts
 - iii. utilizing predictive modeling results performed by and available from the department to minimize smoke impacts
 - iv. limiting the amount of burning to be performed during any one time
 - v. using ignition and burning techniques that minimize smoke production
 - vi. selecting fuel preparation methods that will minimize dirt and moisture content
 - vii. promoting fuel configurations which create an adequate air to fuel ratio
 - viii. prioritizing burns as to air quality impact and assigning control techniques accordingly
 - ix. promoting alternative treatments and uses of materials to be burned
 - x. selecting sites that will minimize smoke impacts.

For essential agricultural open burning, prescribed wildland open burning, conditional air quality open burning, commercial film production open burning, Christmas tree waste open burning, or minor open burning during September through February, BACT includes burning only during the time periods specified by the department.
- *Beginning Actual Construction* - in general, initiation of physical on-site construction activities of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying

of underground pipeline, and construction of permanent storage structures (ARM 17.8.301) [Added April 2000].

- *Calendar Quarter* - three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1 (40 CFR 60.2875) [Added April 2002].
- *Calendar Year* - 365 consecutive days starting on January 1 and ending on December 31 (40 CFR 60.2875) [Added April 2002].
- *Chemotherapeutic Waste* - waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells (40 CFR 60.2875) [Added April 2002].
- *Chief Facility Operator* - the person in direct charge and control of the operation of a municipal waste combustion unit. That person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit (40 CFR 60.1940) [Added April 2002].
- *Christmas Tree Waste* - wood waste from commercially grown Christmas trees left in the field where the trees were grown, after harvesting and on-site processing (ARM 17.8.601) [Added February 2004].
- *Clean Wood* - untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include two items (40 CFR 60.1940) [Added April 2002]:
 1. "Yard waste," which is defined elsewhere in this section.
 2. Construction, renovation, or demolition wastes (for example, railroad ties and telephone poles) that are exempt from the definition of "municipal solid waste" in this section.
- *Class I Units* - small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste (40 CFR 60.1940) [Added April 2002].
- *Class II Units* - small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste (40 CFR 60.1940) [Added April 2002].
- *Clean Lumber* - wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote (40 CFR 60.2875) [Added April 2002].
- *Co-Fired Combustion Unit* - a unit that combusts municipal solid waste with nonmunicipal solid waste fuel (for example, coal, industrial process waste). To be considered a co-fired combustion unit, the unit must be subject to a federally enforceable permit that limits it to combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as measured each calendar quarter (40 CFR 60.1940) [Added April 2002].
- *Commercial And Industrial Waste* - solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility (40 CFR 60.2875) [Added April 2002].
- *Commercial And Industrial Solid Waste Incineration (CISWI) Unit* - any combustion device that combusts commercial and industrial waste, as defined in this subpart. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and

bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas (40 CFR 60.2875) [Added April 2002]:

1. The combustion unit flue gas system, which ends immediately after the last combustion chamber.
 2. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.
- *Construct or Construction* - includes a reasonable period of time for startup and shakedown and means (ARM 17.8.740) [Added February 2003]:
 1. initiation of on-site fabrication, erection, or installation of an emitting unit or control equipment including, but not limited to:
 - a. installation of building supports or foundations,
 - b. laying of underground pipework, or
 - c. construction of storage structures; or
 2. the installation of any portable or temporary equipment or facilities.
 - *Contained Gaseous Material* - gases that are in a container when that container is combusted (40 CFR 60.2875) [Added April 2002].
 - *Continuous Burning* - the continuous, semicontinuous, or batch feeding of municipal solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not mean the use of municipal solid waste solely to thermally protect the grate or hearth during the startup period when municipal solid waste is not fed to the grate or hearth (40 CFR 60.1940) [Added April 2002].
 - *Control Equipment* - any device or contrivance that prevents, removes, controls, or abates emissions (ARM 17.8.101).
 - *Cyclonic Barrel Burner* - a combustion device for waste materials that is attached to a 55 gal, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air (40 CFR 60.2875) [Added April 2002].
 - *Department* - the Montana Department of Environmental Quality.
 - *Deviation* - any instance in which an affected source subject to this subpart, or an owner or operator of such a source (40 CFR 60.2875) [Added April 2002]:
 1. Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;
 2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
 3. Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.
 - *Dioxins/Furans* - tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans (40 CFR 60.2875) [Added April 2002].
 - *Discard* - for purposes of this subpart and 40 CFR part 60, subpart DDDD, only, burned in an incineration unit without energy recovery (40 CFR 60.2875) [Added April 2002].

- *Drum Reclamation Unit* - a unit that burns residues out of drums (e.g., 55 gal drums) so that the drums can be reused (40 CFR 60.2875) [Added April 2002].
- *Emission* - release of air contaminants into the ambient air (ARM 17.8.101).
- *Emission Standard* - an allowable rate of emissions or level of opacity, or a requirement that certain equipment, work practices or operating conditions be employed to assure continuous emission control. An emission standard may be contained in a rule or regulation, consent decree, judicial or administrative order, or permit condition (ARM 17.8.101).
- *Emitting Unit* – includes (ARM 17.8.740) [Added February 2003]:
 1. any equipment that emits or has the potential to emit any regulated air pollutant under the Clean Air Act of Montana through a stack(s) or vent(s), or
 2. any equipment from which emissions consist solely of fugitive emissions of a regulated air pollutant under the Clean Air Act of Montana.
- *Energy Recovery* - the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating (40 CFR 60.2875) [Added April 2002].
- *Essential Agricultural Burning Source* - any open burning conducted on a farm or ranch to:
 1. eliminate excess vegetative matter from an irrigation ditch when no reasonable alternative method of disposal is available;
 2. eliminate excess vegetative matter from cultivated fields after harvest has been completed when no reasonable alternative method of disposal is available;
 3. improve range conditions when no reasonable alternative method is available; or
 4. improve wildlife habitat when no reasonable alternative method is available (ARM 17.8.601).
- *Existing Fuel-Burning Equipment* - fuel-burning equipment constructed or installed prior to 23 November 1968 (ARM 17.8.301).
- *Existing Emitting Unit* - an emitting unit that was in existence and operating or was capable of being operated on March 16, 1979, or for which the department had issued a permit by that date (ARM 17.8.740) [Added February 2003].
- *Fabric Filter* - an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse (40 CFR 60.2875) [Added April 2002].
- *Facility* - any real or personal property that is either stationary or portable and is located on one or more contiguous or adjacent properties under the control of the same owner or operator and emits or has the potential to emit any air pollutant subject to regulation under the Clean Air Act of Montana or the Federal Clean Air Act, including associated control equipment that affects or would affect the nature, character, composition, amount, or environmental impacts of air pollution and that has the same two-digit standard industrial classification code. A facility may consist of one or more emitting units (ARM 17.8.740) [Added January 2008].
- *Forage* - any plant that is grazed or browsed (ARM 17.8.201).
- *Fuel-Burning Equipment* - any furnace, boiler, apparatus, stack, or appurtenances thereto used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer (ARM 17.8.301).
- *Greenfield Site* - a contiguous area under common control that is an undeveloped site (ARM 17.8.301) [Added April 2000].

- *Hazardous Air Pollutant (HAP)* - any air pollutant listed as a hazardous air pollutant pursuant to Section 112(b) (1) of the Federal *Clean Air Act* (ARM 17.8.101) [Revised February 2004].
- *Hazardous Waste* - a substance defined as hazardous waste under either 75-10-403, Montana Code, Annotated, or administrative rules found at ARM 16.44.3, or a waste containing 2 ppm or more of polychlorinated biphenyl (ARM 17.8.101).
- *Incinerator* - any single- or multiple-chambered combustion device that burns combustible material, alone or with a supplemental fuel or with catalytic combustion assistance, primarily for the purpose of removal, destruction, disposal, or volume reduction of all or any portion of the input material. Incinerators do not include (Montana Code Annotated (MCA) 75-2-103) [Revised February 2003]:
 1. safety flares used to combust or dispose of hazardous or toxic gases at industrial facilities, such as refineries, gas sweetening plants, oil and gas wells, sulfur recovery plants, or elemental phosphorus plants;
 2. space heaters that burn used oil;
 3. wood-fired boilers; or
 4. wood waste burners, such as tepee, wigwam, truncated cone, or silo burners.
- *Low-Level Radioactive Waste* - waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e) (2)) (40 CFR 60.2875) [Added April 2002].
- *Major Open Burning Source* - any person, agency, institution, business, or industry conducting any open burning that, on a statewide basis, will emit more than 500 tons per calendar year of CO or 50 tons per calendar year of any other pollutant regulated under Montana open burning requirements, except hydrocarbons (ARM 17.8.601) [Revised February 2003].
- *Major Source of HAP* - (ARM 17.8.301) [Added April 2000]:
 1. at any greenfield site, a stationary source or group of stationary sources which is located within a contiguous area and under common control and which emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP; or
 2. at any developed site, a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP.
- *Malfunction* - any sudden and unavoidable failure to operate in a normal manner by air pollution control equipment, process equipment, or a process that affects emissions. A failure caused entirely or in part by poor maintenance, careless operation, poor design, or any other preventable upset condition or preventable equipment breakdown is not a malfunction (ARM 17.8.110) [Revised February 2003].
- *Mass Burn Refractory Municipal Waste Combustion Unit* - a field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, that includes municipal waste combustion units with a cylindrical rotary refractory wall furnace (40 CFR 60.1940) [Added April 2002].
- *Mass Burn Rotary Waterwall Municipal Waste Combustion Unit* - a field-erected municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace (40 CFR 60.1940) [Added April 2002].
- *Mass Burn Waterwall Municipal Waste Combustion Unit* - a field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace (40 CFR 60.1940) [Added April 2002].

- *Maximum Demonstrated Load Of A Municipal Waste Combustion Unit* - the highest 4-hour block arithmetic average municipal waste combustion unit load achieved during 4 consecutive hours in the course of the most recent dioxins/furans stack test that demonstrates compliance with the applicable emission limit for dioxins/furans specified in this subpart (40 CFR 60.1940) [Added April 2002].
- *Maximum Demonstrated Temperature Of The Particulate Matter Control Device* - the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent stack test for dioxins/furans emissions that demonstrates compliance with the limits specified in this subpart (40 CFR 60.1940) [Added April 2002].
- *Minor Open Burning Source* - any person, a agency, institution, business, or industry conducting any open burning that is not a major open burning source (ARM 17.8.601) [Citation Revised February 2003].
- *Mixed Fuel-Fired (Pulverized Coal/Refuse-Derived Fuel) Combustion Unit* - a combustion unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an airstream that carries the coal to the combustion chamber of the unit where it is combusted in suspension. That includes both conventional pulverized coal and micropulverized coal (40 CFR 60.1940) [Added April 2002].
- *Modification or Modified CISWI Unit* - a CISWI unit you have changed later than June 1, 2001 and that meets one of two criteria (40 CFR 60.2875) [Added April 2002]:
 1. The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
 2. Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.
- *Modification or Modified Municipal Waste Combustion Unit* - a municipal waste combustion unit you have changed after June 6, 2001 and that meets one of two criteria (40 CFR 60.1940) [Added April 2002]:
 1. The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs.
 2. Any physical change in the municipal waste combustion unit or change in the method of operating it that increases the emission level of any air pollutant for which new source performance standards have been established under section 129 or section 111 of the CAA. Increases in the emission level of any air pollutant are determined when the municipal waste combustion unit operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.
- *Modular Excess-Air Municipal Waste Combustion Unit* - a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements (40 CFR 60.1940) [Added April 2002].
- *Modular Starved-Air Municipal Waste Combustion Unit* - a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions (40 CFR 60.1940) [Added April 2002].
- *Municipal Solid Waste Or Municipal-Type Solid Waste* - household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices,

restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff) (40 CFR 60.1940) [Added April 2002].

- *Municipal Waste Combustion Plant* - one or more municipal waste combustion units at the same location as specified under Applicability of State Plans (40 CFR 60.1550(a)) (40 CFR 60.1940) [Added April 2002].
- *Municipal Waste Combustion Plant Capacity* - the aggregate municipal waste combustion capacity of all municipal waste combustion units at the plant that are not subject to subparts Ea, Eb, or AAAA of this part (40 CFR 60.1940) [Added April 2002].
- *Municipal Waste Combustion Unit* - any setting or equipment that combusts, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion units (with or without heat recovery), modular combustion units (starved air- or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air-curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further define municipal waste combustion units (40 CFR 60.1940) [Added April 2002]:
 1. Municipal waste combustion units do not include the following units:
 - a. Pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under the exemptions in (d)(viii) and (ix) of this subsection Appendix 1-15.
 - b. Cement kilns that combust municipal solid waste as specified under the exemptions in (d) (x) of this subsection Appendix 1-15.
 - c. Internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.
 2. The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas:
 - a. The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.
 - b. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.
 - c. The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.
- *Multiple-Chamber Incinerator* - any incinerator consisting of three or more refractory-lined combustion furnaces in series physically separated by refractory walls, interconnected by gas passage ports or ducts, employing adequate parameters necessary for maximum combustion of the material to be burned (ARM 17.8.101).
- *New or Modified Emitting Unit* - an emitting unit that was not constructed or upon which construction was not commenced prior to March 16, 1979 (ARM 17.8.740) [Added February 2003].
- *New Fuel-Burning Equipment* - fuel-burning equipment constructed or installed after 23 November 1968 (ARM 17.8.301).

- *Odor* - that property of an emission that stimulates the sense of smell (ARM 17.8.101).
- *Open Burning* - combustion of any material directly in the open air without a receptacle, or in a receptacle other than a furnace, multiple chambered incinerator, or wood waste burner, with the exception of detonation of unexploded ordnance, small recreational fires, construction site heating devices used to warm workers, or safety flares used to combust or dispose of hazardous or toxic gases at industrial facilities, such as refineries, gas sweetening plants, oil and gas wells, sulfur recovery plants or elemental phosphorus plants (ARM 17.8.601) [Revised February 2003].
- *Part Reclamation Unit* - a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused (40 CFR 60.2875) [Added April 2002].
- *Particulate Matter* - total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of this part (40 CFR 60.2875) [Added April 2002].
- *Particulate Matter* - total particulate matter emitted from municipal waste combustion units as measured using EPA Reference Method 5 in appendix A of this part and the procedures specified in 40 CFR 60.1790 (40 CFR 60.1940) [Added April 2002].
- *Particulate Matter* - any material, except water in uncombined form, that is or has been airborne, and exists as a liquid or a solid at standard conditions (ARM 17.8.101).
- *PM* - all applicable definitions of particulate matter that specify an aerodynamic size class (ARM 17.8.101) [Added April 2001].
- *PM-2.5* - particulate matter with an aerodynamic diameter of less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR part 50, Appendix L, and designated in accordance with 40 CFR part 53, or by an equivalent method designated in accordance with 40 CFR part 53 (ARM 17.8.101) [Added April 2001].
- *PM-10* - particulate matter with an aerodynamic diameter of less than or equal to a nominal 10 micrometers (ARM 17.8.101).
- *PM-10 Emissions* - finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air (ARM 17.8.101).
- *Pathological Waste* - waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable) (40 CFR 60.2875) [Added April 2002].
- *Plastics Or Rubber Recycling Unit* - an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed and marketed to become input feedstock for chemical plants or petroleum refineries. The following three criteria further define a plastics or rubber recycling unit (40 CFR 60.1940) [Added April 2002]:
 1. Each calendar quarter, the combined weight of the feedstock that a plastics or rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that recycling unit processes.
 2. The plastics, rubber, or rubber tires fed to the recycling unit may originate from separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid waste. The feed materials may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards.
 3. The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle caps).

- *Potential Hydrogen Chloride Emissions* - the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases (40 CFR 60.1940) [Added April 2002].
- *Potential Mercury Emissions* - the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without controls for mercury emissions (40 CFR 60.1940) [Added April 2002].
- *Potential Sulfur Dioxide Emissions* - the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases (40 CFR 60.1940) [Added April 2002].
- *Potential To Emit* - the maximum capacity of a facility or emitting unit, within physical and operational design, to emit a pollutant. Any physical or operational limitation on the capacity of the facility or emitting unit to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, is treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions are not considered in determining potential to emit (ARM 17.8.740) [Added February 2003].
- *Prescribed Wildland Open Burning* - any planned open burning, either deliberately or naturally ignited, that is conducted on forest land or relatively undeveloped rangeland for the purpose of the following:
 1. improving wildlife habitat
 2. improving range conditions
 3. promoting forest regeneration
 4. reducing fire hazards resulting from forestry practices, including the reduction of log deck debris when the log deck is located in close proximity to a timber harvest site
 5. control forest pests and diseases
 6. promote any other accepted silvicultural practices (ARM 17.8.601).
- *Process or Production Unit* - any collection of structures and/or equipment, that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit (ARM 17.8.301) [Added April 2000].
- *Pyrolysis/Combustion Unit* - a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere (40 CFR 60.1940) [Added April 2002].
- *Rack Reclamation Unit* - a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused (40 CFR 60.2875) [Added April 2002].
- *Reasonable Precautions* - any reasonable measures to control emissions of airborne particulate matter. Determination of what is reasonable is accomplished on a case-by-case basis, taking into account energy, environmental, economic, and other costs (ARM 17.8.301).
- *Reasonably Available Control Technology* - devices, systems, process modifications, or other apparatus or techniques that are determined on a case-by-case basis to be reasonably available, taking into account the necessity of imposing such controls in order to attain and maintain a national or Montana ambient air quality standard, the social, environmental, and economic impact of such controls, and alternative means of providing for attainment and maintenance of such standard (ARM 17.8.301).
- *Reconstruction* - rebuilding a CISWI unit and meeting two criteria (40 CFR 60.2875) [Added April 2002]:
 1. The reconstruction begins on or after June 1, 2001.

2. The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
- *Reconstruction* - rebuilding a municipal waste combustion unit and meeting two criteria:
 1. The reconstruction begins after June 6, 2001 (40 CFR 60.1940) [Added April 2002].
 2. The cumulative cost of the construction over the life of the unit exceeds 50 percent of the original cost of building and installing the municipal waste combustion unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the municipal waste combustion unit used to calculate the costs, see the definition in this section of "municipal waste combustion unit."
 - *Refractory Unit Or Refractory Wall Furnace* - a municipal waste combustion unit that has no energy recovery (such as through a waterwall) in the furnace of the municipal waste combustion unit (40 CFR 60.1940) [Added April 2002].
 - *Refuse-Derived Fuel* - a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels (40 CFR 60.2875) [Added April 2002]:
 1. Low-density fluff refuse-derived fuel through densified refuse-derived fuel.
 2. Pelletized refuse-derived fuel.
 - *Routine Maintenance, Repair, Or Replacement* - any action taken upon an emitting unit by the owner or operator that is necessary on a periodic basis to assure proper operation of the emitting unit. The term routine does not include activities that (ARM 17.8.740) [Added February 2008]:
 1. have associated fixed capital costs in excess of 50 percent of the fixed capital cost necessary to construct a comparable, entirely new emitting unit
 2. change the design of the emitting unit, including associated control equipment
 3. increase the potential to emit of the emitting unit.
 - *Salvage Operation* - any operation conducted in whole or in part to salvage or reclaim any product or material, except the silvicultural practice commonly referred to as a salvage cut (ARM 17.8.601) [Added February 2003].
 - *Same Location* - the same or contiguous properties under common ownership or control, including those separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a municipality, other governmental unit, or any quasi-governmental authority (for example, a public utility district or regional authority for waste disposal) (40 CFR 60.1940) [Added April 2002].
 - *Shift Supervisor* - the person who is in direct charge and control of operating a municipal waste combustion unit and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit during an assigned shift (40 CFR 60.1940) [Added April 2002].
 - *Shutdown* - the period of time after all waste has been combusted in the primary chamber (40 CFR 60.2875) [Added April 2002].
 - *Solid Waste* - any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as

defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this subpart and subpart CCCC, only, solid waste does not include the waste burned in the fifteen types of units described in 40 CFR 60.2555 (40 CFR 60.2875) [Added April 2002].

- *Source* - any person, real property, or personal property located on one or more contiguous or adjacent properties under the control of the same owners or operators that contributes or would contribute to air pollution, including associated control equipment that affects or would affect the nature, character, composition, amount, or environmental impacts of air pollution (ARM 17.8.101).
- *Spreader Stoker, Mixed Fuel-Fired (Coal/Refuse-Derived Fuel) Combustion Unit* - a municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate (40 CFR 60.1940) [Added April 2002].
- *Standard Conditions* - when referring to units of measure, means a temperature of 68°F (20°C) and a pressure of 1 atmosphere (101.3 kilopascals) (40 CFR 60.2875) [Added April 2002].
- *Startup Period* - the period when a municipal waste combustion unit begins the continuous combustion of municipal solid waste. It does not include any warmup period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal solid waste (40 CFR 60.1940) [Added April 2002].
- *Startup Period* - the period of time between the activation of the system and the first charge to the unit (40 CFR 60.2875) [Added April 2002].
- *Stoker (Refuse-Derived Fuel) Combustion Unit* - a steam generating unit that combusts refuse-derived fuel in a semisuspension combusting mode, using air-fed distributors (40 CFR 60.1940) [Added April 2002].
- *Trade Wastes* - solid, liquid, or gaseous material resulting from construction or operation of any business, trade, industry, or demolition project. Wood product industry wastes such as sawdust, bark, peelings, chips, shavings, and cull wood are considered trade wastes. Trade wastes do not include wastes generally disposed of by essential agricultural open burning, prescribed wildland open burning, or Christmas tree waste (ARM 17.8.601) [Revised February 2003; Revised February 2004].
- *Untreated Lumber* - wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote (40 CFR 60.1940) [Added April 2002].
- *Waterwall Furnace* - a municipal waste combustion unit that has energy (heat) recovery in the furnace (for example, radiant heat transfer section) of the combustion unit (40 CFR 60.1940) [Added April 2002].
- *Wet Scrubber* - an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including non-vaporious metals and condensed organics) and/or to absorb and neutralize acid gases (40 CFR 60.2875) [Added April 2002].
- *Wood Waste* - untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include (40 CFR 60.2875) [Added April 2002]:
 1. Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
 2. Construction, renovation, or demolition wastes.

3. Clean lumber.

- *Wood-Waste Burner* - a device commonly called a teepee burner, silo, truncated cone, wigwam burner, or other similar burner commonly used by the wood products industry for the disposal of wood (ARM 17.8.601).
- *Yard Waste* - grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items (40 CFR 60.1915) [Added April 2002]:
 1. Construction, renovation, and demolition wastes that are exempt from the definition of "municipal solid waste" in 40 CFR 60.1940.
 2. Clean wood that is exempt from the definition of "municipal solid waste" in 40 CFR 60.1940.

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REFER TO CHECKLIST ITEMS:

Missing Checklist Items	AE.2.1.MT.
State-specific Requirements	
General	AE.5.1.MT.
Permits/Notifications/Exemptions	AE.6.1.MT. through AE.6.3.MT.
Management/Administrative	AE.7.1.MT. through AE.7.3.MT.
Operations	AE.8.1.MT.
Emissions Limits	AE.9.1.MT. through AE.9.8.MT.
Fuel-Burning Equipment	AE.15.1.MT. through AE.15.3.MT.
Miscellaneous Incinerators	AE.25.1.MT. through AE.25.11.MT.
Municipal Waste Combustors	AE.37.1.MT. through AE.37.17.MT.
Oil/Water Separators	AE.120.1.MT.
Open Burning	AE.130.1.MT. through AE.130.5.MT.

**AIR EMISSIONS MANAGEMENT
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REFER TO APPENDIX NUMBERS:

REFER TO APPENDIX TITLES:

1-1	Ambient Air Quality Standards
1-2	Continuous Emission Monitoring Requirements
1-3	Emissions Limitations for Particulate Matter from Industrial Processes
1-4	Emissions Limitations for Particulate Matter from Fuel-Burning Equipment
1-5	Montana Nonattainment Areas
1-6	Applicability, Exemptions and Exceptions for Existing Small Municipal Combustors
1-7	Compliance Schedules and Increments of Progress for Existing Small Municipal Combustors
1-8	Tables for Existing Small Municipal Combustor Regulations
1-9	Montana Air Quality Permits – Exclusion for De Minimis Changes

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<p>AE.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>AE.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>STATE-SPECIFIC REQUIREMENTS</p> <p>AE.5. General</p> <p>AE.5.1.MT. Montana air quality standards must not be circumvented (ARM 17.8.111 (1)) [Citation Revised January 2007].</p>	<p>Verify that there is no use of any device or means that, without resulting in the reduction in the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminant, thereby violating Montana's air quality standards.</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>AE.6. Permits/ Notifications</p> <p>AE.6.1.MT. Construction, installation, modification and operation of certain air contaminant sources must meet permitting requirements (ARM 17.8.743(1), 17.8.744, 17.8.745(1), and 17.8.748(1)) [Revised February 2003 ; Revised February 2010].</p>	<p>Verify that, a person does not construct, install, modify, or operate any of the following without first securing a Montana air quality permit from the Department:</p> <ul style="list-style-type: none"> - a new facility or emitting unit with the potential to emit airborne lead in an amount greater than five tons/yr or a modification to an existing facility or emitting unit that results in an increase in the facility or emitting unit's potential to emit airborne lead by an amount greater than 0.6 tons/yr - asphalt concrete plants, mineral crushers, and mineral screens that have the potential to emit more than 15 tons/yr of any airborne pollutant, other than lead, that is regulated under ARM 17.8 - any incinerator, as defined in MCA 75-2-103(11) (see Definitions), and that is subject to the permit requirements for solid or hazardous waste incineration - any facility or emitting unit upon which construction commenced, or that was installed, before November 23, 1968, when that facility or emitting unit is modified after that date and the modification increases the potential to emit by more than 25 tons/yr of any airborne pollutant, other than lead, that is regulated under ARM 17.8 - any other facility or emitting unit upon which construction was commenced, or that was installed, after November 23, 1968, that is not specifically excluded, and that has the potential to emit more than 25 tons/yr of any airborne pollutant, other than lead, that is regulated under ARM 17.8. <p>Verify that, for a proposed new or modified facility or emitting unit, a Montana air quality permit application has been submitted to the Department no later than 180 days before construction begins, or if construction is not required, no later than 120 days before installation, modification, or operation begins.</p> <p>(NOTE: The Department may, for good cause shown, waive or shorten the time required for filing the application.)</p> <p>(NOTE: The following sources do not need a Montana air quality permit:</p> <ul style="list-style-type: none"> - residential fireplaces, barbecues, and similar devices for recreational, cooking, or heating use - mobile emitting units, including motor vehicles, trains, aircraft, and other such self-propelled vehicles - laboratory equipment used for chemical or physical analysis - any agricultural activity or equipment that is associated with the use of agricultural land or the planting, production, processing, harvesting, or

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<p>AE.6.2.MT. Transfers of permits must be approved by the Department (ARM 17.8.765) [Revised February 2003].</p> <p>AE.6.3.MT. Major sources in areas designated nonattainment must meet</p>	<p>storage of agricultural crops by a agricultural producer and that is not subject to the requirements of 42 USC 7475, 7503, or 7661, as set forth in 75-2-111(1)(a), MCA</p> <ul style="list-style-type: none"> - a business relating to the activities or equipment referred to in (1)(d) that remains in a single location for less than 12 months and is not subject to the requirements of 42 USC 7475, 7503, or 7661, as set forth in 75-2-111(1)(b), MCA - emergency equipment installed in hospitals or other public institutions or buildings for use when the usual sources of heat, power or lighting are temporarily unobtainable or unavailable - emergency equipment installed in industrial or commercial facilities for use when the usual sources of heat, power, or lighting are temporarily unobtainable or unavailable and when the loss of heat, power, or lighting causes, or is likely to cause, an adverse effect on public health or facility safety (NOTE: Emergency equipment use extends only to those uses that alleviate such adverse effects on public health or facility safety.) - any activity or equipment associated with the construction, maintenance, or use of roads except emitting units where a permit is required - open burning (regulated under ARM 17.8.6, see AE.130.MT.) - drilling rig stationary engines and turbines that do not have the potential to emit more than 100 tons/yr of any pollutant regulated under ARM 17.8 and that do not operate in any single location for more than 12 months - temporary process or emission control equipment, replacing malfunctioning process or emission control equipment, and meeting the Department's requirements (see ARM 17.8.110(7) through (9)) - routine maintenance, repair, or replacement of equipment and equipment used to perform routine maintenance, repair, or replacement.) <p>(NOTE: A Montana air quality permit is not required for de minimis changes; see Appendix 1-9.)</p> <p>Verify that any transfer of a Montana air quality permit from one location to another or from one person to another has been approved by the Department.</p> <p>(NOTE: The Department may not approve or conditionally approve a permit transfer if approval would result in a violation of the Clean Air Act of Montana or rules adopted under that Act, including the ambient air quality standards. If the Department does not approve, conditionally approve, or deny a permit transfer within 30 days after receipt of a complete notice of intent to transfer, the transfer is deemed approved.)</p> <p>Verify that, prior to construction, a Montana air quality permit has been issued for new major stationary sources or major modifications in areas designated nonattainment for a National Ambient Air Quality Standard and which are major</p>

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permitting requirements (ARM 17.8.904) [Revised February 2003].	sources for the pollutant for which the area has been designated nonattainment. Verify that terms and conditions of the permit are met.

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>AE.7. Management / Administrative</p> <p>AE.7.1.MT. [Deleted February 2003].</p> <p>AE.7.2.MT. Equipment malfunctions must be reported to the Montana Department of Environmental Quality (ARM 17.8.110) [Revised February 2003].</p> <p>AE.7.3.MT. Current Montana air quality permits must be made available for inspection at the location of the facility or emitting unit (ARM 17.8.755) [Added February 2003].</p>	<p>(NOTE: Regulation repealed.)</p> <p>Verify that equipment malfunctions that may be expected to create emissions in excess of any applicable emission limitation, or occurring for more than 4 h, are promptly reported by telephone to the Department at (406) 444-3454.</p> <p>(NOTE: If telephone notification is not immediately possible, notification at the beginning of the next working day is acceptable.)</p> <p>Verify that current Montana air quality permits are made available for inspection by the Department at the location of the facility or emitting unit for which the permit has been issued.</p> <p>(NOTE: The permittee and the Department may mutually agree on a different location.)</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>AE.8. Operations</p> <p>AE.8.1.MT. New or modified sources must meet emission control requirements (ARM 17.8.752) [Revised February 2003; Revised February 2004].</p>	<p>Verify that, for a new or modified facility or emitting unit for which a Montana air quality permit is required, the maximum air pollution control capability is installed that is technically practicable and economically feasible.</p> <p>Verify that a new or modified facility or emitting unit utilizes best available control technology.</p> <p>(NOTE: Existing emitting units and those emitting units constructed or installed after March 16, 1979, that were not previously regulated under ARM 17.8.7 become subject to this requirement when any modification to the emitting unit requires a Montana air quality permit; however, only the specific emitting unit that is modified becomes subject to this requirement.)</p> <p>Verify that a new or modified facility or emitting unit meets the lowest achievable emission rate.</p> <p>Verify that, for a new or modified facility or emitting unit that requires a permit, air pollution control equipment is operated in a way that provides the maximum air pollution control for which the equipment was designed.</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>AE.9. Emissions Limits</p> <p>AE.9.1.MT. Ambient air quality standards must not be violated (ARM 17.8.210 through 17. 8.214, 17. 8.220 through 17. 8.223, and 17.8.230) [Revised February 2009].</p>	<p>Verify that there are not emissions that cause or contribute to concentrations of the following pollutants in the ambient air that exceed the limitations specified in the following:</p> <p>Sulfur dioxide</p> <ul style="list-style-type: none"> - hourly average: 0.50 ppm, one-hour average, not to be exceeded more than 18 times in any 12 consecutive months - twenty-four hour average: 0.10 ppm, 24-hour average, not to be exceeded more than once per year; - annual average: 0.02 ppm, annual average, not to be exceeded. <p>Nitrogen dioxide</p> <ul style="list-style-type: none"> - hourly average: 0.30 ppm, not to be exceeded more than once per year - annual average: 0.05 ppm, annual average, not to be exceeded <p>Carbon Monoxide</p> <ul style="list-style-type: none"> - hourly average: 23 ppm, hourly average, not to be exceeded more than once per year - eight-hour average: 9 ppm, 8-hour average, not to be exceeded more than once per year <p>Fluoride in Forage</p> <ul style="list-style-type: none"> - monthly average: 50 micrograms/g - grazing season average: 35 micrograms/g <p>Hydrogen Sulfide</p> <ul style="list-style-type: none"> - hourly average: 0.05 ppm, not to be exceeded more than once per year <p>Lead</p> <ul style="list-style-type: none"> - 90-day average: 1.5 micrograms per cubic meter of air, 90-day average, not to be exceeded. <p>NO₂</p> <ul style="list-style-type: none"> - hourly average: 0.30 ppm, not to be exceeded more than once per year - annual average: 0.05 ppm, not to be exceeded <p>Ozone</p> <ul style="list-style-type: none"> - hourly average: 0.10 ppm, not to be exceeded more than once per year <p>Settled Particulate Matter</p>

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<p>AE.9.2.MT. [Deleted April 2002].</p> <p>AE.9.3.MT. Precautions must be taken to control emissions of airborne particulate matter from materials production, handling, transportation, or storage (ARM 17. 8.308 (1) and (5)) [Citation Revised January 2007 ; Revised February 2010].</p> <p>AE.9.4.MT. Precautions must be taken to control emissions of airborne particulate matter from streets, roads, or parking lots (ARM 17.8.308(2)) [Citation Revised January 2007].</p> <p>AE.9.5.MT. Precautions must be taken to control emissions of airborne particulate from</p>	<p>30-day average: 10 g/m², not to be exceeded</p> <p>PM₁₀</p> <ul style="list-style-type: none"> - 24-h average: 150 micrograms/m³, with no more than one expected exceedance per calendar yr - annual average: 50 micrograms/m³, not to be exceeded <p>Visible Particulate Matter</p> <ul style="list-style-type: none"> - annual average: 3 x 10⁻⁵/m, not to be exceeded <p>(NOTE: Regulation repealed.)</p> <p>Verify that reasonable precautions are taken to control emissions of airborne particulate matter from materials production, handling, transportation, or storage.</p> <p>Verify that particulate matter emissions from materials production, handling, transportation, or storage do not exhibit opacity of 20 percent or greater, averaged over six consecutive minutes.</p> <p>(NOTE: The requirements for airborne emissions of particulate matter do not apply to emissions originating from any agricultural activity or equipment that is associated with the use of agricultural land or the planting, production, processing, harvesting, or storage of agricultural crops by an agricultural producer and that is not subject to the requirements of 42 USC 7475, 7503, or 7661, as set forth in 75-2-111(1)(a), MCA; or a business relating to the activities or equipment referred to in (5)(a) that remains in a single location for less than 12 months and is not subject to the requirements of 42 USC 7475, 7503, or 7661, as set forth in 75-2-111(1)(b), MCA.)</p> <p>Verify that reasonable precautions are taken to control emissions of airborne particulate matter from streets, roads, or parking lots.</p> <p>(NOTE: See AE.9.3.MT for exemption.)</p> <p>Verify that reasonable precautions are taken to control emissions of airborne particulate matter from construction sites or demolition projects.</p>

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<p>construction sites or demolition projects (ARM 17.8.308 (3)).</p> <p>AE.9.6.MT. Sources located in areas Federally designated as nonattainment for P M₁₀ must meet specific requirements (ARM 17. 8.308 (4)) [Revised April 2001].</p> <p>AE.9.7.MT. Particulate matter emissions from industrial processes must not exceed specific limitations (ARM 17.8.310).</p> <p>AE.9.8.MT. Sources must not exceed visible emissions</p>	<p>Verify that particulate matter emissions from construction sites or demolition projects do not exhibit opacity of 20 percent or greater averaged over six consecutive minutes.</p> <p>(NOTE: See AE.9.3.MT for exemption.)</p> <p>Verify that, if the source is located in a nonattainment area Federally designated as nonattainment for PM₁₀, the following requirements are met:</p> <ul style="list-style-type: none"> - existing sources of airborne particulate matter utilize reasonably available control technology - new sources of airborne particulate matter with the potential to emit less than 100 tons/yr of particulates utilize best available control technology - new of airborne particulate matter with the potential to emit more sources than 100 tons/yr of particulates apply lowest achievable emission rate. <p>(NOTE: See AE.9.3.MT for exemption.)</p> <p>Verify that particulate matter emissions from industrial processes do not exceed the values specified in Appendix 1-3.</p> <p>Verify that, when process weights fall between values specified in Appendix 1-3, or exceeds 3000 tons per h, the maximum hourly allowable emissions of particulate matter are calculated using the following equations:</p> <ul style="list-style-type: none"> - maximum hourly allowable emissions of particulate matter, for process weight rates up to 30 tons per hour, are calculated using the following equation: $E = 4.10 P^{0.67}$ - maximum hourly allowable emissions of particulate matter, for process weight rates in excess of 30 tons per hour, are calculated using the following equation: $E = 55.0 P^{0.11} - 40$ <p>where E equals the maximum rate of emission in pounds per hour and P equals the process weight in tons per hour.</p> <p>(NOTE: The requirements for particulate matter emissions from industrial processes do not apply to fuel-burning equipment, incinerators, or new stationary sources to which Federal particulate matter emission standards apply.)</p> <p>Verify that sources installed on or before 23 November 1968 do not emit visible contaminants exhibiting opacity of 40 percent or greater, averaged over six</p>

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limitations (ARM 17.8.304).	<p>consecutive minutes.</p> <p>Verify that sources installed after 23 November 1968 do not emit visible contaminants exhibiting opacity of 20 percent or greater, averaged over six consecutive minutes.</p> <p>(NOTE: During the building of new fires, cleaning of grates, or blowing of soot, a maximum average opacity of 60 percent is permissible for not more than one 4-min period (i.e., any four consecutive minutes) in any 60 consecutive minutes.)</p> <p>(NOTE: Visible emissions requirements do not apply to emissions from wood-waste burners, incinerators, motor vehicles, and new stationary sources to which Federal visible emission standards apply.)</p>

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<p>AE.15.</p> <p>FUEL BURNING EQUIPMENT</p> <p>AE.15.1.MT. Particulate matter emissions from fuel-burning equipment must not exceed specific limitations (ARM 17.8.309).</p> <p>AE.15.2.MT. Fuel-burning equipment must not burn fuels containing sulfur in excess of specific limits (ARM 17.8.322 (4) through (6)) [Citation Revised July 1998].</p>	<p>(NOTE: Particulate matter emissions limitations do not apply to emissions from residential solid fuel combustion devices (e.g., fireplaces and wood and coal stoves). Also, when two or more fuel-burning units are connected to a single stack, the combined heat input of all units connected to the stack must not exceed the allowable emissions for the same unit connected to a single stack.)</p> <p>Verify that emissions of particulate matter from fuel-burning equipment do not exceed the following limitations:</p> <ul style="list-style-type: none"> - up to and including 10 Mbtu/h heat input: 0.60 for existing fuel-burning equipment and 0.60 for new fuel-burning equipment - 100 Mbtu/h heat input: 0.40 for existing fuel-burning equipment and 0.35 for new fuel-burning equipment - 1000 Mbtu/h heat input: 0.28 for existing fuel-burning equipment and 0.20 for new fuel-burning equipment - 10,000 or more Mbtu/h heat input: 0.19 for existing fuel-burning equipment and 0.12 for new fuel-burning equipment. <p>Verify that, for equipment with a heat input between any two consecutive heat input values given in the preceding table, emissions of particulate matter do not exceed the values specified in Appendix 1-4.</p> <p>(NOTE: These requirements do not apply to particulate matter emitted from new stationary sources for which a particulate emission standard has been promulgated, and sources constructed after 16 March 1979 that have a specific particulate emission limitation.)</p> <p>Verify that fuel-burning devices do not burn liquid or solid fuel containing sulfur in excess of 1 lb of sulfur/MBtu fired.</p> <p>Verify that fuel-burning devices do not burn gaseous fuel containing sulfur in excess of 50 gr/100 ft³ of gaseous fuel, calculated as hydrogen sulfide at standard conditions.</p> <p>(NOTE: The limitation placed on gaseous fuels does not apply to the following:</p> <ul style="list-style-type: none"> - the burning of sulfur hydrogen sulfide, acid sludge, or other compounds in the manufacturing of sulfur or sulfur compounds - the incinerating of waste gases, as long as the gross heating value of the gases is less than 300 Btu/ft³ at standard conditions and the fuel used to

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<p>AE.15.3.MT. Burning specific materials in residential solid-fuel combustion devices is forbidden (ARM 17.8.326).</p>	<p>incinerate the waste gases does not contain sulfur or sulfur compounds in excess of 50 gr/ 100 ft³</p> <p>- the use of fuels where the gaseous products of combustion are used as raw materials for other processes.)</p> <p>Verify that the following materials are not burned in residential wood stoves, coal stoves, pellet stoves, or fireplaces:</p> <ul style="list-style-type: none"> - food wastes - styrofoam and other plastics - wastes generating noxious odors - poultry litter - animal droppings - dead animals and dead animal parts - tires - asphalt shingles - tar paper - insulated wire - treated lumber and timbers, including railroad ties - pathogenic wastes - colored newspaper or magazine print - chemicals - hazardous wastes (see definition in the <i>Hazardous Waste Management</i> section of the U.S. TEAM Guide).

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<p>AE.25.</p> <p>MISCELLANEOUS INCINERATORS</p> <p>AE.25.1.MT. Refuse-burning incinerators must meet design requirements (ARM 17. 8.316 (1)).</p> <p>AE.25.2.MT. Particulate matter emissions from incinerators must not exceed specific limitations (ARM 17.8.316 (2)).</p> <p>AE.25.3.MT. Visible emissions from incinerators must not exceed specific limitations (ARM 17. 8.316 (3)).</p> <p>AE.25.4.MT. Wood-waste burners must meet permit requirements (ARM 17. 8.320 (2)).</p> <p>AE.25.5.MT. Visible emissions from wood-waste burners must not exceed specific limitations (ARM 17.8.320 (3)).</p> <p>AE.25.6.MT. Wood-waste burners must meet equipment requirements (ARM 17. 8.320</p>	<p>Verify that refuse-burning incinerators either have multiple chambers or are approved by the Department if designed otherwise.</p> <p>Verify that emissions of particulate matter from incinerators do not exceed 0.10 gr/dscf flue gas, adjusted to 12 percent CO₂ and calculated as if no auxiliary fuel has been used.</p> <p>Verify that emissions of visible contaminants to not exhibit opacity of 10 percent or greater, averaged over six consecutive minutes.</p> <p>Verify that construction, reconstruction, or substantial alteration of wood-waste burners is not engaged in without a permit issued by the Department.</p> <p>Verify that the terms and conditions of permits are met.</p> <p>Verify that emissions of visible air contaminants from wood-waste burners do not exhibit opacity of 20 percent or greater, averaged over six consecutive minutes.</p> <p>(NOTE: Visible emissions limitations may be exceeded for not more than 60 min in any eight consecutive h for the building of fires in wood-waste burners.)</p> <p>Verify that wood-waste burners operate either thermocouples and recording pyrometers or other temperature measurement and recording devices approved by</p>

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<p>(4)).</p> <p>AE.25.7.MT. Wood-waste burners must maintain a minimum temperature (ARM 17.8.320 (5) and (6)).</p> <p>AE.25.8.MT. Wood-waste burners must not be used to burn nonwood-waste materials (ARM 17.8.320 (8)).</p> <p>AE.25.9.MT. The burning of specific products and materials in wood-waste burners is expressly forbidden (ARM 17.8.320 (9)).</p>	<p>the Department.</p> <p>Verify that thermocouples are installed either near the center of the opening for exit gases or at an alternative location approved by the Department.</p> <p>Verify that wood-waste burners maintain a temperature of at least 700 °F during normal (i.e., other than the startup period) operation until the fuel-feed is stopped for the day.</p> <p>(NOTE: During the startup periods, the 700 degree F operating temperature requirement does not apply to wood-waste burners. Additionally, wood-waste burners in existence on 10 February 1989 need not comply with the operating temperature requirement, if they are located outside the PM₁₀ nonattainment areas (see Appendix 1-5).)</p> <p>Verify that wood-waste burners do not burn any materials other than production wood-waste transported to burners by continuous flow-conveying methods.</p> <p>Verify that none of the following products and materials is burned in wood-waste burners:</p> <ul style="list-style-type: none"> - rubber products - asphaltic materials - food waste - styrofoam and other plastics - poultry litter - animal droppings - dead animals or parts of dead animals - tires - asphalt shingles - tar paper, unless used in the training of fire fighters - automobile bodies and interiors - insulated wire, unless used in the training of fire fighters - treated lumber and timbers, except creosote-treated railroad ties when the Department has issued a conditional air quality open burning permit - pathogenic wastes - hazardous wastes (see definition in the Hazardous Waste Management section of the U.S. TEAM Guide) - any materials resulting from a salvage operation

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<p>AE.25.10.MT. Incinerators must maintain specific records for wood-waste burners (ARM 17.8.320 (7)).</p> <p>AE.25.11.MT. Incinerators must meet requirements for operation and storage (ARM 17.8.316 (4)) [Revised July 1997; Revised February 2005].</p>	<ul style="list-style-type: none"> - chemicals - asbestos or asbestos-containing materials - paint, except as provided in ARM 17.8.614 Commercial Film Production Open Burning Permits) or 17.8.615 (Fire Fighting Training). <p>Verify that the incinerator maintains a written daily log of its wood-waste burners' operations to determine optimum patterns of operations for various fuel and atmospheric conditions:</p> <ul style="list-style-type: none"> - time of day - draft settings - exit gas temperature - type of fuel - atmospheric conditions. <p>Verify that the incinerator does not operate at any time other than between the hours of 8:00 a.m. and 5:00 p.m.</p> <p>Verify that at those times when the operation of incinerators is prohibited by the department, the owner or operator of the incinerator stores the refuse in a manner that will not create a fire hazard or arrange for the removal and disposal of the refuse in a manner consistent with Department regulations.</p>

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<p>AE.37.</p> <p>EXISTING MUNICIPAL WASTE COMBUSTORS</p> <p>AE.37.1.MT. Existing small municipal combustion units must either reduce maximum capacity to below 35 tons per day, or comply with 40 CFR 60 Subpart B BBB (40 CFR 17.8.302(1)(b), and 40 CFR 60.1640) [Added April 2002].</p> <p>AE.37.2.MT. Non-exempt existing small municipal combustion units must either comply with the requirements of 40 CFR Subpart BBBB by 6 December 2003, or meet increments of progress</p>	<p>(NOTE: See Appendix 1-6 for applicability, exemptions and exceptions.)</p> <p>Verify that the owner/operator of a small municipal solid waste combustion unit either closes, reduces the maximum combustion capacity of the unit to less than 35 tons per day of municipal solid waste, by 1 June 2001, or complies with the requirements of 40 CFR 60.1585 through 60.1905, and 60.1935 (see AE.35.2.MT. through AE.35.14.MT.)</p> <p>Verify that if the unit plans to close rather than comply with the State plan:</p> <ul style="list-style-type: none"> - the unit submits a closure notification, including the date of closure, to the Administrator by the date the final control plan is due, or - if the closure date is later than 1 yr after 6 December 2002, the unit enters into a legally binding closure agreement with the Administrator by the date the final control plan is due. <p>(NOTE: See Appendix 1-7 for compliance dates.)</p> <p>Verify that, if the unit chooses to comply by reducing maximum combustion capacity, the unit submits a final control plan and the notifications of achievement of increments of progress</p> <p>Verify that the final control plan includes:</p> <ul style="list-style-type: none"> - a description of the physical changes that will be made to accomplish the reduction - calculations of the current maximum combustion capacity and the planned maximum combustion capacity after the reduction. <p>(NOTE: A permit restriction or a change in the method of operation does not qualify as a reduction in capacity.)</p> <p>Verify that Class I units that plan to achieve compliance more than 1 yr following 6 December 2002, and a permit modification is not required, or more than 1 yr following the date of issuance of a revised construction or operation permit if a permit modification is required, meet five increments of progress according to the timetable in Appendix 1-7:</p> <ul style="list-style-type: none"> - submit a final control plan

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<p>towards achieving final compliance (ARM 17.8.302(1)(b) and 40 C.F.R. 60.1585 through 60.1610, and 60.1630) [Added April 2002].</p>	<ul style="list-style-type: none"> - submit a notification of retrofit contract award - initiate onsite construction - complete onsite construction - achieve final compliance. <p>Verify that Class II units that plan to achieve compliance more than 1 yr after 6 December 2002 and a permit modification is not required, or more than 1 yr following the date of issuance of a revised construction or operation permit if a permit modification is required, meet two increments of progress according to the timetable in Appendix 1-7:</p> <ul style="list-style-type: none"> - submit a final control plan - achieve final compliance. <p>Verify that notifications of achievement of increments of progress include:</p> <ul style="list-style-type: none"> - notification that the increment of progress has been achieved - any items required to be submitted with the increment of progress - the signature of the owner or operator of the municipal waste combustion unit. <p>Verify that notifications of the achievement of increments of progress are postmarked no later than 10 days after the compliance date for the increment.</p> <p>Verify that if the unit fails to meet an increment of progress, the unit:</p> <ul style="list-style-type: none"> - submits a notification to the Administrator postmarked within 10 business days after the specified date in Appendix 1-7, informing the Administrator that the unit did not meet the increment, explaining why the increment of progress was not met and the plan for meeting the increment as expeditiously as possible - continues to submit reports each subsequent month until the increment of progress is met. <p>Verify that, for submission of the control plan increment of progress, the unit:</p> <ul style="list-style-type: none"> - submits the final control plan, including a description of the devices for air pollution control and process changes that will be used to comply with the emission limits and other requirements of this subpart - maintain an onsite copy of the final control plan. <p>Verify that, for the final compliance increment of progress, the unit:</p> <ul style="list-style-type: none"> - completes all process changes and complete retrofit construction as specified in the final control plan - connects the air pollution control equipment with the municipal waste combustion unit identified in the final control plan and completes process changes to the municipal waste combustion unit so that if the affected

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<p>AE.37.3.MT. Non-exempt existing small municipal combustion units must meet specific training and operating manual requirements (ARM 17.8.302(1)(b) and 40 CFR 60.1650 through 60.1670) [Added April 2002].</p>	<p>municipal waste combustion unit is brought online, all necessary process changes and air pollution control equipment are operating as designed.</p> <p>Verify that the following unit employees complete an EPA or State-approved operator training course:</p> <ul style="list-style-type: none"> - chief facility operators - shift supervisors - control room operators. <p>Verify that these employees complete the operator training course by the later of three dates:</p> <ul style="list-style-type: none"> - 1 yr after 6 December 2002 - 6 mo after the municipal waste combustion unit starts up - the day before an employee assumes responsibilities that affect operation of the municipal waste combustion unit. <p>(NOTE: The preceding requirements do not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before 6 December 2002.)</p> <p>Verify that the following employees complete a plant-specific training course:</p> <ul style="list-style-type: none"> - chief facility operators - shift supervisors - control room operators - ash handlers - maintenance personnel - crane or load handlers. <p>Verify that the plant-specific training program includes:</p> <ul style="list-style-type: none"> - a specific operating manual for that plant by the later of two dates: <ul style="list-style-type: none"> - 6 mo after the municipal waste combustion unit starts up. - 1 yr after 6 December 2002 - establishment a program to review the plant-specific operating manual with people whose responsibilities affect the operation of the municipal waste combustion unit - completion of the initial review by the later of three dates: <ul style="list-style-type: none"> - 1 yr after the effective date of State plan approval - 6 mo after the municipal waste combustion unit starts up - the date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit. - an annual update of the operating manual

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<p>AE.37.4.MT. Non-exempt existing small municipal combustion units must meet specific operator certification requirements (ARM 17.8.302(1)(b) and 40 CFR 60.1675 through 60.1685) [Added April 2002].</p>	<ul style="list-style-type: none"> - an annual review of the operating manual with the staff. <p>Verify that the operating manual includes:</p> <ul style="list-style-type: none"> - a summary of all applicable requirements in this subpart - a description of the basic combustion principles that apply to municipal waste combustion units - procedures for receiving, handling, and feeding municipal solid waste - procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit - procedures for maintaining a proper level of combustion air supply - procedures for operating the municipal waste combustion unit in compliance with the requirements contained in this subpart - procedures for responding to periodic upset or off-specification conditions - procedures for minimizing carryover of particulate matter - procedures for handling ash - procedures for monitoring emissions from the municipal waste combustion unit - procedures for recordkeeping and reporting. <p>Verify that the operating manual is kept in an easily accessible location at the plant, and is available for review or inspection by all employees who must review it and by the Administrator.</p> <p>Verify that each chief facility operator and shift supervisor obtains and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-1994), or a current provisional operator certification from the State certification program.</p> <p>Verify that each chief facility operator and shift supervisor obtains a provisional certification by the later of three dates:</p> <ul style="list-style-type: none"> - for Class I units, 12 mo after 6 December 2002; for Class II units, 18 mo after 6 December 2002 - 6 mo after the municipal waste combustion unit starts up - 6 mo after they transfer to the municipal waste combustion unit or 6 mo after they are hired to work at the municipal waste combustion unit. <p>Verify that each chief facility operator and shift supervisor takes one of three actions:</p> <ul style="list-style-type: none"> - obtains a full certification from the American Society of Mechanical Engineers or a State certification program - schedules a full certification exam with the American Society of Mechanical Engineers (QRO-1-1994) - schedules a full certification exam with the State certification program.

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<p>AE.37.5.MT. Non-exempt existing small municipal</p>	<p>Verify that the chief facility operator and shift supervisor obtain the full certification or are scheduled to take the certification exam by the later of the following dates:</p> <ul style="list-style-type: none"> - for Class I units, 12 mo after 6 December 2002; for Class II units, 18 mo after 6 December 2002 - 6 mo after the municipal waste combustion unit starts up - 6 mo after they transfer to the municipal waste combustion unit or 6 mo after they are hired to work at the municipal waste combustion unit. <p>Verify that after the required date for full or provisional certification, the unit does not operate unless one of four employees is on duty:</p> <ul style="list-style-type: none"> - a fully certified chief facility operator - a provisionally certified chief facility operator who is scheduled to take the full certification exam - a fully certified shift supervisor - a provisionally certified shift supervisor who is scheduled to take the full certification exam. <p>(NOTE: If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement, if:</p> <ul style="list-style-type: none"> - when the certified chief facility operator and certified shift supervisor are both onsite for 12 h or less and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator - when the certified chief facility operator and certified shift supervisor are offsite for more than 12 h, but for 2 weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator; however, the unit will record the periods when the certified chief facility operator and certified shift supervisor are offsite and include the information in the annual report - when the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator; however, the unit will: <ul style="list-style-type: none"> - notify the Administrator in writing, stating what caused the absence and what the unit is doing to ensure that a certified chief facility operator or certified shift supervisor is onsite - submit a status report and corrective action summary to the Administrator every 4 weeks following the initial notification.) <p>Verify that the unit does not operate at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour</p>

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<p>combustion units must meet specific operating practice requirements (ARM 17.8.302(1)(b) and 40 CFR 60.1690 through 60.1695) [Added April 2002].</p>	<p>block average).</p> <p>Verify that the unit does not operate so that the temperature at the inlet of the particulate matter control device exceeds 17 degrees C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average).</p> <p>Verify that, if the municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the unit maintains an 8-hr block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test.</p> <p>Verify that if the municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the unit evaluates total carbon usage for each calendar quarter, and the total amount of carbon purchased and delivered to the municipal waste combustion plant is at or above the required quarterly usage of carbon.</p> <p>(NOTE: The unit may choose to evaluate required quarterly carbon usage on a municipal waste combustion unit basis for each individual municipal waste combustion unit at your plant.)</p> <p>(NOTE: The municipal waste combustion unit is exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of five situations:</p> <ul style="list-style-type: none"> - during your annual tests for dioxins/furans - during your annual mercury tests (for carbon feed rate requirements only) - during the 2 weeks preceding your annual tests for dioxins/furans - during the 2 weeks preceding your annual mercury tests (for carbon feed rate requirements only) - whenever the Administrator or delegated State authority permits you to do any of five activities: <ul style="list-style-type: none"> - evaluate system performance - test new technology or control technologies - perform diagnostic testing - perform other activities to improve the performance of your municipal waste combustion unit - perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit.) <p>(NOTE: The operating requirements of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.)</p> <p>Verify that each startup, shutdown, or malfunction does not last for longer than 3 h.</p>

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<p>AE.37.6.MT. Non-exempt existing small municipal combustion units must meet specific emission limits (ARM 17.8.302(1) (b) and 40 CFR 60.1705 and 60.1610) [Added April 2002].</p>	<p>Verify that, after the date the initial stack test and continuous emission monitoring system evaluation are required or completed (whichever is earlier), the unit meets the applicable emission limits specified in Appendix 1-8:</p> <ul style="list-style-type: none"> - for Class I units, see Tables 2 and 3 of Appendix 1-8 - for Class II units, see Table 4 of Appendix 1-8 - for carbon monoxide emission limits for both classes of units, see Table 5 of Appendix 1-8. <p>Verify that, if a Class I municipal waste combustion unit began construction, reconstruction, or modification after 26 June 1987, it meets the dioxins/furans and mercury emission limits specified in Table 2 of Appendix 1-8 as applicable by the later of the following two dates:</p> <ul style="list-style-type: none"> - 1 yr after 6 December 2002 - 1 yr after the issuance of a revised construction or operating permit, if a permit modification is required. <p>Verify that final compliance with the dioxins/furans limits is achieved no later than 6 December 2005, even if the date 1 yr after the issuance of a revised construction or operation permit is later than 6 December 2005.</p> <p>(NOTE: The emission limits of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.)</p> <p>Verify that each startup, shutdown, or malfunction does not last for longer than 3 h.</p> <p>(NOTE: A maximum of 3 h of test data can be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.)</p> <p>(NOTE: During startup, shutdown, or malfunction periods longer than 3 h, emissions data can not be discarded from compliance calculations and all provisions under 40 CFR 60.11(d) apply.)</p>
<p>AE.37.7.MT. Non-exempt existing small municipal combustion units must meet specific monitoring requirements (ARM 17.8.302(1) (b) and 40 CFR 60.1720 through 60.1740) [Added April 2002].</p>	<p>Verify that all units install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide.</p> <p>Verify that all Class I municipal waste combustion units also install, calibrate, maintain, and operate a continuous emission monitoring system for nitrogen oxides.</p> <p>Verify that the unit installs the continuous emission monitoring systems for sulfur</p>

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	<p>dioxide, nitrogen oxides, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.</p> <p>Verify that all units monitor the oxygen (or carbon dioxide) concentration at each location where it monitors sulfur dioxide and carbon monoxide.</p> <p>Verify that Class I municipal waste combustion units also monitor the oxygen (or carbon dioxide) concentration at the location where you monitor nitrogen oxides.</p> <p>(NOTE: If the unit chooses to monitor carbon dioxide instead of oxygen as a diluent gas. If so, then an oxygen monitor is not required and the unit must follow the requirements in AE.35.8.MT.)</p> <p>Verify that if the unit chooses to demonstrate compliance by monitoring the percent reduction of sulfur dioxide, the unit also installs continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) at the inlet of the air pollution control device.</p> <p>(NOTE: Units may apply to the Administrator for approval to use an alternative monitoring method under 40 CFR 60.13(i).)</p> <p>(NOTE: Units must use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the applicable emission limits specified in Tables 2, 3, 4, and 5 of Appendix 1-8. To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see AE.35.10.MT.)</p> <p>Verify that units conduct initial, daily, quarterly, and annual evaluations of the continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.</p> <p>Verify that units complete your initial evaluation of the continuous emission monitoring systems within 180 days after the final compliance date.</p> <p>Verify that, for initial and annual evaluations, the unit collects data concurrently (or within 30 to 60 minutes) using oxygen (or carbon dioxide) continuous emission monitoring system, sulfur dioxide, nitrogen oxides, or carbon monoxide continuous emission monitoring systems, as appropriate, and the appropriate test methods specified in Table 6 of Appendix 1-8.</p> <p>Verify that units conduct annual evaluations of continuous emission monitoring systems no more than 13 months after the previous evaluation was conducted.</p> <p>Verify that units evaluate continuous emission monitoring systems daily and quarterly as specified in appendix F of 40 CFR 60, Subpart BBBB.</p>

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<p>AE.37.8.MT. Non-exempt existing small municipal combustion units that monitor carbon dioxide instead of oxygen as a diluent gas must meet specific requirements (ARM 17.8.302(1)(b) and 40 CFR 60.1745) [Added April 2002].</p>	<p>Verify that the unit establishes the relationship between oxygen and carbon dioxide during the initial evaluation of the continuous emission monitoring systems.</p> <p>(NOTE: This relationship may be reestablished the relationship during annual evaluations.)</p>
<p>AE.37.9.MT. Non-exempt existing small municipal combustion units must collect specific monitoring data (ARM 17.8.302(1)(b) and 40 CFR 60.1750 and 60.1770) [Added April 2002].</p>	<p>Verify that where continuous emission monitoring systems are required, the unit obtains 1-hr arithmetic averages.</p> <p>Verify that the averages for sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide are in parts per million by dry volume at 7 percent oxygen (or the equivalent carbon dioxide level).</p> <p>Verify that units use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).</p> <p>Verify that the unit obtains at least two data points per hour in order to calculate a valid 1-hr arithmetic average.</p> <p>Verify that the unit obtains valid 1-hr averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter.</p> <p>(NOTE: A non operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.)</p> <p>(NOTE: If the unit does not obtain the minimum data required, it is in violation of the data collection requirement regardless of the emission level monitored, and must notify the Administrator.)</p> <p>(NOTE: If the unit does not obtain the minimum data required, it must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions.)</p> <p>Verify that if any of the continuous emission monitoring systems is temporarily unavailable to meet the data collection requirements, the unit uses the alternate methods specified in Table 8 of Appendix 1-8.</p>

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<p>AE.37.10.MT. Non-exempt existing small municipal combustion units must meet stack testing requirements (ARM 17.8.302(1) (b) and 40 CFR 60.1775 through 60.1800) [Added April 2002].</p>	<p>Verify that units conduct initial and annual stack tests to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the applicable emission limits in Tables 2 and 4 of Appendix 1-8.</p> <p>Verify that units conduct initial stack tests by 180 days after the final compliance date.</p> <p>Verify that units conduct annual stack tests for the same pollutants after the initial stack test no later than 13 mo after the previous stack test.</p> <p>(NOTE: Units may test less often if they own or operate a Class II municipal waste combustion unit and if all stack tests for a given pollutant over 3 consecutive yr show compliance with the emission limit.)</p> <p>(NOTE: Units may test less often for dioxins/furans emissions if they own or operate a municipal waste combustion plant that meets two conditions:</p> <ul style="list-style-type: none"> - it has multiple municipal waste combustion units onsite that are subject to this subpart, and - all those municipal waste combustion units have demonstrated levels of dioxins/furans emissions less than or equal to 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per dry standard cubic meter (total mass) for Class II units, for 2 consecutive yr.) <p>Verify that the unit does not deviate from the 13-mo testing schedules unless it applies to the Administrator for an alternative schedule, and the Administrator approves the request for alternate scheduling prior to the date on which the unit would otherwise have been required to conduct the next stack test.</p>
<p>AE.37.11.MT. Non-exempt existing small municipal combustion units must meet additional monitoring requirements (ARM 17.8.302(1) (b) and 40 CFR 60.1805) [Added April 2002].</p>	<p>Verify that units also monitor three operating parameters:</p> <ul style="list-style-type: none"> - load level of each municipal waste combustion unit - temperature of flue gases at the inlet of your particulate matter air pollution control device - carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.
<p>AE.37.12.MT. Non-exempt existing small municipal combustion units must meet specific recordkeeping requirements (ARM</p>	<p>Verify that all units keep the following four types of records:</p> <ul style="list-style-type: none"> - operator training and certification - stack tests - continuously monitored pollutants and parameters

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<p>17.8.302(1) (b) a nd 40 C FR 60.1830 t hrough 60. 1855) [Added April 2002].</p>	<ul style="list-style-type: none"> - carbon feed rate. <p>Verify that the unit keeps all records onsite in paper copy or electronic format unless the Administrator approves another format for at least 5 yr, and makes all records available for submittal to the Administrator, or for onsite review by an inspector.</p> <p>Verify that operator training and certification records include:</p> <ul style="list-style-type: none"> - records of provisional certifications - records of full certifications - records showing completion of the operator training course - records of reviews for plant-specific operating manuals - records of when a certified operator is temporarily offsite - record of calendar date of each record. <p>Verify that units keep the following records on stack tests:</p> <ul style="list-style-type: none"> - the results of the stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in Table 2 or 4 of Appendix 1-8 - test reports including supporting calculations that document the results of all stack tests - the maximum demonstrated load of the municipal waste combustion units and maximum temperature at the inlet of the particulate matter control device during all stack tests for dioxins/furans emissions - the calendar date of each record. <p>Verify that for continuously monitored pollutants or parameters, units keep the following records:</p> <ul style="list-style-type: none"> - records of monitoring data - records of average concentrations and percent reductions - records of exceedances - records of minimum data - records of exclusions - records of drift and accuracy - records of the relationship between oxygen and carbon dioxide (if the unit chooses to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide) - records of calendar dates for each record. <p>Verify that municipal waste combustion units that use activated carbon keep the following records:</p> <ul style="list-style-type: none"> - records of average carbon feed rate - records of low carbon feed rates - records of minimum carbon feed rate data - records of exclusions

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<p>AE.37.13.MT. Non-exempt existing small municipal combustion units must meet specific reporting requirements (ARM 17.8.302(1)(b) and 40 CFR 60.1860 through 60.1885, and 60.1905) [Added April 2002].</p>	<p align="center">- records of calendar dates for each record.</p> <p>Verify that units submit an initial report and annual reports, plus semiannual reports for any emission or parameter level that does not meet the limits specified in this subpart.</p> <p>Verify that units submit all reports on paper, postmarked on or before the submittal dates (see below).</p> <p>(NOTE: If the Administrator agrees, units may submit electronic reports.)</p> <p>Verify that units keep a copy of all reports onsite for 5 yr.</p> <p>Verify that units submit the initial report by 180 days after the final compliance date, and that it includes:</p> <ul style="list-style-type: none"> - the emission levels measured on the date of the initial evaluation of the continuous emission monitoring systems - the results of the initial stack tests for eight pollutants or parameters (use appropriate units as specified in Table 2 or 4 of Appendix 1-8) - the test report that documents the initial stack tests including supporting calculations - the initial performance evaluation of the continuous emissions monitoring systems - the maximum demonstrated load of the municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device - the average carbon feed rates recorded during the initial stack tests for dioxins/furans and mercury emissions (if applicable) - documentation of the relationship between oxygen and carbon dioxide (as applicable). <p>Verify that units submit the annual report no later than 1 February of each yr that follows the calendar yr in which the data was collected, and that it includes:</p> <ul style="list-style-type: none"> - the results of the annual stack test - a list of the highest average levels recorded, in the appropriate units, for five pollutants or parameters: <ul style="list-style-type: none"> - sulfur dioxide emissions - for Class I municipal waste combustion units only, nitrogen oxides emissions - carbon monoxide emissions - load level of the municipal waste combustion unit - temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average) - the highest 6-minute opacity level measured

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<p>AE.37.14.MT. Non-exempt existing small municipal combustion units that are out of compliance must submit a semiannual report (ARM</p>	<ul style="list-style-type: none"> - for municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions: <ul style="list-style-type: none"> - the average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests - the lowest 8-hour block average carbon feed rate recorded during the yr - the total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter - the required quarterly carbon usage of your municipal waste combustion plant - the total number of days that the unit did not obtain the minimum number of hours of data for the following six pollutants or parameters, including reasons for not obtaining data and corrective actions: <ul style="list-style-type: none"> - sulfur dioxide emissions - for Class I municipal waste combustion units only, nitrogen oxides emissions - carbon monoxide emissions - load level of the municipal waste combustion unit - temperature of the flue gases at the inlet of the particulate matter air pollution control device - carbon feed rate - the number of hours of excluded data from the calculation of average levels (include the reasons for excluding it) - a notice of intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar yr if eligible for a lternative scheduling - a notice of intent to begin a reduced stack testing schedule for other pollutants during the following calendar yr if eligible for a lternative scheduling - a summary of any emission or parameter level that did not meet the limits - a summary of the data from the yr preceding the reporting yr which gives the Administrator a summary of the performance of the municipal waste combustion unit over a 2-yr period - documentation of the relationship between oxygen and carbon dioxide, as applicable - documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 h. <p>(NOTE: If the Administrator agrees, the unit may change the semiannual or annual reporting dates.)</p> <p>Verify that units submit a semiannual report on any recorded emission or parameter level that does not meet requirements.</p> <p>Verify that, for data collected during the first half of a calendar yr, units submit a semiannual report by 1 August of that yr; for data collected during the second</p>

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<p>17.8.302(1) (b) and 40 C.F.R. 60.1890 through 60.1905 [Added April 2002].</p>	<p>half of the calendar yr, units submit a semiannual report by 1 February of the following yr.</p> <p>Verify that semiannual reports include:</p> <ul style="list-style-type: none"> - for any of the following six pollutants or parameters that exceeded the limits specified in this subpart, include the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and your corrective actions: <ul style="list-style-type: none"> - concentration or percent reduction of sulfur dioxide emissions - for Class I municipal waste combustion units only, concentration of nitrogen oxides emissions - concentration of carbon monoxide emissions - load level of the municipal waste combustion unit - temperature of the flue gases at the inlet of the particulate matter air pollution control device - average 6 -minute opacity level (data obtained from the continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions) - if the results of the annual stack tests show emissions above the limits specified in Table 2 or 4 of Appendix 1-8 as applicable for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and corrective actions - for municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions, include two items: <ul style="list-style-type: none"> - documentation of all dates when the 8-hr block average carbon feed rate (calculated from the carbon injection system operating parameter) is less than the highest carbon feed rate established during the most recent mercury and dioxins/furans stack test, including: <ul style="list-style-type: none"> - 8 h average carbon feed rate - reasons for occurrences of low carbon feed rates - the corrective actions taken to meet the carbon feed rate requirement - the calendar date - documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon, including: <ul style="list-style-type: none"> - amount of carbon purchased and delivered to the plant - required quarterly usage of carbon - reasons for not meeting the required quarterly usage of carbon - the corrective actions taken to meet the required quarterly usage of carbon - the calendar date. <p>(NOTE: If the Administrator agrees, units may change the semiannual or annual reporting dates.)</p>

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<p>AE.37.15.MT. Air curtain incinerators that burn 100 percent yard waste at non-exempt existing small municipal combustion units must meet specific emission limits (ARM 17. 8.302(1)(b) and 40 CFR 60.1920) [Added April 2002].</p> <p>AE.37.16.MT. Air curtain incinerators that burn 100 percent yard waste at non-exempt existing small municipal combustion units must meet specific opacity monitoring requirements (ARM 17. 8.302(1)(b) and 40 CFR 60. 1925) [Added April 2002].</p> <p>AE.37.17.MT. Air curtain incinerators that burn 100 percent yard waste at non-exempt existing small municipal combustion units must meet specific recordkeeping and reporting requirements (ARM 17.8.302(1)(b) and 40 C FR</p>	<p>(NOTE: Air curtain incinerators that non-exempt small municipal combustion units that do not burn 100 percent yard waste, i.e., that burn something other than yard waste, do not qualify for compliance with these regulations (AE.35.15.MT. through AE.35.17.MT.), and are instead subject to the requirements for non-exempt small municipal combustion units (AE.35.1.MT. through AE.35.14.MT.).)</p> <p>(NOTE: See Appendix 1-7 for compliance dates.)</p> <p>Verify that air curtain incinerator that combust 100 percent yard waste meet the following emission limits by 180 days after the final compliance date:</p> <ul style="list-style-type: none"> - an opacity limit of 10 percent (6-min average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste - an opacity limit of 35 percent (6-min average) during the startup period that is within the first 30 min of operation. <p>(NOTE: Except during malfunctions, these requirements apply at all times.)</p> <p>Verify that each malfunction does not exceed 3 h.</p> <p>Verify that units use EPA Reference Method 9 in appendix A of 40 CFR 60 to determine compliance with the opacity limit.</p> <p>Verify that units conduct an initial test for opacity as specified in 40 CFR 60.8.</p> <p>Verify that, after the initial test for opacity, the unit conducts annual tests no more than 13 calendar mo following the date of the previous test.</p> <p>Verify that units provide a notice of construction that includes:</p> <ul style="list-style-type: none"> - the intent to construct the air curtain incinerator - the planned initial startup date - the types of fuels the unit plans to combust in the air curtain incinerator - the capacity of your incinerator, including supporting capacity calculations. <p>Verify that the unit keeps records of results of all opacity tests onsite in either paper copy or electronic format unless the Administrator approves a nother</p>

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60.1930) [Added April 2002].	<p>format.</p> <p>Verify that the unit keeps all records for each incinerator for at least 5 yr.</p> <p>Verify that the unit makes all records available for submittal to the Administrator or for onsite review by an inspector.</p> <p>Verify that the unit submits the results (each 6-min average) of the opacity tests by 1 February of the yr following the yr of the opacity emission test.</p> <p>Verify that the unit submits reports as a paper copy on or before the applicable submittal date.</p> <p>(NOTE: If the Administrator agrees, the unit may submit reports on electronic media.)</p> <p>(NOTE: If the Administrator agrees, the unit may change the annual reporting dates.)</p> <p>Verify that the unit keeps a copy of all reports onsite for a period of 5 yr.</p>

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<p>AE.120.</p> <p>OIL/WATER SEPARATORS</p> <p>AE.120.1.MT. Oil-effluent water separators must comply with vapor loss control device requirements (ARM 17.8.324(2)).</p>	<p>Verify that oil-effluent water separators meeting the following criteria comply with vapor loss control device requirements:</p> <ul style="list-style-type: none"> - have single or multiple compartments - receive effluent water containing 200 gal/day or more of any petroleum oil and lubricants product from processing, refining, treating, storing, or handling kerosene or other petroleum oil and lubricants product of equal or greater volatility. <p>Verify that oil-effluent water separators requiring vapor loss control devices are equipped with one of the following:</p> <ul style="list-style-type: none"> - a solid cover with all openings sealed and liquid contents totally enclosed - a vapor recovery system consisting of a pontoon type or double deck type roof, resting on the surface of the liquid contents, and equipped with a closure seal(s) to close the space between the roof edge and the containment wall - a vapor recovery system, consisting of a vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing hydrocarbon vapors and gases so as to prevent their emission to the atmosphere - another control device of equal or greater efficiency approved by the Department. <p>Verify that all gauging and sampling devices are gas-tight, except when gauging or sampling is taking place.</p>

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<p>AE.130.</p> <p>OPEN BURNING</p> <p>AE.130.1.MT. Specific materials must not be disposed of by open burning (ARM 17.8.604(1)) [Revised July 1997; Revised February 2003; Revised February 2004].</p> <p>AE.130.2.MT. Open burning must be conducted during specific months (ARM 17.8.605) [Revised July 1997;</p>	<p>Verify that none of the following materials are disposed of by open burning:</p> <ul style="list-style-type: none"> - any waste moved from its premises of generation, unless approval is granted by the Department on a case-by-case basis - food waste - styrofoam and other plastics - wastes generating noxious odors - wood and wood byproducts that have been coated, painted, stained, treated, or contaminated by a foreign material, unless used in the training of fire fighters - poultry litter - animal droppings - dead animals or parts of dead animals - tires, unless used in the training of fire fighters - rubber materials - asphalt shingles, unless used in the training of fire fighters - tar paper, unless used in the training of fire fighters - automobile or aircraft bodies and interiors, unless used in the training of fire fighters - insulated wire, unless used in the training of fire fighters - oil or petroleum products, unless used in the training of fire fighters - treated lumber and timbers - pathogenic wastes - hazardous wastes (see definition in the Hazardous Waste Management section of the U.S. TEAM Guide) - trade wastes, unless a conditional air quality open burning permit or an emergency open burning permit has been issued by the Department - any materials resulting from a salvage operation - chemicals, unless used in the training of fire fighters - Christmas tree waste as defined by the Department - asbestos or asbestos-containing materials - standing or demolished structures containing prohibited material, unless a conditional air quality open burning permit has been issued by the Department or used in the training of fire fighters - paint, unless used in the training of fire fighters. <p>Verify that opening burning, other than those categories listed below, is conducted only during the months of March through November:</p> <ul style="list-style-type: none"> - prescribed wildland open burning

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<p>Revised February 2003].</p> <p>AE.130.3.MT. Major sources of open burning must meet permitting and BACT requirements (ARM 17.8.610) [Revised February 2003].</p> <p>AE.130.4.MT. Minor sources of open burning, not required to have a no open burning permit, must meet specific requirements (ARM 17.8.606) [Revised February 2003].</p>	<ul style="list-style-type: none"> - open burning to train firefighters - open burning authorized under the emergency open burning permit - essential agricultural open burning - conditional air quality open burning - commercial film production open burning - Christmas tree waste open burning - any minor open burning that is not prohibited (see AE.130.1.MT.) or that is allowed as a minor source of open burning (see AE.130.4.MT.). <p>Verify that open burning has not begun until the source has secured an air quality major open burning permit from the Department.</p> <p>Verify that the source complies with the conditions specified in an air quality open burning permit issued by the Department.</p> <p>Verify that the source utilizes best available control technology.</p> <p>Verify that the source utilizes best available control technology.</p> <p>Verify that minor sources of open burning meet open burning requirements established by local governments.</p> <p>Verify that, during September, October, or November, persons engaging in any minor open burning that is not prohibited adhere to the burning restrictions set by the Department.</p> <p>Verify that, during December, January, or February and outside the eastern Montana open burning zone, persons engaging in any minor open burning that is not prohibited:</p> <ul style="list-style-type: none"> - submit a written request to the Department - receive permission for each specific burn from the Department - adhere to time periods set for burning by the Department. <p>Verify that, during December, January, or February and inside the eastern Montana open burning zone, persons engaging in the following burning notify the department by telephone prior to ignition:</p> <ul style="list-style-type: none"> - essential agricultural open burning - prescribed wildland open burning - any other minor open burning that is not prohibited. <p>(NOTE: The time periods for burning set by the Department are available by</p>

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<p>AE.130.5.MT. Open burning conducted during fire fighter training must meet specific requirements (ARM 17.8.615) [Revised July 1997].</p>	<p>phoning (800) 255-6779.)</p> <p>Verify that the following requirements are met when asphalt shingles, tar paper, insulated wire, and oil or petroleum products are burned in the open to train fire fighters:</p> <ul style="list-style-type: none"> - fire is restricted to a building, structure, or permanent training facility - is located in a site other than a solid waste disposal site - burned material is not allowed to smolder after the termination of the training session - no public nuisance is created - all asbestos-contained material has been removed - asphalt shingles, flooring material, siding, and insulation which might contain asbestos have been removed, unless samples have been analyzed by a certified laboratory and shown to be asbestos-free - all prohibited material that can be removed safely and reasonably has been removed - the open burning accomplishes a legitimate training need - clear educational objectives have been identified for the training - burning is limited to that necessary to accomplish the educational objectives - the training operations and procedures are consistent with nationally accepted standards of good practice - emissions from open burning will not endanger public health or welfare or cause or contribute to a violation of any Montana or federal ambient air quality standard.

Appendix 1-1

Ambient Air Quality Standards

(Source: ARM 17.8.210 through 17.8.214, 17.8.220 through 17.8.223, and 17.8.230)
[Deleted February 2009]

(NOTE: See AE.9.1.MT.)

Appendix 1-2

Continuous Emission Monitoring Requirements

(Source: ARM 17.8.105; 40 CFR 51, Appendix P)

NOTE: Continuous emission monitoring requirements include installing and operating continuous emission monitoring devices and maintaining records of continuously monitored emissions.

Fossil Fuel-Fired Steam Generators with an annual average capacity factor of greater than 30 percent as reported to the Federal Power Commission for the 1974 calendar year that meet the following criteria must meet continuous emission monitoring requirements:

1. for opacity monitoring requirements, sources that have a heat input greater than 250 MBtu/h and meet either of the following conditions:
 - a. burn only gaseous fuel
 - b. burn oil or gas-oil mixtures and meet both of the following conditions:
 - i. comply with particulate matter and opacity requirements without utilizing particulate matter collection equipment
 - ii. have never been found in violation of visible emissions standards
2. for SO₂ monitoring requirements, sources that have a heat input greater than 250 MBtu/h
3. for NO_x monitoring requirements, sources that have a heat input greater than 1 000 MBtu/h and are located in an air quality region where the USEPA Administrator has determined that an NO_x control strategy is necessary
4. for oxygen or CO₂ monitoring requirements, sources that meet specifications determined by the USEPA.

Nitric Acid Plants of greater than 300 tons/day production capacity must meet continuous emission monitoring requirements for NO_x.

Sulfuric Acid Plants of greater than 300 tons/day production capacity must meet continuous emission monitoring requirements for SO₂.

Appendix 1-3

Emissions Limitations for Particulate Matter from Industrial Processes

(Source: ARM 17.8.310)

Process Weight Rate tons/h	Emission Rate pounds/h
1.00	0.551
0.10	0.877
0.20	1.40
0.30	1.83
0.40	2.22
0.50	2.58
0.75	3.38
1.00	4.10
1.25	4.76
1.50	5.38
1.75	5.96
2.00	6.52
2.50	7.58
3.00	8.56
3.50	9.49
4.00	10.4
4.50	11.2
5.00	12.00
6.00	13.6
8.00	16.5
9.00	17.9
10.00	19.2
15.00	25.2
20.00	30.5
25.00	35.4
30.00	40.0
35.00	41.3
40.00	42.5
45.00	43.6
50.00	44.6
60.00	46.3
70.00	47.8
80.00	49.0
100.00	51.2
500.00	69.0
1000.00	77.6
3000.00	92.7

Interpolation of the data in this table for process weight rates up to 3000 tons/h is accomplished by use of the following equation, where E equals the rate of emission in pounds per hour and P equals the process weight rate in tons per hour: $E = 4.10P^{0.67}$.

Interpolation and extrapolation of the data for process weight rates in excess of 3000 tons/h are accomplished by use of the following equation, where E equals the rate of emission in pounds per hour and P equals the process weight rate in tons per hour: $E = 55.0 P^{0.11} - 40$.

Appendix 1-4

Emissions Limitations for Particulate Matter from Fuel-Burning Equipment

(Source: ARM 17.8.309) [Revised February 2003]

Maximum Allowable Emissions of Particulate Matter in lb. Per Million British Thermal Units^{(1), (4)}		
Heat input in Million British Thermal Units Per Hour^{(2), (3)}	Existing Fuel Burning Equip. (pounds)	New Fuel Burning Equip. (pounds)
10 and below	0.60	0.60
100	0.40	0.35
1,000	0.28	0.20
0,000 and above	0.19	0.12

1. no person shall cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of these rates.
2. when the heat input falls between any 2 consecutive heat input values in the preceding table, maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment must be calculated using the following equation:

For Existing Fuel Burning Equipment: $E = 0.882 * H^{-0.1664}$

New Fuel Burning Equipment: $E = 1.026 * H^{-0.223}$

where H is the heat input capacity in MMBtu per hour and E is the maximum allowable particulate emissions rate in lb. Per MMBtu.

3. heat input will be calculated as the aggregate heat content of all fuels (using the upper limit of their range of heating value) whose products of combustion pass through the stack or chimney. When 2 or more fuel burning units are connected to a single stack, the combined heat input of all units connected to the stack shall not exceed that allowable for the same unit connected to a single stack.
4. these rates do not apply to particulate matter emitted from:
 - a. emissions from residential solid fuel combustion devices such as fireplaces and wood and coal stoves
 - b. those new stationary sources listed in ARM 17.8.340 for which a particulate emission standard has been promulgated; and
 - c. sources constructed after 16 March 1979, that have a specific particulate emission limitation contained in a Montana air quality permit obtained under ARM Title 17, chapter 8, subchapter 7, a court order, board order or department order, or a process - specific rule.

Appendix 1-5

Montana Community Designation Status¹

(Source: <http://www.deq.state.mt.us/AirQuality/Planning/AirNonAttainmentStatus.asp> and 40 CFR 81.327)
[Revised January 2007]

Community	Pollutant	Non- Attainment	Attainment / Unclassified	SIP Call ²
Laurel	Sulfur Dioxide	X		
East Helena	Sulfur Dioxide	X		
Billings	Sulfur Dioxide			X
Billings	Carbon Monoxide		X	
Great Falls	Carbon Monoxide		X	
Missoula	Carbon Monoxide	X		
Kalispell	Carbon Monoxide			X
East Helena	Lead	X		
Kalispell	Particulate (PM-10)	X		
Columbia Falls	Particulate (PM-10)	X		
Whitefish	Particulate (PM-10)	X		
Libby	Particulate (PM-10)	X		
Libby	Particulate (PM-2.5)	X		
Missoula	Particulate (PM-10)	X		
Thompson Falls	Particulate (PM-10)	X		
Butte	Particulate (PM-10)	X		

1 Only includes state-regulated communities.

2 SIP Call actions under Federal Clean Air Act authority Section 110(k) (5). These are not nonattainment areas.

Appendix 1-6

Applicability, Exemptions and Exceptions of Existing Small Municipal Combustors

(ARM 17.8.302(1) (b)) [Added April 2002]

- (b) **Applicability.** This section applies to a municipal waste combustion unit that meets these three criteria:
- (i) The municipal waste combustion unit has the capacity to combust at least 35 tons per day of municipal solid waste but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.
 - (ii) The municipal waste combustion unit commenced construction on or before 30 August 1999.
 - (iii) The municipal waste combustion unit is not exempt under (c) of this section.
- (c) **Exempted units.** The following municipal waste combustion units are exempt from the requirements of this section:
- (i) Small municipal waste combustion units that combust less than 11 tons per day. Units are exempt from this section if four requirements are met:
 - (A) The municipal waste combustion unit is subject to a federally enforceable permit limiting the amount of municipal solid waste combusted to less than 11 tons per day.
 - (B) The owner or operator notifies the permitting agency that the unit qualifies for the exemption.
 - (C) The owner or operator of the unit sends a copy of the federally enforceable permit to the permitting agency.
 - (D) The owner or operator of the unit keeps daily records of the amount of municipal solid waste combusted.
 - (ii) Small power production units. Units are exempt from this section if four requirements are met:
 - (A) The unit qualifies as a small power production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).
 - (B) The unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity.
 - (C) The owner or operator notifies the permitting agency that the unit qualifies for the exemption.
 - (D) The owner or operator submits documentation to the permitting agency that the unit qualifies for the exemption.
 - (iii) Cogeneration units. Units are exempt from this section if four requirements are met:
 - (A) The unit qualifies as a small power production facility under section 3(18)(C) of the Federal Power Act (16 U.S.C. 796(18)(C)).
 - (B) The unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.
 - (C) The owner or operator notifies the permitting agency that the unit qualifies for the exemption.
 - (D) The owner or operator submits documentation to the permitting agency that the unit qualifies for the exemption.
 - (iv) Municipal waste combustion units that combust only tires. Units are exempt from this section if three requirements are met:
 - (A) The municipal waste combustion unit combusts a single-item waste stream of tires and no other municipal waste (the unit can cofire coal, fuel oil, natural gas, or other nonmunicipal solid waste).
 - (B) The owner or operator notifies the permitting agency that the unit qualifies for the exemption.
 - (C) The owner or operator submits documentation to the permitting agency that the unit qualifies for the exemption.
 - (v) Hazardous waste combustion units. Units are exempt from this section if the units have received a permit under section 3005 of the Solid Waste Disposal Act.
 - (vi) Materials recovery units. Units are exempt from this section if the units combust waste mainly to recover metals. Primary and secondary smelters may qualify for the exemption.
 - (vii) Cofired units. Units are exempt from this section if four requirements are met:
 - (A) The unit has a federally enforceable permit limiting municipal solid waste combustion to no more than 30 percent of total fuel input by weight.
 - (B) The owner or operator notifies the permitting agency that the unit qualifies for the exemption.
 - (C) The owner or operator submits a copy of the federally enforceable permit to the permitting agency.

- (D) The owner or operator records the weights, each quarter, of municipal solid waste and of all other fuels combusted.
 - (viii) Plastics/rubber recycling units. Units are exempt from this section if four requirements are met:
 - (A) The pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined in 40 CFR 60.1940 (in effect on February 5, 2001).
 - (B) The owner or operator of the unit records the weight, each quarter, of plastics, rubber, and rubber tires processed.
 - (C) The owner or operator of the unit records the weight, each quarter, of feedstocks produced and marketed from chemical plants and petroleum refineries.
 - (D) The owner or operator of the unit keeps the name and address of the purchaser of the feedstocks.
 - (ix) Units that combust fuels made from products of plastics/rubber recycling plants. Units are exempt from this section if two requirements are met:
 - (A) The unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feed stocks produced by plastics/rubber recycling units.
 - (B) The unit does not combust any other municipal solid waste.
 - (x) Cement kilns. Cement kilns that combust municipal solid waste are exempt.
 - (xi) Air curtain incinerators. If an air curtain incinerator as defined under 40 CFR 60.1910 (in effect on February 5, 2001) combusts 100 percent yard waste, then those units must only meet the requirements under 40 CFR 60.1910 through 60.1930 (in effect on February 5, 2001).
- (d) **Exceptions.**
- (i) Physical or operational changes to an existing municipal waste combustion unit made primarily to comply with this section do not qualify as a modification or reconstruction, as those terms are defined in 40 CFR 60.1940 (in effect on February 5, 2001).
 - (ii) Changes to an existing municipal waste combustion unit made on or after June 6, 2001, that meet the definition of modification or reconstruction, as those terms are defined in 40 CFR 60.1940 (in effect on February 5, 2001), mean the unit is considered a new unit and subject 40 CFR Part 60, subpart AAAA (in effect on June 6, 2001).

Appendix 1-7

Compliance Schedules and Increments of Progress for Existing Small Municipal Combustors (ARM 17.8.302(1)(b) and 40 CFR 60 Subpart BBBB, Table 1) [Added April 2002]

According to a communication from the Mr. Warren Norton [(406) 444-5281] with the State of Montana, Montana does not have any Class I units, and therefore does not need to set compliance dates.

“The Montana Municipal Waste Combustion Unit is a "Class II" unit as defined in footnote (e) of table 1, Part 60, Subpart BBBB. Therefore no incremental construction dates are required for the state plan. The final compliance date is stated in the plan, which is the earlier of the following two dates:

- a.) December 6, 2005, or
- b.) Three yr after the effective date of the state plan approval by EPA.

Montana has not received final approval from EPA Region VIII as of this date. When that occurs we will be able to set a final compliance date for the Montana facility. Our latest understanding is that the facility will be shut d own p rior to th e final c ompliance date. I can b e r eached at (406) 444-5281 i f you n eed more information.”

Appendix 1-8

Tables for Existing Small Municipal Combustor Regulations

(ARM 17.8.302(1)(b) and 40 CFR 60 Subpart BBBB, Tables 2, 3, 4, 5, 6 and 8) [Added April 2002]

Table 2 of Subpart BBBB. Class I Emission Limits for Existing Small Municipal Waste Combustion Units^a

For The Following Pollutants	You Must Meet The Following Emission Limits{b}	Using The Following Averaging Times	And Determine Compliance By The Following Methods
1. Organics:			
Dioxins/Furans (total mass basis)	30 nanograms per dry standard cubic meter for municipal waste combustion units that do not employ an electrostatic precipitator-based emission control system -or- 60 nanograms per dry standard cubic meter for municipal waste combustion units that employ an electrostatic precipitator-based emission control system	3-run average (minimum run duration is 4 h)	Stack test.
2. Metals:			
Cadmium	0.040 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Lead	0.490 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Mercury	0.080 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
	85 percent reduction of potential mercury emissions		
Opacity	10 percent	Thirty 6 -minute averages	Stack test.
Particulate Matter	27 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
3. Acid Gases:			
Hydrogen Chloride	31 parts per million by dry volume 95 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test.
Sulfur Dioxide	31 parts per million by dry volume 75 percent reduction of potential sulfur dioxide emissions	24-hour daily block geometric average concentration percent reduction	Continuous emission monitoring system.
4. Other:			
Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1 -hour observation periods	Visible emission test.

^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See § 60.1940 for definitions.

^b All emission limits (except for opacity) are measured at 7 percent oxygen.

Table 3 of Subpart BBBB. Class I Nitrogen Oxides Emission Limits for Existing Small Municipal Waste Combustion Units^{a, b, c}

Municipal Waste Combustion Technology	Limits For Class I Municipal Waste Combustion Units
1. Mass burn waterwall	200 parts per million by dry volume.
2. Mass burn rotary waterwall	170 parts per million by dry volume.
3. Refuse-derived fuel	250 parts per million by dry volume.
4. Fluidized bed	220 parts per million by dry volume.
5. Mass burn refractory	350 parts per million by dry volume.
6. Modular excess air	190 parts per million by dry volume.
7. Modular starved air	380 parts per million by dry volume.

^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See § 60.1940 for definitions.

^b Nitrogen oxides limits are measured at 7 percent oxygen.

^c All limits are 24-hour daily block arithmetic average concentration. Compliance is determined for Class I units by continuous emission monitoring systems.

Table 4 of Subpart BBBB. Class II Emission Limits for Existing Small Municipal Waste Combustion Unit^{a, c}

For The Following Pollutants	You Must Meet The Following Emission Following Determine Limits^b	Using The Following Averaging Times	And Determine Compliance By The Following Methods
1. Organics:			
Dioxins/Furans (total mass basis)	125 nanograms per dry standard cubic meter	3-run average (minimum run duration is 4 h)	Stack test.
2. Metals:			
Cadmium	0.10 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Lead	1.6 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Mercury	0.080 milligrams per dry standard cubic meter 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test.
Opacity	10 percent	Thirty 6-minute average	Stack test.

For The Following Pollutants	You Must Meet The Following Emission Following Determine Limits^b	Using The Following Averaging Times	And Determine Compliance By The Following Methods
Particulate Matter	70 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
3. Acid Gases:			
Hydrogen Chloride	250 parts per million by volume or 50 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test.
Sulfur Dioxide	77 parts per million by dry volume or 50 percent reduction of potential sulfur dioxide emissions	24-hour daily block geometric average concentration or percent reduction	Continuous emission monitoring system.
4. Other:			
Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test.

^a Class II units mean all small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See § 60.1940 for definitions.

^b All emission limits (except for opacity) are measured at 7 percent oxygen.

^c No monitoring, testing, recordkeeping or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.

Table 5 of Subpart BBBB. Carbon Monoxide Emission Limits for Existing Small Municipal Waste Combustion Units.

For The Following Municipal Waste Combustion Units	You Must Meet The Following Carbon Monoxide Limits^a	Using The Following Averaging Times^b
1. Fluidized bed	100 parts per million by dry volume	4-hour.
2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel)	200 parts per million by dry volume	24-hour ^c .
3. Mass burn rotary refractory	100 parts per million by dry volume	4-hour.
4. Mass burn rotary waterwall	250 parts per million by dry volume	24-hour.
5. Mass burn waterwall and refractory	100 parts per million by dry volume	4-hour.
6. Mixed fuel-fired, (pulverized coal/refuse-derived fuel)	150 parts per million by dry volume	4-hour.
7. Modular starved-air and excess air	50 parts per million by dry volume	4-hour.

For The Following Municipal Waste Combustion Units	You Must Meet The Following Carbon Monoxide Limits^a	Using The Following Averaging Times^b
8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel)	200 parts per million by dry volume	24-hour daily.
9. Stoker, refuse-derived fuel	200 parts per million by dry volume	24-hour daily.

^a All emission limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.

^b Block averages, arithmetic mean. See § 60.1940 for definitions.

^c 24-hour block average, geometric mean.

Table 6 of Subpart BBBB. Requirements for Validating Continuous Emission Monitoring Systems (CEMS).

For the Following Continuous Emission Monitoring Systems	Use the Following Methods in Appendix A of this Part to Validate Pollutant Concentration Levels	Use the Following Methods in Appendix A of this Part to Measure Oxygen (or Carbon Dioxide)
1. Nitrogen Oxides (Class I units only) ^a	Method 7, 7A, 7B, 7C, 7D, or 7E	Method 3 or 3A.
2. Sulfur Dioxide	Method 6 or 6C	Method 3 or 3A.
3. Carbon Monoxide	Method 10, 10A, or 10B	Method 3 or 3A.

^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See § 60.1940 for definitions.

Table 8 of Subpart BBBB. Requirements for Stack Tests.

To Measure the Following Pollutants	Use the Following Methods in Appendix A of this Part to Determine the Sampling Location	Use the Following Methods in Appendix A of this Part to Measure Pollutant Concentration	Also Note the Following Additional Information
1. Organics			
Dioxins/Furans	Method 1	Method 23 ^a	The minimum sampling time must be 4 h per test run while the municipal waste combustion unit is operating at full load.
2. Metals			
Cadmium	Method 1	Method 29 ^a	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Lead	Method 1	Method 2 ^a	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Mercury	Method 1	Method 29 ^a	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.

To Measure the Following Pollutants	Use the Following Methods in Appendix A of this Part to Determine the Sampling Location	Use the Following Methods in Appendix A of this Part to Measure Pollutant Concentration	Also Note the Following Additional Information
Opacity	Method 9	Method 9	Use Method 9 to determine compliance with opacity limits. 3-hour observation period (thirty 6-minute averages).
Particulate Matter	Method 1	Method 5 or 29	The minimum sample volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 ± 4° C. The minimum sampling time is 1 hour.
3. Acid Gases ^b			
Hydrogen Chloride	Method 1	Method 26 or 26A ^a	Test runs must be at least 1 hour long while the municipal waste combustion unit is operating at full load.
4. Other ^b			
Fugitive Ash	Not applicable	Method 22 (visible emissions)	The three 1-hour observation period must include periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks.

^a Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B in appendix A of this part.

^b Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for quality assurance requirements in Appendix F of this part.

Appendix 1-9
Montana Air Quality Permits – Exclusion for De Minimis Changes
(ARM 17.8.745(1)) [Added February 2003]

A Montana air quality permit is not required for de minimis changes as specified below:

- (a) Construction or changed conditions of operation at a facility for which a Montana air quality permit has been issued that do not increase the facility's potential to emit by more than 15 tons per year of any pollutant except:
 - (i) any construction or changed conditions of operation at a facility that would violate any condition in the facility's existing Montana air quality permit or any applicable rule contained in Administrative Rules of Montana (ARM) 17.8 is prohibited, except as allowed under the Department's permit amendment rules (see ARM.17.8.764);
 - (ii) any construction or changed conditions of operation at a facility that would qualify as a major modification of a major stationary source under ARM 17.8, 17.9, or 17.10;
 - (iii) any construction or changed conditions of operation at a facility that would affect the plume rise or dispersion characteristics of the emissions in a manner that would cause or contribute to a violation of an ambient air quality standard or an ambient air increment, as defined in ARM 17.8.804;
 - (iv) any construction or improvement project with a potential to emit more than 15 tons per year may not be artificially split into smaller projects to avoid permitting under ARM 17.8.7; and
 - (v) emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.
- (b) The owner or operator of any facility making a de minimis change pursuant to (a) above shall notify the department if the change would include addition of a new emissions unit, a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation.
- (c) The following are excluded from the notice requirements of (b) above:
 - (i) day-to-day fluctuations of the parameters described in (b) above, occurring as a result of the design or permitted operations of the facility, including startup and shutdown of emission sources at the facility; and
 - (ii) addition, modification, or replacement of pumps, valves, flanges and similar emission sources. The Department will develop, maintain, and update a list of emission sources it believes qualify for exclusion from the notice requirements. Upon request, the department will provide a copy of the list to interested persons.
- (d) If notice is required under (b), the owner or operator shall submit the following information to the department in writing at least 10 days prior to startup or use of the proposed de minimis change or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change:
 - (i) a description of the proposed de minimis change requiring notice, including the anticipated date of the change;
 - (ii) sufficient information to calculate the potential emissions resulting from the proposed de minimis change; and
 - (iii) if applicable, an explanation of the unanticipated circumstance causing the change.
- (e) The notice requirements under (d) do not supersede, or otherwise change, any requirements in 40 CFR Parts 60, 61, or 63.

SECTION 2

CULTURAL RESOURCES MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Cultural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Antiquities Permit* - the permit granted for excavation, removal, or restoration of heritage properties or paleontological remains (Montana Code Annotated (MCA), Section 22-3-421).
- *Heritage Property* - any district, site, building, structure, or object located upon or beneath the earth or under water that is significant in American history, architecture, archaeology, or culture (MCA 22-3-421).
- *Paleontological Remains* - fossilized plants and animals of a geological nature found upon or beneath the earth or under water that are rare and critical to scientific research (MCA 22-3-421).

**CULTURAL RESOURCES MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items
Archaeological/Indian Sites

CR.2.1.MT.
CR.15.1.MT. and CR.15.2.MT.

**COMPLIANCE CATEGORY:
CULTURAL RESOURCES MANAGEMENT
Montana Supplement**

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>CR.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>CR.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

**COMPLIANCE CATEGORY:
CULTURAL RESOURCES MANAGEMENT
Montana Supplement**

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>CR.15.</p> <p>ARCHAEOLOGICAL / INDIAN SITES</p> <p>CR.15.1.MT. Persons engaged in the excavation, removal, or restoration of heritage properties or paleontological remains on state lands must have an antiquities permit (MCA 22-3-432).</p> <p>CR.15.2.MT. Heritage properties and paleontological remains discovered on state lands must be reported to the Historic Preservation Officer (MCA 22-3-435).</p>	<p>Verify that persons engaging in the excavation, removal, or restoration of heritage properties or paleontological remains on lands owned by the State of Montana have been issued an antiquities permit by the state Historic Preservation Officer.</p> <p>Verify that the terms and conditions of the permit are met.</p> <p>Verify that heritage properties and paleontological remains discovered on state properties are reported to the state Historic Preservation Officer.</p>

SECTION 3

HAZARDOUS MATERIALS MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Hazardous Materials Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Federal Regulations Incorporated by Reference:

A commercial motor vehicle or motor carrier subject to regulation by the department under 61-10-154, MCA, shall comply with the department adopts by reference the following federal regulations of the Department of Transportation concerning the transportation of hazardous materials. The regulations adopted by reference are 49 CFR part 107, 49 CFR part 171, 49 CFR part 172, 49 CFR part 173, 49 CFR part 177, 49 CFR part 178, and 49 CFR part 180 (Title 18, Chapter 8, Section 1501 of the Administrative Rules of Montana (ARM 18.8.1501) [Revised January 2007].

Definitions

- *Commission* - the state emergency response commission (Montana Code Annotated (MCA) 10-3-1203) [Added February 2008].
- *Division* - the division of disaster and emergency services in the department of military affairs (MCA 10-3-1203) [Added February 2008].
- *Hazardous Material* - a hazardous substance, a hazardous or deleterious substance as defined in 75-10-701, radioactive material, or a combination of a hazardous substance, a hazardous or deleterious substance, and radioactive material (MCA 10-3-1203) [Added February 2008].
- *Hazardous Substance* - flammable solids, semisolids, liquids, or gases; poisons; explosives; corrosives; compressed gases; reactive or toxic chemicals; irritants; or biological agents. The term does not include radioactive material (MCA 10-3-1203) [Added February 2008].
- *Threat of Release or Threatened Release* - an indication of the possibility of the release of a hazardous material into the environment (MCA 10-3-1203) [Added February 2008].

**HAZARDOUS MATERIALS MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items
Releases of Hazardous Materials

HM.2.1.MT.
HM.20.1.MT.

**COMPLIANCE CATEGORY:
HAZARDOUS MATERIALS MANAGEMENT
Montana Supplement**

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HM.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>HM.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applicable regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

**COMPLIANCE CATEGORY:
HAZARDOUS MATERIALS MANAGEMENT
Montana Supplement**

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HM.20.</p> <p>RELEASES OF HAZARDOUS MATERIALS</p> <p>HM.20.1.MT. Releases of hazardous materials must be reported to the Division (MCA 10-3-1211) [Revised February 2008].</p>	<p>Verify that a person responsible for reporting a release under the federal Comprehensive Environmental Response, Compensation, and Liability Act notifies the division of the release as soon as practicable after obtaining the knowledge of a required reportable release, other than a permitted release.</p> <p>(NOTE: The Division notifies the Commission and the Department of Environmental Quality of released or threatened releases.)</p>

SECTION 4

HAZARDOUS WASTE MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Hazardous Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Federal Regulations Incorporated by Reference:

The Montana Department of Environmental Quality has relied heavily upon incorporation and adoption by reference of Federal requirements. References in this chapter that incorporate 40 CFR 60, 61, 63, 124, and 260 through 266, 268, 270, 273, or 279 refer to the version of that publication revised as of July 1, 2008. References in this chapter to 40 CFR 124, 260 through 266, 268, 270, 273, or 279 that incorporate publications refer to the version of that publication as specified at 40 CFR 260.11. Provisions within 40 CFR 60, 61, and 63 that are referenced in 40 CFR 124, 260 through 268, 270, 273 or 279 are also incorporated by reference. For the purposes of this chapter, the department adopts and incorporates by reference the final rules published in the Federal Register at 73 FR 72912 on December 1, 2008, "Standards Applicable to Generators of Hazardous Waste; Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material at Laboratories Owned by Colleges and Universities and Other Eligible Academic Entities Formally Affiliated With Colleges and Universities," to be codified at 40 CFR 261 and 262. (ARM 17.53.105) [Revised April 2001; Revised February 2003; Revised January 2006; Revised February 2008; Revised February 2010].

Definitions

- *Board* – the Board of Environmental Review provided for in 2-15-3502, MCA (ARM 17.53.301) [Added April 2001].
- *Commercial Transfer Facility* - a transfer facility owned or operated by a commercial for-hire transporter and in which the major purpose of the commercial transfer facility is the collection, storage, and transfer of hazardous waste; that is, over 50 percent of the materials moved through the commercial transfer facility are hazardous wastes, or greater than 100 tons of materials moved through the commercial transfer facility per year are hazardous wastes. The term refers to a transporter which conducts transportation activity on a commercial basis, as opposed to a transporter which is one and the same business entity as the generator (ARM 17.53.301) [Citation Revised April 2001].
- *Conditionally Exempt Small Quantity Generator or Conditionally Exempt Generator* - a generator of hazardous waste who generates, in a calendar month, no more than 100 kg (220 lb) of a hazardous waste, no more than one kilogram (2.2 lb) of acute hazardous waste, or no more than 100 kg (220 lb) of any residue or contaminated soil, waste, or other debris resulting from the clean up of a spill, into or on any land or water, of a acute hazardous waste (ARM 17.53.301) [Added February 2003; Citation Revised February 2004].
- *Department* - the Department of Environmental Quality provided for in Title 2, Chapter 15, Part 21, Montana Code, Annotated (ARM 17.53.301) [Citation Revised April 2001].

**HAZARDOUS WASTE MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items	HW.2.1.MT.
State-Specific Hazardous Waste Requirements	[Deleted]
Conditionally-Exempt Small Quantity Generators (CESGQ)	[Deleted] [Equivalent to the Federal]
All Sizes of Generators	HW.10.1.MT.
Conditionally Exempt Small Quantity Generators (CESQG)	HW.15.1.MT.
Small Quantity Generators (SQG)	
General	HW.20.1.MT.
Satellite Accumulation Points	[Deleted] [Equivalent to the Federal]
Generators	
General	HW.55.1.MT. through HW.55.3.MT.
Satellite Accumulation Points	[Deleted] [Equivalent to the Federal]
Transfer Facilities	HW.95.1.MT. through HW.95.5.MT.
Transportation	HW.100.1.MT.
All TSDFs	
General	HW.105.1.MT.
Additional State Specific Requirements	HW.175.1.MT.
Additional Requirements for Permitted TSDFs	[Deleted]
Additional Requirements for Interim Status TSDFs	[Deleted]
NOTE: Boilers and industrial furnaces cannot operate under interim status unless they were in operation burning or processing hazardous waste on or before 21 August 1991.	
Small Quantity Universal Waste Handlers	
NOTE: Montana has adopted the Federal Universal Waste requirements at 40 CFR 273. Requirements included here are more stringent than the Federal.	
Specific Wastes	HW.290.1.MT.
Large Quantity Universal Waste Handlers	
NOTE: Montana has adopted the Federal Universal Waste requirements at 40 CFR 273. Requirements included here are more stringent than the Federal.	
Specific Wastes	HW.380.1.MT.
Universal Waste	[Deleted]

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>HW.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.10.</p> <p>All SIZES OF GENERATORS</p> <p>HW.10.1.MT. Hazardous waste generators who accumulate, treat, store, dispose, transport, or offer for transportation hazardous waste must register with the Department (ARM 17.53.111) [Added February 2004 ; Revised February 2010].</p>	<p>Verify that generators who accumulate, treat, store, dispose, transport, or offer for transportation hazardous waste register with the Department.</p> <p>Verify that the generator informs the Department of any changes to the information contained on the original registration form.</p> <p>(NOTE: The following persons are not required to register as generators or to pay the fee required by ARM 17.53.113:</p> <ul style="list-style-type: none"> - conditionally exempt small quantity generators who are subject to the exclusionary provisions of 40 CFR 261.5, other than generators of greater than 1 kilogram (2.2 pounds) of acute hazardous waste - persons whose only hazardous wastes are recyclable materials as defined in 40 CFR 261.6 - persons whose wastes are excluded from regulation as hazardous wastes under 40 CFR 261.4 - farmers who generate hazardous wastes and who dispose of all such wastes on their own farm property in accordance with 40 CFR 262.70.)

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.15.</p> <p>CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS (CESQG)</p> <p>HW.15.1.MT. Conditionally exempt small quantity generators of hazardous waste must submit an annual report (ARM 17.53.603 (4)) [Added February 2010].</p>	<p>Verify that a conditionally exempt small quantity generator that has registered with the Department submits an annual report to remain registered.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>SMALL QUANTITY GENERATORS (SQG)</p> <p>HW.20. General</p> <p>HW.20.1.MT. Small quantity generators of hazardous waste must submit an annual report (ARM 17.53.603) [Added April 2001; R evised February 2003].</p>	<p>Verify t hat al l generators who s hip h azardous waste o ff s ite t o a d esignated facility submit an annual report to the Department by 1 March of each year.</p> <p>Verify t hat generators who t reat, s tore, o r d ispose o f hazardous waste o n-site submit an annual report covering those wastes in accordance with the provisions for TSDFs or permit requirements.</p> <p>(NOTE: The Federal requirement is for a biennial report, otherwise the reporting requirement here is identical to that found in CFR 264.75.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>SMALL QUANTITY GENERATORS (SQG)</p> <p>HW.35. Satellite Accumulation Points</p> <p>HW.35.1.MT. [Deleted April 2001].</p>	<p>(NOTE: Equivalent to the Federal.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>GENERATORS</p> <p>HW.55. General</p> <p>HW.55.1.MT. [Deleted April 2001].</p> <p>HW.55.2.MT. [Deleted April 2001].</p> <p>HW.55.3.MT. Generators of hazardous waste must submit an annual report (ARM 17. 53.603) [Added April 2001; Revised February 2004].</p>	<p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>Verify that all generators who generate or ship hazardous waste submit an annual report to the Department by 1 March of each year.</p> <p>Verify that generators who treat, store, or dispose of hazardous waste on-site submit an annual report covering those wastes in accordance with the provisions for TSDFs or permit requirements.</p> <p>(NOTE: The Federal requirement is for a biennial report, otherwise the reporting requirement here is identical to that found in CFR 264.75.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>GENERATORS</p> <p>HW.75. Satellite Accumulation Points</p> <p>HW.75.1.MT. [Deleted April 2001].</p>	<p>(NOTE: Equivalent to the Federal.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.95.</p> <p>TRANSFER FACILITIES</p> <p>HW.95.1.MT. Hazardous waste transfer facilities must meet training requirements (ARM 17.53.704) [Revised April 2001].</p> <p>HW.95.2.MT. [Deleted April 2001].</p> <p>HW.95.3.MT. Hazardous waste transfer facilities must meet emergency preparedness</p>	<p>Verify that transfer facility personnel successfully complete a program of classroom instruction or on-the-job training which teaches them to perform their duties in compliance with the requirements for transfer facilities within 6 mo after the date of their employment or assignment to a facility, whichever is later.</p> <p>Verify that newly hired employees do not work in unsupervised positions until they have completed the required training.</p> <p>(NOTE: At a minimum, the training program must be designed to ensure that transfer facility personnel are able to respond to emergencies by familiarizing the transfer facility personnel with emergency procedures, emergency equipment, and emergency systems.)</p> <p>Verify that the following documents and records are maintained at the facility:</p> <ul style="list-style-type: none"> - the job title for each position at the transfer facility related to hazardous waste management and the name of the employee filling each job - a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position related to hazardous waste management - records that document that the training or job-required experience has been given to, and completed by, transfer facility personnel. <p>Verify that training records on current personnel are kept until closure of the transfer facility and training records on former employees are kept for at least 3 yr from the date the employee last worked at the transfer facility.</p> <p>(NOTE: Personnel training records may accompany personnel transferred within the same company.)</p> <p>Verify that employees take part in an annual review of the initial training.</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Transfer facility owners/operators must comply with the emergency preparedness and prevention requirements set forth in Subpart C of 40 CFR Part</p>

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<p>and prevention requirements (ARM 17.53.706) [Revised April 2001].</p> <p>HW.95.4.MT. Hazardous waste transfer facilities must meet container handling requirements (ARM 17.53.707) [Revised April 2001].</p>	<p>265.)</p> <p>Verify that transfer facility owners/operators further comply with the following emergency planning and response requirements:</p> <ul style="list-style-type: none"> - at all times during which hazardous wastes are temporarily stored at the transfer facility, there is an emergency coordinator or a trained designee who is on the premises or on call and available to respond to an emergency by reaching the facility within a short period of time - the emergency coordinator coordinates all emergency response measures - the following information is next to the telephone: <ul style="list-style-type: none"> - the name and telephone number of the emergency coordinator - the location of fire extinguishers and spill control material and, if present, fire alarm - the telephone number of the local fire Department, unless the transfer facility has a direct alarm - the name, address, and USEPA identification number of the transfer facility. <p>Verify that the emergency coordinator or his designee responds to any emergencies that arise by formulating a contingency plan (under the guidelines of 40 CFR Part 265, Subpart D) and by making appropriate responses.</p> <p>Verify that, in the event of a fire, explosion, spill or other release which could threaten human health or when the emergency coordinator has knowledge that a spill has reached surface water, the emergency coordinator immediately notifies the National Response Center (using the 24-h, toll-free telephone number 800-424-8802) and the Department (using the 24-h telephone number 406-841-3911).</p> <p>Verify that, during loading operations, each hazardous waste container is visually inspected for evidence of corrosion, pressure buildup, physical damage, or leakage.</p> <p>Verify that questionable containers are set aside for further evaluation and possible repackaging and/or return to the waste generator.</p> <p>Verify that leaking containers are not loaded back onto a transportation vehicle, trailer, or railcar unless and until they are properly packaged, labeled, and marked.</p> <p>Verify that all handling of hazardous waste containers is conducted in a manner that minimizes the risk of leaks, spills, releases, or similar accidents.</p> <p>Verify that hazardous waste containers are not opened unless necessary to correct container damage or leakage of the contents, and that the generator's consent is obtained for any necessary repackaging.</p>

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<p>HW.95.5.MT. Commercial hazardous waste transfer facilities must submit an annual report (ARM 17.53.708) [Added April 2001].</p>	<p>Verify that loading docks, temporary container storage areas, and all areas where transfer of hazardous wastes occurs have a base or floor which is smooth, free of cracks or gaps, and sufficiently impervious to contain leaks or spills until the spilled material is detected and removed.</p> <p>Verify that temporary storage areas are designed with a containment system having sufficient capacity to contain, at a minimum, one and one-half times the volume of the largest container that will be stored there.</p> <p>Verify that any leaks or spills that do occur are promptly cleaned up.</p> <p>Verify that the handling and storage of containers of ignitable or reactive waste meet the following requirements:</p> <ul style="list-style-type: none"> - containers are separated and protected from sources of ignition or reaction (e.g., open flames, sparks, cigarette smoking, cutting and welding activities, hot surfaces, frictional heat, spontaneous ignition, and radiant heat) - NO SMOKING signs are conspicuously placed wherever there is or may be a hazard from ignitable or reactive wastes. <p>Verify that commercial hazardous waste transfer facilities submit an annual report to the Department by 1 March of each year.</p> <p>(NOTE: The Federal requirement is for a biennial report, otherwise the reporting requirement here is identical to that found in CFR 264.75.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.100.</p> <p>TRANSPORTATION</p> <p>HW.100.1.MT. Hazardous waste transporters who maintain offices, terminals, depots, or transfer facilities in Montana must register with the Department (ARM 17.53.703) [Added February 2004; Revised February 2010].</p>	<p>Verify that transporters who maintain offices, terminals, depots, or transfer facilities within Montana related to their hazardous waste transportation activities register with the Department.</p> <p>(NOTE: In addition to the requirements of 17.53.111 and 40 C.F.R. 263.11 for obtaining an EPA identification number, transporters who maintain offices, terminals, depots, or transfer facilities within Montana related to their hazardous waste transportation activities must register with the Department. Montana registration is not required for out-of-state transporters whose activities are limited to passing through Montana with hazardous waste loads or whose activities are limited to picking up loads from Montana generators or delivering loads to designated facilities in Montana.)</p>

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<p>ALL TSDFS</p> <p>HW.105. General</p> <p>HW.105.1.MT. TSDFs must submit an annual report (ARM 17.53.803 and ARM 17.53.903) [Revised April 2001].</p>	<p>Verify that all TSDFs submit an annual report to the Department by 1 March of each year.</p> <p>(NOTE: The Federal requirement is for a biennial report, otherwise the reporting requirement here is identical to that found in CFR 264.75.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>ALL TSDFS</p> <p>HW.175. Additional State Specific Requirements</p> <p>HW.175.1.MT. Boilers and industrial furnaces that burn hazardous waste must meet testing requirements (ARM 17.53.1002 (3) and 17.53.1004) [Added April 2001].</p>	<p>Verify that the owners and operators of boilers and industrial furnaces burning hazardous waste perform background and periodic testing of soils, surface waters and aquifers.</p> <p>Verify that soils are sampled and analyzed for total metals and pH or other constituents as determined by the Department, from surface locations that are predominantly downwind of the stack or facility.</p> <p>(NOTE: The number of samples and locations is determined during the permit application or permit review process.)</p> <p>Verify that background samples are tested prior to burning hazardous waste.</p> <p>Verify that soil samples are taken on an annual basis.</p> <p>Verify that the results of the annual sampling are compared to the background results.</p> <p>Verify that surface waters are sampled and analyzed for total metals and pH, or other constituents as determined by the Department, from surface locations that are predominantly downstream from the stack or facility.</p> <p>(NOTE: This requirement does not apply if there are no streams, rivers, lakes or wetlands within one mile of the boiler or industrial furnace.)</p> <p>(NOTE: The number of samples and locations is determined during the permit application or permit review process.)</p> <p>Verify that background samples are tested prior to burning hazardous waste.</p> <p>Verify that surface water samples are taken on an annual basis.</p> <p>Verify that the results of the annual sampling are compared to the background results.</p> <p>Verify that groundwater from the uppermost aquifer underlying the property is sampled and analyzed for total metals and pH, or other constituents as determined by the Department.</p> <p>(NOTE: Groundwater testing only applies if it is determined during the permit</p>

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	<p>application or permit review process that aquifer testing is warranted. This determination must be made by the Department based, in part, on review of the Part B application regarding known geologic and hydrogeologic conditions underlying the site, including use of the aquifer.)</p> <p>(NOTE: The number of samples and locations is determined during the permit review process.)</p> <p>Verify that background samples are tested prior to burning hazardous waste.</p> <p>Verify that groundwater is sampled on an annual basis.</p> <p>Verify that the results of the annual sampling are compared to the background results.</p> <p>(NOTE: 40 CFR 266.102(d) (3) and 40 CFR 266.103, pertaining to permits and interim status standards for boilers, are not adopted and incorporated by reference. Montana does not allow interim status for boilers and industrial furnaces.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.215.</p> <p>ADDITIONAL REQUIREMENTS FOR PERMITTED TSDFS</p> <p>HW.215.1.MT. [Deleted April 2001].</p>	<p>(NOTE: Regulation revised.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.260.</p> <p>ADDITIONAL REQUIREMENTS FOR INTERIM STATUS TSDFS</p> <p>HW.260.1.MT. [Deleted April 2001].</p>	<p>(NOTE: Regulation revised.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>SMALL QUANTITY UNIVERSAL WASTE HANDLERS</p> <p>HW.290. Specific Wastes</p> <p>HW.290.1.MT. Handlers of universal waste must meet operation and maintenance requirements when treating waste lamps on-site (ARM 17.53.1303) [Added April 2001; Revised February 2003; Revised February 2010].</p>	<p>Verify that a handler of universal waste that treats waste lamps on-site by crushing or intentional breaking:</p> <ul style="list-style-type: none"> - crushes or breaks the lamp in the final accumulation container - operates and maintains the crushing or breaking unit in accordance with written procedures developed by the manufacturer of the equipment - has the manufacturer's operating and maintenance instructions available for inspection by the department - has a n o peration a nd m aintenance l og b ook, o r s imilar d ocumentation, maintained and available for inspection - complies with the mercury limits specified in CFR 1910.1000 for crushing, breaking, handling and storage of treated lamps - manages the lamps in accordance with the requirements of 40 CFR 273.13(d) (see HW.290.6.US.).

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>LARGE QUANTITY UNIVERSAL WASTE HANDLERS</p> <p>HW.380. Specific Wastes</p> <p>HW.380.1.MT. Handlers of universal waste must meet operation and maintenance requirements when treating waste lamps on-site (ARM 17.53.1303) [Added April 2001; Revised February 2003; Revised February 2010].</p>	<p>(NOTE: Moved here from HW.480.1.MT.; February 2003.)</p> <p>Verify that a handler of universal waste that treats waste lamps on-site by crushing or intentional breaking:</p> <ul style="list-style-type: none"> - crushes or breaks the lamp in the final accumulation container - operates and maintains the crushing or breaking unit in accordance with written procedures developed by the manufacturer of the equipment - has the manufacturer's operating and maintenance instructions available for inspection by the department - has a no operation and maintenance log book, or similar documentation, maintained and available for inspection - complies with the mercury limits specified in CFR 1910.1000 for crushing, breaking, handling and storage of treated lamps - manages the lamps in accordance with the requirements and 273.33(d) (see HW.380.6.US. in the U.S. TEAM Guide).

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>HW.480.</p> <p>UNIVERSAL WASTE, STATE SPECIFIC</p> <p>HW.480.1.MT. [Moved February 2003].</p>	<p>(NOTE: Moved to HW.380.1.MT.)</p>

SECTION 5

NATURAL RESOURCES MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Natural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Dam* - any artificial barrier, including appurtenant works, used to impound or divert water with an impounding capacity of 50 acre-feet or greater measured to the crest of the dam embankment (Annotated Rules of Montana (ARM) 36.14.101) [Added April 2002].
- *Natural Area* - an area of land which must generally appear to have been affected primarily by the forces of nature with the visual aspects of human intrusion not dominant and also must have one or more of the following characteristics (Montana Code Annotated (MCA) 76-12-104) [Citation Revised January 2007]:
 1. an outstanding mixture or variety of vegetation, wildlife, water resource, landscape, and scenic value
 2. an important or rare ecological or geological feature or other rare or significant natural feature worthy of preservation for scientific, educational, or ecological purposes.
- *Person* - an individual, group of individuals, partnership, corporation, firm, or association (MCA 50-23-101) [Citation Revised January 2007].
- *Project* - a physical alteration or modification that results in a change in the state of a natural, perennial-flowing stream or river, its bed, or its immediate banks. Project does not include (MCA 75-7-103) [Added February 2008]:
 1. an activity for which a plan of operation has been submitted to and approved by the district. Any modification to the plan must have prior approval of the district.
 2. customary and historic maintenance and repair of existing irrigation facilities that do not significantly alter or modify the stream in contravention of 75-7-102; or
 3. livestock grazing activities
- *Wild Animal* - a skunk, fox, raccoon, or bat. Other species of normally nondomesticated animals known to be capable of transmitting rabies may be added to this list through the adoption of rules by the Department of Health and Environmental Sciences with the approval of the Department of Livestock (MCA 50-23-101) [Citation Revised January 2007].

**NATURAL RESOURCES MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items	NR.2.1.MT.
Land Management	NR.10.1.MT.
Water Resource Management	NR.15.1.MT. through NR.15.3.MT.
Wildlife	NR.20.1.MT. through NR.20.5.MT.

**NATURAL RESOURCES MANAGEMENT
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REFER TO APPENDIX ITEMS

5-1

Montana's Threatened, Endangered and Candidate Species

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>NR.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>NR.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>NR.10.</p> <p>LAND MANAGEMENT</p> <p>NR.10.1.MT. Developers of natural areas must receive legislative permission to engage in development (MCA 76-12-110) [Citation Revised January 2007].</p>	<p>Verify that the developer of a natural area has received legislative permission to engage in development activities.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>NR.15.</p> <p>WATER RESOURCE MANAGEMENT</p> <p>NR.15.1.MT. Users of all surface waters for recreational use must follow general requirements (MCA 23-2-302) [Revised July 1997; Revised February 2004 ; Citation Revised January 2007].</p> <p>NR.15.2.MT. Persons planning a floodplain or streambed management project must have permission from the state (MCA 75-7-111 and 12-3) [Citation Revised January 2007 ; Revised February 2008].</p> <p>NR.15.3.MT. Dams must meet classification and permitting requirements (ARM 36.14.102, 36.14.103, 36.14.201, 36.14.301, and 36.14.307) [Added April 2002].</p>	<p>(NOTE: All surface waters that are capable of recreational use may be so used by the public without regard to the ownership of the land underlying the waters.)</p> <p>Verify that recreational use of surface waters does not include the following, without permission or contractual arrangement with the landowner:</p> <ul style="list-style-type: none"> - operate motorized vehicles not designed primarily for operation upon the water - recreational use of surface waters while diverted away from a natural water body for beneficial use, except for impoundments or diverted waters to which the owner has provided public access. - use surface waters in a stock pond or other private impoundment fed by an intermittently flowing natural watercourse - big game hunting except by long bow or shotgun - overnight camping within 500 yd or within sight of an occupied dwelling, whichever is less - place or create a permanent duck blind within 500 yd or within sight of an occupied dwelling, whichever is less - use a streambed for right-of-way purposes, even when the water is not flowing therein. <p>Verify that a written notice of a proposed project (see definition) is presented to the supervisors before any portion of the project takes place.</p> <p>Verify that the person performing a floodplain or streambed management program has obtained permission from the state Supervisors.</p> <p>(NOTE: Except where specifically stated, the authority of the department and compliance by the owner of the dam or reservoir to these rules apply to:</p> <ul style="list-style-type: none"> -dams having a reservoir capacity behind the dam of 50 acre-feet or more measured to the crest of the dam embankment or measured to the maximum water surface that would occur during a probable maximum flood, whichever is less - reservoirs of 50 acre-feet or more that retain water both as a result of a dam and as an excavation in the impoundment area, measured to the crest of the

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	<p>dam and include the impoundment capacity below the normal land surface</p> <ul style="list-style-type: none"> - multiple or a series of dams erected on a valley, basin, coulee, or ravine where each reservoir is less than 50 acre-feet, but all are operated singly as one reservoir containing more than 50 acre-feet.) <p>(NOTE: The following are exempt:</p> <ul style="list-style-type: none"> - dams and reservoirs licensed and subject to inspection by the federal energy regulatory commission, including dams and reservoirs for which a license application is pending before the commission - naturally occurring reservoirs (naturally occurring reservoirs that are developed by excavation in the reservoir area or excavation and/or backfill of an outlet system are not exempt.) <p>(NOTE: A high-hazard dam or reservoir does not include:</p> <ul style="list-style-type: none"> - an obstruction in a canal used to raise or lower water therein or divert water therefrom - a flood levee on the bank of a natural lake or stream, the primary purpose of which is to control floodwaters - railroad fill structure and road or highway fill not intended to store or accumulate water for future use - an obstruction in the channel of a stream, watercourse, or floodplain, which has the single purpose of spreading water within the bed of the stream or watercourse or floodplain upstream from the obstruction for irrigation of only that land containing the spread water.) <p>Verify that an application for high hazard determination is made by an owner proposing to construct, including new construction, alteration, repair, enlargement, or removal of, any dam or reservoir that has or could impound to the crest of the dam 50 acre-feet or more.</p> <p>(NOTE: This requirement applies even if the department performed a high hazard determination on previous construction to the dam or reservoir and found it not to be a high-hazard dam. This requirement does not apply to the owner who already possesses a valid operation permit for the high-hazard dam.)</p> <p>Verify that an owner who wishes to construct, alter, repair, enlarge, or remove a high-hazard dam applies for and receives from the department a construction permit prior to any construction.</p> <p>(NOTE: The following activities do not require a permit:</p> <ul style="list-style-type: none"> - removal of brush or weeds, or cutting of trees, removal of slash from the embankment or spillway, and removal of small stumps is included, provided no deep excavation into the embankment occurs - repair of erosion gullies or minor rodent damage on the embankment or in the spillway (large gullies that have already weakened the dam must be repaired) - surface grading of the embankment crest or spillway to eliminate potholes and provide proper drainage, provided that the freeboard is not reduced - placement of additional riprap and bedding on the upstream slope, or in the

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	spillway, in areas that have sustained minor damage (this would involve restoring the original riprap protection and maintaining the original capacity where the damage has not yet resulted in weakening of the dam.)

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<p>NR.20.</p> <p>WILDLIFE</p> <p>NR.20.1.MT. Persons must not possess wild animals (MCA 50-23-102) [Citation Revised January 2007].</p> <p>NR.20.2.MT. Persons must not aerially hunt wild animals without a permit (MCA 81-7-501) [Revised January 2007].</p> <p>NR.20.3.MT. Persons must be licensed to hunt, trap, pursue, take, or shoot any game animal, bird, or fish or nongame animal, bird, or fish (MCA 87-2-103) [Citation Revised January 2007].</p> <p>NR.20.4.MT. Possessing, taking, transporting, exporting, selling, or offering for sale specific species of wildlife is prohibited (MCA 87-5-107 and 87 -5-109) [Revised July 1997; Revised April 2000; Revised April 2002; Revised January 2006;</p>	<p>Verify that persons possess wild animals only when the following criteria have been met:</p> <ul style="list-style-type: none"> - the animal has been possessed for at least 6 months prior to 1 January 1982 - the animal is used in a fur-bearing enterprise - the animal is contained in a zoological exhibition in such a manner that it may not come in physical contact with members of the public - the animal is acquired by an educational institutional institution for scientific research. <p>Verify that persons participating in the aerial hunting of wild animals have a permit issued by the Department of Livestock.</p> <p>(NOTE: The permit must specify the species of predatory animals to be hunted and the geographic areas over which aerial hunting may take place.)</p> <p>(NOTE: Employees of the state, its subdivisions, or the federal government, acting within the scope of their work, may aerially hunt wild animals without obtaining a permit.)</p> <p>Verify that any person involved in or attempting to be involved in hunting, trapping, pursuing, taking, or shooting any game or nongame animal, bird, or fish has a license.</p> <p>Verify that no person takes, possesses, transports, exports, sells, or offers for sale and for any common or contract carrier knowingly to transport or receive for shipment any species or subspecies of wildlife appearing on any of the following lists:</p> <ul style="list-style-type: none"> - the list of wildlife indigenous to the state determined to be endangered within the state (see Appendix 5-1) - any species or subspecies of fish and wildlife included by the department and appearing on the United States' list of endangered native fish and wildlife

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<p>Citation Revised January 2007].</p> <p>NR.20.5.MT. [Deleted July 1997].</p>	<p>(part 17 of Title 50, Code of Federal Regulations, appendix D) as it appears on July 1, 1973; and the United States' list of endangered foreign fish and wildlife (part 17 of Title 50, Code of Federal Regulations, appendix A), as that list may be modified.</p> <p>(NOTE: Taking of endangered species may be allowed by permit only for educational purposes, to alleviate damage to property, or to protect human health and safety.)</p>

Appendix 5-1

Montana's Threatened, Endangered and Candidate Species

(Source: <http://fwp.mt.gov/wildthings/tande/default.html>)

[Added January 2006; Revised February 2010]

COMMON NAME	SCIENTIFIC NAME	STATUS*	RANGE - MONTANA
Black-footed Ferret	<i>Mustela nigripes</i>	E/XN	Prairie dog complexes; Eastern Montana
Whooping Crane	<i>Grus americana</i>	E	Wetlands; migrant eastern Montana
Least Tern	<i>Sterna antillarum</i>	E	Yellowstone, Missouri River sandbars, beaches; Eastern Montana
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E	Bottom dwelling; Missouri, Yellowstone Rivers
White Sturgeon (Kootenai River population)	<i>Acipenser transmontanus</i>	E	Bottom dwelling; Kootenai River
Grizzly Bear	<i>Ursus arctos horribilis</i>	T	Alpine/subalpine coniferous forest; Western Montana
		T	Missouri River sandbars, alkali beaches; northeastern Montana
Piping Plover	<i>Charadrius melodus</i>	CH	Alkali lakes in Sheridan County; riverine and reservoir shoreline in Garfield, McCone, Phillips, Richland, Roosevelt and Valley counties
Water Howellia	<i>Howellia aquatilis</i>	T	Wetlands; Swan Valley, Lake and Missoula Counties
Ute Ladies' tresses	<i>Spiranthes diluvialis</i>	T	River meander wetlands; Jefferson, Madison, Beaverhead, Gallatin, Broadwater counties
		T	Clark Fork, Flathead, Kootenai, St. Mary and Belly river basins; cold water rivers & lakes
Bull trout (Columbia River basin and St. Mary – Belly River populations)	<i>Salvelinus confluentus</i>	CH	Portions of rivers, streams, lakes and reservoirs within Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders. Counties
		T	Western Montana montane spruce/fir forest
Canada lynx (contiguous U.S. population)	<i>Lynx Canadensis</i>	Proposed CH	Portions of Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln,

COMMON NAME	SCIENTIFIC NAME	STATUS*	RANGE - MONTANA
Spalding's Campion (or "catchfly")	<i>Silene spaldingii</i>	T	Missoula, Pondera, Powell and Teton counties Upper Flathead River and Fisher River drainages; Tobacco Valley – open grasslands with rough fescue or bluebunch wheatgrass
Yellow billed cuckoo (western population)	<i>Coccyzus americanus</i>	C	Population west of the Continental Divide; riparian areas with cottonwoods and willows

*Status Key:

ENDANGERED (E) - Any species that is in danger of extinction throughout all or a significant portion of its range.

THREATENED (T) - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

CANDIDATE (C) - Those taxa for which the Service has sufficient information on biological status and threats to propose to list them as threatened or endangered. We encourage their consideration in environmental planning and partnerships, however, none of the substantive or procedural provisions of the Act apply to candidate species.

NON-ESSENTIAL EXPERIMENTAL POPULATION (XN) - A population of a listed species reintroduced into a specific area that receives more flexible management under the Act.

CRITICAL HABITAT (CH) - The specific areas (i) within the geographic area occupied by a species, at the time it is listed, on which are found those physical or biological features (I) essential to conserve the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed upon determination that such areas are essential to conserve the species.

SECTION 6

OTHER ENVIRONMENTAL ISSUES

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This section covers the state requirements for Other Environmental Issues and is intended to supplement the U.S.TEAM Guide. Refer to the U.S.TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

**OTHER ENVIRONMENTAL ISSUES
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

The NEPA Process

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items O1.2.1.MT.

Environmental Noise

Missing Checklist Items O2.2.1.MT.

State-Specific Requirements O2.5.1.MT. through O2.5.5.MT.

CERCLA Cleanup Sites

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items O3.2.1.MT.

Pollution Prevention

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items O4.2.1.MT.

Program Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

COMPLIANCE CATEGORY: OTHER ENVIRONMENTAL ISSUES Montana Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>THE NEPA PROCESS</p> <p>O1.2. Missing Checklist Items</p> <p>O1.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

COMPLIANCE CATEGORY: OTHER ENVIRONMENTAL ISSUES Montana Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>ENVIRONMENTAL NOISE</p> <p>O2.2. Missing Checklist Items</p> <p>O2.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

**COMPLIANCE CATEGORY:
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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>ENVIRONMENTAL NOISE</p> <p>O2.5. State-Specific Requirements</p> <p>O2.5.1.MT. Motorboats and watercraft must observe noise limitations (Montana Code Annotated (MCA) 23-2-521(3) and 23-2-526(3)) [Citation Revised February 2003; Revised January 2007].</p> <p>O2.5.2.MT. Snowmobiles must be equipped with a noise suppression device (MCA 23-2-634(1)) [Citation Revised February 2003; Citation Revised January 2007].</p> <p>O2.5.3.MT. Motor vehicles must utilize mufflers in good</p>	<p>Verify that motorboats and watercraft meet the following noise requirements:</p> <ul style="list-style-type: none"> - are quieter than 86 dBA at a distance of 50 ft - are quieter than 90 dBA at 1 m at idle speed. <p>Verify that the exhaust of an internal combustion engine used on a motorboat or vessel is muffled either by discharge underwater or by a functioning muffler capable of muffling exhaust noise to 90 dbA or less when measured at a distance of 1 meter from the muffler at idle speed.</p> <p>Verify that the muffler is not modified or altered such as by a cutout.</p> <p>(NOTE: The noise limitations above do not apply to a motorboat or vessel that is:</p> <ul style="list-style-type: none"> - competing in a state-sanctioned regatta or boat race while on trial runs between 9 a.m. and 5 p. m. and during a period not more than 48 hours immediately preceding the regatta or boat race - operating under a separate permit issued by the department for the purpose of tuning engines, making test or trial runs, or competing in official trials for speed records other than in connection with regattas or boat races - operated by an authorized agent of federal, state, or local government to carry out the duty of enforcement, search and rescue, firefighting, or research.) <p>Verify that a vessel is not equipped with a siren, except for an authorized emergency vessel.</p> <p>Verify that any snowmobile has a functional noise suppression device.</p> <p>Verify that motor vehicles constantly utilize mufflers in good working order to prevent excessive or unusual [not defined] noise and a annoying [not defined]</p>

**COMPLIANCE CATEGORY:
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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>working order (MCA 61-9-403) [Citation Revised February 2003; Citation Revised January 2007].</p> <p>O2.5.4.MT. Motorcycles must not exceed noise limitations (MCA 61-9-418) [Citation Revised February 2003; Citation Revised January 2007].</p> <p>O2.5.5.MT. [Deleted July 1997].</p>	<p>smoke.</p> <p>Verify that motor vehicles do not utilize any muffler cutout, bypass, or similar device during operation.</p> <p>Verify that motorcycles do not exceed the following noise limitations:</p> <ul style="list-style-type: none"> - manufactured prior to 1970, 92 dB(A) - manufactured between 1970 and 1972, 88 dB(A) - manufactured between 1973 and 1974, 86 dB(A) - manufactured between 1975 and 1977, 80 dB(A) - manufactured between 1978 and 1987, 75 dB(A) - manufactured after 1987, 70 dB(A). <p>(NOTE: This item was deleted because the noise limitations were the same as the Federal limitations.)</p>

COMPLIANCE CATEGORY: OTHER ENVIRONMENTAL ISSUES Montana Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>CERCLA CLEANUP SITES</p> <p>O3.2. Missing Checklist Items</p> <p>O3.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

COMPLIANCE CATEGORY: OTHER ENVIRONMENTAL ISSUES Montana Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>POLLUTION PREVENTION</p> <p>O4.2. Missing Checklist Items</p> <p>O4.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

SECTION 7

PESTICIDE MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Pesticide Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Act* - the *Montana Pesticides Act*, as amended, Montana Code Annotated (MCA) Title 80, Chapter 8, Part; and other legislation supplementary thereto and amendatory thereof (Administrative Rules of Montana (ARM) 4.10.1501)).
- *Active Ingredient* – (Montana Code Annotated (MCA) 80-8-102):
 1. in the case of a pesticide, other than a plant regulator, defoliant, or desiccant, an ingredient that will prevent, destroy, repel, alter life processes, or mitigate insects, nematodes, fungi, rodents, weeds, or other pests
 2. in the case of a plant regulator, an ingredient that acts upon the physiology to accelerate or retard the rate of growth or rate of maturation or otherwise alter the normal processes of ornamental or crop plants or their produce
 3. in the case of a defoliant, an ingredient that will cause the leaves or foliage to drop from a plant
 4. in the case of a desiccant, an ingredient that will artificially accelerate the drying of plant tissue.
- *Adulterated* - applies to a pesticide if its strength of purity falls below the professed standard or quality as expressed on labeling or under which it is sold, if any substance has been substituted wholly or in part for the pesticide, or if any valuable constituent of the pesticide has been wholly or in part abstracted (MCA 80-8-102).
- *Agricultural Commodity* - any plant or part thereof, or animal or animal product produced by a person (including farmers, ranchers, vineyardists, plant propagators, Christmas tree growers, aquaculturists, floriculturists, orchardists, foresters, or other comparable persons) primarily for sale, consumption, propagation, or other use by man or animal (ARM 4.10.1501).
- *Animal* - all vertebrate and invertebrate species, including, but not limited to, man and other mammals, birds, fish, and shellfish (ARM 4.10.1501).
- *Animal Poisoning* - a pesticide exposure to humans, livestock, or domestic and wild animals resulting in acute and/or chronic illness, harm, or death normally verified respectively by a physician, a veterinarian, or a recognized wildlife pathologist (ARM 4.10.1001).
- *Antidote* - the most practical immediate treatment in the case of poisoning and includes first-aid treatment (MCA 80-8-102).
- *Application of a Pesticide* - the placement of a pesticide at or on the site where the pest control or other response is desired (ARM 4.10.1501).
- *Applicator* - a person who applies pesticides by any method (MCA 80-8-102).

- *Appurtenances* - all valves, pumps, fittings, pipes, hoses, metering devices and mechanical devices which are connected to a pesticide storage container or are used to transfer a material into or out of a storage container (ARM 4.10.1101) [Added May 1999].
- *Authorized Agent or Representative* - any authorized employee of the Department or an individual authorized by the Department to act as an official representative of the Department (ARM 4.10.1501).
- *Bulk Pesticide* - any pesticide which is transported or held in an individual container in undivided quantities of greater than 55 gal liquid measure or 100 lb net dry weight (ARM 4.10.1101) [Added May 1999].
- *Certification* - the determination by the Department that an individual is competent and thus authorized to use or supervise the use of restricted use pesticides (ARM 4.10.1501).
- *Certified Applicator* - any individual who is certified and licensed or issued a special use permit to use or supervise the use of any restricted use pesticide covered by his certification (ARM 4.10.1501).
- *Commercial Applicator* - a person who, by contract or for hire, applies by aerial, ground, or hand equipment pesticides to land, plants, seeds, animals, waters, structures, or vehicles (MCA 80-8-102).
- *Commercial Applicator Certified License* - an authorization issued by the Department to an individual to use and apply restricted use and general use pesticides for which he is qualified (ARM 4.10.1501).
- *Commercial Applicator License* - an authorization issued by the Department to an individual to use and apply general use pesticides for which he is qualified (ARM 4.10.1501).
- *Commercial Operator* - a person who applies pesticides under the supervision of a commercial applicator (MCA 80-8-102).
- *Conditions of Use for General Use Pesticides* - (ARM 4.10.1501):
 1. a commercial pesticide applicator may use and apply general use pesticides for which the applicator is licensed anywhere within the state
 2. a licensed pesticide operator, as an employee of a licensed commercial applicator, may use and apply general use pesticides for which the applicator is licensed and under his direct supervision within 100 mi of the licensed applicator; beyond 100 mi, special supervision shall be required
 3. an unlicensed employee of a licensed commercial applicator may use and apply general use pesticides only under the special supervision of the licensed applicator or operator employed by the licensed applicator.
- *Conditions for Use for Restricted Use Pesticides* - a commercial pesticide applicator may use and apply restricted use pesticides for which he is certified-licensed anywhere within the state (ARM 4.10.1501):
 1. a licensed applicator or operator, as an employee of a certified-licensed applicator, may use and apply restricted use pesticides for which the certified-licensed applicator is licensed, only within 100 mi of the certified-licensed applicator while under his direct supervision
 2. a licensed applicator or operator, as an employee of a certified-licensed applicator, may use and apply restricted-use pesticides for which the certified-licensed applicator is licensed, only within 100 mi of the certified-licensed applicator while under his direct supervision
 3. a licensed applicator, or operator working beyond the 100 mi limit, may use or apply restricted use pesticides only under the special supervision of a certified-licensed applicator.
- *Crop* - a food intended for human or animal consumption or a fiber product (MCA 80-8-102).
- *Defoliant* - a substance or mixture of substances for causing the leaves or foliage to drop from a plant, with or without causing abscission (MCA 80-8-102).

- *Department* - Montana Department of Agriculture (ARM 4.10.1501).
- *Desiccant* - a substance or mixture of substances for artificially accelerating the drying of plant tissue (MCA 8--8-102).
- *Device* - any instrument or contrivance intended for destroying, controlling, repelling, or mitigating pests. The term does not include equipment used for the application of pesticides MCA 80-8-102).
- *Director* - the director of the Montana department of agriculture or any officer or employee of the department to whom authority has heretofore been delegated or to whom authority may hereafter be delegated to act in his stead (ARM 4.10.1501) [Revised February 2008].
- *Direct Supervision* - the act or process whereby the use of a pesticide is made by a competent person acting under the verifiable instructions and supervision of a licensed or certified applicator, who has provided detailed guidance to the competent person for proper use of the pesticide, who has made provisions for contact in the event he is needed, and who is responsible for the actions of that person (ARM 4.10.1501).
- *Disposal* - process of discarding pesticides or pesticide containers in a reasonable manner so as to avoid endangering or injuring public health, or causing unreasonable adverse effects on the environment (ARM 4.10.1501).
- *Domestic Application* - the application of a pesticide directly to humans or pets, application of a pesticide in, on, or around all structures, vehicles, or areas associated with household or home life, patient care areas of health-related institutions or areas where children spend time, including but not limited to (ARM 4.10.1501):
 1. gardens, noncommercial greenhouses, yards, patios, houses, pleasure marine craft, mobile homes, campers and recreational vehicles, noncommercial campsites, home swimming pools, and kennels
 2. articles, objects, devices, or surfaces handled or contacted by humans or pets in all structures
 3. patient care areas of nursing homes, mental institutions, hospitals, and convalescent homes
 4. education, lounging, and recreational areas of preschools, nurseries, and day camps.
- *Drift* - movement of a pesticide during or immediately after application or use through air to a site other than the intended site of application or use (ARM 4.10.1501).
- *Environment* - the soil, air, water, plants, and animals (MCA 80-8-102).
- *Empty Pesticide Container* - any pesticide container from which the pesticide contents have been removed by pouring, shaking, pumping, aspirating or by other means and in which no pesticide contents remain that can be practically removed by these or similar methods (ARM 4.10.801) [Added January 2007].
- *Equipment* - equipment used in the actual application of pesticides, including aircraft, ground sprayers and dusters, hand-held applicators, and water surface equipment (MCA 80-8-102).
- *Exposure* - the process and/or result of introducing a pesticide by any method or route onto or into humans, livestock, animals, crops, plants, or the environment. Entry into treated areas in violation of a restricted entry interval, failure to provide required protective equipment (PPE) or clothing, failure to provide required decontaminating facilities or failure to provide required facilities for care, storage or cleaning PPE or clothing constitutes exposure. (ARM 4.10.1001) [Revised May 1999].
- *Farm Applicator* - a person applying pesticides to his own crops or land. In the case of restricted use pesticides, a person certified as a farm applicator to use or supervise the use of a restricted use pesticide for purposes of producing any agricultural commodity on lands owned, rented, or leased by him or his employer (ARM 4.10.1501).

- *Forest* - a concentration of trees and related vegetation in nonurban areas, sparsely inhabited by and infrequently used by humans, and characterized by natural terrain and drainage patterns (ARM 4.10.1501).
- *Fungi* - all nonchlorophyll-bearing thallophytes (all nonchlorophyll-bearing plants of a lower order than mosses and liverworts), such as rusts, smuts, mildews, molds, yeasts, and bacteria, except those resident on or in living humans or other animals (MCA 80-8-102).
- *Fungicide* - a substance or mixture of substances for preventing, destroying, repelling, or mitigating any fungus (MCA 80-8-102).
- *General-Use Pesticide* - a pesticide that is classified for general use under specific criteria promulgated by the Department and/or the USEPA (see also Conditions of Use for General Use Pesticides) (ARM 4.10.1501).
- *Government Applicator Certified Licensed* - an authorization issued by the Department to an individual to use and apply restricted use and general use pesticides for which he is qualified (ARM 4.10.1501).
- *Government Applicator License* - an authorization issued by the Department to an individual to use and apply general use pesticides for which he is qualified (ARM 4.10.1501).
- *Harm* - the exposure due to the improper use or misuse of a pesticide by direct application or otherwise resulting from application or use, resulting in but not limited to (ARM 4.10.1001):
 1. physical or biological acute, subacute, or chronic pesticide damage, injury or poisoning to humans, livestock, animals, crops, plants, or the environment
 2. pesticide residues that prevent the planting, harvesting production, grazing, consumption or sale of crops, livestock, plants, or animals
 3. contamination of potable drinking water, ground- or surface waters, or air exceeding state or Federal standards.
- *Hazard* - the likelihood that use of a pesticide would result in an adverse effect on man or the environment in a given situation (ARM 4.10.1501).
- *Herbicide* - a substance or mixture of substances for preventing, destroying, repelling, or mitigating any weed (MCA 80-8-102).
- *Immediate Container* - a container that is directly in contact with the pesticide or device (ARM 4.10.1501).
- *Inert Ingredient* - an ingredient that is not an active ingredient (MCA 80-8-102).
- *Insect* - any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class insecta, comprising six-legged, winged and wingless forms, such as beetles, bugs, wasps, flies, and keds, and to other classes of arthropods whose members are wingless and usually have more than six legs, such as spiders, mites, ticks, centipedes, and wood lice (MCA 80-8-102).
- *Insecticide* - any substance or mixture of substances for preventing, destroying, repelling, or mitigating any insects present in any environment (MCA 80-8-102).
- *Land* - all land and water areas, including airspace, and all plants, animals, structures, buildings, contrivances, and machinery appurtenant thereto or situated thereon, fixed or mobile, including any used for transportation (ARM 4.10.1501).

- *Label* - the written, printed, or graphic matter on or attached to the pesticide or device or to its immediate container and any outside container or wrapper of any retail package of the pesticide or device (MCA 80-8-102).
- *Labeling* - all labels and other written, printed, or graphic matter (MCA 80-8-102):
 1. upon the pesticide or any of its containers or wrappers
 2. accompanying the pesticide or device at any time
 3. to which reference is made on the label or in literature accompanying the pesticide or device, except when accurate, nonmisleading reference is made to current official publications of the USEPA; Departments of Agriculture, Interior, or Health and Human Services; state experiment stations; state agricultural colleges; or other similar Federal institutions or official agencies of this state or other states authorized by law to conduct research in the field of pesticides.
- *Leach* - to undergo the process by which pesticides in the soil are moved to a lower layer of soil or are dissolved and carried through soil by water (ARM 4.10.1501).
- *License* - an authorization to apply or sell pesticides, issued by the Department to a person who has qualified by meeting the conditions and standards of the *Act* and rules adopted thereunder (ARM 4.10.1501).
- *Licensing Period* - a complete calendar year, 1 January through 31 December, for which a person has been issued a license by the Department (even though the person was not issued a license for the complete calendar year) (ARM 4.10.1501).
- *Liquid Pesticide* - any pesticide in liquid form (ARM 4.10.1101) [Added May 1999].
- *Misuse* - the use, handling, or release of a pesticide by a person in a manner inconsistent with the label or labeling or in violation of Department pesticide application, storage, mixing, and loading rules or pesticide and container disposal rules (see 80-8-306(5)(e)(i), MCA) (ARM 4.10.1501) [Revised May 1999].
- *Modification* - the process of altering, limiting, or modifying a license, permit, or certificate of a person by the Department (ARM 4.10.1501).
- *Nematocide* - any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating nematodes (MCA 80-8-102).
- *Nematodes* - invertebrate animals of the phylum nemathelminthes and class nematoda, that is, unsegmented round worms with elongated, fusiform, or sac-like bodies covered with cuticle and inhabiting soil, water, animals, plants, or plant parts (MCA 80-8-102).
- *Noncommercial Certified Applicator* - an individual who cannot be classified as a commercial, public utility, or government certified applicator, or who cannot be classified as a private applicator but desires the use of restricted use pesticides. A certified noncommercial applicator may only use restricted use pesticides on lands owned, rented, or leased by his employer or himself (ARM 4.10.1501).
- *Operational Activities* - transferring, loading, unloading, mixing, repackaging and refilling pesticides (ARM 4.10.1101) [Added May 1999].
- *Outdoor Applications* - any pesticide application or use that occurs outside enclosed manmade structures or the consequences of which extends beyond enclosed manmade structures, including but not limited to pulp and paper mill water treatments and industrial cooling water treatments (ARM 4.10.1501).
- *Permanent Storage Facility* - a facility or location where any primary containment capable of storing more than 500 gal or 4500 lb of formulated bulk pesticides is in-service for more than 14 consecutive days. Primary

containment capable of being moved and not in-service at a single site for more than 14 days is not a PSF. PSF will include primary containment and secondary containment (ARM 4.10.1101) [Added May 1999].

- *Permit* - a special use document, which may be referred to as a certificates, issued by the Department to a farm applicator to purchase, use, or apply restricted use pesticides (ARM 4.10.1501).
- *Permit Period* - a complete calendar, January 1 through December 31, for which a person has been issued a permit or certificate by the Department (even though the person was not issued a permit or certificate for the complete calendar year (ARM 4.10.1501).
- *Person* - any natural person, individual, firm, partnership, association, corporation, company, joint-stock association, body politic, or organized group of persons, whether incorporated or not, and any trustee, receiver, assignee, or similar representative (MCA 80-8-102).
- *Pest* - any insect, rodent, nematode, snail, slug, weed, and any form of plant or animal life or virus, except a virus on or in living humans or other animals, that is normally considered a pest and that the Department declares a pest (MCA 80-8-102).
- *Pesticide* - (MCA 80-8-102):
 1. substance or mixture of substances, including any living organism or any product derived from a living organism, intended for preventing, destroying, controlling, repelling, altering life processes, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, except viruses on or in living humans or other animals, that may infect or be detrimental to persons, vegetation, crops, animals, structures, or households, or be present in any environment or that the Department declares a pest
 2. substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant
 3. other substances intended for that use named by the Department by a rule adopted by it.
- *Pesticide Container* - any package or packaging in which a pesticide is in contact with the inner surface. The term does not include any shipping material used to hold more than one pesticide container or a bulk container used for transporting or delivering a pesticide (ARM 4.10.801) [Added January 2007].
- *Pesticide Poisoning* - animal or plant poisoning that may result in discernible adverse effects on the physical structure, growth, population level, or reproduction rates of organisms verified by qualified animal or plant specialists in combination with either a laboratory bioassay, laboratory analytical confirmation, or another Department-approved scientific method (ARM 4.10.1001).
- *Plant Poisoning* - a pesticide exposure to plants or crops resulting in the acute or chronic destruction, loss, reduction, or damage to the plants, verified by a recognized plant pathologist, botanist, or a trained Department pesticide specialist (ARM 4.10.1001).
- *Plant Regulator* - any substance or mixture of substances affecting the rate of growth or rate of maturation or for otherwise altering the physiological condition of plants. The term does not include substances to the extent that they are plant nutrients, trace elements, nutritional chemicals, plant inoculants, and soil amendments (MCA 80-8-102).
- *Precipitation* - rain, snow, sleet or hail (ARM 4.10.1101) [Added May 1999].
- *Primary Containment* - a dedicated container or vessel effectively designed and constructed to contain a pesticide. Application equipment is excluded (ARM 4.10.1101) [Added May 1999].
- *Protect Health and the Environment* - protection against any unreasonable adverse effects on the environment (ARM 4.10.1501).

- *Protective Equipment* - clothing or any other materials or devices that shield against unintended exposure to pesticides (ARM 4.10.1501).
- *Proven Harm* - in cases of misuse, the means to establish the validity or authenticity of exposure, harm, or poisoning by demonstrating adverse effects through verification by a recognized animal, plant, human health, or pesticide specialist, which may include documentation of the pesticide by laboratory analytical or bioassay confirmations or other approved scientific methods (ARM 4.10.1001) [Revised May 1999].
- *Qualification Period* - the period of time for which a person is qualified for a license, certificate, or permit (ARM 4.10.1501).
- *Records* - a procedure whereby a person is required to record, maintain, reveal, or submit certain data and information, required by the *Act* (ARM 4.10.1501).
- *Re-entry* - the action of entering an area or site at, in, or on which a pesticide has been applied (ARM 4.10.1501).
- *Regulated Pest* - a specific organism considered by a state or Federal agency to be a pest requiring regulatory restrictions, regulations, or control procedures in order to protect the host, man, and/or his environment (ARM 4.10.1501).
- *Residue* - the active ingredient(s), metabolite(s), or degradation product(s) that can be detected in the crops, soil, water, or other component of the environment, including man, following the use of a pesticide (ARM 4.10.1501).
- *Restricted-Use Pesticide* - a pesticide that is classified for restricted use under specific criteria promulgated by the Department and/or the USEPA (see also Conditions for Use for Restricted Use Pesticides) (ARM 4.10.1501).
- *Rinsate* - any mixture of rinse material and the residual contents of an empty pesticide container that is produced in the process of rinsing an empty pesticide container (ARM 4.10.801) [Added January 2007].
- *Rinse Material* - any liquid or other material permitted by the labeling or otherwise approved by the U.S. Environmental Protection Agency or the Department to rinse empty pesticide containers (ARM 4.10.801) [Added January 2007].
- *Rinsed Pesticide Container* - an empty pesticide container that has been triple or power rinsed or rinsed by equivalent procedures (ARM 4.10.801) [Added January 2007].
- *Secondary Containment* - a device or an area or structure designed, constructed and maintained to hold or confine or prevent a discharge of pesticides from primary containment and appurtenances (ARM 4.10.1101) [Added May 1999].
- *Significant Harm* - having a measurable or verified observation of adverse effect(s), on health, environment, agricultural crops or livestock (ARM 4.10.1001) [Revised May 1999].
- *Special Supervision* - A certified-licensed applicator or licensed-applicator must be physically present at the time of use and application of a pesticide (ARM 4.10.1501).
- *Spill* - a release, leak, discharge, disposal or escape of pesticides or pesticide mixtures into the environment, whether accidentally or not, including the discarding or abandonment of pesticide containers, but excludes the use or disposal of pesticides or pesticide containers in a manner consistent with approved labels and in

compliance with the Montana Pesticides Act and the Federal Insecticide, Fungicide and Rodenticide Act, as amended (ARM 4.10.1101) [Added May 1999].

- *Storage* - the process whereby a person stores a pesticide or pesticide containers so as to prevent unreasonable adverse effects on the environment and protect the storage life of the product (ARM 4.10.1501).
- *Susceptibility* - the degree to which an organism is affected by a pesticide at a particular level of exposure (ARM 4.10.1501).
- *Toxicity* - the property of a substance or mixture of substances to cause any adverse effects (ARM 4.10.1501).
- *Unreasonable Adverse Effects on the Environment* - unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide (ARM 4.10.1501).
- *Use* - the handling, or release of a pesticide by a person in a manner that is consistent with the label or labeling and in compliance with Department rules on application, storage, mixing, loading, pesticide and container disposal and required supervision (ARM 4.10.1501) [Revised May 1999].
- *Use-Dilution* - a dilution specified on the label or labeling which produces the concentration of the pesticide for a particular purpose or effect (ARM 4.10.1501).
- *Volatility* - the property of a substance or substances to convert into vapor or gas without chemical change (ARM 4.10.1501).
- *Waste Pesticide* - a pesticide:
 1. that may not be used legally because the USEPA or the Department has canceled or suspended the pesticide's registration or has taken other administrative action to prohibit use of that pesticide
 2. that will not be used for reasons including but not limited to product damage, toxicity, or obsolescence
 3. that cannot be disposed of legally or in an economically feasible manner (MCA 80-8-102).

**PESTICIDE MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items	PM.2.1.MT.
Pesticide Applicators	PM.5.1.MT. through PM.5.3.MT.
Pesticide Application	
General	PM.10.1.MT. and PM.10.2.MT.
Agriculture	PM.20.1.MT.
Other	PM.35.1.MT. and PM.35.2.MT.
Documentation	PM.40.1.MT. and PM.40.2.MT.
Disposal	PM.55.1.MT. through PM.55.6.MT.
Bulk Storage	PM.60.1.MT. through PM.60.20.MT.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>PM.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>PM.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>PM.5.</p> <p>PESTICIDE APPLICATORS</p> <p>PM.5.1.MT. Persons engaged in the business of applying pesticides must meet specific requirements (ARM 4.10.202).</p> <p>PM.5.2.MT. Noncommercial applicators of restricted use pesticides must comply with specific requirements (ARM 4.10.201(6)) [Revised February 2005; Revised January 2007].</p> <p>PM.5.3.MT. Licensed applicators must comply with specific application requirements (ARM 4.10.206).</p>	<p>Verify that commercial, public utility, government applicators are properly licensed.</p> <p>Verify that the applicator is complying with the conditions of the license.</p> <p>Verify that, prior to any application of restricted-use pesticides, a commercial, public utility, or government applicator is certified.</p> <p>Verify that an uncertified applicator applies restricted-use pesticides under the special or direct supervision of a certified applicator.</p> <p>Verify that anyone using restricted-use pesticides on lands owned, rented, or leased by themselves or their employer, who cannot be classified as a commercial, public utility, or government pesticide applicator, is licensed as a certified noncommercial applicator.</p> <p>Verify that the applicator complies with the conditions of license.</p> <p>Verify that certified non-commercial applicators use restricted use pesticides on lands owned, rented, or leased by his/her employer or himself/herself.</p> <p>(NOTE: Only one certified-licensed applicator, licensed applicator, or licensed operator is required for each spraying equipment unit when in actual operation.)</p> <p>Verify that the licensed operator uses only those pesticides that the supervising licensed or certified-licensed applicator is qualified to apply.</p> <p>Verify that a licensed operator uses general or restricted use pesticides within 100 miles of the applicator when under the direct supervision of a licensed or certified-licensed applicator, respectively.</p> <p>Verify that a licensed noncommercial operator uses restricted use pesticides under the direct supervision of a certified-licensed noncommercial applicator, that the uses of the pesticides are restricted to the employer's premises or materials on the premises, and that the treated materials are not sold to the general public.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>PESTICIDE APPLICATION</p> <p>PM.10. General</p> <p>PM.10.1.MT. Pesticide applicators must comply with specific requirements (MCA 80-8-305(1) (c) and ARM 4.10.208) [Revised February 2008].</p> <p>PM.10.2.MT. Pesticide applicators must comply with specific notification requirements (ARM 4.10.209 and 4.10.105) [Revised January 2007].</p>	<p>Verify that anyone who handles, applies, or attempts to apply any registered pesticide has an appropriate, complete, and legible label at hand.</p> <p>Verify that pesticides are handled and applied in a manner consistent with the registered labeling, or with the agency or department restrictions that have been placed on the use of that pesticide.</p> <p>Verify that applicators applying USEPA-restricted pesticides notify the owner, lessee, or manager of the property of all precautions and restrictions prior to application of the restricted pesticide.</p> <p>Verify that, if requested the applicator provides a copy of the label to the owner, manager or lessee.</p> <p>(NOTE: Applicators applying environmental protection agency restricted pesticides in an easement or right-of-way situation are not required to notify any person if the applicator is employed by or specifically contracted by the person holding or managing the easement or right-of-way.)</p> <p>Verify that an applicator files a written report to the Department within 48 h of the incident if through his actions or omissions or the actions or omissions of his employees, causes or allows any pesticide to escape onto or to be deposited onto the person, lands, or property of anyone other than the person hiring or contracting for his services.</p>

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<p>PESTICIDE APPLICATION</p> <p>PM.20. Agriculture</p> <p>PM.20.1.MT. Farm applicators that use and apply pesticides must comply with specific requirements (MCA 80-8-209(6), ARM 4.10.401, 4.10.402, and 4.10.404) [Revised July 1997; Revised February 2005; Revised January 2007].</p>	<p>Verify that a farm applicator that uses a restricted-use pesticide has a special use permit or a credential.</p> <p>(NOTE: Certified farm applicators may request the Department to issue credentials to 2 members of his immediate family or employees allowing them to purchase and use pesticides under the applicator's certificate and supervision.)</p> <p>Verify that a person in possession of credentials only purchases for use and application restricted use pesticides for which the farm applicator is qualified and may only use such pesticides upon lands owned, rented, or leased by the farm applicator.</p> <p>Verify that the farm applicator is complying with the conditions of the permit.</p> <p>Verify that all applications made by family members or employees are under the direct supervision of a farm applicator.</p> <p>Verify that the farm applicator does not use or recommend use of a pesticide in a manner inconsistent with registered labeling, or with any USEPA or Department restrictions that have been placed on the use of that pesticide.</p> <p>Verify that restricted-use pesticides are used by farm applicators or their employees only to produce or protect an agricultural commodity on property owned, leased, or rented by the applicator.</p> <p>(NOTE: The certification requirements does not apply to a farm applicator applying nonrestricted pesticides on the applicator's own land or on lands of neighbors if the farm applicator:</p> <ul style="list-style-type: none"> - operates farm property and operates and maintains pesticide application equipment primarily for the applicator's own use - is not regularly engaged in the business of applying pesticides for hire and does not represent to the public that the farm applicator is a pesticide applicator - operates pesticide application equipment only in the vicinity of the applicator's own property and for the accommodation of immediate neighbors.)

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<p>PESTICIDE APPLICATION</p> <p>PM.35. Other</p> <p>PM.35.1.MT. Applicators of restricted-use aquatic herbicides must comply with specific requirements (ARM 4.10.311, 4.10.313, 4.10.314, and 4.10.316) [Revised January 2007].</p>	<p>(NOTE: Aquatic herbicides that contain one or more of the following active ingredients intended for remission of aquatic vegetation, are designated as restricted-use:</p> <ul style="list-style-type: none"> - xylene - acrolein - endothall.) <p>Verify that anyone who uses a restricted-use aquatic herbicide has an aquatic pest control applicator license or permit issued by the Department.</p> <p>Verify that the applicator is complying with the conditions of the license or permit.</p> <p>Verify that the applicator submits for approval a pre-season aquatic vegetation management plan at least 2 wk prior to the first aquatic herbicide application.</p> <p>Verify that the management plan includes the following:</p> <ul style="list-style-type: none"> - a legible map of the ditch showing: <ul style="list-style-type: none"> - all ditch or canal segments, or other surface waters to be treated - all structures along treated segments - all state waters within the general area which treated waters parallel, cross, or could potentially contaminate - all herbicide application points - all areas where treated water will be discharged - application dates - herbicide to be used - amount and rate of herbicide to be used - application techniques, and - weeds to be controlled. <p>Verify that the applicator maintains and updates the plan as changes occur that differ from the original plan submitted to the Department.</p> <p>(NOTE: If no changes in the management plan are anticipated, the applicator must still notify the Department in writing of their intent to treat. This written notification will serve as that year's plan.)</p> <p>Verify that anyone who, through their own actions or the actions of someone under their direction or control, allows a restricted-use aquatic herbicide to escape</p>

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<p>PM.35.2.MT. Applicators who use cyanide capsules in M-44 devices must comply with specific requirements (ARM 4.10.1404) [Revised July 1997; Revised January 2007].</p>	<p>into any public or private waters, or onto any person, lands, or property, provides notice to the Department by the quickest means possible immediately following the misapplication or escape.</p> <p>Verify that applicators that use cyanide capsules in M-44 devices are certified either a certified-licensed or permitted applicator.</p> <p>Verify that applicators using the M-44 device have in their possession the Use Restriction Bulletin (Training Manual for M-44 Applicators) and use the M- 44 device in accordance with the section titled "Use Restrictions for M-44 Cyanide Capsules".</p>

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<p>PESTICIDE APPLICATION</p> <p>PM.40. Documentation</p> <p>PM.40.1.MT. Pesticide applicators must comply with recordkeeping requirements (ARM 4.10.207).</p>	<p>Verify that all licensed and certified-licensed applicators, and their operators, maintain operational records for at least 2 yr.</p> <p>Verify that for every application performed, the application record includes:</p> <ul style="list-style-type: none"> - the name of the applicator or operator applying the pesticide - the date - the specific time of the application - the location, including the property owners or lessee's name and address, and the county or counties in which the pesticide was applied - the specific application site is expressed by township, range, and section numbers, or local identifiable landmarks - right of way applications may be expressed in general terms of identifiable landmarks - nonagricultural applications may specify the site, building, facility, premise, or other identifiable landmark - if the same piece of equipment is used for all applications, then this equipment may be listed only once; if more than one piece of equipment is used, the applicator may assign a number to each piece of equipment and list the equipment once by description and thereafter by number - the pesticide or pesticides used, including the company name, trade name, and the USEPA registration number or the type of formulation - the rate of application, including the formulation rate and the dilutant to be sprayed on a given unit area - the amount of area treated (number of acres, trees, livestock, square feet, or yards, etc.) or for structural, seed treatment, or wood product applications indicate the type of treatment - the primary pest or pests involved - the crop or site treated and stage of crop development, if applicable - weather conditions such as wind speed, direction, and temperature, if applicable. <p>Verify that applicators utilizing 2 or more pesticides in a tank mixture record all data as required for each pesticide in the tank mix.</p> <p>Verify that applicators maintain records on a daily basis not to exceed 24 h from the time of the last application.</p> <p>Verify that application records are open to inspection by authorized employees of</p>

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<p>PM.40.2.MT. Applicators of restricted-use aquatic herbicides must comply with record keeping requirements (ARM 4.10.315).</p>	<p>the Department during all business hours.</p> <p>Verify that applicators submit to the Department a typed or printed report of their use of restricted and general use pesticides every fifth year beginning in calendar year 1990.</p> <p>Verify that the report includes all of the following:</p> <ul style="list-style-type: none"> - a summary of the use of these pesticides by county, month, and total acreage - the product used by company name and trade name - the USEPA registration number or the type of formulation - the report, which documents the fifth year only, is submitted to the Department by 31 January of the next year, on the standard form provided by the Department or on forms approved by the Department <p>(NOTE: Farm applicators are exempt from the requirements of this rule, although they must comply with record keeping requirements when applying restricted-use aquatic herbicides.)</p> <p>Verify that all applicators, including farm applicators, maintain and submit, upon request by the Department, a record of each restricted-use aquatic herbicide application.</p> <p>Verify that the records include all of the following:</p> <ul style="list-style-type: none"> - name of the applicator and/or operator - name of the ditch, canal, or area treated and county where located - application points, and areas of ditch, canal, or other surface waters treated - company name, trade name, and the USEPA registration number or formulation of the herbicides used - date of application and the amount and rate of herbicides used - weeds controlled - type of equipment used and method of application. <p>(NOTE: These reporting requirements satisfy the reporting requirements for all nonfarm applicators contained elsewhere in the regulations.)</p>

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<p>PM.55.</p> <p>DISPOSAL</p> <p>PM.55.1.MT. Persons who discard pesticides or pesticide containers must comply with specific requirements (MCA 80-8-305(1) (a) and ARM 4.10.802) [Revised July 1997].</p> <p>PM.55.2.MT. Empty pesticide containers must be triple or power rinsed (ARM 4.10.803) [Added January 2007; Revised February 2008].</p>	<p>Verify that anyone who discards any pesticide or pesticide container does so in a manner so as not to cause injury to humans, domestic animals, or wildlife, or to pollute any waterway in a way harmful to any wildlife or the environment.</p> <p>Verify all pesticide labeling requirements, including any rinsing requirements, are followed.</p> <p>(NOTE: If labeling requirements differ from state requirements, the stricter of the two must be followed.)</p> <p>Verify that all empty pesticide containers are triple or power rinsed or rinsed by equivalent procedures approved by the Department.</p> <p>Verify that empty pesticide containers are rinsed within 48 hours of the time that the container is rendered empty.</p> <p>Verify that, for triple rinse procedures, the following procedures are used:</p> <ul style="list-style-type: none"> - the minimum amount of rinse material for each rinse is based upon the container size: <ul style="list-style-type: none"> - less than 5 gallons container: 1/4 of the container's volume - 5 gallons or more container: 1/5 of the container's volume - the rinse material is added to the pesticide container - the lid or other closure device is secured and the container agitated to ensure contact of the rinse material with all inside surfaces - the rinsate is poured from the container and the container allowed to drain for 30 seconds - the rinse procedure is repeated a second and third time - the rinse procedure is repeated until no visible residue is present. <p>Verify that, for power rinse procedures, the following procedures are used:</p> <ul style="list-style-type: none"> - the minimum amount of rinse material is 1/2 the volume of the container - the minimum pressure of the rinse material is 15 pounds per square inch - the nozzle is capable of rinsing all inner surfaces of the container - rinsing continues until no visible residues are present - the container is drained for 30 seconds. <p>(NOTE: Any person may apply for department approval of an alternative</p>

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<p>PM.55.3.MT. Pesticide rinsate use must comply with specific requirements (ARM 4.10.804) [Added January 2007; Citation Revised February 2008].</p> <p>PM.55.4.MT. Disposal of pesticide containers must meet specific requirements (ARM 4.10.805 and 4.10.806) [Added January 2007].</p>	<p>procedure for rinsing pesticide containers.)</p> <p>(NOTE: The following are exempt from this requirement:</p> <ul style="list-style-type: none"> - aerosol containers - fiber drums with liners, paper, fiber and plastic bags - containers designated by label for refilling - water soluble containers - compressed gas cylinders - containers from retail pesticides labeled only for home, yard, and garden uses as set forth in ARM 4.10.502 are exempt from this rule.) <p>Verify that rinsates are used or disposed of in a manner that prevents any agricultural, environmental or human health problems.</p> <p>Verify that rinsates are applied as pesticides provided that applicable label directions are followed for each registered pesticide in the rinsate.</p> <p>Verify that rinsates are used as a diluent in pesticide mixtures under the following conditions:</p> <ul style="list-style-type: none"> - the pesticides in the rinsate and the mixture are the same or compatible - tank mixing is not prohibited by the pesticide labels - the application site is listed on each pesticide label. <p>Verify that rinsate is not disposed except as permitted by the label or by Title 75, chapter 10, MCA and rules adopted thereunder.</p> <p>Verify that, if rinsates are temporarily stored, the following conditions are met:</p> <ul style="list-style-type: none"> - not stored longer than one year - rinsate containers have the following information on a label attached to the container: <ul style="list-style-type: none"> - the date that the rinsate was placed in the container - the active ingredients in the rinsate - company name, trade name, formulation and Environment Protection Agency registration number for each product in the rinsate - signal word - name of responsible person(s). <p>Verify that all rinsed metal, glass or plastic pesticide containers are punctured or rendered unusable.</p> <p>Verify that, within 90 days, the containers are disposed of in a sanitary landfill as a solid waste or sent to a Department approved recycler or reconditioner if</p>

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<p>PM.55.5.MT. Incineration or burning of pesticide containers must be approved (ARM 4.10.807) [Added January 2007].</p> <p>PM.55.6.MT. The management of rinsed, recycled, reconditioned, disposed, or refilled pesticide containers must meet specific requirements (ARM 4.10.808) [Added January 2007].</p>	<p>allowed by the label.</p> <p>Verify that empty metal, glass or plastic pesticide containers not required to be rinsed (see PM.55.2.MT.) are disposed of within 7 days, preferably within 48 hours.</p> <p>(NOTE: Metal, glass or plastic containers authorized by the label for refilling are exempt.)</p> <p>Verify that aerosol pesticide containers are handled in the following manner:</p> <ul style="list-style-type: none"> - the cap is replaced - the container is wrapped in absorbent material - the container is discarded in a sanitary landfill - aerosol containers are not punctured, burned or incinerated. <p>Verify that fiber drums with liners and paper or plastic bags are handled in the following manner:</p> <ul style="list-style-type: none"> - clinging particles are loosened by shaking and tapping sides and bottom of the liner or bag and placed in application equipment - the drum and liner or bag is discarded in a sanitary landfill. <p>Verify that label directions, precautions, and procedures for returning the compressed gas cylinders to the dealer, registrant or formulator are followed.</p> <p>Verify that other pesticide containers not described in this checklist item are disposed of according to the label directions.</p> <p>Verify that incineration or burning pesticide containers is approved by the Montana Department of health and environmental sciences.</p> <p>Verify that any person rinsing or preparing a pesticide container for disposal, recycling, reconditioning or refilling follows the personal protective procedures and precautions on the pesticide label.</p> <p>(NOTE: Personal protective procedures may include use of non-absorbent gloves, coveralls, apron, hat and footwear; approved respiratory protection devices; and eye protection.)</p> <p>Verify that any person licensed, certified or permitted are responsible for training,</p>

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	supervising and monitoring employees or any other person involved with the rinsing and/or disposal of pesticide containers. Verify that empty or rinsed pesticide containers are stored within an enclosure that restricts entry by unauthorized persons. Verify that transportation of empty or rinsed pesticide containers are in a manner that protects human health and the environment.

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<p>PM.60.</p> <p>BULK PESTICIDES</p> <p>PM.60.1.MT. Permanent pesticide storage facilities must prepare a spill response plan (ARM 4.10.1108) [Added May 1999; Revised January 2007].</p> <p>PM.60.2.MT. Spills at permanent storage facilities must be reported within 48 h of occurrence (ARM 4.10.1102(2)) [Added May 1999; Revised January 2007].</p>	<p>Verify that permanent storage facilities have a written emergency response plan.</p> <p>Verify that the plan includes all of the following:</p> <ul style="list-style-type: none"> - the names and telephone numbers of the persons and agencies who are to be contacted in the event of a spill - a MSDS for each pesticide stored at the facility - a copy of the label and labeling for each pesticide stored at the facility - the current procedures used for controlling and recovering a spill for each type of pesticide stored - an inventory of all pesticides at the facility and their total volume, updated monthly and when a shipment of greater than 500 gal or 4500 lb is received or dispatched - the type of emergency equipment and supplies and their location to protect personnel, to contain, recover and store in the event of a spill. <p>Verify that a copy of the emergency response plan is located at the facility and a second copy is maintained off the premise to ensure its availability in case of an emergency.</p> <p>Verify that a responsible person is knowledgeable of the locations of plans.</p> <p>(NOTE: Permanent storage facility or PSF means a facility or location where any primary containment capable of storing more than 500 U.S. gallons or 4,500 pounds of formulated bulk pesticides is in-service for more than 14 consecutive days. Primary containment capable of being moved and not in-service at a single site for more than 14 days is not a PSF. PSF will include primary containment and secondary containment.)</p> <p>Verify that the responsible person reports spills to the Department within 48 h of occurrence.</p> <p>(NOTE: The following spills are exempt from the reporting requirement:</p> <ul style="list-style-type: none"> - those confined within secondary containment - those not exceeding an aggregate amount of 5 gal or 100 dry lb (includes formulated product, diluent and other additives).) <p>(NOTE: See PM.60.1.MT. for applicability note.)</p>

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<p>PM.60.3.MT. Pesticides and contaminated material recovered from a spill at permanent storage facilities must be containerized (ARM 4.10.1102(3)) [Added May 1999].</p>	<p>Verify that all pesticides and contaminated material recovered from a spill are placed in containers.</p> <p>Verify that the containers are labeled with the following:</p> <ul style="list-style-type: none"> - the date the material was recovered into the containers - the active ingredients, trade name, and formulation - the environmental protection agency registration number for each product - signal word - name, address, and telephone number of the responsible person. <p>Verify that contained materials are stored, recycled, used, or disposed of in accordance with:</p> <ul style="list-style-type: none"> - the label instructions - the pesticide container rinsing and disposal requirements of ARM 4.10.801 - all state and federal disposal regulations. <p>(NOTE: See PM.60.1.MT. for applicability note.)</p>
<p>PM.60.4.MT. Mobile containers such as railcars or tank trucks used to transfer pesticide to or from permanent storage facilities must use catch basins (ARM 4.10.1103(3)) [Added May 1999].</p>	<p>Verify that mobile containers such as railcars or tank trucks used to transfer pesticide to or from permanent storage facilities use catch basins to recover spills from connections.</p> <p>(NOTE: The catch basins may be temporary and portable.)</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p>
<p>PM.60.5.MT. Permanent storage facilities must meet security requirements (ARM 4.10.1103(4)) [Added May 1999].</p>	<p>Verify that permanent storage facilities are protected against vandalism or unauthorized access.</p> <p>Verify that valves on permanent storage facilities primary containment are closed, locked, or otherwise secured when not in use.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p>
<p>PM.60.6.MT. Permanent storage facilities designed to contain spills of pesticide and pesticide mixtures must meet floor drain requirements (ARM 4.10.1103(5)) [Added</p>	<p>Verify that permanent storage facilities designed to contain spills of pesticide and pesticide mixtures do not have floor drains unless:</p> <ul style="list-style-type: none"> - the entire system has complete and reasonable access for routine inspections - all parts of the drain and its systems are constructed above the normal ground plane of the immediate surrounding area

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<p>May 1999].</p> <p>PM.60.7.MT. Permanent storage facilities must meet operational requirements (ARM 4.10.1106 and 1107) [Added May 1999; Revised January 2007].</p> <p>PM.60.8.MT. Permanent storage facilities must meet maintenance and inspection requirements (ARM 4.10.1109) [Added May 1999].</p> <p>PM.60.9.MT. Permanent</p>	<ul style="list-style-type: none"> - the floor drain is for recovery purposes only - discharge outlets, valves, and gravity drains on existing secondary containment that do not comply with ARM 4.10.1105 are sealed. <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that secondary containment can withstand the weight of any vehicles and storage containers used within it.</p> <p>Verify that, during pesticide transfers outside of secondary containment, catch basins are used under fittings or connections.</p> <p>(NOTE: The catch basins may be temporary and portable.)</p> <p>Verify that an attendant is present during operational activities.</p> <p>Verify that precipitation, other liquids, and debris do not accumulate in secondary containment to the point where required containment capacity is not maintained.</p> <p>Verify that the Department is immediately notified of any spills outside of the secondary containment (see PM.60.2.MT.).</p> <p>Verify that recovered pesticides and contaminated materials are labeled, and stored, recycled, used, or disposed (see PM.60.3.MT.).</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that appurtenances and primary containment holding bulk pesticides are inspected weekly for damage and leakage.</p> <p>Verify that secondary containment is inspected at least monthly during the use season for cracks or other damage to the containment structures that may permit discharge outside the containment structures.</p> <p>Verify that permanent storage facilities and secondary containment are regularly maintained to ensure that the integrity of the sites is maintained.</p> <p>Verify that permanent storage facilities maintain written records of all inspections and maintenance.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that formulated bulk pesticides in undivided quantities of more than 500</p>

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<p>storage facilities must have primary and secondary containment (ARM 4.10.1104(1) and 4.10.1105(1)) [Added May 1999].</p> <p>PM.60.10.MT. Primary containment at permanent storage facilities must meet construction requirements (ARM 4.10.1104(1)(b) through 1104(1) (e)) [Added May 1999].</p> <p>PM.60.11.MT. Primary containment at permanent storage facilities must meet equipment requirements (ARM 4.10.1104(1) (f), (l), and (m)) [Added May 1999].</p>	<p>gal or 4500 lb, stored for more than 14 consecutive days, is in primary containment.</p> <p>Verify that any individual primary containment capable of storing more than 500 gal or 4500 lb and in-service for more than 14 consecutive days is placed (along with its associated appurtenances) within secondary containment.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that primary containment and appurtenances are made of materials that are resistant to corrosion, puncture, and cracking.</p> <p>Verify that materials used in the construction or repair of primary containment and appurtenances do not react chemically or electrolytically with stored pesticides in a way that may weaken the storage container or appurtenances or create a risk of discharge.</p> <p>Verify that materials used for valves, fittings, and repairs are compatible with the materials used in the primary containment.</p> <p>Verify that primary containment and appurtenances handle all operation stresses, taking into account static head, pressure buildup from pumps and compressors, and any other mechanical stresses to which the primary containment and appurtenances may be subject in the foreseeable course of operations.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that every primary containment connection, except a safety relief valve and conservation vent connection, is equipped with a manual shut-off valve.</p> <p>Verify that primary containment is equipped with a liquid level gauging device by which the level of liquid in the storage container can be readily and safely determined.</p> <p>Verify that the gauging device is secured to protect against breakage or vandalism that may result in a discharge.</p> <p>Verify that external eight gauges are equipped with an automatic shut-off valve.</p> <p>(NOTE: A gauging device is not required if the liquid in the container can be measured safely by other means.)</p> <p>Verify that primary containment used for liquid pesticide is equipped with a conservation vent that opens and closes within the designed pressure limits of the</p>

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<p>PM.60.12.MT. Primary containment and appurtenances at permanent storage facilities must be protected against reasonably foreseeable risks of damage (ARM 4.10.1104(1) (g), (h), and (j)) [Added May 1999].</p> <p>PM.60.13.MT. Primary containment at permanent storage facilities not in-service for longer than 2 yr must be cleaned and tested (ARM 4.10.1104(1) (i)) [Added May 1999].</p> <p>PM.60.14.MT. Primary containment at permanent storage facilities must not be filled beyond design capacity (ARM 4.10.1104(1) (k)) [Added May 1999].</p> <p>PM.60.15.MT. Primary containment at permanent storage facilities must meet labeling requirements (ARM 4.10.1104(1) (n)) [Added</p>	<p>container.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that appurtenances are adequately supported to prevent sagging and possible breakage because of gravity and other forces encountered in the ordinary course of operation.</p> <p>Verify that primary containment and appurtenances are protected against reasonably foreseeable risks of damage by moving vehicles or objects.</p> <p>Verify that primary containment is anchored, secured, or elevated to prevent instability or flotation as a result of liquid accumulations within the secondary containment.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that primary containment not in-service for longer than 2 yr is thoroughly cleaned with all hatches secured and all valves or connections secured.</p> <p>Verify that vents are functional.</p> <p>Verify that an integrity test is performed before primary containment is placed back in service.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that primary containment is not be filled beyond its design capacity, taking into account the density of the liquid being stored and thermal expansion during storage.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that primary containment is labeled in accordance with the labeling requirements set forth in the 40 CFR, parts 152 and 156 (July 1, 1996).</p> <p>Verify that the registered product label is attached to primary containment in a prominent location.</p>

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<p>May 1999].</p> <p>PM.60.16.MT. Secondary containment at permanent storage facilities must meet capacity requirements (ARM 4.10.1105(1)(a) and (b)) [Added May 1999].</p> <p>PM.60.17.MT. Secondary containment at permanent storage facilities must meet construction material requirements (ARM 4.10.1105(1) (c)) [Added May 1999].</p> <p>PM.60.18.MT. Secondary containment at permanent storage facilities must meet design requirements (ARM 4.10.1105(1) (d), (e), (f), and (k)) [Added May 1999].</p>	<p>Verify that the label is complete and legible.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that secondary containment not protected from precipitation contains at least 125 percent of the volume of the largest primary containment within the secondary containment plus the displacement of all other primary containment, appurtenances, and other items that cause displacement within the secondary containment.</p> <p>Verify that secondary containment located indoors or under a roof to prevent accumulation of precipitation contains at least 110 percent of the volume of the largest primary containment plus the displacement of all other primary containment, appurtenances, and other items that cause displacement within the secondary containment.</p> <p>Verify that the walls and floors of secondary containment are constructed of steel, poured reinforced concrete, precast concrete modules, solid masonry, synthetic liners, or other materials that will provide secondary containment.</p> <p>Verify that floors and walls are not constructed of clay, natural soil, natural soil clay mixtures, or clay bentonite mixtures.</p> <p>Verify that materials used in the secondary containment are chemically compatible with the pesticides being stored.</p> <p>(NOTE: It is recommended that a written confirmation of compatibility from the manufacturer be kept on file at the PSF or at the nearest office from which the PSF is administered.)</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that secondary containment walls can withstand a full hydrostatic head of any spill and are sealed to prevent leakage.</p> <p>Verify that there is no piping through the outside walls of a secondary containment.</p> <p>Verify that secondary containment floors slope to a liquid tight collection point or sump that allows spilled or deposited material to be easily removed.</p> <p>Verify that secondary containment for pesticides is separate from containment for</p>

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<p>PM.60.19.MT. Secondary containment synthetic liners at permanent storage facilities must meet installation requirements (ARM 4.10.1105(1)(g)) [Added May 1999].</p> <p>PM.60.20.MT. Prefabricated secondary containment at permanent storage facilities must meet specific requirements (ARM 4.10.1105(1)(h) and (i)) [Added May 1999].</p>	<p>fertilizer.</p> <p>(NOTE: Secondary containment for pesticides and fertilizer may have a common wall or partition.)</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that synthetic liners are installed under the supervision of a qualified representative of the manufacturer, a contractor certified by the manufacturer, or a certified engineer.</p> <p>Verify that seams are tested and repaired, if necessary, in accordance with the manufacturer's recommendation.</p> <p>Verify that a record is kept of installation date, life expectancy, and chemical compatibility.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p> <p>Verify that prefabricated secondary containment is composed of a rigid prefabricated basin having a base and walls constructed of steel or synthetic materials that are resistant to corrosion, puncture, and cracking.</p> <p>Verify that prefabricated secondary containment can withstand all foreseeable loading conditions, including the primary containment load and a full hydrostatic head of any spill.</p> <p>Verify that multiple basins are connected in a manner that assures an adequate transfer of discharge between basins.</p> <p>(NOTE: See PM.60.1.MT. for applicability note.)</p>

SECTION 8

PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for POL Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Incorporation by Reference

The State of Montana incorporates by reference 40 CFR 279 (specifying standards for management of used oil) except for 40 CFR 279.82(b), pertaining to the use of used oil as a dust suppressant, is not adopted and incorporated by reference (ARM 17.53.1401 and 17.53.1402) [Revised February 2008].

**PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items	PO.2.1.MT.
Discharges/Spills	PO.15.1.MT.
State-Specific Used Oil Requirements	PO.95.1.MT.

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<p>PO.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>PO.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>PO.15.</p> <p>DISCHARGES/ SPILLS</p> <p>PO.15.1.MT. Discharges/spills of POL products should be reported (Management Practice).</p>	<p>(NOTE: The reporting requirement for discharges/spills of POL is a management practice based on the policy of the Department of Environmental Quality. Discharges/spills should be reported to the Montana Emergency Response Commission, 406/444-6911.)</p> <p>Verify that discharge/spills of refined POL product of 25 gal or more are reported.</p> <p>Verify the discharges/spills of crude oil of 10 bbl or more are reported.</p> <p>Verify that discharges/spills of any amount of POL product or crude oil into surface water is reported.</p> <p>(NOTE: Spill reports from USTs are required under ST.80.1.MT.)</p>

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<p>PO.95.</p> <p>STATE-SPECIFIC USED OIL REQUIREMENTS</p> <p>PO.95.1.MT. Each motor oil retailer and wholesaler must visibly display a sign indicating the nearest waste oil recycling collection center (Montana Code Annotated (MCA) 75-10-1101).</p>	<p>Verify that motor oil retailers and wholesalers display at an appropriate location within the store or outlet a sign indicating the location of the nearest waste oil recycling collection center if the center is within 25 m i o f th e r etailer o r wholesaler.</p>

SECTION 9

SOLID WASTE MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Solid Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Airport* - a public use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities (Administrative Rules of Montana Title 17, Chapter 50, Section 502 (ARM 17.50.502)).
- *Aquifer* - any geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells or springs (ARM 17.50.502).
- *Barn Waste* - the bedding, waste feed, manure and other animal excretions generated from the operation of a barn or feedlot (ARM 17.50.403) [Added February 2005].
- *Board* - the Board of Health and Environmental Sciences (ARM 17.50.403).
- *Closed Unit* - any solid waste disposal unit, trench, cell, or area that no longer receives solid waste and has been closed in accordance with Department rules (ARM 17.50.502).
- *Closure* - the process by which an owner or operator of a facility closes all or part of a facility in accordance with a Department approved closure plan and all applicable closure requirements specified in ARM 17.50.530 (ARM 17.50.502).
- *Co-Composting* - the simultaneous composting of two or more diverse waste streams (ARM 17.50.403).
- *Commercial Waste* - all types of solid wastes generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, and non-processing wastes such as office and packing wastes generated at industrial facilities (ARM 17.50.502) [Added July 1998].
- *Commercial Waste* - waste generated from stores, offices, restaurants, food processing facilities, warehouses, and other non-manufacturing activities, and non-processing wastes such as office and packing waste generated at industrial facilities (ARM 17.50.403) [Added February 2005].
- *Compacted Soil Liner* - recompact native or amended soil with a minimum thickness of 3 ft with adequate moisture content and compaction to achieve a hydraulic conductivity of less than or equal to 1×10^{-7} cm/s (ARM 17.50.502).
- *Composting* - the controlled biological decomposition of organic solid wastes under aerobic conditions (ARM 17.50.403).
- *Construction and Demolition Waste* - the waste building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings, and

other structures once municipal, household, commercial and industrial wastes have been removed (ARM 17.50.502) [Revised July 1998].

- *Contaminated Soil* - soil, rocks, dirt, or earth that has been made impure by contact, commingling, or consolidation with organic compounds such as petroleum hydrocarbons. The term does not include soils contaminated solely by inorganic metals or soils that meet the definition of hazardous waste under ARM 17.54.201 (ARM 17.50.403) [Added February 2005].
- *Department* - the Department of Health and Environmental Sciences.
- *Disease Vectors* - rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting diseases to humans (ARM 17.50.502).
- *Disposal Facility Classifications* - disposal facilities are classified according to their respective abilities to handle various types of solid waste. Systems of acceptable disposal may entail containment of waste with assured protection against leachate migration or may take advantage of natural treatment processes such as evaporation, chemical and microbiological degradation, filtration, adsorption and attenuation. Solid waste management facilities may involve ponds, pits, lagoons, land spreading areas, impoundments, or landfills. Although facilities are broadly classified as to the solid waste groups they may accept, specific restrictions may be placed by the Department on individual disposal units or disposal areas. As an example, many Class II landfills may not be acceptable places for the disposal of Group II liquids or sludge. Such restrictions, if any are warranted, shall be specified on the solid waste management system license. There are 3 types of disposal facilities: Class II, Class III, and Class IV (ARM 17.50.504) [Added July 1998]:
 1. Generally, facilities licensed to operate as Class II solid waste management systems are capable of receiving Group II, Group III, and Group IV wastes but not regulated hazardous wastes. Group III and Group IV waste may be managed in Class II units or separate units at the facility. Household waste, although it may contain some household hazardous waste or other non-regulated hazardous waste, may be disposed of at Class II landfills.
 2. Facilities licensed as Class III landfills may accept only Group III wastes.
 3. Facilities licensed as Class IV landfills may accept only Group III or Group IV wastes. Conditionally exempt small quantity generator hazardous waste that is generated as a part of a construction or demolition project and that cannot practicably be removed from the construction and demolition waste may be included in waste disposed of in Class IV units.
- *Dispose or Disposal* - the discharge, injection, deposit, dumping, spilling, leaking, or placing of any solid waste into or onto the land so that the solid waste or any constituent of it may enter the environment or be emitted into the air or discharged into any waters, including groundwater (ARM 17.50.403).
- *Facility* - a manufacturing, processing, or assembly establishment; a transportation terminal, or a treatment, storage, or disposal unit operated by a person at one site. This definition does not include infectious waste incinerators or other facilities that:
 1. control the generation, transportation, treatment, storage, or disposal of infectious wastes
 2. are owned by and operated as a part of a profession, occupation, or health care facility that generated infectious waste and that is licensed by a board or Department of the state
 3. do not control the treatment, storage, or disposal of noninfectious solid waste (ARM 17.50.403).
- *Farm Waste* - waste from farms that is not household waste, hazardous waste, or barn waste. It includes, but is not limited to, cull potatoes and spoiled crops such as hay or grain (ARM 17.50.403) [Added February 2005].
- *Floodplain* - lowland and relatively flat areas adjoining inland waters, including flood-prone areas, that are inundated by the 100-yr flood (ARM 17.50.502).
- *Generation* - the act or process of producing waste materials (ARM 17.50.502).

- *Household Hazardous Wastes* - products commonly used in the home that due to corrosivity, ignitability, reactivity, toxicity, or other chemical or physical properties are dangerous to human health or the environment. Household hazardous waste includes but is not limited to cleaning, home maintenance, automobile, personal care, and yard maintenance products (ARM 17.50.403).
- *Household Waste* - any solid waste derived from households, including single and multiple residences, hotels and motels, crew quarters, campgrounds, and other public recreation and public land management facilities (ARM 17.50.403).
- *Industrial Solid Waste* - solid wastes generated by manufacturing or industrial processes that are not a hazardous waste (ARM 17.50.502).
- *Infectious* - capable of producing disease. To be infectious, the following four factors simultaneously must be present (MCA 75-10-1003) [Added January 2007]:
 - a. virulence, which is the ability of microorganisms to cause disease
 - b. dose, which is microorganisms in a quantity sufficient to cause infection
 - c. portal of entry, which is an opening or route of access into a human body
 - d. host susceptibility, which means the host's natural resistance is incapable of preventing infection.
- *Infectious Waste* -
 1. wastes capable of producing disease (ARM 75.10.1003)
 2. waste capable of producing infectious disease. Infectious waste includes but is not limited to (MCA 75-10-1003) [Added January 2007]:
 - a. cultures and stocks of infectious agents and associated biologicals;
 - b. human pathological waste, including tissues, organs, and body parts removed during surgery or an autopsy;
 - c. free-flowing waste human blood and products of blood, including serum, plasma, and other blood components and items soaked or saturated with blood; and
 - d. sharps that have been used in patient care, medical research, or industrial laboratory Infectious Waste - waste capable of producing infectious disease.
- *Landfill* - an area of land or an excavation where wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile (ARM 17.50.502).
- *Lateral Expansion* - a horizontal expansion of the waste boundaries of an existing disposal unit (ARM 17.50.502).
- *Leachate* - a liquid that has contacted, passed, through, or emerged from solid waste and contains soluble, suspended, or miscible materials removed from the waste (ARM 17.50.502).
- *Liquid Waste* - any waste material that is determined to contain free liquids as defined by Method 9095, as described in *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods* (USEPA Pub. No. SW-846) (ARM 17.50.502).
- *Lower Explosive Limit* - the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25 °C and atmospheric pressure (ARM 17.50.502).
- *Municipal Solid Waste Composting* - municipal solid waste composting and is the controlled degradation of municipal solid wastes. This includes the composting of municipal solid wastes after some form of preprocessing to remove noncombustible inorganic materials (ARM 17.50.403).

- *Municipal Solid Waste Landfill* - any publicly or privately owned landfill or landfill unit that receives household waste or other types of waste, including commercial wastes, nonhazardous sludge, and industrial solid waste. The term does not include land application units, surface impoundments, injection wells, or waste piles (ARM 17.50.403).
- *New Unit* - any solid waste disposal unit that has not received waste prior to 9 October 1993 (ARM 17.50.502).
- *Open Burning* - combustion of solid wastes without:
 1. control of combustion air to maintain adequate temperature for efficient combustion
 2. containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion
 3. control of the emission of the combustion products (ARM 17.50.502).
- *Operator* - the person responsible for the overall operation of a facility or part of a facility (ARM 17.50.502).
- *Owner* - means the person who owns a facility or part of a facility (ARM 17.50.502).
- *Person* - an individual, firm, partnership, company, association, corporation, city, town, local governmental entity, or any other governmental or private entity, whether organized for profit or not (ARM 17.50.403).
- *Polychlorinated Biphenyls (PCB) Wastes* - those PCBs or PCB items subject to regulation under Title 40, Code of Federal Regulations, Part 761 (ARM 17.50.502).
- *Post-Consumer Recycling* - the reuse of materials generated from residential and commercial waste, excluding recycling of material from industrial processes that has not reached the consumer, such as glass broken in the manufacturing process (ARM 17.50.403).
- *Recyclables* - materials that still have useful physical or chemical properties after serving their original purpose and that can, therefore, be reused or remanufactured into additional products (ARM 17.50.403).
- *Recycling* - the process by which materials otherwise destined for disposal are collected, reprocessed or remanufactured, and reused (ARM 17.50.403).
- *Refuse Container* - a portable facility used for the temporary storage of solid waste. Containers are emptied periodically and the solid waste is then taken to a disposal or resource recovery facility (ARM 17.50.502).
- *Regulated Hazardous Waste* - a solid waste that is a hazardous waste, as defined in Title 40, Code of Federal Regulations, Part 261.3, that is not excluded from regulation as a hazardous waste under Title 40, Code of Federal Regulations, Part 261.4(b) or was not generated by a conditionally exempt small quantity generator as defined in Title 40, Code of Federal Regulations, Part 261.5 (ARM 17.50.502).
- *Residue* - the materials remaining after processing, incineration, composting, or recycling has been completed. Residues are usually disposed of in sanitary landfills (ARM 17.50.403).
- *Resource Recovery* - the recovery of materials or energy from solid waste (ARM 17.50.403).
- *Resource Recovery Facility* - a facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse (ARM 17.50.403).
- *Resource Recovery System* - a solid waste management system which provides for the collection, separation, recycling, or recovery of solid wastes, including disposal of nonrecoverable waste residues (ARM 17.50.403).

- *Reuse* - the use of a product more than once in its same form for the same purpose: e.g., a soft drink bottle is reused when it is returned to the bottling company for refilling (ARM 17.50.403).
- *Runoff* - any rainwater, leachate, or other liquid that drains over and from any part of a facility (ARM 17.50.502).
- *Run-On* - any rainwater, leachate, or other liquid that drains over and onto any part of a facility (ARM 17.50.502).
- *Seismic Impact Zone* - an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 250 yr (ARM 17.50.502).
- *Sharps* - any discarded health care article that may cause punctures or cuts, including but not limited to needles, scalpel blades, and broken glass that may be contaminated with blood (MCA 75-10-1003) [Added January 2007].
- *Sludge* - any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant (ARM 17.50.502).
- *Solid Waste* - all putrescible and nonputrescible wastes, including but not limited to garbage; rubbish; refuse; ashes; sludge from sewage treatment plants, water supply treatment plants, or air pollution control facilities; construction and demolition wastes; dead animals, including offal; discarded home and industrial appliances; and wood products or wood byproducts; and inert materials. "Solid wastes" does not mean municipal sewage, industrial wastewater effluents, mining wastes regulated under the Mining and Reclamation Law administered by the Department of State Lands, slash and forest debris regulated under the laws administered by the Department of State Lands, or marketable byproducts (ARM 17.50.403).
- *Solid Waste Management System* - a system which controls the storage, treatment, recycling, recovery, or disposal of solid waste. Such a system may be composed of one or more solid waste management facilities; this term does not include hazardous waste management systems (ARM 17.50.403).
- *Source Reduction* - the design, manufacture, acquisition, and reuse of materials so as to minimize the quantity and/or toxicity of waste produced. Source reduction prevents waste either by redesigning products or by otherwise changing societal patterns of consumption, use, and waste generation (ARM 17.50.403).
- *Source Separation* - the segregation of specific materials at the point of generation for separate collection. Residences source separate recyclables as part of a curbside recycling program (ARM 17.50.403).
- *Steam Sterilization* - a treatment method for infectious waste using saturated steam within a pressure vessel (known as a steam sterilizer, autoclave, or retort) at a time, for a period of time, and at a temperature sufficient to kill infectious agents within the waste (MCA 75-10-1003) [Added January 2007].
- *Storage* - the actual or intended containment of wastes, either on a temporary basis or for a period of years (ARM 17.50.403).
- *Structural Components* - liners, leachate collection systems, final covers, run-on/runoff systems, and any other component used in the construction and operation of a solid waste management system that is necessary for protection of human health and the environment (ARM 17.50.502).
- *Substantial Change* - any change in the operation, ownership, or siting of a facility in which review by the Department takes more than 24 h (ARM 17.50.403).

- *Surface Impoundment* - a facility or part of a facility that is a natural topographic depression, human made excavation, or diked area formed primarily of earthen materials (although it may be lined with human made materials), that is designed to hold an accumulation of liquid wastes or wastes containing free liquids and is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons (ARM 17.50.502).
- *Transfer Station* - a solid waste management facility that can have a combination of structures, machinery, or devices, where solid waste is taken from collection vehicles (public, commercial, or private) and placed in other transportation units for movement to another solid waste management facility (ARM 17.50.403).
- *Transport* - the movement of wastes from the point of generation to any intermediate points and finally to the point of ultimate storage or disposal (ARM 17.50.403).
- *Treatment* –
 1. a method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any solid waste so as to neutralize the waste or so as to render it safer for transport, amenable for recovery, amenable for storage, or reduced in volume (ARM 17.50.403).
 2. the application of a method, technique, or process, including incineration, designed to render infectious waste sterile (MCA 75-10-1003) [Added January 2007].
- *Unit* - a discrete area of land or an excavation used for the landfilling or other disposal of solid waste (ARM 17.50.502).
- *Uppermost Aquifer* - the geological formation nearest the natural ground surface and aquifer, as well as lower aquifers, that is hydraulically interconnected with this aquifer within the facility's property boundary (ARM 17.50.502).
- *Waste* - useless, unwanted, or discarded materials in any physical form, i.e., solid, semisolid, liquid, or gaseous. The term is not intended to apply to byproducts or materials which have economic value and may be used by the person producing the material or sold to another person for resource recovery or use in a beneficial manner (ARM 17.50.502).
- *Waste Groups* - solid wastes are grouped based on physical and chemical characteristics which determine the degree of care required in handling and disposal and the potential of the wastes for causing environmental degradation or public health hazards. Solid wastes are categorized into two groups (ARM 17.50.503) [Added July 1998]:
 1. Group II wastes include decomposable wastes and mixed solid wastes containing decomposable material but exclude regulated hazardous wastes. Examples include, but are not limited to, the following:
 - a. municipal and household solid wastes such as garbage and putrescible organic materials, paper, cardboard, cloth, glass, metal, plastics, street sweepings, yard and garden wastes, digested sewage treatment sludges, water treatment sludges, ashes, dead animals, offal, discarded appliances, abandoned automobiles, and hospital and medical facility wastes, provided that infectious wastes have been rendered noninfectious to prevent the danger of disease; and
 - b. commercial and industrial solid wastes such as packaging materials, liquid or solid industrial process wastes which are chemically or biologically decomposable, crop residues, manure, chemical fertilizers, and emptied pesticide containers which have been triple rinsed or processed by methods approved by the Department.
 2. Group III wastes include wood wastes and non-water soluble solids. These wastes are characterized by their general inert nature and low potential for adverse environmental impacts. Examples include, but are not limited to, the following:
 - a. inert solid waste such as unpainted brick, dirt, rock and concrete;
 - b. clean, untreated, unglued wood materials, brush, unpainted or untreated lumber, and vehicle tires; and

c. industrial mineral wastes which are essentially inert and non-water soluble and do not contain hazardous waste constituents.

3. Group IV wastes include construction and demolition wastes, and asphalt, except regulated hazardous wastes.

(NOTE: Clean fill is not regulated under this subchapter.)

- *Waste Pile* - any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage (ARM 17.50.502).
- *Wetlands* - those areas that are inundated or saturated by surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (ARM 17.50.502).
- *Yard Waste* - leaves, grass clippings, prunings, and other natural organic matter discarded from yards, gardens, parks, etc. (ARM 17.50.403).

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REFER TO CHECKLIST ITEMS:

Missing Checklist Items	SO.2.1.MT.
State-Specific Requirements	
General	SO.5.1.MT.
Permits/Notifications/Exemptions	SO.6.1.MT. and SO.6.2.MT.
Design	SO.7.1.MT.
Operations	SO.8.1.MT. through SO.8.5.MT.
Specific Wastes	SO.9.1.MT.
Transportation	SO.20.1.MT.
Medical Waste	
Generators	SO.105.1.MT. through SO.105.4.MT.
Containers/Labeling/Storage Areas	SO.110.1.MT.
Transportation	SO.115.1.MT.
Treatment/Disposal	SO.120.1.MT.
Landfills	SO.135.1.MT. through SO.135.19.MT.
Waste Tire Management	SO.160.1.MT.

**SOLID WASTE MANAGEMENT
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REFER TO APPENDIX NUMBERS:

REFER TO APPENDIX TITLES:

9-1

Maximum Concentrations of Contaminants in Aquifers

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>SO.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>SO.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>SO.5. General</p> <p>SO.5.1.MT. Solid waste must be disposed of according to state requirements (MCA 75-10-212) [Revised January 2007].</p>	<p>Verify that no person dumps any garbage, dead animals, debris, or refuse in any of the following areas:</p> <ul style="list-style-type: none"> - any highway, road, street, or alley of the state - any public property, highway, street, or alley under the control of the state of Montana or any political subdivision thereof - within 200 yards of such public highway, road, street, or alley or public property - any property where hunting, fishing, or other recreation is permitted, provided this subsection does not apply to the owner or those disposing of debris with the owner's consent.

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>SO.6. Permits/Notifications/Exemptions</p> <p>SO.6.1.MT. All persons disposing of solid wastes or operating a solid waste management system or large composter operations must have a Department-issued license (ARM 17.50.410(1)).</p> <p>SO.6.2.MT. [Deleted January 2007].</p>	<p>Verify that anyone disposing of solid wastes or operating a solid waste management system has a Department-issued license.</p> <p>(NOTE: MCA 75.10.218 repealed.)</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>SO.7. Design</p> <p>SO.7.1.MT. Solid waste management systems must comply with general location requirements (ARM 17.50.505).</p>	<p>Verify that the solid waste management system complies with the following requirements:</p> <ul style="list-style-type: none"> - sufficient acreage of suitable land is available - roads and bridges are capable of supporting loaded vehicles during all types of weather - facilities are not located in the 100-yr floodplain - facilities are located which will prevent the pollution of ground and surface waters and public and private water supply systems - drainage structures are installed where necessary to prevent surface runoff from entering waste management areas - only Class II disposal facilities are placed where underlying geological formations may allow for contamination of groundwater, or where springs exist - location of the facility allows for reclamation and reuse of the land. <p>Verify that the following special requirements are followed when applicable:</p> <ul style="list-style-type: none"> - Class II landfills confine solid waste and leachate to the disposal facility - Group II wastes are adequately separated from groundwater - facilities which manage Group II waste follow the following airport safety requirements: <ul style="list-style-type: none"> - facilities are not within 10,000 ft (3048 m) of any airport runway used by turbojet aircraft, unless approved by the Department and Federal Aviation Administration - facilities are not within 5000 ft (1534 m) of any airport runway used only by piston-type aircraft, unless approved by the Department and Federal Aviation Administration - facilities within a 5-mile radius of any airport runway used by turbojet or piston-type aircraft notify the affected airport and the Federal Aviation Administration, copies of these notices and responses are submitted to the Department within 30 days of the date they were sent or received - new disposal units or lateral expansions are not located in wetlands - new disposal units or lateral expansion is not located within 200 ft of a fault that has had displacement in Holocene time unless it is approved by the Department - Class II disposal units or lateral expansions are not located in seismic impact zones, unless approved by the Department - Class II disposal units and lateral extensions in unstable areas demonstrate to

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	<p>the Department that engineering measures have been incorporated into the unit's design to ensure that the integrity of the structural components.</p> <p>(NOTE: Existing facilities that cannot meet the standards of this regulation must close by 9 October 1996, or 2 yr after this date upon Departmental approval.)</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>SO.8. Operations</p> <p>SO.8.1.MT. Owners or operators of solid waste landfills or incinerators must submit an annual report to the Department (ARM 17.50.412(1)).</p> <p>SO.8.2.MT. Solid waste management systems must follow general operational and maintenance requirements (ARM 17.50.510) [Revised January 2007].</p> <p>SO.8.3.MT. Owners or operators of disposal sites that at any time accept household waste must monitor groundwater (MCA 75-10-207 and ARM 17.50.701) [Revised January 2007].</p>	<p>Verify that the owner/operator of the solid waste landfill or incinerator submits an annual report to the Department by 1 April of each year on a form provided by the Department.</p> <p>Verify that solid waste management system maintained and operated in conformance with the plan of operation and maintenance approved by the Department, all local zoning, system planning, building, and protective covenant provisions, and any other legal requirements that may be in effect.</p> <p>Verify that the solid waste management system follows the following operation and maintenance requirements:</p> <ul style="list-style-type: none"> - open burning is prohibited without Department approval - open burning is performed according to Departmental rules - dumping of solid wastes is confined to areas within the disposal facility that can be effectively maintained and operated - public access is controlled to prevent unauthorized vehicular traffic and illegal dumping - effective means of litter control are in effect - effective techniques for the prevention or control of disease vectors is in effect - salvaging is prohibited without Department approval. <p>Verify that the owners and operators of municipal solid waste landfills and other disposal sites that at any time accepted household waste, that were in operation as of October 1, 1989, and that serve a geographic area with a population of 5,000 or more persons as determined by the most recent census are required to monitor ground water as specified by the Department.</p> <p>Verify that all new Class I I and Class I V units are in compliance with groundwater monitoring with initial sampling completed before waste can be placed in the unit.</p>

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<p>SO.8.4.MT. Solid waste treatment facilities and resource recovery facilities must be designed and operated within certain requirements (ARM 17.50.511(4)).</p> <p>SO.8.5.MT. Solid waste management systems must have an operation and maintenance plan (ARM 17.50.509).</p>	<p>Verify that Class II disposal units and lateral expansions and all MSWLFs that serve a geographic area with a population of 4,999 persons or less, except those with a small community exemption, comply with groundwater requirements.</p> <p>Verify that owners and operators of municipal solid waste landfills and other disposal sites have Department approved plans for accomplishing ground water monitoring.</p> <p>Verify that the solid waste treatment facility is designed and operated to control:</p> <ul style="list-style-type: none"> - litter - insects - rodents - odor - aesthetics - residue - wastewater treatment - air pollutants. <p>Verify the solid waste management system has an operation and maintenance plan and that it includes the following:</p> <ul style="list-style-type: none"> - if for use by the public, what days and times the components of the system will be open - how access and traffic will be restricted or controlled - proposed equipment the system will utilize - general description of the proposed solid waste management system - maintenance schedule concerning solid waste handling and disposal - provision for litter control, if applicable - types of waste the proposed facility will accept - plan for reclamation of the disposal facility and the land's ultimate use as required under ARM 17.50.530 - any methane monitoring plans required under ARM 17.50.521 - any ground water monitoring plan required under ARM 17.50.701, et. seq. - any plans required for composting or for handling of special waste streams.

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>SO.9. Specific Wastes</p> <p>SO.9.1.MT. Dead animals must be disposed of according to specific requirements (MCA 75-10-213).</p>	<p>Verify that dead animals are not deposited in the following areas:</p> <ul style="list-style-type: none"> - in any lake, river, creek, pond, reservoir, road, street, alley, lot, or field - within 1 mi of the residence of any person unless it is burned or buried at least 2 ft underground.

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<p>SO.20.</p> <p>TRANSPORTATION</p> <p>SO.20.1.MT. Solid waste transportation must be performed in a manner that prevents its release from the transfer vehicle (ARM 17.50.523).</p>	<p>Verify that the vehicle transporting solid waste does not discharge, dump, spill, or leak the solid wastes.</p>

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<p>MEDICAL WASTE</p> <p>SO.105. Generators</p> <p>SO.105.1.MT. Infectious wastes must be separated from ordinary waste (MCA 75-10-1005(1) and (5)).</p> <p>SO.105.2.MT. Infectious wastes handling must prevent compaction or other mechanical manipulation that would cause releases (MCA 75-10-1005(3)). [Revised February 2005].</p> <p>SO.105.3.MT. Handlers and managers of infectious wastes must be trained (MCA 75-10-1005(8)).</p> <p>SO.105.4.MT. Generators and transporters of infectious wastes must develop a contingency plan to handle spills and equipment failures</p>	<p>Verify that infectious wastes are separated from ordinary wastes and stored in distinct storage containers marked with a biohazard warning label.</p> <p>Verify that sharps are placed in puncture-resistant containers that are taped closed or capped securely.</p> <p>Verify that waste, other than sharps, are placed in moisture proof disposable containers, which are strong enough to prevent ripping, tearing, or bursting under normal conditions of use.</p> <p>(NOTE: If infectious wastes are rendered noninfectious and is no longer biologically hazardous, it may be mixed with and disposed of with ordinary waste in the following manner: - steam-sterilized waste is labeled identifying it as such with heat-sensitive tape or bagged in marked autoclavable bags - chemically treated waste is appropriately labeled.)</p> <p>Verify that the handling of infectious waste is done in a manner to prevent compaction or other mechanical manipulation that might cause the release of infectious agents.</p> <p>Verify that employees who handle or manage infectious wastes are trained.</p> <p>Verify that the generator and transporter of infectious wastes develop a contingency plan to handle spills and equipment failures.</p>

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(MCA 75-10-1005(9)).	

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<p>MEDICAL WASTE</p> <p>SO.110. Containers/Labeling/ Storage Areas</p> <p>SO.110.1.MT. Infectious wastes must be stored in a secured area (MCA 75-10-1005(2)).</p>	<p>Verify that infectious wastes are stored in a secured area that prevents access by unauthorized personnel and are clearly marked or labeled as infectious.</p>

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<p>MEDICAL WASTE</p> <p>SO.115. Transportation</p> <p>SO.115.1.MT. Infectious waste transportation must follow specific guidelines (MCA 75-10-1005(6)).</p>	<p>Verify that only the following persons transport infectious wastes:</p> <ul style="list-style-type: none"> - the generator - a municipal solid waste service - a regulated commercial hauler.

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<p>MEDICAL WASTE</p> <p>SO.120. Treatment/Disposal</p> <p>SO.120.1.MT. Treatment and disposal of infectious wastes must follow specific guidelines (MCA 75-10-1005(4) and (7)).</p>	<p>Verify that infectious wastes are treated and disposed of in the following manner:</p> <ul style="list-style-type: none"> - incineration with complete combustion that reduces infectious wastes to carbonized or mineralized ash - steam sterilization that renders infectious wastes noninfectious - sterilization by standard chemical techniques or by any scientifically proven techniques approved by state and Federal authorities. <p>Verify that liquid and semiliquid infectious wastes discharged into sewage systems are first sterilized by chemical treatment.</p> <p>Verify that fetal remains or recognizable body parts other than teeth are disposed of by incineration or interment.</p> <p>Verify that only treated wastes are disposed of in licensed landfills.</p>

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<p>SO.135.</p> <p>LANDFILLS</p> <p>SO.135.1.MT. Landfills must meet the following location restrictions (ARM 17.50.505(2) (a), (j) and (k)) [Added July 1998].</p> <p>SO.135.2.MT. Class I I landfill units and lateral expansions must follow specific design requirements (ARM 17.50.506 (1) through (16)) [Citation Revised July 1998].</p>	<p>(NOTE: Landfills are subject to all of the requirements for solid waste management facilities.)</p> <p>Verify that facilities licensed and operated as Class I I landfills confine solid waste and leachate to the disposal facility, unless Department approval is obtained for treatment at another facility.</p> <p>Verify that Class III landfills are not located on the banks of or in a live or intermittent stream or water saturated areas, such as marshes or deep gravel pits that contain exposed ground water.</p> <p>Verify that Class IV landfill units are not located in wetlands or in a 100 year flood plain.</p> <p>Verify that the new Class I I landfill or lateral expansion meets the following design requirements:</p> <ul style="list-style-type: none"> - a Department-approved design that assures concentration values listed in Appendix 1 will not be exceeded in the uppermost aquifer at the relevant point of compliance - lined with a composite liner and a leachate collection system as follows: - the liner consists of a flexible upper membrane layer at least 30 mil and a lower component of at least 2 ft layer of compacted soil with a hydrolytic conductivity of no more than 1×10^{-7} cm/s - the leachate collection and removal system is designed and constructed to maintain less than a 30 cm depth of leachate over the liner. <p>Verify that existing Class I I landfills have a leachate collection and removal system and a barrier layer as follows:</p> <ul style="list-style-type: none"> - the barrier layer is an engineered improvement, unless the facility received permission from the Departmental not to create a barrier - the leachate collection and removal system is designed and constructed to maintain less than a depth of 30 cm of leachate at any place over the barrier layer of base of the landfill unit. <p>(NOTE: When a compacted soil liner or recomputed natural lithology is used as the barrier layer, the minimum slope of the base of the overlying leachate collection is at least 2 percent and side slopes do not exceed 33 percent.)</p>

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<p>SO.135.3.MT. Class I V landfill units and lateral expansions must meet specific design requirements (ARM 17.50.506(18)) [Added July 1998].</p> <p>SO.135.4.MT. Class I I landfills must follow specific operational requirements (ARM 17.50.511 (1) (a) through (e), (m) and (n)) [Citation Revised July 1998].</p>	<p>Verify that leachate collection systems meet the following criteria:</p> <ul style="list-style-type: none"> - approved by the Department - allows for safe removal and treatment of collected leachate - accounts for potential increased hydraulic head in the removal system - returns leachate to the rainfall unit or recirculates leachate only in landfill units with a composite liner system. <p>Verify that Construction Quality Control and Construction Quality Assurance plans are approved by the Department.</p> <p>(NOTE: Class II landfill units and lateral extensions, upon Department approval, may claim exemption from this rule if they meet the requirements for a small community landfill.)</p> <p>Verify that Class I V I landfill units and lateral expansions are constructed in accordance with a design approved by the Department.</p> <p>Verify that the Class II landfill keeps the following operational and maintenance requirements:</p> <ul style="list-style-type: none"> - at the end of each operational day, the solid waste is covered with at least 6 in. of approved earth cover - any portion of the Class II landfill that does not receive additional solid wastes within 90 days is covered with an intermediate cover of at least 1 ft of approved earthen materials, unless the Department approves otherwise - landfills are fenced to prevent unauthorized access - when transfer stations are utilized a part of the management system, containers are kept in a sanitary manner and emptied at least once a week. <p>Verify that a plan is implemented to detect and prevent the disposal of PCBs and hazardous wastes, including at a minimum:</p> <ul style="list-style-type: none"> - random inspections of incoming loads, unless other steps are taken to ensure that incoming loads do not contain regulated hazardous wastes or PCBs - records of any inspections - training of facility personnel to recognize regulated hazardous wastes and PCB wastes - notification to the Department if a regulated hazardous waste or PCB waste is discovered at the facility.

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<p>17.50.511(2)).</p> <p>SO.135.7.MT. Class I V landfills must meet specific operating requirements (ARM 17. 50.511(3) (a) and (b)) [Added July 1998].</p> <p>SO.135.8.MT. Class I V landfills must meet additional general requirements (ARM 17.50.511(3) (c)) [A dded July 1998].</p> <p>SO.135.9.MT. All solid waste facilities required to</p>	<p>Verify that an approved cover is applied a minimum of every 3 months unless more frequent cover is needed to control litter.</p> <p>Verify that the plan of operations at Class IV landfill units excludes Group II waste.</p> <p>Verify that conditionally exempt small quantity generator wastes are removed to the greatest extent practicable.</p> <p>Verify that liquid paints, solvents, glues, resins, dyes, oils, pesticides, and other household hazardous waste are removed from buildings prior to demolition.</p> <p>Verify that the Class IV landfill is fenced to prevent unauthorized access.</p> <p>Verify that a plan is implemented to detect and prevent the disposal of PCBs and hazardous wastes, including at a minimum:</p> <ul style="list-style-type: none"> - random inspections of incoming loads, unless other steps are take to ensure that incoming loads do not contain regulated hazardous wastes or PCBs - records of any inspections - training of facility personnel to recognize regulated hazardous wastes and PCB wastes - notification to the Department if a regulated hazardous waste or PCB waste is discovered at the facility. <p>Verify that, the methane gas concentration does not exceed the lower explosive limit for methane in facility structures and at the facility boundary.</p> <p>Verify that the following disposal is prevented:</p> <ul style="list-style-type: none"> - the disposal of bulk or noncontainerized liquid wastes (unless it is approved by the Department in advance, is household waste, or a leachate or gas condensate derived from the disposal unit) - the deposit of containers containing liquid waste (unless the container is typical household waste, is designed to hold liquids for use other than storage, or is a small container similar in size to that normally found in household waste). <p>Verify that the solid waste facility required to monitor groundwater prepares a site specific hydrogeological and soils report of the facility and submits 4 copies</p>

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<p>monitor groundwater must prepare a site specific hydrogeological and soils report of the facility (ARM 17.50.705).</p> <p>SO.135.10.MT. Solid waste facilities must follow requirements for water quality monitoring wells (ARM 17. 50.706 and 707) [Revised July 1997].</p> <p>SO.135.11.MT. Owners or operators must prepare a groundwater monitoring sampling and analysis plan (ARM 17.50.708).</p> <p>SO.135.12.MT. Owners and operators must prepare required groundwater monitoring plans and reports (ARM 17.50.709 and 725).</p> <p>SO.135.13.MT. Owners and operators must notify the Department upon the discovery of contamination in groundwater monitoring wells (ARM 17.50.710).</p> <p>SO.135.14.MT. Solid waste facilities must follow groundwater requirements during and after closure (ARM 17.50.720 through 17.50.722) [Citation Revised</p>	<p>of it to the Department.</p> <p>(NOTE: Groundwater monitoring requirements may be waived by the Department.)</p> <p>Verify that the groundwater monitoring wells are constructed by a licensed monitoring well constructor.</p> <p>Verify that monitoring wells are placed in the numbers and locations specified by the Department.</p> <p>Verify that the owner and operator have a Department-approved sampling and analysis plan, including quality assurance and quality control samples.</p> <p>Verify that the owner and operator prepare the following reports and plans:</p> <ul style="list-style-type: none"> - groundwater monitoring plan, updated every 5 yr - annual report describing all groundwater sampling - any other reports required by the Department. <p>Verify that the owner and operator notify the Department within 14 days of the discovery of contamination in groundwater monitoring wells.</p> <p>Verify that the following procedures are followed when a solid waste facility is closing or is closed:</p> <ul style="list-style-type: none"> - update the groundwater monitoring plan to include a discussion of the anticipated monitoring and schedule of sampling for the closed portions of the facility

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<p>February 2008].</p> <p>SO.135.15.MT. Class I I landfills must meet specific closure requirements (ARM 17.50.530(1)) [Revised July 1998].</p>	<ul style="list-style-type: none"> - follow Department-issued, postclosure groundwater monitoring schedule - abandoned borings, water supply wells, and monitoring wells are completely sealed. <p>Verify that the owners and operators meet the following closure requirements:</p> <ul style="list-style-type: none"> - notify the Department of the intent to close and place this in the operation record - begin closure within 30 days after the final receipt of wastes - install a final cover system that is designed to minimize infiltration and erosion as follows: <ul style="list-style-type: none"> - minimize infiltration by the use of an infiltration layer that contains a minimum 18 in. of earthen material that has a permeability less than or equal to the permeability of any bottom liner, barrier layer, or natural subsoils present, or a permeability no greater than 1×10^{-5}, whichever is less - minimize erosion of the final cover by the use of a seed bed layer that contains a minimum of 6 in. of earthen material that is capable of sustaining native plant growth and protecting the infiltration layer from frost effects and rooting damage - revegetate the final cover with native plant growth within 1 yr of the placement of the final cover - prepare a written closure statement including the following and submit it to the Department: <ul style="list-style-type: none"> - description of final cover - an estimate of the largest area of the Class I I landfill unit ever requiring a final cover - an estimate of the maximum inventory of wastes ever onsite over the active life of the landfill facility - a schedule for completion all closure activities - complete closure within 180 days following the beginning of closure - notify the Department upon completion of closure - note on the property deed that the property was a landfill.
<p>SO.135.16.MT. Class I II landfills must meet specific closure requirements (ARM 17.50.530(2)) [Added July 1998].</p>	<p>Verify that Class III landfill units are closed under a Department approved plan that includes at a minimum:</p> <ul style="list-style-type: none"> - 2 ft of final cover - grading and seeding to prevent erosion. - a deed notation, unless all wastes are removed from the facility and the owner or operator requests permission from the Department to remove the notation from the deed.

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<p>SO.135.17.MT. Class I V landfills must meet specific closure requirements (ARM 17.50.530(3)) [Added July 1998].</p>	<p>Verify that the owners and operators meet the following closure requirements:</p> <ul style="list-style-type: none"> - notify the Department of the intent to close and place this in the operation record - begin closure within 30 days after the final receipt of wastes - install a final cover system that is designed to minimize infiltration and erosion as follows: <ul style="list-style-type: none"> - minimize infiltration by the use of an infiltration layer that contains a minimum 18 in. of earthen material, that has a permeability no greater than 1×10^{-5}, whichever is less - minimize erosion of the final cover by the use of a seed bed layer that contains a minimum of 6 in. of earthen material that is capable of sustaining native plant growth and protecting the infiltration layer from frost effects and rooting damage - revegetate the final cover with native plant growth within 1 yr of the placement of the final cover - prepare a written closure statement including the following and submit it to the Department: <ul style="list-style-type: none"> - description of final cover - an estimate of the largest area of the Class I V landfill unit ever requiring a final cover - an estimate of the maximum inventory of wastes ever onsite over the active life of the landfill facility - a schedule for completion all closure activities - complete closure within 180 days following the beginning of closure - notify the Department upon completion of closure - note on the property deed that the property was a landfill.
<p>SO.135.18.MT. Class I I landfills must follow postclosure care requirements (ARM 17.50.531).</p>	<p>Verify that the owner or operator prepares a written postclosure plan and has it approved by the Department.</p> <p>Verify that the owner/operator of the Class II landfill meet the following post closure care requirements for 30 yr:</p> <ul style="list-style-type: none"> - maintain the integrity and effectiveness of any final cover - maintain and operate the leachate collection system, unless given Department approval to stop - monitor groundwater - maintain and operate the gas monitoring system. <p>(NOTE: The Department may increase or decrease the postclosure care period.)</p>
<p>SO.135.19.MT. Class II and Class I V landfills must</p>	<p>Verify that a Class II or Class IV landfill weighs or otherwise accurately records</p>

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<p>follow specific recordkeeping and documentation requirements (ARM 17.50.511(1)(o), (p) and (q)) [Revised July 1998].</p>	<p>all volumes of waste entering the facility.</p> <p>Verify that a Class II or Class IV landfill keeps operating records, including the following:</p> <ul style="list-style-type: none"> - location restriction demonstration - inspection records - notification records - training procedures - gas monitoring results - design documentation - closure and postclosure care plans - groundwater test records - small community exemption documentation - waste quantity records. <p>Verify that a Class II or Class IV landfill notifies the Department when the preceding documents are placed in or added to the operating record.</p>

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<p>SO.160.</p> <p>WASTE TIRE MANAGEMENT</p> <p>SO.160.1.MT. Waste tires must be deposited at licensed solid waste facilities (ARM 17.50.412(1)(e)) [Revised January 2007].</p>	<p>Verify that used tires are deposited at licensed solid waste facilities.</p>

Appendix 9-1

Maximum Concentrations of Contaminants in Aquifers (Source: ARM 17.50.506, Table 1) [Revised January 2007]

Chemical	MCL (mg/L)
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1
Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloroethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002

SECTION 10

STORAGE TANK MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Aboveground Release* - any release to the surface of land or water. This includes, but is not limited to, releases from the aboveground portions of a UST system of tank system and aboveground releases associated with overfills and transfer operations as the regulated substances moves to or from a UST system (ARM 17.56.101).
- *Aboveground Storage Tank* - any one or a combination of tanks that is used to contain an accumulation of petroleum or petroleum products, and the volume of which is 90 percent or more above the surface of the ground (ARM 17.56.101).
- *Belowground Release* - any release to the subsurface of the land and to groundwater. This includes, but is not limited to, releases from the belowground portions of a UST system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from a UST (ARM 17.56.101).
- *Class A Operator* - an owner or operator of an UST facility whose primary responsibility is to operate and maintain the UST system. A Class A operator's responsibilities also include managing resources and personnel to achieve and maintain compliance with regulatory requirements (ARM 17.56.1501) [Added February 2010].
- *Class B Operator* - an owner or operator of an UST facility whose primary responsibility is to implement the applicable underground storage tank regulatory requirements and standards in the field. A Class B operator implements day-to-day aspects of operating, maintaining, and recordkeeping for underground storage tanks at one or more facilities (ARM 17.56.1501) [Added February 2010].
- *Class C Operator* - an employee of the owner or operator of the facility who is responsible for responding to alarms or other indications of emergencies caused by spills or releases from UST systems. A Class C operator notifies the Class B or Class A operator and appropriate emergency responders when necessary (ARM 17.56.1501) [Added February 2010].
- *Closure* - the process of properly removing or filling in place a UST that is no longer in service (ARM 17.56.101).
- *Connected Piping* - all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them (ARM 17.56.101).
- *Consumptive Use* - with respect to heating oil, consumed on the premises (ARM 17.56.101) [Revised February 2004].
- *Electrical Equipment* - underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable (ARM 17.56.101) [Added January 2006].

- *Existing Tank System* - a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before November 3, 1989. Installation is considered to have commenced if:
 1. the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and
 2. either a continuous on-site physical construction or installation program has begun, or the owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction at the site or installation of the tank system to be completed within a reasonable time (ARM 17.56.101) [Revised February 2004; Revised January 2006].
- *Farm Tank* - located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. A farm includes fish hatcheries, rangeland, and nurseries with growing operations (ARM 17.56.101).
- *Flow-Through Process Tank* - a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or byproducts from the production process (ARM 17.56.101).
- *HWSA* - Hazardous and Solid Waste Amendments of 1984 (ARM 17.53.301) [Added February 2003].
- *HSWA Tank* - a tank owned or operated by a generator of less than 1000 kg (2200 pounds) of hazardous waste per calendar month, a new underground tank, or an existing underground tank that cannot be entered for inspection (ARM 17.53.301) [Added February 2003].
- *Heating Oil* - petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces (ARM 17.56.101).
- *Implementing Agency* - an office or program of a local governmental unit, designated by the Department pursuant to ARM 17.56.1003, in which the PST or UST system is located. Only one local governmental unit may act as an implementing agency for any given PST or UST system (ARM 17.56.101) [Added January 2006].
- *Installation* - the placement of an underground storage tank system, including excavation, tank placement, backfilling, and piping of underground portions of the underground storage tank system that store or convey regulated substances. Installation includes repair or modification of an underground storage tank system through such means as tank relining or the repair or replacement of valves, fillpipes, piping, vents, or in-tank liquid-level monitoring systems. Installation also means installation, repair, or modification of a leak detection device that is external to and not attached to the underground storage tank system and the installation, repair, or modification of a cathodic protection system. The terms "installation" and "to install" do not include the process of conducting a precision (tightness) test to establish the integrity of the underground storage tank system (ARM 17.56.101) [Revised February 2008].
- *Motor Fuel* - petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel or any grade of gasohol, and is typically used in the operation of a motor engine (ARM 17.56.101).
- *New Tank System* - a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after the effective date of this rule (ARM 17.56.101).
- *New Tank System or New Tank Component* - a tank system or component that will be used for the storage or treatment of hazardous waste where installation commenced after July 14, 1986, for HSWA tanks, as defined by the Hazardous and Solid Waste Amendments of 1984 and June 7, 1989, for non-HSWA tanks; or, for the

purposes of the Containment and Detection of Releases requirements for Tank Systems (Subpart J) under 40 CFR 264 and 265, where construction commenced after January 12, 1987, for HSWA tanks and March 15, 1991, for non-HSWA tanks (ARM 17.53.301) [Added February 2003].

- *Non-HWSA Tank* - all tanks except a tank owned or operated by a generator of less than 1000 kg (2200 pounds) of hazardous waste per calendar month, a new underground tank, and an existing underground tank that cannot be entered for inspection (ARM 17.53.301) [Added February 2003].
- *Operator* - (ARM 17.56.101) [Revised February 2008]:
 1. a person in control of or having responsibility for the operation, maintenance, or management of an underground storage tank system
 2. a person in control of or having responsibility for the daily operation of a petroleum storage tank.
- *Owner* - (ARM 17.56.101) [Revised January 2007]:
 1. for purposes of administration of Title 75, chapter 11, part 2, MCA, the term as defined in 75-11-203, MCA;
 2. for purposes of administration of Title 75, chapter 11, part 3, MCA, the term as defined in 75-11-302, MCA; and
 3. unless otherwise provided in statute or rule, for purposes of administration of Title 75, chapter 11, part 5, MCA, any person who:
 - a. holds title to, controls, or possesses an interest in an UST system; or
 - b. owns the property on which an UST system is located. The term does not include a person who holds an interest in a storage tank solely for financial security, unless through foreclosure or other related actions the holder of a security interest has taken possession of the tank.
- *Petroleum Storage Tank* - a tank that contains or contained petroleum or petroleum products and that is (ARM 17.56.101) [Revised February 2004; Revised February 2008]:
 1. a UST
 2. a storage tank in an underground area such as a basement, cellar, mine, draft, shaft, or tunnel
 3. an aboveground storage tank with a capacity less than 30,000 gal
 4. aboveground pipes associated with 2 or 3 except pipelines regulated under the following laws are excluded:
 - a. the Natural Gas Pipeline Safety Act of 1968 (49 USC 1671, et seq.);
 - b. the Hazardous Liquid Pipeline Safety Act of 1979 (49 USC 2001, et seq.); and
 - c. state law comparable to the provisions of law referred to in (49)(d)(i) and (ii), if the facility is intrastate.
- *Pipe or Piping* - a hollow cylinder or tubular conduit that is constructed of nonferrous materials (ARM 17.56.101).
- *Primary Leak Detection Method* - the leak detection method, approved under this chapter, that is: (ARM 17.56.101) [Added February 2010]
 - a. specified by the owner or operator and recorded by the compliance inspector as the primary leak detection method in the most recent UST program compliance inspection; or
 - b. specified by the owner or operator in writing or e-mail to the department as the primary leak detection method.
- *Regulated Substance* - a hazardous substance as defined in Montana regulations or petroleum, including crude oil or any fraction thereof, which is liquid at standard conditions of temperature and pressure (60 °F and 14.7 lb/in² absolute). This does not include a substance regulated as a hazardous waste in Montana (ARM 17.56.101).

- *Release* - any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from a tank system into groundwater, surface water, surface soils, or subsurface soils (ARM 17.56.101) [Revised February 2008].
- *Repair* - restoring a damaged or leaking tank or UST system component to the manufacturer's original design standard (ARM 17.56.101) [Revised April 2000].
- *Secondary Containment* - (ARM 17.56.101) [Added February 2008]:
 1. a liquid-tight (secondary) shell or jacket that extends around the inner (primary) shell of a tank or piping that is designed, constructed, and installed to contain any leak from any part of the tank or piping that routinely contains a regulated substance. Secondary containment must be designed, constructed, and installed to:
 - a. prevent releases to the environment
 - b. allow for monitoring of releases between the primary and secondary shells
 - c. allow for detection of any leak
 2. liquid-tight tank sumps, transition sumps, or under-dispenser containment sumps that will contain a leak from any part of the tank or piping that routinely contains a regulated substance until detection.
- *Storm Water or Wastewater Collection System* - piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water runoff resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated occur. This does not include treatment except where incidental to conveyance (ARM 17.56.101).
- *Tank* - a stationary device designed to contain an accumulation of regulated substances and constructed of nonearthen materials (e.g., steel, concrete, plastic) that provide structural support (ARM 17.56.101).
- *Terminal Piping* - piping that: (ARM 17.56.101) [Added February 2009]
 1. is located within a facility with a NAICS code of 424720 (product terminals), 486110 (petroleum pipelines, crude), 486910 (petroleum pipelines, refined), or 482111 (line-haul railroads);
 2. is underground, or is above ground, if the above ground piping:
 - a. cannot be segregated, disconnected, or isolated from subject underground piping; and
 - b. is connected to ancillary equipment including, but not limited to, pumps, valves, or meters;
 3. is connected to a storage tank, whether the storage tank is entirely above ground, partially above ground, or entirely underground
 4. is used to contain or transport a regulated substance; and
 5. has a normal operating pressure greater than 50 psi or a piping capacity greater than 362 gallons for diesel and 316 gallons for gasoline.
- *Under-Dispenser Containment* - containment underneath a dispenser that will prevent leaks from the dispenser from reaching soil or ground water (ARM 17.56.101) [Added February 2008]
- *Upgrade* - the addition or retrofit of some systems such as cathodic protection, lining, or spill and overflow controls to improve the ability of an underground storage tank system to prevent the release of product (ARM 17.56.101) [Added January 2006].
- *UST System or Tank System* - an underground storage tank or petroleum storage tank, as appropriate, ancillary equipment designed to prevent, detect, or contain a release from an UST system, the equipment necessary to connect dispensers to product piping, and containment system, if any (ARM 17.56.101) [Revised February 2008].
- *Wastewater Treatment Tank* - a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods (ARM 17.56.101).

**STORAGE TANK MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

Missing Checklist Items	ST.2.1.MT.
Aboveground Storage Tanks	ST.5.1.MT.
Emissions/Discharges From POL Storage Vessels	ST.15.1.MT. and ST.15.2.MT.
UST State-Specific	ST.30.1.MT. through ST.30.10.MT.
Release Detection For USTs	
General	ST.60.1.MT.
Petroleum	ST.65.1.MT. and ST.65.2.MT.
USTs Connected to Emergency Generators	ST.75.1.MT.
UST Releases	ST.80.1.MT. through ST.80.4.MT.
UST Documentation	ST.90.1.MT. and ST.90.2.MT.
Hazardous Waste Storage Tanks	
NOTE: Montana has adopted by reference the Federal hazardous waste storage tank requirements.	
Used Oil Storage Tanks	
NOTE: Montana has adopted Title 40, Code of Federal Regulations, Part 279.	

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<p>ST.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>ST.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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<p>ST.5.</p> <p>ABOVEGROUND STORAGE TANKS</p> <p>ST.5.1.MT. New underground piping connected to a aboveground tanks must meet specific standards (ARM 17.56.203) [Added July 1998; Revised February 2004].</p>	<p>(NOTE: This applies to new primary underground piping connected to aboveground storage tanks (ASTs) used to store heating oil at a farm or residence.)</p> <p>Verify that primary underground piping connected to ASTs with a capacity of 660 gal or less used exclusively to store heating oil for consumptive use on the premises where stored are not constructed of copper unless the piping is enclosed in secondary containment that meets the following requirements:</p> <ul style="list-style-type: none"> - in addition to cathodically protected steel or nonmetallic pipe listed for use with petroleum products and/or motor fuels, schedule 40 or greater PVC pipe and fittings may be used to provide secondary containment provided that only adhesives resistant to petroleum products are used to bond PVC joints - if liquid or vapor sensors are not used to monitor the interstitial space for a release, the piping system is installed so that any liquid released into the interstitial space will not remove more than 2 0 f t before being visually detected in a sump or standpipe. <p>(NOTE: This does not apply to an AST with capacity less than 30,000 gallons.)</p>

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<p>ST.15.</p> <p>EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS</p> <p>ST.15.1.MT. POL storage vessels of a capacity greater than 65,000 gal must meet specific requirements to limit hydrocarbon emissions (ARM 17.8.324(1)).</p> <p>ST.15.2.MT. POL storage vessels with a capacity of 250 gal or more must meet loading requirements (ARM 17.8.324(3)).</p>	<p>(NOTE: Requirements for POL storage vessels of a capacity greater than 65,000 gal include only vessels containing product with a vapor pressure of 2.5 psia or greater.)</p> <p>Verify that vessels either are pressurized and maintained so that hydrocarbon vapors and gases do not escape or operate one of the following vapor loss control devices in good working order:</p> <ul style="list-style-type: none"> - a floating roof consisting of a pontoon type or double deck type roof, resting on the surface of the liquid space between the roof edge and the tank wall (not for use if POL has a vapor pressure of 13.0 psia or greater) - a vapor recovery system, consisting of a vapor gathering system capable of collecting hydrocarbon vapors and gases discharged, and a vapor disposal system capable of processing hydrocarbon vapors and gases so as to prevent them from escaping into the atmosphere - other equipment of equal efficiency approved by the Department of Environmental Quality. <p>Verify that all tank gauging and sampling devices are gas-tight (except when gauging or sampling is taking place).</p> <p>(NOTE: These requirements do not apply to stationary vessels used primarily for the fueling of implements of husbandry.)</p> <p>(NOTE: Loading requirements do not apply to either of the following:</p> <ul style="list-style-type: none"> - tanks with a capacity of 2000 gal or less installed prior to 30 June 1971 - underground storage tanks installed prior to 30 June 1971 where the fill line between the fill connection and tank is offset.) <p>Verify that one of the following requirements are met when POL storage vessels with a capacity of 250 gal or more are being loaded from any tank truck or trailer:</p> <ul style="list-style-type: none"> - loading is conducted through a submerged fill pipe - vessels either are pressurized and maintained so that hydrocarbon vapors and gases do not escape or operate one of the following vapor loss control devices in good working order: <ul style="list-style-type: none"> - a floating roof consisting of a pontoon type or double deck type roof, resting on the surface of the liquid space between the roof edge and the

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	<p>tank wall (not for use if POL has a vapor pressure of 13.0 psia or greater)</p> <ul style="list-style-type: none"> - a vapor recovery system, consisting of a vapor gathering system capable of collecting hydrocarbon vapors and gases discharged, and a vapor disposal system capable of processing hydrocarbon vapors and gases so as to prevent them from escaping into the atmosphere - other equipment of equal efficiency approved by the Department. <p>(NOTE: These requirements do not apply to stationary vessels used primarily for the fueling of implements of husbandry.)</p>

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<p>ST.30.</p> <p>UST STATE-SPECIFIC</p> <p>ST.30.1.MT. [Deleted July 1998].</p> <p>ST.30.2.MT. [Deleted July 1998].</p> <p>ST.30.3.MT. USTs must meet reporting requirements (ARM 17.56.305) [Citation Revised July 1998; Revised February 2004].</p>	<p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>Verify that the following information is provided to the Department:</p> <ul style="list-style-type: none"> - notification for each UST system - notification for each new UST system, including: <ul style="list-style-type: none"> - notification of compliance with installation and piping requirements - notification of compliance with cathodic protection requirements - notification of financial responsibility - reports of all releases including suspected releases, spills and overfills, and confirmed releases - corrective action planned or taken including initial abatement measures, initial site history, free product removal, the result of remedial investigation, and cleanup plan - notification of all tanks taken out of operation before 1 January 1974, unless the tank has been removed from the ground. <p>(NOTE: This checklist item does not apply to the following types of UST systems:</p> <ul style="list-style-type: none"> - equipment or machinery that contains regulated substances for operation purposes such as hydraulic lift tanks and electrical equipment tanks - any UST system that contains a de minimis concentration of regulated substances - any emergency spill or overflow containment UST system that is expeditiously emptied after use - a storage tank that is situated in an underground area such as a basement, cellar, mine draft, shaft, or tunnel - wastewater treatment tank systems - any UST system containing radioactive material - any UST system that is part of an emergency generator system at nuclear power generation facilities - any UST system whose capacity is 110 gallons or less - airport hydrant fuel distribution system - UST systems with field-constructed tanks.)

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<p>ST.30.4.MT. Primary underground piping connected to USTs used for heating oil at a farm or residence must meet specific standards (ARM 17.56.203) [Revised July 1998; Revised February 2005].</p> <p>ST.30.5.MT. USTs must meet permitting requirements. (ARM 17.56.308(1), 17.56.1303(1) and (2), and 17.56.1308(1)) [Revised April 2001; Revised April 2002; Revised February 2003; Revised February 2004; Revised January 2006].</p>	<p>(NOTE: This applies to new primary underground piping connected to USTs used to store heating oil at a farm or residence.)</p> <p>Verify that primary underground piping connected to USTs with a capacity of 660 gal or less used exclusively to store heating oil for consumptive use on the premises where stored are not constructed of copper unless the piping is enclosed in secondary containment that meets the following requirements:</p> <ul style="list-style-type: none"> - in addition to cathodically protected steel or nonmetallic pipe listed for use with petroleum products and/or motor fuels, schedule 40 or greater PVC pipe and fittings may be used to provide secondary containment provided that only adhesives resistant to petroleum products are used to bond PVC joints - if liquid or vapor sensors are not used to monitor the interstitial space for a release, the piping system is installed so that any liquid released in to the interstitial space will not remove more than 20 ft before being visually detected in a sump or standpipe. <p>(NOTE: See ST.30.3.MT. for exemptions.)</p> <p>Verify no person places a regulated substance in or dispenses a regulated substance from a UST unless the owner or operator has an operating permit and an operating tag (or provisional operating tag) is attached to the fill pipe.</p> <p>Verify that the operating tag is visibly affixed to each tank's fill pipe or to another visible part of the tank if affixing the tag to the fill pipe is impracticable.</p> <p>Verify that, if a nonoperating permit expires or is revoked, the operating tag is removed and returned to the Department within 30 days of receipt of expiration or revocation.</p> <p>Verify that a permit has been issued by the Department prior to the installation or closure of a UST.</p> <p>Verify that a completed application for a major installation permit is filed at least 30 days prior to the proposed date of installation.</p> <p>Verify that a completed application for a minor installation or closure permit is filed at least 20 days prior to the proposed date of installation or closure.</p> <p>Verify that an owner or operator who intends to install or close a UST without the services of a licensed installer has the installation or closure inspected by a licensed Department inspector or local government inspector.</p>

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<p>ST.30.6.MT. USTs must meet periodic inspection requirements. (ARM 17.56.309) [Revised April 2001; Revised April 2002; Revised January 2007; Revised February 2008; Revised February 2010].</p> <p>ST.30.7.MT. USTs installers, inspectors and other contractors must meet general license requirements (ARM</p>	<p>(NOTE: See ST.30.3.MT. for exemptions.)</p> <p>Verify that a UST is inspected by a licensed compliance inspector at least once every 3 years and at least 90 days before the expiration date of the operating permit.</p> <p>(NOTE: If the facility has other USTs installed prior to 1 November 2001, an initial inspection must occur no later than January 1, 2002.)</p> <p>Verify that the inspection includes examination, assessment and documentation of compliance with all tank operation and maintenance requirements, including:</p> <ul style="list-style-type: none"> - release prevention and detection - spill and overflow prevention - corrosion protection - testing, monitoring, and recordkeeping. <p>(NOTE: Exempt USTs are exempt from compliance inspection requirements. Owners or operators of these USTs may obtain an operating permit and tag by making a written request to the Department and providing evidence, satisfactory to the Department, that the subject UST systems qualify as exempt.)</p> <p>Verify that upon completion of the inspection, the inspector provides the owner or operator with a copy of the inspection report.</p> <p>Verify that no later than 15 days after any inspection, the inspection results signed by the licensed compliance inspector and the UST owner or operator are submitted to the Department.</p> <p>Verify that all USTs at an individual facility are inspected at the same time.</p> <p>Verify that all violations noted in a compliance inspection report are corrected either within 90 days of receipt of the inspection report, or at least 14 days prior to the expiration of the facility's operating permit, whichever occurs first.</p> <p>Verify that a follow-up inspection report is submitted to the Department either within 30 days after completion of the corrective actions required, or at least 14 days before the expiration of the facility's operating permit, whichever occurs first.</p> <p>Verify that persons installing, closing or inspecting a UST have a valid license issued by the Department.</p> <p>Verify that a licensed inspector personally conducts all installation, closure,</p>

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<p>17.56.1401) [Added April 2001; Revised February 2004].</p> <p>ST.30.8.MT. USTs must meet specific notification requirements (ARM 17.56.902) [Added February 2004; Revised February 2005].</p>	<p>compliance, or oversight inspections.</p> <p>(NOTE: The requirements of this subchapter do not prohibit the employment by a licensed installer of a ny assistants, helpers, or apprentices who have not been issued their own installer license to work at any installation or closure site so long as the licensed installer is physically present at the installation or closure and personally exercises supervisory control over those unlicensed persons.)</p> <p>(NOTE: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the state.)</p> <p>Verify that owners and operators of new or modified UST systems provide the following information:</p> <ul style="list-style-type: none"> - the location of each tank system - ownership of each tank system - status of each tank system - the date of each tank system installation - the estimated total capacity of each tank system - tank and piping material - the substance currently or last stored in each tank system - any other information required in the notification form necessary to ensure tanks can be adequately identified for regulatory purposes. <p>Verify that owners and operators of existing or new UST systems notify the Department when any of the information submitted on the form has changed, such as upgrading or repairing new or existing tanks or pipes, or change of owner, or contact person.</p> <p>(NOTE: This checklist item does not apply to the following types of UST systems:</p> <ul style="list-style-type: none"> - equipment or machinery that contains regulated substances for operation purposes such as hydraulic lift tanks and electrical equipment tanks - any UST system that contains a deminimis concentration of regulated substances - any emergency spill or overflow containment UST system that is expeditiously emptied after use - a storage tank that is situated in an underground area such as a basement, cellar, mine draft, shaft, or tunnel - wastewater treatment tank systems - any UST system containing radioactive material - any UST system that is part of an emergency generator system at nuclear power generation facilities.)

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<p>ST.30.9.MT. USTs and pressurized piping that are replaced or installed must have secondary containment, under-dispenser containment, and interstitial monitoring (ARM 17.56.204) [Added February 2008].</p>	<p>Verify that any UST that is replaced or installed employs the following:</p> <ul style="list-style-type: none"> - secondary containment and approved continuous interstitial monitoring as a monthly leak detection method - under-dispenser containment that provides access - a liquid-tight tank top sump where the product piping exits the tank. <p>Verify that any pressurized product piping that is installed or replaced meets the following requirements:</p> <ul style="list-style-type: none"> - employs secondary containment - terminates in a liquid tight sump at each end and the sumps are: <ul style="list-style-type: none"> - liquid-tight on their sides, bottom, and at any penetrations - compatible with the substance conveyed by the piping - allow for visual inspection and access to the components in the containment system and/or otherwise allow the system to be monitored - employs approved continuous interstitial monitoring as a monthly leak detection method. <p>Verify that under-dispenser containment is installed under dispensers when:</p> <ul style="list-style-type: none"> - a new UST system is installed - dispensers and any associated hardware used to attach the dispenser to the product piping are replaced - product piping is repaired or replaced at an associated dispenser island - significant modifications are made to the concrete at a dispenser island - the department determines under-dispenser containment is necessary. <p>Verify that under-dispenser containment meets the following conditions:</p> <ul style="list-style-type: none"> - employs approved interstitial monitoring as a monthly leak detection method - is liquid-tight on its sides, bottom, and at any penetrations - is compatible with the substance conveyed by the piping - allows for visual inspection and access to the components in the containment system and/or allow the system to be monitored.
<p>ST.30.10.MT. USTs must meet training requirements for UST operators (ARM 17.56.1502 and 17.56.1504)</p>	<p>Verify that by August 8, 2010, the owner or operator of an UST system that has a valid operating permit or that is required to have an operating permit have trained Class A, B, and C operators for the system.</p>

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<p>[Added February 2010].</p>	<p>Verify that each Class A, B, or C operator is responsible for his or her applicable operation, maintenance, and emergency response activities, even when the operator is not present at the facility.</p> <p>Verify that after August 8, 2010, when a Class A or B operator is replaced by an untrained operator, the new operator receives training within 30 days after assuming operation responsibilities.</p> <p>Verify that Class C operators are trained before assuming their responsibilities.</p> <p>(NOTE: One person may hold all or any combination of the Class A, B, or C operator positions simultaneously, if he or she has the appropriate training.)</p> <p>Verify that, if the Department determines that a UST system does not meet EPA's significant operational compliance (SOC) requirements for release prevention and release detection measures, the appropriate operators (as determined by the Department) are retrained.</p> <p>Verify that retraining includes the subjects in which the UST system was found to be not in significant compliance and occurs within 90 days after the Department's determination that a UST system does not meet EPA's SOC requirements for release prevention and release detection measures, or within a longer time frame established by the Department in writing, on a case-by-case basis.</p> <p>(NOTE: For purposes of Chapter 56, the Department adopts and incorporates by reference the EPA SOC requirements dated March 2005. Copies of the documents incorporated by reference may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.)</p> <p>Verify that records documenting the training received for all of UST system operators is maintained.</p> <p>Verify that the operator training records are maintained for a person for at least 3 years after the person served as a Class A, B, or C operator at the facility.</p>

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<p>RELEASE DETECTION FOR USTs</p> <p>ST.60.</p> <p>General</p> <p>ST.65.1.MT. UST systems must meet detection release requirements (ARM 17.56.407) [Added February 2010].</p>	<p>(NOTE: These release detection requirements for USTs are additional to the requirements in ST.60.1.US.)</p> <p>Verify that below-grade piping that conveys regulated substances under suction is closed so that the contents of the pipe drain back into the storage tank if the suction is released.</p> <p>Verify that, after December 31, 2010, if the automatic tank gauging equipment has the capability, the leak detection console is set to temporarily disable the pumping system after a failed 0.2 gph leak test.</p> <p>Verify that, after December 31, 2010, if the vapor monitoring equipment has the capability, the leak detection console is set to temporarily disable the pumping system after a failed leak test.</p> <p>Verify that, after December 31, 2010, if the interstitial monitoring equipment has the capability, the leak detection console is set to temporarily disable the pumping system after a failed leak test.</p> <p>Verify that the owner or operator does not restart the pumping system until:</p> <ul style="list-style-type: none"> - an investigation of the UST system alarm condition is conducted in accordance with the leak detection equipment manufacturer's requirements and ARM Title 17, chapter 56, subchapter 5 - the owner or operator determines that a release to the environment has not occurred. <p>Verify that, when interstitial monitoring is used as the primary leak detection method, the communication of all sensors with the console is documented at least monthly, and the records are maintained on site for the previous 12 months.</p>

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<p>RELEASE DETECTION FOR USTs</p> <p>ST.65.</p> <p>Petroleum</p> <p>ST.65.1.MT. Petroleum UST systems must meet detection release requirements (ARM 17.56.402) [Added February 2009; Revised February 2010].</p> <p>ST.65.2.MT. UST piping must meet detection release requirements (ARM 17.56.408) [Added February</p>	<p>(NOTE: These release detection requirements for USTs are additional to the requirements in S T.65.1.US. Also, see S T.75.1.MT. for USTs used with emergency generators.)</p> <p>Verify that, at a minimum, the following use yearly tank gauging:</p> <ul style="list-style-type: none"> - farm or residential tanks of 1100 gallons or less capacity used for storing motor fuel for non-commercial purposes - tank of 1100 gallons or less capacity used for storing heating oil for consumptive use on the premises where stored. <p>Verify that new underground piping connected to underground heating oil tanks with a capacity of 660 gallons or less slopes back towards tanks that do not have foot valves.</p> <p>Verify that all required leak testing is observed by the owner, operator, or facility employee and the results are documented and retained by the owner/operator.</p> <p>Verify that below-grade piping that conveys regulated substances under suction is closed so that the contents of the pipe drains back into the storage tank if the suction is released.</p> <p>Verify that exempt terminal piping and other Department exempted piping is annually leak testing using the following:</p> <ul style="list-style-type: none"> - the procedures described in American Petroleum Institute Recommended Practice 1110, "Recommended Practice for Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids or Carbon Dioxide," with the following exceptions: <ul style="list-style-type: none"> - the minimum leak test pressure ratios may not be less than 1.0 - the leak test duration may not be less than one hour - leak acceptance criteria must be based on 5percent decrease in pressure of the pipeline segment during the test period - another leak test procedure approved by the Department. <p>Verify that, after December 31, 2010, if the leak detection monitoring equipment has the capability, an owner or operator of an UST system that conducts pipe leak detection sets the leak detection console to temporarily disable the pumping</p>

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2010].	<p>system after a failed leak test.</p> <p>Verify that the operator does not restart the pumping system until:</p> <ul style="list-style-type: none"> - an investigation of the UST system alarm condition is conducted in accordance with the leak detection equipment manufacturer's requirements and ARM Title 17, chapter 56, subchapter 5 - the owner or operator determines that a release to the environment has not occurred. <p>Verify that an owner or operator of a UST who conducts piping interstitial monitoring as the primary leak detection method conducts one of the following tests to determine liquid tightness:</p> <ul style="list-style-type: none"> - hydrostatically test all containment sumps once every 3 years with liquid for one hour to a height 6 inches above the highest sump penetration (A passing test must show no liquid loss measured during the testing interval.) - vacuum or pressure test containment sumps in accordance with the testing equipment manufacturer's instructions and pass/fail requirements - functionally test containment sumps as recommended by the manufacturer of the containment sump. <p>Verify that an owner or operator who conducts piping interstitial monitoring as the primary leak detection method reports a failed test to the Department.</p> <p>Verify that piping interstitial monitoring is conducted by a licensed installer or compliance inspector.</p> <p>Verify that initial sump functional tests at each facility are conducted prior to December 31, 2012.</p>

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<p>ST.75.</p> <p>USTs CONNECTED to EMERGENCY GENERATORS</p> <p>ST.75.1.MT. Emergency power generator USTs must meet detection release requirements (ARM 17.56.402 (1) (a) (iv) and (2)) [Added February 2010].</p>	<p>(NOTE: These release detection requirements for petroleum USTs are additional to the management practice in ST.75.1.US.)</p> <p>Verify that power generator tanks with capacities of 1100 gallons or less capacity, at a minimum, use yearly tank gauging for leak detection.</p> <p>Verify that all required leak testing is observed by the owner, operator, or facility employee and the results are documented and retained by the owner/operator.</p>

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<p>ST.80.</p> <p>UST RELEASES</p> <p>ST.80.1.MT. Suspected releases from USTs must be reported (ARM 17.56.502 and 17.56.102(2) and (4)) [Added February 2005 ; Revised January 2006 ; Revised February 2008 ; Revised February 2009].</p>	<p>Verify that owners and operators, any person who installs or removes an UST, or who performs subsurface investigations for the presence of regulated substances, and any person who performs a tank tightness or line tightness test meets reporting requirements.</p> <p>Verify that any of the following conditions are reported to a person within the Remediation Division of the Department and the implementing agency or to the 24-hour disaster and emergency services duty officer available at telephone number (406) 841-3911 within 24 hours of discovery:</p> <ul style="list-style-type: none"> - visual or olfactory observations, field monitoring results or other indicators of the presence of regulated substances in soil or nearby surface or ground water, or the presence of free product or vapors in basements, sewer or utility lines - the sudden or unexplained loss of product from the tank system - a failed tightness test, unless the tank system is found to be defective but not leaking and is immediately repaired or replaced - sampling, testing or monitoring results from a release detection method, that indicate a release may have occurred, unless the release detection or monitoring device is found to be defective and is immediately repaired, recalibrated, or replaced, and subsequent monitoring, sampling or testing indicates that the system is not leaking - the presence of product in the tank secondary containment system - erratic behavior of product dispensing equipment or automatic release detection equipment unless the equipment is found to be defective but not leaking, and is immediately repaired or replaced - an unexplained presence of water in the tank or in the interstitial space between the tank and the tank secondary containment - inconclusive results from a tank tightness test, unless the tank system is found to be defective but not leaking - sampling, testing or monitoring results from a release detection method, that are inconclusive and cannot rule out the occurrence of a release, unless the monitoring device is found to be defective and is immediately repaired, recalibrated or replaced, and subsequent monitoring, sampling or testing indicates that the system is not leaking - analytical results from contaminated soils that exceed 200 milligrams per kilogram for extractable petroleum hydrocarbons (EPH) - activation of a leak detection equipment monitoring alarm, or activation of flow restriction mode for a mechanical line leak detector, unless: <ul style="list-style-type: none"> - within 24 hours of the occurrence of the condition, the condition is investigated, the cause of the condition is discovered, corrected, and a release to the environment or to secondary containment has not

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<p>ST.80.2.MT. USTs release investigation and confirmation steps must be met (ARM 17.56.504) [Added February 2005].</p>	<p>occurred</p> <ul style="list-style-type: none"> - the leak detection system is returned to a fully operational condition within 24 hours - records documenting the cause of the condition and the investigative and corrective actions undertaken in response to the condition are maintained for a one-year period at the facility, or at a readily available alternative site, where the records may be provided for inspection by the department upon request. <p>(NOTE: Messages left on answering machines, received by facsimile, email, voice mail or another messaging device are not adequate 24-hour notice. For further assistance, the Department's release reporting hotline may be reached at 1 (800) 457-0568.)</p> <p>(NOTE: These requirements do not apply to any of the following types of UST systems:</p> <ul style="list-style-type: none"> - any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances - wastewater treatment tank systems - any UST system containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 USC 2011 and following) - any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the nuclear regulatory commission under 10 CFR Part 50, Appendix A.) <p>(NOTE: See ST.80.1.MT. for exempted USTs.)</p> <p>Verify that, unless corrective action is initiated, owners and operators immediately investigate and confirm all suspected releases of regulated substances requiring reporting, within 7 days of the discovery.</p> <p>Verify that, if appropriate, the owner or operator conducts tests (according to the requirements for tightness testing in ARM 17.56.407 and 17.56.408) that determine whether a leak exists in any portion of the tank that routinely contains product, or the attached delivery piping, or both.</p> <p>Verify that, if appropriate, owners and operators immediately repair, replace or upgrade UST tank system, and begin corrective action if the test results for the system, tank, or delivery piping indicate that a leak exists.</p> <p>(NOTE: Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.)</p> <p>Verify that owners and operators conduct a site check if the test results for the system, tank, and delivery piping do not indicate that a leak exists but</p>

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<p>ST.80.3.MT. Reporting of confirmed UST releases must meet specific requirements (ARM 17.56.506) [Added February 2005].</p>	<p>environmental contamination is the basis for suspecting a release.</p> <p>Verify that owners and operators measure for the presence of a release where contamination is most likely to be present at the PST or UST site.</p> <p>(NOTE: In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth of groundwater, and other factors appropriate for identifying the presence and source of the release. The Department should be consulted to assist in determining sample types, sample locations, and measurement methods. Owners and operators of PST sites and owners and operators of UST sites should refer to the Montana Quality Assurance Plan for Investigation of Underground Storage Tank Releases as a guide in the collection, preservation and analysis of field samples.)</p> <p>Verify that, if the test results for the excavation zone of the UST site indicate that a release has occurred, owners and operators begin corrective action.</p> <p>(NOTE: If the test results for the excavation zone of the UST site are taken and do not indicate that a release has occurred, further investigation is not required if approved by the Department.)</p> <p>(NOTE: See ST.80.1.MT. for exempted USTs.)</p> <p>Verify that, upon confirmation of a release, or after a release from the PST or UST system is identified in any other manner, owners and operators, any person who installs or removes an UST, or who performs subsurface investigations for the presence of regulated substances, and any person who performs a tank tightness or line tightness, report releases to the Department and the implementing agency within the specified timeframes and manner.</p> <p>Verify that all confirmed releases are reported to a person within the Remediation Division of the Department, the implementing agency, or the 24-hour disaster and emergency services duty officer available at telephone number (406) 841-3911 within 24 hours of confirming the release.</p> <p>(NOTE: Messages left on answering machines, received by facsimile, e mail or voice mail or other messaging device are not adequate 24-hour notice. For further assistance, the Department's release reporting hotline may be reached at 1 (800) 457-0568.)</p> <p>Verify that, when a release is confirmed from laboratory analysis of samples collected from a site, the release is reported to the Department and implementing agency by a method that ensures the Department or the implementing agency receives the information within seven days of release confirmation.</p>

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ST.80.4.MT. USTs must meet requirements for reporting and cleanup of spills and overfills (ARM 17.56.505) [Added February 2005].

(NOTE: The date of release confirmation, for purposes of this rule, is the date the owner, operator, installer, remover, or person who performs subsurface investigations for the presence of regulated substances received notification of the sample results from the laboratory. Laboratory analytical results that exceed the following values confirm that a release has occurred:

- risk-based screening levels (RBSLs) established for petroleum contaminants in surface soil at UST sites, published in Table 1 of Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases (RBCA) for petroleum compounds and mixtures in surface and subsurface soil
- preliminary remediation goals or soil screening levels published in the United States Environmental Protection Agency, Region 9 Preliminary Remediation Goals for soil analyses of contaminants in soil that are not listed in RBCA
- contaminant levels in water that exceed background levels in the receiving water.

(NOTE: See ST.80.1.MT. for exempted USTs.)

Verify that owners and operators contain and immediately clean up a spill or overfill, immediately report the spill or overfill to the Department and the implementing agency or by another method that ensures that a person within the remediation division of the Department receives notice within 24 hours of the release, and begin corrective action for the following:

- spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons, or that causes a sheen on nearby surface water
- spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under 40 CFR Part 302.

Verify that owners and operators contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons and a spill or overfill of a hazardous substance that is less than the reportable quantity.

Verify that, if the 25 gallon petroleum spill or the hazardous substance that is less than the reportable quantity, cannot be accomplished within 24 hours, owners and operators immediately notify the Department and the implementing agency.

Verify that required telephone notification is made to a person in the Remediation Division of the Department or to the 24-hour disaster and emergency services duty officer at (406) 841-3911.

(NOTE: Messages left on answering machines, received by facsimile, email, voice mail or other messaging device are not adequate 24-hour notice. For further assistance, the Department's release reporting hotline may be reached at 1 (800) 457-0568.)

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<p>ST.90.</p> <p>UST DOCUMENTATION</p> <p>ST.90.1.MT. Owners and operators of UST system must notify the Department within 30 days of bringing the tank into use (ARM 17. 56.902) [Added January 2007].</p> <p>ST.90.2.MT. Purchasers of an UST system must notify the Department within 30 days (ARM 17. 56.903) [Added January 2007].</p>	<p>Verify that, within 30 days, an owner, who brings an underground storage tank system into use, submits a notice of existence to the Department.</p> <p>(NOTE: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the state in accordance with the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98-616, on a form published by EPA on November 8, 1985 (50 FR 46602) unless notice was given pursuant to section 103(c) of CERCLA.)</p> <p>Verify that owners provide a notice to the Department for each tank they own.</p> <p>(NOTE: Owners may provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of operations must file a separate notification form for each separate place of operation.)</p> <p>Verify that owners and operators of new or modified UST systems provide the following information:</p> <ul style="list-style-type: none"> - the location of each tank system - ownership of each tank system - status of each tank system - the date of each tank system installation - the estimated total capacity of each tank system - tank and piping material - the substance currently or last stored in each tank system - any other information required in the notification form necessary to ensure tanks can be adequately identified for regulatory purposes. <p>Verify that the Department is notified of any change in information submitted, such as upgrading or repairing new or existing tanks or pipes, or change of owner, or contact person.</p> <p>Verify that the purchaser of an UST system provides written notification to the Department within 30 days after any sale.</p>

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Montana Supplement	
REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Toxic Substances Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Federal Regulations Incorporated by Reference

Montana adopts and incorporates by reference Title 40 of the Code of Federal Regulations (CFR), 40 CFR 61, subparts A and M, pertaining to national emission standards for hazardous air pollutants (NESHAPs) for asbestos, with the following exception: 40 CFR 61.145(a)(2) is not incorporated by reference. See the U.S. TEAM Guide for details. (ARM 17.74.351) [Revised January 2007].

Definitions

- *Approved Asbestos Disposal Facility* - a licensed Class II landfill as described in ARM 17.50.504 (ARM 17.74.352) [Added January 2007].
- *Asbestos-Containing Material (ACM)* - any material containing more than 1 percent asbestos (ARM 17.74.352) [Added January 2007].
- *Asbestos Inspector* - any person who inspects a facility for the presence of asbestos-containing material (ARM 17.74.352) [Added January 2007].
- *Asbestos Project* - the encapsulation, enclosure, removal, repair, renovation, placement in new construction, demolition of asbestos in a building or other structure, or the transportation or disposal of asbestos-containing waste. The term does not include a project that involves less than 3 square feet in surface area or 3 linear feet of pipe (Montana Code Annotated (MCA) 75-2-502) [Added January 2007]
- *Asbestos Project Contractor* - any person who contracts to perform an asbestos project for another person (ARM 17.74.352) [Added January 2007].
- *Asbestos Project Contractor/Supervisor* - person who provides supervision and/or direction to asbestos workers engaged in an asbestos project (ARM 17.74.352) [Added January 2007].
- *Asbestos Project Worker* - any person other than those listed in (4) and (6) through (8) who is engaged in an asbestos project (ARM 17.74.352) [Added January 2007].
- *Asbestos-Related Occupation* - an inspector, management planner, project designer, contractor, supervisor, or worker for an asbestos project (MCA 75-2-502) [Added January 2007].
- *Demolition* - the meaning given in 40 CFR 61.141 (ARM 17.74.352) [Revised January 2007].
- *Department* - the Department of Environmental Quality, provided for in MCA 2-15-3501 (ARM 17.74.352) [Added January 2007].

- *Emergency Renovation Operation* - has the meaning given in 40 CFR 61.141 (ARM 17.74.352) [Added January 2007].
- *Encapsulation* - the treatment of regulated asbestos-containing material (RACM) with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant). This definition does not include the repainting of a previously painted, undamaged, non-friable RACM surface primarily to improve the appearance of the surface (ARM 17.74.352) [Added January 2007].
- *Enclosure* - the meaning given in 40 CFR 763.83 (ARM 17.74.352) [Added January 2007].
- *Facility* - the meaning given in 40 CFR 61.141 (ARM 17.74.352) [Added January 2007].
- *"Friable Asbestos-Containing Material" Or "Friable ACM"* - any ACM that when dry may be crumbled, pulverized, or reduced to powder by hand pressure (ARM 17.74.352) [Added January 2007].
- *Inspection* - an activity undertaken in a facility to determine the presence or location, or to assess the condition, of friable or non-friable RACM or suspected RACM, whether by visual or physical examination, or by collecting samples of the material. This term includes re-inspections of friable and/or non-friable known or assumed RACM which has been previously identified. The term does not include the following (ARM 17.74.352) [Added January 2007]:
 1. inspections performed by employees or agents of federal, state, or local government solely to determine compliance with applicable statutes or regulations; or
 2. visual inspections performed solely to determine completion of response actions.
- *Nonoccupational Setting* - an environment in which the occupants are not handling, working with, or exposed to asbestos resulting from an asbestos project (ARM 17.74.352) [Citation Revised January 2007].
- *Person* - an individual, partnership, corporation, sole proprietorship, firm, enterprise, franchise, association, state or municipal agency, political subdivision of the state, or any other entity (MCA 75-2-502) [Added January 2007].
- *Regulated Asbestos-containing Material (RACM)*" has the meaning given in 40 CFR 61.141 (ARM 17.74.352) [Added January 2007].
- *Renovation* - altering (including modifying and/or remodeling) a facility or any of its components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions (ARM 17.74.352) [Added January 2007].
- *Repair* - returning damaged RACM to an undamaged condition or to an intact state so as to prevent fiber release (ARM 17.74.352) [Added January 2007].

**TOXIC SUBSTANCES MANAGEMENT
GUIDANCE FOR MONTANA CHECKLIST USERS**

REFER TO CHECKLIST ITEMS:

PCB Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items T1.2.1.MT.

Asbestos Management

Missing Checklist Items T2.2.1.MT.

Renovation and Demolition of Asbestos-Containing Structures T2.5.1.MT. through T2.5.7.MT.

Asbestos Personnel Training/Certification

T2.10.1.MT. and T2.10.2.MT.

Asbestos in Schools

Montana adopts the Federal asbestos regulations for local education agency school buildings, including inspections, reinspections, sampling analysis, assessment, and response actions (ARM 16.42.306). See U.S. TEAM Guide for details.

Radon Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items T3.2.1.MT.

Lead-Based Paint Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items T4.2.1.MT.

**COMPLIANCE CATEGORY:
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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>PCB MANAGEMENT</p> <p>T1.2. Missing Checklist Items</p> <p>T1.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>ASBESTOS MANAGEMENT</p> <p>T2.2. Missing Checklist Items</p> <p>T2.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>T2.5.</p> <p>RENOVATION AND DEMOLITION OF ASBESTOS-CONTAINING STRUCTURES</p> <p>T2.5.1.MT. The maximum allowable concentration of airborne fibers must be at or below the legal level upon completion of a project (ARM 17.74.357) [Revised July 1997; Revised January 2007; Revised February 2008 ; Revised February 2010].</p> <p>T2.5.2.MT. Asbestos abatement projects must be permitted by the Department of Environmental Quality (ARM 17.74.355, 17.74.358, and 17.74.359) [Revised January 2007].</p>	<p>Verify that, at the conclusion of any asbestos project, the owner or his designee samples and analyzes to ensure that the indoor concentration of airborne fibers in a nonoccupational setting for each of 5 samples is less than or equal to 0.01 fibers per cubic centimeter of air or 70 structures per square millimeter of filter.</p> <p>(NOTE: Clearance sampling is not required if an asbestos project has occurred immediately prior to demolition of the entire facility, and the facility is not reoccupied prior to demolition.)</p> <p>Verify that the 5 air samples are taken in accordance with the Montana Asbestos Work Practices and Procedures Manual.</p> <p>(NOTE: The Department may approve alternate work practices.)</p> <p>Verify that the asbestos abatement project has a permit issued by the Department.</p> <p>Verify that the conditions of the permit are met.</p> <p>Verify that, if the dates during which an asbestos project is to be conducted change, the asbestos project contractor/supervisor or the owner of the facility notifies the Department of the change at least 24 hours prior to implementation of the new scheduled date; or the original scheduled date, whichever comes first.</p> <p>Verify that, within 72 hours after any initial verbal notice to the Department of a change in the dates during which an asbestos project is to be performed, the permittee submits to the Department a signed, original written notice of the newly-scheduled dates.</p> <p>Verify that, for an emergency renovation operation, the asbestos project contractor or owner of the facility immediately notifies the Department by telephone or in person and submits a completed application for an asbestos project permit within 5 working days after the initial notice.</p> <p>(NOTE: The owner or operator of a facility may apply to the Department for an annual asbestos project permit if the facility:</p> <ul style="list-style-type: none"> - continuously employs asbestos project workers; or - continuously contracts with outside contractors to perform asbestos projects

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>T2.5.3.MT. All asbestos abatement projects must be supervised by an accredited asbestos abatement supervisor (ARM 17.74.356 (1)) [Revised January 2007; Revised February 2008].</p> <p>T2.5.4.MT. Asbestos projects, including any on-site air monitoring, must comply with the requirements of the Montana Asbestos Work Practices and Procedures Manual (ARM 17.74.356 (2)) [Revised January 2007].</p> <p>T2.5.5.MT. Asbestos projects must meet recordkeeping requirements (ARM 17.74.360) [Revised January 2007].</p>	<p>for the facility; and</p> <ul style="list-style-type: none"> - maintains an asbestos health and safety program that incorporates standard operating procedures for employees involved in asbestos projects in accordance with the Montana Asbestos Work Practices and Procedures Manual. <p>An annual asbestos project permit authorizes a facility to conduct asbestos projects within the confines of the facility's controlled area during the period for which the permit is in force.)</p> <p>Verify that the asbestos abatement supervisor is physically present at all time as the work-site when regulated work is being conducted on an asbestos project.</p> <p>Verify that the asbestos project contractor/supervisor is accessible to all asbestos project workers.</p> <p>Verify that asbestos projects, including any on-site air monitoring, complies with the requirements of the Montana Asbestos Work Practices and Procedures Manual.</p> <p>Verify that records of asbestos projects that are being, or have been, conducted are retained for at least 30 years and made available to the Department upon request.</p> <p>Verify that records are retained and made available to the Department by either:</p> <ul style="list-style-type: none"> - the asbestos project contractor/supervisor for the project - the owner of the facility in which the project is being or has been conducted if the owner is accredited by the Department and is conducting the project without a contractor/supervisor. <p>Verify that records include:</p> <ul style="list-style-type: none"> - the name, address, and accreditation identification number of the person who supervised each asbestos project, and of each person who worked on the project - the location and description of each project and the amount of RACM that was enclosed, removed, repaired, encapsulated, or placed in new

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>T2.5.6.MT. Proof of accreditation and photo identification of all persons involved in the asbestos project must be maintained (ARM 17.74.361 (1)(d)) [Added January 2007].</p> <p>T2.5.7.MT. Asbestos project inspections must be conducted by a Montana-accredited asbestos inspector (ARM 17.74.353 (2) and 17.74.354) [Added January 2007].</p>	<p>construction</p> <ul style="list-style-type: none"> - the starting and completion dates of each instance of enclosure, removal, repair, encapsulation, or placement in new construction - the name and address of each facility where waste RACM was deposited for disposal. (NOTE: Holders of annual permits are not required to maintain records designating where wastes from specific asbestos projects are deposited, but holders of annual permits shall maintain records of each shipment of RACM.) - a receipt from each disposal facility indicating the amount of RACM deposited at the site and the date of the deposit - the transportation manifest records indicating the amount of RACM transported to each approved asbestos disposal facility and the name and location of each facility. <p>Verify that proof of accreditation and photo identification of all persons involved in the asbestos project are maintained.</p> <p>Verify that these documents are available at the project site for the duration of the project and are available to the Department upon request.</p> <p>Verify that asbestos project inspections, required by 40 C.F.R. 61.145(a), are conducted by a Montana-accredited asbestos inspector.</p> <p>Verify that, prior to any demolition or renovation of a facility, the owner or operator has the facility inspected for the presence of asbestos by a Montana-accredited asbestos inspector.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>T2.10.</p> <p>ASBESTOS PERSONNEL TRAINING</p> <p>T2.10.1.MT. Persons engaged in an asbestos-type occupation must be accredited by the State of Montana (ARM 17.74.362) [Citation Revised January 2007].</p> <p>T2.10.2.MT. Accreditation training courses must be approved by the state (ARM 17.74.362 (2)) [Revised January 2007].</p>	<p>Verify that any person engaged in an asbestos-type occupation is accredited by the State of Montana.</p> <p>Verify that the accreditation training course is approved by the state or a course approved by the U.S. Environmental Protection Agency.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>RADON GAS</p> <p>T3.2. Missing Checklist Items</p> <p>T3.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>LEAD BASED PAINT</p> <p>T4.2. Missing Checklist Items</p> <p>T4.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

SECTION 12

WASTEWATER MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Wastewater Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

In accordance with the Federal Clean Water Act, a permit system (MPDES) is established that is essentially the equivalent of the Federal permit system (NPDES) administered by the EPA. A list of Federal incorporation by reference are listed in Appendix 12-5 (ARM 17.30.1303) [Added January 2007].

Definitions

- *Acute Toxicity* - a condition in which ambient water concentrations exceed the applicable acute aquatic life standards given in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].
- *Advanced or Tertiary Wastewater Treatment* - additional treatment to remove suspended or dissolved substances remaining after conventional secondary wastewater treatment processes. Treatment may utilize biological or chemical treatment processes. Mechanical tertiary treatment processes refer to advanced treatment processes that require extensive use of mechanical equipment such as pumps, blowers, chemical metering, motors and other pieces of equipment and structures (ARM 17.40.201) [Added February 2003].
- *Agricultural Land* - land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture (ARM 17.50.802) [Added April 2002].
- *Agronomic Rate* - the whole septage application rate (dry rate basis) designed to (ARM 17.50.802) [Added April 2002]:
 1. provide the amount of nitrogen needed by the food crop, cover crop, or vegetation grown on the land; and
 2. minimize the amount of nitrogen in the septage that passes below the root zone of the crop or vegetation grown on the land to the ground water.
- *Applied To The Land Surface* - the uniform application of liquid or semi-liquid waste material at a rate closely approximating that which will result in maximum benefit to the crop or vegetative cover in the field, without ponding, runoff, or leaching (ARM 17.50.802) [Added April 2002].
- *Aquaculture Project* - a defined managed water area which uses discharges of pollutants into that area for the maintenance or production of harvestable freshwater plants or animals (ARM 17.30.1304(5)).
- *Attended Car Wash Bay* - a place for washing trucks or automobiles that has machinery designed to do the washing without allowing access to the bay during the process (ARM 17.50.802) [Added February 2005].
- *Automatic Car Wash Bay* - a place for washing trucks or automobiles that has machinery designed to do the washing without allowing access to the bay during the process (ARM 17.50.802) [Added February 2005].
- *Board* - the Board of Health and Environmental Sciences (ARM 17.30.1304 (10)).
- *Bulk Septage* - septage that is not sold or given away in a bag or other container for application to the land (ARM 17.50.802) [Added April 2002].

- *Car Wash Sump* - an interceptor or settling device, designed to be emptied by mechanical means, located below the normal grade of a wastewater gravity system used to precipitate mud from wastewater at a car wash, garage, or vehicle maintenance facility before the water enters an oil/water interceptor, sanitary sewer or individual wastewater treatment system. Oil/water interceptors are not car wash sumps (ARM 17.50.802) [Added April 2002].
- *Cesspool* - a seepage pit without a septic tank to pretreat the wastewater (ARM 17.50.802) [Added April 2002].
- *Chronic Toxicity* - a condition in which ambient water concentrations exceed the applicable chronic aquatic life standards given in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].
- *Control of Public Access* - reasonable precautions to prevent exposure of humans to pathogenic materials. This does not mean that all entry must be precluded (ARM 17.50.802) [Added February 2005].
- *Currently Available Data* - data that is readily available to the Department at the time a decision is made. It does not mean new data to be obtained as a result of Departmental efforts or required of the applicant (ARM 17.30.502) [Added January 2007].
- *Department* - the Montana department of environmental quality (ARM 17.36.101) [Added February 2010].
- *Dewatered* - waste that passes the Paint Filter Liquids Test (Method 9095 in Manual SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA (Update IIIA)) (ARM 17.50.802) [Added April 2002].
- *Discharge* - the addition of any pollutant to waters of the state (ARM 17.30.1001) [Added January 2007].
- *Discharge Limitations* - limitations imposed on the design or operation of a source to control the entry of pollutants into groundwater (ARM 17.30.1001) [Added January 2007].
- *Drainage* - rainfall, surface, and subsoil water (MCA 75-6-102).
- *Dwelling or Residence* - any structure, building, or portion thereof, which is intended or designed for human occupancy and supplied with water by a piped water system (ARM 17.36.101) [Added February 2010].
- *Existing Source* - a source which is or has been in operation or on which construction has commenced on October 29, 1982 (ARM 17.30.1001) [Added January 2007].
- *Facility or Activity* - any Montana Pollutant Discharge Elimination System (MPDES) point source or any other facility or activity, including land or appurtenances, that is subject to regulation under the MPDES program (ARM 17.30.1304) [Citation Revised February 2004].
- *Feed Crops* - crops produced primarily for animals (ARM 17.50.802) [Added April 2002].
- *Fiber Crops* - non-edible crops such as flax and cotton raised for fiber (ARM 17.50.802) [Added April 2002].
- *Food Crops* - crops consumed by humans. These include, but are not limited to, fruits, vegetables, grains and tobacco (ARM 17.50.802) [Added April 2002].
- *Forest* - a tract of land with trees and underbrush (ARM 17.50.802) [Added April 2002].
- *Grease Interceptor* - an interceptor of at least 750-gallon (2839 L) capacity that serves one or more fixtures and is remotely located from the fixtures (ARM 17.50.802) [Added April 2002].

- *Grease Trap* - a device designed to retain grease from one to four fixtures (ARM 17.50.802) [Added April 2002].
- *Grease Trap Waste* - the water, solids, and semi-solid material removed from a grease trap or grease interceptor designed to remove cooking grease from home or restaurant wastewater in a sewer system. It does not include oil/water separator wastes at industrial facilities (ARM 17.50.802) [Added April 2002].
- *Gray Water* - any wastewater other than toilet wastes or industrial chemicals, and includes, but is not limited to, shower and bath wastewater, kitchen wastewater and laundry wastewater. It may not contain listed hazardous wastes or hazardous substances above regulatory thresholds (ARM 17.50.802) [Added April 2002].
- *Gray Water* - wastewater that is collected separately from a sewage flow and that does not contain industrial chemicals hazardous wastes, or wastewater from toilets (ARM 17.36.912 and 17.38.101) [Added February 2010].
- *Groundwater* - water occupying the voids within a geologic stratum and within the zone of saturation (ARM 17.30.1001) [Added January 2007].
- *Holding Tank* - a watertight receptacle that receives wastewater for retention and does not as part of its normal operation dispose of or treat wastewater (ARM 17.50.802) [Added April 2002].
- *Holding Tank* - a watertight receptacle that receives wastewater for retention and does not, as part of its normal operation, dispose or treat the wastewater. The term does not include surge tanks used in a gray water irrigation system if the system meets the requirements of 17.36.919 (ARM 17.36.912) [Added February 2010].
- *Human Health Standard* - the parameters listed as human health standards in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].
- *Incorporated Into The Soil* - the injection of waste beneath the surface of the soil or the mixing of waste with the surface soil by plow, disk harrow, spring harrow, tiller, or other Department-approved method (ARM 17.50.802) [Added April 2002]
- *Indirect Discharger* - a nondomestic discharger introducing pollutants to a publicly owned treatment works (ARM 17.30.1304(28)).
- *Individual Wastewater System* - a wastewater system that serves one living unit or commercial structure. The total number of people served may not exceed 24 (ARM 17.38.101 and 17.36.912) [Added February 2010].
- *Interceptor or Clarifier* - a device designed and installed so as to separate and retain deleterious, hazardous, or undesirable matter from normal wastes and permit discharge of normal sewage or liquid wastes into the disposal terminal by gravity (ARM 17.50.802) [Added April 2002].
- *Land With A High Potential For Public Exposure* - land that the public uses frequently. This includes, but is not limited to, public contact sites and reclamation sites located in populated areas (e.g., a construction site located in a city) (ARM 17.50.802) [Added April 2002].
- *Land With A Low Potential For Public Exposure* - is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest, and reclamation sites located in unpopulated areas (e.g., a strip mine located in a rural area) (ARM 17.50.802) [Added April 2002].
- *Living Unit* - the area under one roof occupied by a family. For example, a duplex is considered two living units (ARM 17.38.101 and 17.36.912) [Added February 2010].

- *Mixing Zone* – both of the following definitions
 1. an area established in a permit or final decision on nondegradation issued by the Department where water quality standards may be exceeded, subject to conditions that are imposed by the Department and that are consistent with the rules adopted by the board (MCA 75.5.103) [Added January 2007]
 2. a limited area of a surface water body or a portion of an aquifer, where initial dilution of a discharge takes place and where water quality changes may occur and where certain water quality standards may be exceeded (ARM 17.30.502) [Added January 2007].
- *MPDES* - the Montana Pollutant Discharges Elimination System The MPDES is specifically designed to be compatible with the federal NPDES program established and administered by the EPA (ARM 17.30.1304) [Revised February 2004].
- *Municipality* - a city, town, county, district, association, or other public body created by or pursuant to state law and having jurisdiction over discharge of pollutants or a designated and approved management agency (ARM 17.30.1304(34)).
- *Multiple User Wastewater System* - a nonpublic wastewater system that serves or is intended to serve three through 14 living units or three through 14 commercial structures. The total number of people served may not exceed 24. In estimating the population served, the reviewing authority shall multiply the number of living units times the county average of persons per living unit based on the most recent census data (ARM 17.38.101 and 17.36.912)[Added February 2010].
- *Multiple User Water Supply System* - a non-public water supply system designed to provide water for human consumption to serve three through 14 living units or three through 14 commercial structures. The total number of people served may not exceed 24. In estimating the population served, the reviewing authority shall multiply the number of living units times the county average of persons per living unit based on the most recent census data (ARM 17.36.101) [Added February 2010].
- *Narrative Standards* - those parameters listed as narrative standards in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].
- *Nearly Instantaneous Mixing Zone* - an area where dilution of a discharge to water by the receiving water occurs at a nearly instantaneous rate, with the result that its boundaries are either at the point of discharge or are within 2 stream widths down stream of the point of discharge (ARM 17.30.502) [Added January 2007].
- *New Or Increased Source* - an activity resulting in a change of existing water quality occurring on or after April 29, 1993. The term does not include the following (ARM 17.30.702) [Added January 2007]:
 1. sources from which discharges to state waters have commenced or increased on or after April 29, 1993, provided the discharge is in compliance with the conditions of, and does not exceed the limits established under or determined from, a permit or approval issued by the Department prior to April 29, 1993;
 2. nonpoint sources discharging prior to April 29, 1993;
 3. withdrawals of water pursuant to a valid water right existing prior to April 29, 1993; and
 4. activities or categories of activities causing nonsignificant changes in existing water quality pursuant to ARM 17.30.670, 17.30.715, 17.30.716, or MCA 75-5-301(5)(c).
- *Nonpoint Source* - a diffuse source of pollutants resulting from the activities of man over a relatively large area, the effects of which normally must be addressed or controlled by a management practice rather than by an engineered containment or structure (ARM 17.30.1001) [Added January 2007].
- *Numeric Acute Standards* - the parameters listed as acute aquatic life standards in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].

- *Numeric Chronic Standards* - the parameters listed as chronic aquatic life standards in Department Circular DEQ-7 (ARM 17.30.502) [Added January 2007].
- *Operator-In-Training* - an operator who has passed the certification examination but does not yet meet the experience requirements set out in ARM 17.40.207 (ARM 17.40.201) [Added July 1998].
- *Other Waste* - garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, night soil, oil, grease, tar, heat, chemicals, dead animals, sediment, wrecked or discarded equipment, radioactive materials, solid waste, and all other substance that may pollute state waters (MCA 75-6-102).
- *Owner or Operator* - any person who owns, leases, operates, controls, or supervises a point source (ARM 17.30.1304) [Revised February 2004].
- *Pasture Land* - land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover (fodder) (ARM 17.50.802) [Added April 2002].
- *Pathogen* - a disease-causing organism. This includes, but is not limited to, certain bacteria, protozoa, viruses, and viable helminth ova (ARM 17.50.802) [Added April 2002].
- *Person* - any individual, partnership, firm, association, state, interstate body, municipality, public or private corporation, subdivision, or agency of the state, trust, estate, federal agency, or any other legal entity (ARM 17.30.1304) [Citation Revised February 2004].
- *Point Source* - any discernible, confirmed, or discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (ARM 17.30.1304) [Revised February 2004].
- *Pollutant* - dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar, dirt, and industrial, municipal, and agricultural wastes discharged into water (ARM 17.30.1304(42)).
- *Pollution* - contamination or other alteration of the physical, chemical, or biological properties of any state waters which exceeds that permitted by state water quality standards including, but not limited to, standards relating to change in temperature, taste, color, turbidity, or odor or the discharge or introduction of any liquid, gaseous, solid, radioactive, or other substance into any state water which will or will likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife. A discharge which is authorized under the pollution discharge permit rules of the Board is not pollution (MCA 75-6-102).
- *Portable Toilet* - a sealed pit privy designed to be readily transportable (ARM 17.50.802) [Added April 2002].
- *Privately Owned Treatment Works* - any device or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works and is not a publicly owned treatment works (ARM 17.30.1304(45)).
- *Privy* - a covered or uncovered facility for placement of non-water-carried toilet wastes where the wastes are discharged directly into a seepage pit without treatment in a septic tank or are discharged into a watertight vault (ARM 17.50.802) [Added April 2002].
- *Professional Engineer* - an engineer licensed or otherwise authorized to practice engineering in Montana pursuant to Title 37, chapter 67, MCA (ARM 17.38.101) [Added February 2009].

- *Public Contact Site* - land with a high potential for contact by the public. This includes, but is not limited to, public parks, cemeteries, plant nurseries, turf farms, and golf courses (ARM 17.50.802) [Added April 2002].
- *Publicly Owned Treatment Works (POTW)* - any device or system used in the treatment (including recycling, and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment and a city, town, county, district, or other political subdivision created by or under state law, that has jurisdiction over indirect discharges to and the discharges from a treatment works (ARM 17.30.1304) [Revised February 2004].
- *Public Sewage System* - a system of collection, transportation, treatment, or disposal of sewage that serves 15 or more families or 25 or more persons daily for any 60 or more days in a calendar year. Public sewage systems are further categorized as follows:
 1. community sewage system" means a public sewage system that serves at least 15 service connections used by year-round residents or that regularly serves at least 25 year-round residents, or
 2. non-community sewage system" means any public sewage system which is not a community sewage system (ARM 17.38.101) [Added February 2009].
- *Public Wastewater System* - a system for collection, transportation, treatment, or disposal of wastewater that serves 15 or more families or 25 or more persons daily for a period of at least 60 days in a calendar year. In estimating the population served, the department shall multiply the number of living units times the county average of persons per living unit based on the most recent census data (ARM 17.36.101) [Added February 2010].
- *Public Water Supply System* - a system for the provision of water for human consumption from a community well, water hauler for cisterns, water bottling plant, water dispenser, or other water supply that has at least 15 service connections or that regularly serves at least 25 persons daily for any 60 or more days in a calendar year (ARM 17.36.101) [Added February 2010].
- *Public Water Supply System* - a system for the provision of water for human consumption from a community well, water hauler for cisterns, water bottling plant, water dispenser, or other water supply that has at least 15 service connections or that regularly serves at least 25 persons daily for any 60 or more days in a calendar year. Public water supply systems are further categorized as follows:
 1. community water system" means a public water supply system that serves at least 15 service connections used by year-round residents or that regularly serves at least 25 year-round residents, or
 2. non-community water system" means a public water supply system that is not a community water system (ARM 17.38.101) [Added February 2009].
- *Pumpings* - the materials, liquid and solid, removed from a cesspool, septic tank, privy, portable toilet, grease trap, or car wash (or similar) sump that may be land applied for a beneficial purpose. The term also includes other primarily liquid wastes that may be land applied for a beneficial purpose. These include, but are not limited to, wastes from food processing operations, septage that contains commercial and industrial wastewater, and wastes from snow melt wastewater sumps. The term does not include commercial or industrial wastes that contain listed hazardous wastes or hazardous substances above regulatory thresholds (ARM 17.50.802) [Added April 2002].
- *Range Land* - open land with indigenous vegetation (ARM 17.50.802) [Added April 2002].
- *Reclamation Site* - drastically disturbed land that is being reclaimed. This may include, but is not limited to, strip mines and construction sites (ARM 17.50.802) [Added February 2005].

- *Responsible Charge* - responsibility exercised by an individual in day-by-day operation or supervision of a water supply system, wastewater treatment system, or any part thereof, which may affect the quality or quantity of water for human consumption or the quality of effluent produced by the wastewater treatment system (ARM 17.40.201) [Added July 1998; Revised February 2003].
- *Reviewing Authority* - a local board of health or local health officer, as those terms are defined in 50-2- 101, MCA, or their designees (ARM 17.36.912) [Added February 2010].
- *Sealed Pit Privy* - an enclosed receptacle designed to receive non-water-carried toilet wastes into a watertight vault (ARM 17.50.802) [Added April 2002].
- *Secondary Wastewater Treatment* - a process that reduces the concentrations of contaminants in wastewater, through biological treatment methods such as lagoons, trickling filters, activated sludge, sequencing batch reactors or bio-discs to generally meet the numeric criteria of the National Secondary Treatment Standards contained in 40 CFR Part 133, which have been adopted by reference in ARM Title 17, Chapter 30, subchapter 12 (ARM 17.40.201) [Added February 2003].
- *Septic Tank* - a watertight tank that receives and partially treats sewage through the process of sedimentation, oxidation, floatation, and bacterial action so as to separate solids from the liquid in the sewage, and then discharges the liquid to further treatment (ARM 17.50.802) [Added April 2002].
- *Septic Tank* - a storage settling tank in which settled sludge is in immediate contact with the sewage flowing through the tank while the organic solids are decomposed by anaerobic bacterial action (ARM 17.36.101) [Added February 2010].
- *Service Connection* - a line that provides water or sewer service to a single building or main building with accessory buildings, and that is designed to service line specifications (ARM 17.38.101) [Added February 2009].
- *Sewage Sludge* - the solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to (ARM 17.50.802) [Added April 2002]:
 1. domestic septage
 2. scum or solids removed in primary, secondary, or advanced wastewater treatment processes
 3. material derived from sewage sludge.

Sewage sludge does not include ash generated during firing of sewage sludge in a sewage sludge incinerator or grit and screenings preliminary treatment of domestic sewage in a treatment works.
- *Sewage System* - any device for collecting or conducting sewage, industrial wastes, or other wastes to an ultimate disposal point (ARM 17.30.1304(55)).
- *Sewage System* - a device for collecting or conducting sewage, industrial wastes, or other wastes to an ultimate disposal point (ARM 17.38.101) [Added February 2009].
- *Shared Wastewater System* - a wastewater system that serves or is intended to serve two living units or commercial structures. The total number of people served may not exceed 24. In estimating the population served, the reviewing authority shall multiply the number of living units times the county average of persons per living unit based on the most recent census data (ARM 17.36.101) [Added February 2010].
- *Shared Water System* - a water system that serves or is intended to serve two living units or commercial structures. The total number of people served may not exceed 24. In estimating the population served, the reviewing authority shall multiply the number of living units times the county average of persons per living unit based on the most recent census data (ARM 17.36.101) [Added February 2010].

- *Source* –
 1. any building, structure, facility, or installation from which there is or may be a discharge of pollutants (ARM 17.30.1304) [Revised February 2004].
 2. any sewage system, treatment works, point source, disposal system, concentration of pollutants, or pond containing process wastes or pollutants used, employed or operated so that the same results or under normal operating conditions may reasonably be expected to result in the discharge of pollutants to groundwaters of the state (ARM 17.30.1001) [Added January 2007].
- *Spring* - natural opening in the earth's surface from which water issues or seeps (ARM 17.36.101) [Added February 2010].
- *Standard Mixing Zone* - a mixing zone that meets the requirements of ARM 17.30.516 and 17.30.517 and involves less data collection and demonstration than required for a source specific mixing zone (ARM 17.30.502) [Added January 2007].
- *State Waters* - any body of water, irrigation system, or drainage system, either surface or underground (ARM 17.30.1304(59)).
- *Subsurface Sewage Treatment System* - the method of sewage treatment in which the effluent is applied below the soil surface (ARM 17.38.101) [Added February 2009].
- *Subsurface Wastewater Treatment System* - the process of wastewater treatment in which the effluent is applied below the soil surface or into a mound by an approved distribution system (ARM 17.36.101 and 17.36.912) [Added February 2004; Citation Revised February 2010].
- *Surface Water* – any body of surface water, whether fresh or saline, including bodies such as impoundments, lakes, streams, irrigation ditches, or ponds. (ARM 17.36.101) [Added July 1998; Revised April 2001].
- *Unattended Car Wash Bay* - a place for washing cars or trucks that is not an automatic car wash bay and does not have continuous supervision while open to the public (ARM 17.50.802) [Added February 2005].
- *Upset* - an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation (ARM 17.30.1304) [Citation Revised February 2004].
- *Vector* - any rodent, insect, or other organism, capable of transmitting disease to humans (ARM 17.50.802) [Added April 2002].
- *Vector Attraction* - the characteristic of sewage sludge and other pumpings that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents (ARM 17.50.802) [Added April 2002].
- *Vessel Pumpout Facility* - a facility designed to receive wastes from marine sanitation devices, as defined in 23-2-522(3)(a), MCA (ARM 17.50.802) [Added April 2002].
- *Well* - an artificial excavation that derives water from the interstices of rocks or soil which it penetrates (ARM 17.38.101) [Added February 2009].
- *Wastewater* - sewage, industrial waste, other wastes, or any combination thereof (ARM 17.38.101) [Added February 2009].

- *Wastewater* - water-carried waste that is discharged from a dwelling, building, or other facility, including: (ARM 17.36.101) [Added February 2010].
 - a. household, commercial, or industrial wastes;
 - b. chemicals;
 - c. human excreta; or
 - d. animal and vegetable matter in suspension or solution.
- *Wastewater System* - a public sewage system or other system that collects, transports, treats, or disposes of industrial wastes (ARM 17.38.101) [Added February 2009].
- *Wastewater Treatment System* - a wastewater treatment plant as defined in 37-42-102, MCA (ARM 17.40.201) [Added July 1998].
- *Wastewater Treatment System or Wastewater Disposal System* - a system that receives wastewater for purposes of treatment, storage, or disposal. The term includes, but is not limited to, pit privies and experimental systems (ARM 17.38.101 and 17.36.912) [Added February 2010].
- *Water Treatment System* - a water treatment plant as defined in 37-42-102, MCA (ARM 17.40.201) [Added July 1998].
- *Zone Of Influence* - the area under which a well can be expected to remove water (ARM 17.30.502) [Added January 2007].

**WASTEWATER MANAGEMENT
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REFER TO CHECKLIST ITEMS:

Missing Checklist Items	WA.2.1.MT.
Discharges to the Environment	WA.5.1.MT. through WA.5.5.MT.
Permits	WA.10.1.MT. through WA.10.6.MT.
State Permits	WA.15.1.MT. through WA.15.9.MT.
Treatment Works	WA.20.1.MT. through WA.20.6.MT.
Discharges to a POTWs/ FOTWs	
General	[Deleted - equivalent to the Federal requirements]
Pretreatment Standards	[Deleted - equivalent to the Federal requirements]
Documentation/Reporting to the POTW	[Deleted - equivalent to the Federal requirements]
Limitations for Mixing Zones	WA.90.1.MT. through WA.90.3.MT.
Individual Sewage Systems	WA.100.1.MT. through WA.100.10.MT.
Land Application of Sludge	WA.130.1.MT. through WA.130.6.MT.
Watershed Protection Programs	[Deleted - See WA.15.9.MT.; July 1998]

**WASTEWATER MANAGEMENT
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REFER TO APPENDIX NUMBERS: REFER TO APPENDIX TITLES:

12-1	Allowable Systems, Requirements
12-2	Setback Distances
12-3	Minimum Horizontal Separation Distances for Septic Tanks
12-4	General MPDES Permits
12-5	Incorporations by Reference

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**REGULATORY
REQUIREMENTS:**

**REVIEWER CHECKS:
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WA.2.

**MISSING CHECKLIST
ITEMS**

WA.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).

Determine whether any new regulations have been issued since the finalization of the manual.

Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.

Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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<p>WA.5.</p> <p>DISCHARGES TO THE ENVIRONMENT</p> <p>WA.5.1.MT. Dischargers must meet discharge prohibitions (MCA 75-6-112(1) and (2) and ARM 17.30.1384(1)) [Revised January 2007].</p>	<p>Verify that sewage, drainage, industrial waste, or other wastes that will cause pollution of state waters used for domestic purposes, used as a source for a public water supply system, or used by a water or ice company are not discharged.</p> <p>Verify that sewage, drainage, industrial waste, or other wastes are not discharged into any state waters, on the banks of any state waters, or into any abandoned or operating water well unless the discharge is treated as prescribed by the Board.</p> <p>Verify that pollutants are not disposed of into wells that affect state waters, unless the discharge is provided for in a MPDES permit.</p>
<p>WA.5.2.MT. [Deleted February 2010].</p>	<p>(NOTE: See WQ.115.11.MT.)</p>
<p>WA.5.3.MT. [Deleted February 2010].</p>	<p>(NOTE: See WQ.115.1.MT.)</p>
<p>WA.5.4.MT. [Deleted February 2010].</p>	<p>(NOTE: See WQ.115.1.MT.)</p>
<p>WA.5.5.MT. General water quality criteria must be met (ARM 17.30.637) [Revised April 2000; Revised February 2003; Revised February 2010; Added February 2010].</p>	<p>(NOTE: Moved from WQ.115.12.MT.)</p> <p>Verify that state surface waters are free from substances attributable to municipal, industrial, agricultural practices, or other discharges that do the following:</p> <ul style="list-style-type: none"> - settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines - create floating debris, scum, a visible oil film (i.e., present in concentrations at or above 10 mg/L), globules of grease, or other floating materials

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	<ul style="list-style-type: none"> - produce odors, colors, or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible - create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life - create conditions that produce undesirable aquatic life. <p>Verify that wastes are not discharged and activities are not conducted so that the wastes or activities, either alone or in combination with other wastes or activities, do not violate, or can reasonably be expected to violate, any of the standards.</p> <p>Verify that leaching pads, tailing ponds, or water, waste, or product-holding facilities are located, constructed, operated, and maintained in a manner that prevents a discharge, seepage, drainage, infiltration, or flow that may result in surface water pollution.</p> <p>(NOTE: The Department may require that a monitoring system be installed and operated if the Department determines that pollutants are likely to reach surface waters or present a substantial risk to public health.)</p> <p>Verify that the dumping of snow from municipal and/or parking lot snow removal activities directly into surface waters or placing the snow in a location where it is likely to cause surface water pollution is prohibited unless authorized by the Department.</p> <p>Verify that discharges to dewatered streams and discharges to ephemeral streams receive the minimum treatment requirements specified in WQ.115.11.MT.</p> <p>Verify that pollution resulting from storm drainage, storm sewer discharges, and nonpoint sources, including irrigation practices, road building, construction, logging practices, overgrazing, and other practices, has been eliminated or minimized as specified by the Department.</p> <p>Verify that the application of pesticides in or adjacent to state surface waters is according to label directions, the Montana Pesticides Act, and the Federal Environmental Pesticides Control Act.</p> <p>Verify that excess pesticides and pesticide containers are not disposed of in a manner or in a location where they are likely to pollute surface waters.</p> <p>Verify that no pollutants are discharged and no activities conducted that, either alone or in combination with other wastes/activities, cause the total dissolved gas pressure, relative to the water surface, to exceed 110 percent of saturation.</p> <p>Verify that the construction and operation of logging roads on all public water supply watersheds is approved by the Department.</p>

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<p>WA.10.</p> <p>PERMITS</p> <p>WA.10.1.MT. Dischargers must have a valid MPDES permit (ARM 17.30.1303, 17.30.1310(1) through (6), 17.30.1322(1), 17.30.1330(2) and (5), 17.30.1331(2), (4) and (5), 17.30.1333, and 17.30.1341) [Citation Revised February 2004; Revised January 2007].</p>	<p>(NOTE: Moved from WA.15.3.MT., February 2004.)</p> <p>(NOTE: The state MPDES permit system is essentially the equivalent of the federal permit NPDES system administered by the USEPA.)</p> <p>Verify that pollutant dischargers have a valid MPDES permit.</p> <p>Verify that the terms and conditions of the permit have been met.</p> <p>(NOTE: The following discharges are not required to have MPDES permits:</p> <ul style="list-style-type: none"> - discharges of dredged or fill materials into waters of the U.S. which are regulated under section 404 of the Federal <i>Clean Water Act</i> - introduction of sewage, industrial wastes, or other pollutants into POTWs by indirect dischargers - any discharge in compliance with the instructions of an on-scene coordinator pursuant to 40 CFR Part 300 et seq. - any introduction of pollutants from nonpoint-source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands, but not including discharges from concentrated animal feeding operations, discharges from concentrated aquatic animal production facilities, and discharges from silvicultural point sources - return flows from irrigated agriculture - discharges into a privately owned treatment works.) <p>(NOTE: The second exclusion does not apply to pollutants introduced to privately owned treatment works or to other discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other party not leading to treatment works.)</p> <p>(NOTE: Concentrated animal feeding operations and concentrated aquatic animal production facilities are point sources subject to the MPDES program but must have an MPDES permit only when required to by the Department. Discharges into aquaculture projects and silvicultural point sources are subject to the MPDES permit program.)</p> <p>(NOTE: The Department may issue MPDES general permits for of point sources (see Appendix 12-4 for listing)</p>
<p>WA.10.2.MT. Storm water</p>	<p>Verify that an MPDES general permit or another individual MPDES permit is</p>

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<p>discharges from a point source must obtain either a general or individual MPDES permit (ARM 17.30.1105, 17.30.1106 and 17.30.1110) [Added February 2004; Revised January 2007].</p> <p>WA.10.3.MT. New sources must meet startup</p>	<p>obtained for any storm water discharge from a point source including:</p> <ul style="list-style-type: none"> - associated with construction activity - associated with industrial activity - associated with mining and oil and gas activity - from small municipal separate storm sewer systems - for which the Department determines that storm water controls are needed based on wasteload allocations that are part of TMDLs that address the pollutants of concern - that the Department determines are contributing to a violation of a water quality standard or are significant contributors of pollutants to surface waters. <p>Verify that either an individual or general MPDES permit is obtained for the following:</p> <ul style="list-style-type: none"> - for point source discharges of storm water not routinely composed of storm water, and that routinely discharge pollutants, - for storm water discharge combined with municipal sewage from a point source <p>(NOTE: The Department may waive the permit requirements for a storm water discharge associated with construction activity that disturbs less than 5 acres of total land area.)</p> <p>Verify that application for the general permit includes a stormwater pollution prevention plan (SWPPP).</p> <p>(NOTE: Small MS4s do not require a SWPPP.)</p> <p>(NOTE: The following storm water discharges do not require MPDES permits:</p> <ul style="list-style-type: none"> - point source discharges of storm water to ground water - existing or new discharges composed entirely of storm water from oil or gas exploration, production, processing, or treatment operations, or transmission facilities, unless the operation or facility: <ul style="list-style-type: none"> - has had, at any time since November 16, 1987, a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required - contributes to a violation of a water quality standard - has a storm water discharge associated with construction activity. - existing or new discharges composed entirely of storm water from mining operations, unless the discharge has come into contact with any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations.) <p>(NOTE: Moved from WA.15.8.MT., February 2004.)</p>

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<p>requirements (ARM 17.30.1340(1), (2), and (8)) [Citation Revised January 2007].</p> <p>WA.10.4.MT. MPDES permit holders must meet monitoring and recordkeeping requirements (ARM 17.30.1342(10)) [Revised February 2004].</p> <p>WA.10.5.MT. MPDES permit holders must meet notification requirements (ARM 17.30.1342(12) (a), (b), (d) (ii), (e) through (g))</p>	<p>Verify that new source pollution control equipment is installed and operational prior to beginning to discharge.</p> <p>Verify that all MPDES permit conditions are met within 90 days.</p> <p>(NOTE: A source is a new source if it meets the requirements specified in the definition and the following additional requirements: <ul style="list-style-type: none"> - it is constructed at a site at which no other source is located - it totally replaces the process or production equipment the causes the discharge of pollutants at an existing source - its processes are substantially independent of an existing source at the same site - if a new source performance standard is independently applicable to it.) </p> <p>(NOTE: Moved from WA.15.5.MT., February 2004.)</p> <p>Verify that monitoring samples and measurements are representative of the monitored activity.</p> <p>Verify that records are maintained of all monitoring information for at least 3 yr, including the following: <ul style="list-style-type: none"> - all calibration and maintenance records - all original strip chart recordings for continuous monitoring instrumentation - copies of all reports required by the permit - records of all data used to complete the permit application. </p> <p>Verify that records of monitoring information include the following: <ul style="list-style-type: none"> - date, exact place, and time of sampling or measurements - the individual(s) who performed the sampling or measurements - date(s) analyses were performed - the individual(s) who performed the analyses - analytical techniques or methods used, and - results of analyses. </p> <p>Verify that monitoring is conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.</p> <p>(NOTE: Moved from WA.15.6.MT., February 2004.)</p> <p>Verify that the Department is notified as soon as possible of any planned physical alterations or additions to the permitted facility.</p>

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	<p>any toxic pollutant which is not limited in the permit if the discharge will exceed the highest of the following:</p> <ul style="list-style-type: none"> - 500 micrograms/L - 1 mg/L for antimony - ten times the maximum concentration value reported for that pollutant in the permit application.

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<p>WA.15.</p> <p>STATE PERMITS</p> <p>WA.15.1.MT. Dischargers must meet permitting and reporting requirements (ARM 17.30.1022, 17.30.1023(1) and 17.30.1030(1)) [Revised July 1998].</p>	<p>Verify that an owner or operator of any existing source discharging pollutants into state groundwaters has a valid Montana Groundwater Pollution Control System permit.</p> <p>Verify that the terms and conditions of the permit have been met.</p> <p>(NOTE: The following are exempt from the permit requirement:</p> <ul style="list-style-type: none"> - licensed motor vehicle wrecking facilities and county motor vehicle graveyards - sources that obtain an MPDES permit - public sewage systems that were reviewed and approved by the Department prior to 1 May 1998 (however, this exclusion does not apply to systems with a design capacity greater than 5000 gal/day, if the operator of the system requests a modification after 1 May 1998, or if the Department determines that operation of the system has caused a violation of a statute or rule administered by the Department after 1 May 1998) - public sewage systems with a design capacity less than 5000 gal/day, that are reviewed and approved by the Department after 1 May 1998 - multi-family sewage disposal systems reviewed and approved by the state or a local government (however, this exclusion does not apply to aerobic package plant systems, mechanical treatment plants, and nutrient removal systems, which require a high degree of operation and maintenance, or systems which require monitoring) - public sewage systems that use land application as a method of disposal and that have been reviewed and approved by the Department.) <p>Verify that any sewerage system, treatment works, or disposal system expansions, production increases, or process modifications that may result in new or increased discharges of pollutants into state groundwaters in violation of permit conditions are reported to the Department.</p>
<p>WA.15.2.MT. [Deleted February 2004].</p>	<p>(NOTE: See WA.20.6.MT.)</p>
<p>WA.15.3.MT. [Moved February 2004].</p>	<p>(NOTE: Moved to WA.10.1.MT., February 2004.)</p>

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WA.15.4.MT. February 2004].	[Deleted (NOTE: Requirements contained in WA.10.1.MT.)
WA.15.5.MT. February 2004].	[Moved (NOTE: Moved to WA.10.4.MT., February 2004.)
WA.15.6.MT. February 2004].	[Moved (NOTE: Moved to WA.10.5.MT., February 2004.)
WA.15.7.MT. February 2004].	[Moved (NOTE: Moved to WA.10.6.MT., February 2004.)
WA.15.8.MT. February 2004].	[Moved (NOTE: Moved to WA.10.3.MT., February 2004.)
WA.15.9.MT. February 2004].	[Deleted (NOTE: ARM 17.30.1332 was repealed.)

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<p>WA.20.</p> <p>TREATMENT WORKS</p> <p>WA.20.1.MT. POTWs must meet notification requirements (ARM 17.30.1343(1)(b)) [Citation Revised January 2007].</p> <p>WA.20.2.MT. [Deleted July 1998].</p> <p>WA.20.3.MT. [Deleted July 1998].</p> <p>WA.20.4.MT. [Deleted July 1998].</p> <p>WA.20.5.MT. Waste water systems must have a certified operator in responsible charge and meet designated contact person requirements (ARM 17.40.208 and 17.38.249) [Added July 1998; Revised February 2004].</p>	<p>Verify that POTWs notify the Department of any new introduction of pollutants into the POTW from an indirect discharger that would be subject to the effluent limits or standards of performance if it were directly discharging those pollutants.</p> <p>Verify that POTWs notify the Department of any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of permit issuance.</p> <p>Verify that the notification includes the quality and quantity of effluent introduced into the POTW and any anticipated impact on the quantity or quality of effluent to be discharged from the POTW.</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>Verify that every waste water system has an individual in responsible charge at the system site or on call at all times who can respond in a timely manner to threats to public or environmental health.</p> <p>Verify that the individual in responsible charge of a system is a fully certified operator for that class or a higher class of system.</p> <p>(NOTE: An operator with a temporary certificate or an operator-in-training certificate may be the operator in responsible charge of a system upon:</p> <ul style="list-style-type: none"> - written request to the Department by the system owner and verification by the owner that the system is unable to employ a fully certified operator - a finding by the Department that the operator has the basic knowledge necessary to operate the system and that public health will be protected.) <p>(NOTE: An industrial wastewater treatment system that discharges to municipal facilities or removes sediment without a surface water discharge does not need a</p>

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<p>WA.20.6.MT. Plans for the construction, alteration, or extension of a waste water system must be approved (ARM 17.38.101(4), (9), (10), and (12)) [Added July 1998; Revised April 1999; Revised February 2004; Citation Revised January 2007].</p>	<p>certified operator.)</p> <p>Verify that wastewater treatment systems have designated a person who is responsible for contact and communications with the Department in matters relating to system alteration, construction, monitoring, sampling, maintenance, operation, recordkeeping, and reporting.</p> <p>Verify that wastewater treatment systems that have designated a person who is responsible for contact and communications with the Department, notifies the Department within 30 days.</p> <p>Verify that any change in assigned responsibilities or designated persons is reported to the Department within 30 days.</p> <p>Verify that, before commencing the construction, alteration or extension of a wastewater system, the system submits a design report along with the necessary plans and specifications for the system to the Department or a delegated division of local government for its review and written approval.</p> <p>Verify that approval is received prior to any deviation from the approved plans and specifications.</p> <p>(NOTE: Unless the construction, alteration or extension is completed within 2 years after the Department issued it written approval, the approval is void.)</p> <p>Verify that within 90 days after completion of construction, alteration, or extension, a complete set of certified 'as-built' drawings are signed and submitted to the Department.</p> <p>Verify that prior to commencing use of a new wastewater system, or any portion of a new wastewater system, the system certifies by letter to the Department that the system, or portion of the system constructed to that date, was built in accordance with approved plans and specifications.</p>

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<p>WA.90.</p> <p>LIMITATIONS FOR MIXING ZONES</p> <p>WA.90.1.MT. The Department must approve the use of a mixing zone (ARM 17.30.506, 17.30.516(1), and 17.30.518(1)) [Added January 2007].</p> <p>WA.90.2.MT. Mixing zones for surface waters must comply with the water quality standards (ARM 17.30.507 (1)) [Added January 2007].</p> <p>WA.90.3.MT. Mixing zones for ground waters must comply with the water quality standards and not intercept the zone of influence of an existing drinking water supply well (ARM 17.30.508) [Added</p>	<p>Verify that the mixing zone does not threaten or impair existing beneficial uses.</p> <p>Verify that the Department approves the mixing zone and determines the conditions that are applied.</p> <p>(NOTE: Where the Department determines that allowing a mixing zone at a given level for a parameter would threaten or impair existing beneficial use, discharge limitations will be modified as necessary to prevent the interference with or threat to the beneficial use.)</p> <p>(NOTE: If a discharge to surface water is small in comparison to the volume of the receiving water or if the mixing is nearly instantaneous and the parameter(s) of concern will not threaten or impair existing uses, a standard mixing zone may be used.)</p> <p>(NOTE: If adequate information regarding stream flow or ground water flow is not available or if a standard mixing zone is not applicable or desired by the applicant, an applicant may request a source specific mixing zone.)</p> <p>Verify that the narrative water quality standards, standards for harmful substances, numeric acute and chronic standards for aquatic life, and standards based on human health are not exceeded beyond the boundaries of the surface water mixing zone.</p> <p>Verify that acute standards for aquatic life for any parameter are not exceeded in any portion of a mixing zone, unless the Department specifically allows the exceedance.</p> <p>Verify that human health based ground water standards are not exceeded beyond the boundaries of the mixing zone.</p> <p>Verify that the zone of influence of an existing drinking water supply well does not intercept the mixing zone.</p>

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<p>WA.100.</p> <p>INDIVIDUAL SEWAGE SYSTEMS</p> <p>WA.100.1.MT. [Deleted February 2004].</p> <p>WA.100.2.MT [Deleted February 2004].</p> <p>WA.100.3.MT. New and replacement subdivision sewage systems must meet general requirements (ARM 17.36.321) [Revised April 2001; Revised February 2005].</p> <p>WA.100.4.MT. Subdivision subsurface sewage treatment systems must meet site</p>	<p>(NOTE: ARM 17.36.907 was repealed.)</p> <p>(NOTE: ARM 17.36.902 and 17.36.907 were repealed.)</p> <p>Verify that only systems listed in Appendix 12-1 are installed as new systems.</p> <p>Verify that systems designed in accordance with Department Circular DEQ-2 1999 are not used for individual, shared, or multi-user systems.</p> <p>Verify that the following sewage systems are not used for new systems:</p> <ul style="list-style-type: none"> - cut systems - fill systems - artificially drained systems - cesspools - pit privies - seepage pits - holding tanks <p>Verify that the following systems are only used as replacement systems, subject to the limitations provided in Department Circular DEQ-4:</p> <ul style="list-style-type: none"> - cut systems - fill systems - artificially drained systems <p>Verify that sealed pit privies are only used in facilities owned and operated by a local, state, or federal unit of government, or in facilities where use of a sealed pit privy is authorized by the Department.</p> <p>Verify that a subsurface treatment system is not used where natural slopes are greater than 15 percent.</p>

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<p>requirements (ARM 17.36.322) [Revised April 2001; Revised February 2005].</p> <p>WA.100.5.MT. Subdivision subsurface sewage treatment systems must meet horizontal setback requirements (ARM 17.36.323) [Revised April 2001; Revised February 2005].</p> <p>WA.100.6.MT. Persons engaged in cleaning cesspools, septic tanks, privies, grease traps, car wash sumps, or similar treatment works, or by persons who dispose of such</p>	<p>(NOTE: The Department may, by waiver, allow a sewage treatment system with a design flow of 5000 gpd or less on slopes between 15 percent and 25 percent if a registered professional engineer or a person qualified to evaluate and identify soil submits adequate evidence that there will be no visible outflow of liquid downslope from the subsurface sewage treatment system.)</p> <p>Verify that a subsurface sewage treatment system is not installed on an unstable land form.</p> <p>Verify that no component of a sewage treatment system is located under structures or driveways, parking areas, or other areas subjected to vehicular traffic, except those components of the system designed to accommodate such conditions.</p> <p>Verify that drainfields are not located in swales or depressions where runoff may flow or accumulate.</p> <p>Verify that the minimum horizontal setback distance, as provided in Appendix 12-2, is maintained.</p> <p>(NOTE: A waiver of the setback distance for a cistern may be granted by the Department if the applicant demonstrates that the elevation of the cistern is higher than the elevation of the septic tank, other components, or drainfield and mound.)</p> <p>(NOTE: A waiver of the setback distance between drainfields and mounds and surface waters, springs, and floodplains may be granted by the Department, only if:</p> <ul style="list-style-type: none"> - the applicant demonstrates that groundwater flow at the drainfield site can not flow into the water or spring - the surface water or spring seasonally high water level is a minimum of 100 feet horizontal distance from the drainfield will be at least 2 ft from above the floodplain elevation.) <p>(NOTE: The Department may require more than 100 ft of separation from the flood plain or from surface water springs if it determines that site conditions or water quality nondegradation requirements indicate a need for greater distance.)</p> <p>Verify that any person who engages in the business of cleaning cesspools, septic tanks, portable toilets, privies, grease traps, car wash sumps, or similar treatment works, or disposal of septage and other wastes from these devices, is licensed by the Department.</p> <p>Verify that, before a new vehicle is placed in service, the vehicle is inspected by</p>

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<p>wastes must be licensed and meet disposal requirements (ARM 17.50.803(1), 17.50.816(3) and (4), and 17.50.816) [Added April 2002; Revised February 2005].</p>	<p>the local health officer.</p> <p>Verify that privy waste, pit toilet waste, portable toilet waste, vessel pumpout facility waste or recreational vehicle waste is not placed in a wastewater treatment system with a cesspool.</p> <p>Verify that privy wastes, pit toilet waste, portable toilet waste, vessel pumpout facility waste or recreational vehicle wastes is not placed in a wastewater treatment system with a septic tank, unless the septic tank and connected liquid treatment system was designed for this purpose by a professional engineer licensed to practice engineering in Montana.</p> <p>Verify that the following records with the following information are maintained at the place of business indicated on the license application or other Department-approved location:</p> <ul style="list-style-type: none"> - type of material deposited at each disposal location - location of each disposal site, by street address, latitude and longitude, or township, range, section and quarter section - volume of each material deposited at each site, such as septage, grease trap wastes, sump pumpings, and wastes - number of acres to which pumpings are applied - date and time of each application - nitrogen requirement for the crop or other vegetation grown on each site - rate at which the different kinds of pumpings are deposited at each site in gallons per acre during a year - vector attraction and pathogen reduction method used for each volume of pumpings applied - pH of the material 30 minutes after alkali addition, if that method is chosen for pathogen and vector attraction reduction - records of land owner objections to application of alkali-stabilized septage. <p>Verify that disposal and land application records are kept for 5 years.</p> <p>Verify that a summary of the records is submitted to the Department on the following schedule:</p> <ul style="list-style-type: none"> - for the period of January 1 through June 30, by July 15 - for the period of July 1 through December 31, with the annual license renewal. <p>(NOTE: The licensing requirement is repeated in WA.130.1.MT. The recordkeeping and reporting requirements are repeated in WA.130.6.MT. See WA.130.1.MT. through WA.130.6. for land-application requirements.)</p> <p>(NOTE: The purpose of subchapter 8 is to provide standards for the licensure of cesspool, septic tank and privy cleaning businesses and to establish uniform requirements for the disposal of septage, grease trap waste, privy waste, car wash</p>

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<p>WA.100.7.MT. Subsurface wastewater treatment systems must be permitted and meet general standards (ARM 17.36.913, 17.36.914(1) and 17.36.920) [Added February 2004; Revised February 2005; Revised February 2010].</p>	<p>septic tank pumpings that contain commercial and industrial wastewater, and snow melt sump wastewater, that can be applied to the land for a beneficial purpose.)</p> <p>Verify that subsurface wastewater treatment systems are not constructed, altered, repaired, extended or utilized without a permit from the reviewing authority.</p> <p>Verify that wastewater treatment or disposal systems are not constructed, altered, extended, or utilized that will:</p> <ul style="list-style-type: none"> - contaminate any actual or potential drinking water supply - cause a public health hazard as a result of access to insects, rodents, or other possible carriers of disease to humans - cause a public health hazard by being accessible to persons or animals - violate any law or regulation governing water pollution or wastewater treatment and disposal - pollute or contaminate state waters - degrade state waters unless authorized - cause a nuisance due to odor, unsightly appearance or other aesthetic consideration. <p>(NOTE: All wastewater treatment systems must be designed and constructed in accordance with the applicable requirements in ARM 17.36.913 and in Department Circular DEQ-4, 2009 edition, which sets forth standards for subsurface sewage treatment systems, and Department Circular DEQ-2, 1999 edition, which sets forth design standards for wastewater facilities, are adopted and incorporated by reference.)</p>
<p>WA.100.8.MT. Car wash sumps and other sump waste must meet management requirement (ARM 17.50.814 (1) through (3), (11) and (13)) [Added February 2005].</p>	<p>Verify that a person does not remove or dispose of waste from a car wash sump or other sump unless the person is licensed by the Department or is an owner, operator, or employee of the facility.</p> <p>Verify that contract labor for removal or disposal of sump waste is licensed.</p> <p>Verify that, if rental equipment is used to pump a car wash sump or other sump, the person is licensed by the Department or is the owner, operator, or employee of the facility.</p> <p>Verify that wastes from any type of sump other than a car wash sump is not pumped or disposed unless the person has first applied to the Department and received its approval.</p> <p>Verify that sump pumpings that fail the chlorinated solvents screening test or cannot be excluded from the test by the owner's knowledge of the material, are</p>

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<p>WA.100.9.MT. Sump pumpings from attended and unattended car wash bays must meet management requirement (ARM 17.50.814 (4) through (10) and (12)) [Added February 2005].</p>	<p>tested or screened for the following:</p> <ul style="list-style-type: none"> - volatile organic compounds (VOCs) by a method capable of detecting and quantifying at least one part per billion VOCs in the waste - petroleum hydrocarbons by a method capable of detecting at least one part per million hydrocarbons - total chromium, lead, zinc, and cadmium content by a method capable of detecting and quantifying at least one part per million of each element. <p>Verify that, if contamination is detected above action levels, the operator notifies the Department, and the Department specifies further testing requirements and waste disposal options.</p> <p>(NOTE: If free of contaminants above Department action levels, the sump pumpings may be used as clean fill or, if dewatered, as daily or intermediate cover at landfills.)</p> <p>Verify that the pumper retains all testing results for 5 years and makes them available to the Department upon request.</p> <p>(NOTE: Waste from an automatic car wash bay sump may be used as clean fill or, if dewatered, as cover at landfills.)</p> <p>Verify that, if the owner of an attended car wash provides the pumper with a written statement that the material is solvent-free, sump pumpings from attended car wash bays that prohibit the use of chlorinated solvents and are free from visible oil and grease may be used as clean fill or, if dewatered, as daily or intermediate landfill cover.</p> <p>(NOTE: Sump pumpings from an attended car wash bay that contain visible oil or grease may be landfarmed in accordance with applicable Department rules at a licensed landfarm facility or, if dewatered, disposed of at a licensed Class II landfill with the operator's permission.)</p> <p>Verify that sump pumpings from an attended car wash bay that does not prohibit the use of chlorinated solvents and sump pumpings from an unattended car wash bay are either:</p> <ul style="list-style-type: none"> - visually examined for oil and grease and screened for chlorinated solvents - the owner provides the pumper with a statement concerning the solvent-free status of the material. <p>(NOTE: Screening may be done with commercially available field kits and test strips.)</p> <p>(NOTE: Sump pumpings from an unattended car wash bay that does not contain</p>

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<p>WA.100.10.MT. Grease trap wastes must meet management requirement (ARM 17.50.815) [Added February 2005].</p>	<p>visible oil or grease and are known to be free of chlorinated solvents, either by testing or knowledge of the material, may be used as clean fill or, if dewatered, as daily or intermediate landfill cover.)</p> <p>(NOTE: Sump pumpings from an unattended car wash bay that contain visible oil or grease, but pass the chlorinated solvent screening or are excluded from the screening requirement by the owner's knowledge of the material, may be landfarmed in accordance with applicable Department rules at a licensed landfarm facility or, if dewatered, disposed of at a licensed Class II landfill with the landfill operator's permission.)</p> <p>Verify that waste removed from unattended car wash sumps that undergo further testing are stored in a manner to prevent contamination of the environment until the operator receives testing results and disposes of the wastes.</p> <p>(NOTE: Storage may be in lined ponds, holding tanks, or concrete bins.)</p> <p>(NOTE: For the purpose of this rule, <i>grease interceptor</i> and <i>grease trap</i> mean grease trap. Oil/water separators at commercial and industrial facilities are not grease traps.)</p> <p>Verify that grease trap waste is not discharged to a treatment works not specifically designed to manage the waste.</p> <p>(NOTE: Grease trap waste may be dewatered at a permitted wastewater treatment works designed in conformance with Circular DEQ 2, Design Standards for Wastewater Facilities, a solid waste management system licensed in conformance with Title 75, chapter 10, part 2, MCA, or at a land application site approved in conformance with subchapter 8 (see WA.130.1.MT. through WA.130.06.MT.).)</p> <p>Verify that, if grease trap waste is dewatered where it is produced, the person has a solid waste management license.</p> <p>Verify that, if the owner or lessee of the property from which grease trap waste is removed dewateres grease trap waste on that property, the property and the dewatering meets the following conditions:</p> <ul style="list-style-type: none"> - has an area greater than 5 acres - the dewatering does not constitute a nuisance or public health hazard and is not harmful to human health or the environment. <p>(NOTE: The water from a grease trap dewatering process is commercial wastewater. Dewatered grease trap waste may be disposed of at a licensed Class II solid waste management facility.)</p>

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	<p>Verify that the water from the grease trap dewatering is managed at one of the following:</p> <ul style="list-style-type: none"> - discharged to an individual commercial wastewater treatment system or approved wastewater treatment facility - land-applied at an approved septage land application site. <p>Verify that grease trap waste, dewatered or not, is managed according to the following applicable standards:</p> <ul style="list-style-type: none"> - disposed of at a licensed Class II solid waste management facility - composted at a licensed compost facility - treated at a rendering plant - land-applied according to the requirements of WA.130.1.MT. through WA.130.6.MT. <p>(NOTE: The Department may approve other methods for handling grease trap waste on a case-by-case basis. A person may not dispose of grease trap waste other than by landfilling at a licensed solid waste management system, management, or disposal in a permitted treatment works unless the person has first submitted a written application to the Department and received the Department's written determination that the proposed disposal methods are at least as protective of human health and the environment as the requirements of subchapter 8.)</p>

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<p>WA.130.</p> <p>LAND APPLICATION OF SLUDGE</p> <p>WA.130.1.MT. Disposal of septage and related wastes must meet licensing requirements (ARM 17.50.801, 17.50.803(1) and 17.50.816 (5) and (6)) [Added April 2002; Revised February 2005].</p> <p>WA.130.2.MT. Land application sites for septage and related wastes must meet specific criteria (ARM 17.50.809) [Added April 2002; Revised February 2005].</p>	<p>Verify that any person who disposes of wastes from cesspools, septic tanks, portable toilets, privies, grease traps, car wash sumps, or similar treatment works, is licensed by the Department.</p> <p>Verify that privy wastes, pit toilet waste, portable toilet waste, vessel pumpout facility waste or recreational vehicle wastes are not land applies unless the following conditions are met:</p> <ul style="list-style-type: none"> - pathogen reduction, vector attraction reduction, and site restriction criteria for disposal of septage are in accordance with ARM 17.50.811 (see WA.130.4.MT. and WA.130.5.MT. - the requirements of ARM 17.50.810 (see WA.130.3.MT.) for special conditions have been met - the wastes are screened or sorted before application, during application, or within 6 hours after application and before incorporation into the soil to remove large non-putrescible wastes - non-putrescible wastes are disposed of in a Class II solid waste management facility licensed in accordance with MCA 75-10-221. <p>(NOTE: The requirement for licensing is repeated in WA.100.6.MT.)</p> <p>(NOTE: The purpose of subchapter 8 is to provide standards for the licensure of cesspool, septic tank and privy cleaning businesses and to establish uniform requirements for the disposal of septage, grease trap waste, privy waste, car wash sump waste, and other similar wastes. These similar wastes include, but are not limited to other primarily liquid wastes such as food processing wastes, septic tank pumpings that contain commercial and industrial wastewater, and snow melt sump wastewater, that can be applied to the land for a beneficial purpose.)</p> <p>Verify that pumpings are not applied to land within 500 feet of any occupied building or inhabited building.</p> <p>Verify that pumpings are not applied to land within 150 feet of any state surface water, including ephemeral or intermittent drainages and wetlands.</p> <p>(NOTE: The Department or local health officer or the health officer's designated representative may require greater distances where slopes or other factors may increase chance of runoff from the land application area.)</p> <p>Verify that pumpings are not applied to land within 100 feet of any state, federal,</p>

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	<p>county or city maintained highways or roads.</p> <p>Verify that pumpings are not applied to land within 100 feet of a drinking water supply source.</p> <p>(NOTE: The Department or local health officer or the health officer's representative may require greater distance where site conditions might increase the likelihood of contamination of a drinking water source.)</p> <p>Verify that pumpings are not applied where ponding or runoff of septage is likely to occur.</p> <p>Verify that pumpings are not applied to land with slopes greater than 6 percent.</p> <p>Verify that pumpings are not applied to land through subsurface injection on slopes greater than 12 percent.</p> <p>Verify that pumpings are applied to the land surface only where at least six feet separate the land surface from seasonally high ground water.</p> <p>(NOTE: The Department or local health officer or the health officer's designated representative may require greater separation where soil types or specific application processes might increase the likelihood of ground water contamination.)</p> <p>Verify that pumpings are not applied to land without the express written permission of the land owner or the land owner's designated representative.</p> <p>(NOTE: If land is leased from a tribe or governmental agency, permission of the tribe or agency will be obtained before pumpings may be applied to the land. Permission must be provided on the form submitted to the Department as part of the application process, or on the Department-authorized form for additional site location. If the pumpings are to be applied to land owned by the owner of the land on which they were generated, the pumper shall keep a permission slip or signed receipt.)</p> <p>Verify that the pumper controls litter at land application sites as necessary to prevent its spread to adjoining properties.</p> <p>Verify that litter is removed from a land application site within six h after application.</p> <p>Verify that bulk septage or other pumpings are not applied to agricultural land, forest land, pasture land, or range land at a rate greater than the agronomic rate of the site for nitrogen on an annual basis.</p> <p>(NOTE: The annual application rate (AAR) for bulk septage, in gallons/acre/year, is determined by the formula $AAR=N/0.0026$, where N equals</p>

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<p>WA.130.3.MT. Land application sites for septage and related wastes must meet seasonal operating restrictions (ARM 17.50.810) [Added April 2002; Revised February 2005].</p>	<p>the amount of nitrogen, in pounds per acre per 365-day period, needed by the crop or vegetation grown on the land.)</p> <p>Verify that bulk septage is not applied at a reclamation site in excess of the agronomic rate unless the person first obtains site-specific approval from the Department.</p> <p>Verify that pumpings are not applied to land where a threatened or endangered species or its designated critical habitat is likely to be adversely affected.</p> <p>Verify that a site is not within 500 feet of an occupied or inhabited building or within 100 feet of a drinking water source.</p> <p>Verify that pumpings are not applied to flooded, frozen, or snow covered ground if the pumpings may enter state waters.</p> <p>(NOTE: A person may apply routine maintenance pumpings, or emergency pumpings, including but not limited to, pumpings required due to septic system freeze-ups, overflows, flooding, or failures, to frozen or snow covered ground, only if no other reasonable treatment method is available. Reasonable treatment method options include hauling the waste to a waste water treatment plant or a septage storage, treatment, or dewatering facility that will accept the waste and that is within 25 miles of the point of generation.)</p> <p>Verify that pumpings are applied to frozen or snow covered ground only if the preceding conditions are met, and:</p> <ul style="list-style-type: none"> - sites or fields used have a slope of less than or equal to 3 percent - the land is not within a 100-yr floodplain - bulk septage, privy waste, pit toilet waste, portable toilet waste, vessel pumpout facility waste, and recreational vehicle dump station waste, have undergone treatment by the vector reduction technique or, if not alkali stabilized, are incorporated into the soil as soon as the weather permits - grease trap wastes are incorporated into the soil as soon as the weather permits - septage privy waste, pit toilet waste, portable toilet waste, vessel pumpout facility waste, and recreational vehicle dump station waste have undergone alkali stabilization, unless the owner or the owner's authorized representative is unwilling to accept pH-stabilized wastes. <p>(NOTE: If the wastes are not alkali stabilized, the pumper will keep the signed written statement of objection to the alkali-stabilization from the owner or authorized representative on file.)</p> <p>Verify that, if mechanical dewatering of septage is required, dewatering is performed on the property from which the waste is to be removed, at a land</p>

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<p>WA.130.4.MT. Land application, incorporation of, or disposal of septage and related waste must meet management requirements (ARM 17.50.811 (1), (2), and (6) through (10) [Added February 2005]).</p>	<p>application site approved in conformance with this subchapter, at a licensed solid waste management system, or at a permitted wastewater treatment plant.</p> <p>Verify that water removed from septage through a dewatering process meets septage disposal requirements, and one of the following occurs:</p> <ul style="list-style-type: none"> - it is land applied as permitted under this subchapter for septage - it is discharged to a permitted wastewater treatment facility - it is discharged to an engineered commercial septic system, or - it is replaced in the individual septic system of origin. <p>Verify that dewatered solids are applied to land in conformance with this subchapter or compost or disposed of in a licensed solid waste management system.</p> <p>Verify that gray water is land-applied at approved sites without vector or pathogen reduction only if it will not pollute state waters.</p> <p>(NOTE: See the US TEAM Guide for details on vector and pathogen reduction.)</p> <p>Verify that a person using a truck to carry potable water and pumpings uses separate tanks with no common wall for pumpings and potable water and complies with ARM Title 17, chapter 38, subchapter 5, which regulates water haulers.</p> <p>Verify that mixed loads of different types of pumpings are handled with all appropriate restrictions applicable to the individual components.</p> <p>Verify that septage is not applied to public contact sites or home lawns or gardens.</p> <p>Verify that bulk materials derived from septage, or materials derived from septage sold or given away in a bag or other container, is not applied to public contact sites or home lawns or gardens unless the materials to be applied satisfy the pollutant concentration requirements in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), and at least one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (b)(8) (see WA.105.3.US.).</p> <p>Verify that, if septage and material derived from septage is disposed of in a Class II disposal unit licensed by the Department pursuant to ARM Title 17, chapter 50, subchapter 5, it is dewatered first so it is no longer a bulk liquid.</p> <p>Verify that, if septage is placed in an active sewage sludge management unit at a permitted wastewater treatment facility, the facility is designed and operated to handle septage in a manner protective of human health and the environment and</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>WA.130.5.MT. Septage and related waste that does not meet the pollutant, pathogen, and vector control requirements must meet management requirements (ARM 17.50.811 (3), (4), and (5)) [Added February 2005].</p>	<p>in conformance with Circular DEQ 2, Design Standards for Wastewater Facilities.</p> <p>Verify that, if septage or material derived from septage is disposed of other than by landfilling or composting at a licensed solid waste management facility, or in a permitted treatment works, the Department has issued a written determination that the proposed disposal methods are at least as protective of human health and the environment as the required methods.</p> <p>Verify that if, the screening of septage is required prior to application to land, the screen has a maximum opening width of three-quarters of an inch to remove non-putrescible wastes.</p> <p>Verify that non-putrescible screened wastes are disposed of in a Class II solid waste management facility licensed in accordance with MCA 75-10-221.</p> <p>(NOTE: Screening is not required during the months of December, January, or February, but nonputrescible wastes must be removed from the land application site within one week after the snow melts.)</p> <p>Verify that septage is applied to with a spreader bar, splash plate, or other dispersive mechanism approved by the Department.</p> <p>(NOTE: These requirements apply to septage and related wastes that do not meet the requirements of WA.105.3.US. referenced in WA.130.4.MT.)</p> <p>Verify that bulk septage, materials derived for septage, or materials derives from septage sold or given away in a bag or other containers that does not meet the requirements of WA.105.3.US. is applied only to agricultural land, forest land, or reclamation sites, and only if one of the following vector attraction and pathogen reduction methods is performed:</p> <ul style="list-style-type: none"> - injection below the surface of the land so no significant amount remains on the land surface within one hour after injection - incorporation into the soil surface plow layer within six hours after the application - addition of alkali material so that the pH is raised to and remains at 12 or higher for a period of at least 30 minutes - management as required by ARM 17.50.810 when the ground is frozen. <p>Verify that septage, materials bulk derived for septage, or materials derives from septage sold or given away in a bag or other containers that do not meet the requirements of WA.105.3.US. is land applied only if the site is restricted so that:</p> <ul style="list-style-type: none"> - food crops with harvested parts that touch the septage/soil mixture and are totally above the land surface are not harvested for 14 months after

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>WA.130.6.MT. Persons engaged in cleaning cesspools, septic tanks, privies, grease traps, car wash sumps, or similar treatment works, or by persons who dispose of such wastes must meet recordkeeping requirements (ARM 17.50.813) [Added February 2005].</p>	<p>application</p> <ul style="list-style-type: none"> - food crops with harvested parts below the surface of the land are not harvested for 20 months after application of material if the material remains on the land surface for 4 months or longer prior to incorporation into the soil - food crops with harvested parts below the surface of the land are not harvested for 38 months after application of material if the material remains on the land surface for less than 4 months prior to incorporation into the soil - other food crops, feed crops, and fiber crops are not harvested for 30 days after application. <p>Verify that, if septage, bulk materials derived from septage or materials derived from septage sold or given away in a bag or other container that does not meet the requirements of WA.105.3.US. has not been treated with alkali, the following additional restrictions are met:</p> <ul style="list-style-type: none"> - animals are not permitted to graze on the land for 30 days after application of the material - turf grown on the land is not harvested for one year after application of the material if the harvested turf is to be placed on land with a high potential for public exposure or on a lawn, unless otherwise specifically authorized by the Department - public access to land with high potential for public exposure is restricted for one year after application - public access to land with a low potential for public exposure is restricted for 30 days after application. <p>Verify that the following records with the following information are maintained at the place of business indicated on the license application or other Department-approved location:</p> <ul style="list-style-type: none"> - type of material deposited at each disposal location - location of each disposal site, by street address, latitude and longitude, or township, range, section and quarter section - volume of each material deposited at each site, such as septage, grease trap wastes, sump pumpings, and wastes - number of acres to which pumpings are applied - date and time of each application - nitrogen requirement for the crop or other vegetation grown on each site - rate at which the different kinds of pumpings are deposited at each site in gallons per acre during a year - vector attraction and pathogen reduction method used for each volume of pumpings applied - pH of the material 30 minutes after alkali addition, if that method is chosen for pathogen and vector attraction reduction - records of land owner objections to application of alkali-stabilized septage.

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	<p>Verify that disposal and land application records are kept for 5 years.</p> <p>Verify that a summary of the records is submitted to the Department on the following schedule:</p> <ul style="list-style-type: none"> - for the period of January 1 through June 30, by July 15 - for the period of July 1 through December 31, with the annual license renewal. <p>(NOTE: These reporting and recordkeeping requirements are repeated in WA.100.6.MT.)</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>WA.155.</p> <p>WASTEWATER REUSE</p> <p>WA.155.1.MT. Gray water from wastewater treatment systems may be reused under specific conditions (ARM 17.36.919) [Added February 2010].</p>	<p>Verify that gray water reuse within a building or residence for uses such as toilet flushing is permitted without a permit when that the gray water is ultimately disposed of by means of a wastewater treatment system that is in compliance with subchapter 9 (Subsurface Wastewater Treatment Systems) and applicable department circulars.</p> <p>Verify that, when gray water that is collected separately from sewage flow and that does not contain industrial chemicals, hazardous wastes, or wastewater from toilets is used for irrigation, the following requirements are met:</p> <ul style="list-style-type: none"> - prior to installation, a gray water irrigation system obtain a permit under subchapter 9 - gray water irrigation is subsurface, using a collection and application system that is designed, installed, and used in accordance with Department Circular DEQ-4 - gray water is not used to irrigate plants to be consumed by humans (does not include nut and fruit trees), and gray water systems is not located in a floodplain - there is a minimum vertical separation of four feet of natural soil between the point of gray water application and a limiting layer - gray water irrigation does not occur within: <ul style="list-style-type: none"> - 100 feet of wells - 100 feet of surface water - 100 feet of a flood plain - two feet of a property line - gray water from kitchens is used for irrigation only where a waste segregation system is used. (For purposes of this rule, a "waste segregation system" consists of dry disposal of toilet waste by a method such as composting, chemical, dehydrating, or incinerator treatment, with a separate disposal method for gray water.). <p>(NOTE: A gray water irrigation system may be required to obtain subdivision approval from the department.)</p> <p>(NOTE: Soil descriptions must be provided for each proposed gray water irrigation system. Soils must be described in accordance with Appendix B of Department Circular DEQ-4.)</p> <p>Verify that gray water irrigation systems with a design flow greater than or equal to 2500 gallons per day are designed by a professional engineer.</p> <p>(NOTE: The reviewing authority may require user agreements for systems that</p>

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	serve more than one user. The reviewing authority may require easements for systems that cross property lines.)

Appendix 12-1

Allowable Systems, Requirements

(Source: ARM 17.36.320) [Added April 2001; Revised February 2003]

YES - Systems that are allowed

NO - Systems that are not allowed

DEQ-4 System	Public: greater than 5000 gpd (1) (7)	Public or Multiple-user: greater than or equal to 2500 gpd and less than or equal to 5000 gpd (2) (7)	Public or Multiple-user: less than 2500 gpd (3)	Individual/Shared: (6)
Standard Absorption Technique	No	No	Yes	Yes
At-Grade Systems	No	No	Yes	Yes
Gravelless	Yes	Yes	Yes	Yes
Deep Trench	No	No	No	Yes
Elevated Sand Mound	Yes	Yes	Yes	Yes
Evapotranspiration (ET) Systems	No	No	No	No (5)
Intermittent Sand Filters	Yes	Yes	Yes	Yes
Recirculating Sand Filters	Yes	Yes	Yes	Yes
Recirculating Trickling Filters	Yes	Yes	Yes	Yes
Chemical Nutrient Reduction; Aerobic Sewage Treatment Systems	No (5)	No (5)	No (5)	No (4) (5)
Pressure Distribution	Yes	Yes	Yes	Yes
Sand-lined Absorption Trenches	No	Yes	Yes	Yes
Experimental Systems	No (5)	No (5)	No (5)	No (5)

1 Public systems with design flow greater than 5000 gallons per day (gpd).

2 Public or multiple-user systems with design flow greater than or equal to 2500 gpd and less than or equal to 5000 gpd.

3 Public or multiple-user systems with design flow less than 2500 gpd.

4 Means of securing continuous operation and maintenance of these systems must be approved by the reviewing authority prior to Montana Department of Environmental Quality approval.

5 May be allowed by waiver, pursuant to ARM 17.36.601

6 Individual or shared commercial sewage systems that have a design flow greater than 700 gpd shall be considered multi-user.

7 Must be designed by a professional engineer.

Appendix 12-2

Setback Distances

(Source: ARM 17.36.323) [Added April 2001]

	Water Supply Wells	Sealed Components (1) and Other Components	Drainfield/Sand Mounds
Public or Multi-user Wells/Springs	-	100	100
Other Wells	-	50	100
Suction Lines	-	50	100
Cisterns	-	25	50
Roadcuts, Escarpment	-	10 (3)	25
Slopes greater than 25percent (4)	-	10 (3)	25
Property Boundaries	10	10	10
Subsurface Drains	-	10	10
Water Lines	-	10	10
Drainfields/ Sand Mounds	100	10	-
Foundation Walls	-	10	10
Surface Water, Spring/s	100 (5)	50	100
Floodplains	10	100 (2)	100

1. Sealed components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks and pumping chambers.
2. Other components include intermittent and recirculating sand filters, package plants and evapotranspiration.
3. Sewer lines and sewer mains may be located in roadways and on steep slopes if the lines and mains are safeguarded against damage.
4. Down gradient of the sealed component, other component, or drainfield/sand mound.
5. A waiver of this requirement may be granted by the Department pursuant to ARM 17.36.601.

Appendix 12-3

Minimum Horizontal Separation Distances for Septic Tanks
[Deleted February 2004] (NOTE: ARM 17.36.907 was repealed.)

Appendix 12-4

General MPDES Permits

(ARM 17.30.1341 (1) and (12)) [Added January 2007]

The Department may issue MPDES general permits for the following categories of point sources which the board has determined are appropriate for general permitting under the criteria listed in 40 CFR 122.28 as stated in ARM 17.30.1105.

- a. cofferdams or other construction dewatering discharges;
- b. groundwater pump test discharges;
- c. fish farms;
- d. placer mining operations;
- e. suction dredge operations using suction intakes no larger than 4" in diameter;
- f. oil well produced water discharges for beneficial use;
- g. animal feedlots;
- h. domestic sewage treatment lagoons;
- i. sand and gravel mining and processing operations;
- j. point source discharges of storm water;
- k. treated water discharged from petroleum cleanup operations;
- l. discharges from public water supply systems, as determined under Title 75, chapter 6, MCA;
- m. discharges to wetlands that do not contain perennial free surface water;
- n. discharges from road salting operations;
- o. asphalt plant discharges;
- p. discharges of hydrostatic testing water;
- q. discharges of noncontact cooling water;
- r. swimming pool discharge; and
- s. septic tank pumper disposal sites.

(NOTE: Although MPDES general permits may be issued for a category of point sources located throughout the state, they may also be restricted to more limited geographical areas.

For purposes of this rule, the board hereby adopts and incorporates by reference (see ARM 17.30.1302 for complete information about all materials incorporated by reference):

- a. 40 CFR 122.28 (July 1, 1991) which sets forth criteria for selecting categories of point sources appropriate for general permitting;
- b. 40 CFR 124.10(d)(1) (July 1, 1991) which sets forth minimum contents of public notices;
- c. 40 CFR 122.26(c)(2) (July 1, 1991) which sets forth criteria for determining when a point source is considered a "significant contributor of pollution";
- d. 16 U.S.C. 1132 (wilderness area designations); and
- e. 16 U.S.C. 1274 (wild and scenic river designations).

Appendix 12-5

Incorporations by Reference

(ARM 17.30.1303(7)) [Added January 2007; Revised February 2008]

Montana.	Federal	Description of Regulation
17.30.1310	133 CFR 53.101 et seq.	Control of pollution by oil, and hazardous substances, discharge removal.
17.30.1310	40 CFR Part 300	The National Oil and Hazardous Substances Pollution Contingency Plan.
17.30.1322	40 CFR 122.26(c)(1)	Requirements for individual permit applications for storm water discharges.
17.30.1310	40 CFR 125.102	Requirements for best management practices for dischargers who use, manufacture, store, handle, or discharge any hazardous or toxic pollutant.
17.30.1310	40 CFR Part 136	Guidelines establishing test procedures for the analysis of pollutants.
17.30.1310	40 CFR Appendix A to Part 122	List of primary industrial categories.
17.30.1310	40 CFR Tables I, II, and III of Appendix D to Part 122	List of, respectively, testing requirements for organic toxic pollutants by industry category for existing dischargers; organic toxic pollutants in each of 4 fractions in analysis by gas chromatography/mass spectroscopy (GC/MS); and other toxic pollutants (metals and cyanide) and total phenols.
17.30.1310	40 CFR Tables IV and V of Appendix D to Part 122	List of, respectively, conventional and nonconventional pollutants; and toxic pollutants and hazardous substances required to be identified by existing discharges if expected to be present.
17.30.1310	40 CFR Part 125	Criteria and standards for the NPDES, specifically including criteria for extending compliance dates for facilities installing innovative technology (Subpart C), criteria for determining the availability of a variance based on fundamentally different factors (FDF) (Subpart D), and criteria for extending compliance dates for achieving effluent limitations.
17.30.1330	40 CFR Part 412 (July 1, 2006 edition)	Concentrated animal feeding operation (CAFO) point source category effluent limitations and guidelines.
17.30.1313	40 CFR Appendix C of Part 122	Criteria for determining whether a facility or operating merits classification as a concentrated aquatic animal production facility.
17.30.1313	40 CFR Part 125, subpart B	Criteria for issuance of permits to aquaculture projects.
17.30.1316	40 CFR Part 125.3	Technology-based treatment requirements for point source dischargers.
17.30.1317	40 CFR 122.28	Criteria for selecting categories of point sources appropriate for general permitting.
17.30.1317	40 CFR 124.10(d)(1)	Minimum contents of public notices.
17.30.1317	40 CFR 122.26(c)(2)	Criteria for determining when a point source is considered a "significant contributor of pollution".
17.30.1318	40 CFR Part 136	Guidelines establishing test procedures for the analysis of pollutants.
17.30.1318	40 CFR 122.44(g)	Requirement of 24-hour notice of any violation of maximum daily discharge limits.
17.30.1319	40 CFR 122.44(f)	"Notification levels" for discharges of certain pollutants that may be inserted in a permit upon a petition from the permittee or upon the initiative of the Department.
17.30.1320	40 CFR 122.43	Applicable requirements for permit conditions.

Montana.	Federal	Description of Regulation
17.30.1320	40 CFR 122.44	Additional permit conditions which may be applicable to a point source. Such conditions include technology-based and water-quality-based standards, toxic and pretreatment standards, reopener clause, reporting and monitoring requirements, permit duration and reissuance, test methods, best management practices, conditions concerning sewage sludge, privately owned treatment works, and conditions imposed in EPA grants to POTW's.
17.30.1320	40 CFR 124.56	Requirements for fact sheets
17.30.1320	40 CFR 124.57	Public notice requirements for draft permits.
17.30.1320	40 CFR Chapter 1, Subchapter N	Effluent limitations and standards and new source performance standards.
17.30.1320	40 CFR Part 125	Criteria and standards for the national pollutant discharge elimination system.
17.30.1320	40 CFR Part 129	Toxic pollutant effluent standards.
17.30.1320	40 CFR Part 133	Secondary treatment regulation
17.30.1321	40 CFR 122.44.(j)(2)	Requirement for the submittal by a publicly owned treatment work (POTW) of a local pretreatment program.
17.30.1321	40 CFR 122.45(b)(2)(ii)	Availability of alternate permit limitations, standards, or prohibitions based on varying production levels.
17.30.1321	40 CFR Part 136	Guidelines for testing procedures for the analysis of pollutants.
17.30.1321	40 CFR 125.3	Technology-based treatment requirements for point source dischargers.
17.30.1321	40 CFR Chapter 1, Subchapter N	Effluent guidelines and standards for point source dischargers.
17.30.1321	40 CFR 122.44(i)	Monitoring requirements for point source dischargers.
17.30.1325	40 CFR Part 125, Subpart D	Criteria and standards for determining eligibility for a variance from effluent limitations based on fundamentally different factors (FDF).
17.30.1327	40 CFR Part 133	Requirements for the level of effluent quality available through the application of secondary (or equivalent) treatment.
17.30.1327	40 CFR 125.3(c)	Methods of imposing technology-based treatment requirements in permits.
17.30.1317	U.S. Code Sec. 1132	Wilderness area designations.
17.30.1317	U.S. Code Sec. 1274	Wild and scenic river designations.
17.30.1322	Clean Water Act Sec. 301(b)(2) (A), (C), (E), and (F)	Deadlines for achieving effluent limitations and treatment of toxic pollutants.
17.30.1323	Clean Water Act Sec. 301(b)(2) (A), (C), (E), and (F)	Deadlines for achieving effluent limitations and treatment of toxic pollutants.
17.30.1327	Clean Water Act Sec. 301(c), (g), (i), and (k)	Provisions allowing for modifying or extending dates for achieving effluent limitations.
17.30.1327	Clean Water Act Sec. 316(a)	Provision allowing a variance from an applicable effluent limitation based on fundamentally different factors (FDF).
17.30.1327	Clean Water Act Sec. 402(b)(3)	Requirement that states administering the NPDES program notify other states whose waters may be affected by a proposed discharge.
17.30.1361	Clean Water Act Sec. 301(c), (i), and (k); and Sec. 316(a)	Provisions for extension of compliance dates with effluent limitations based on, respectively, the economic capability of the permit applicant, delay in completion of POTW'S, the use of innovative technology, and specific limits for thermal components of discharge.
17.30.1361	Clean Water Act Sec. 301(g)	Provisions for modifying effluent limitations for ammonia, chlorine, color, iron and total phenols.

Montana.	Federal	Description of Regulation
17.30.1361	Clean Water Act Sec. 402(b)(3)	Provision for notifying other states of certain proposed discharges.
17.30.1322	40 CFR 122.21(i) (1) (July 1, 2006 edition)	Application requirements for concentrated animal feeding operations (CAFOs).
17.30.1330	40 CFR 122.23 (July 1, 2006 edition)	Definitions and permit requirements for concentrated animal feeding operations (CAFOs).
17.30.1343	40 CFR 122.42(e) (July 1, 2006 edition)	Additional conditions applicable to concentrated animal feeding operations (CAFOs).

SECTION 13

WATER QUALITY MANAGEMENT

Montana Supplement, February 2010

This section covers the state requirements for Water Quality Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Federal Regulations Incorporated by Reference (See Appendix 13-1)

Citations

The Department adopts and incorporates by reference the following documents (ARM 17.38.101 (16)) [Revised January 2007]:

1. Department of Environmental Quality Circular DEQ Circular-1, 2006 edition, which sets forth the requirements for the design and preparation of plans and specifications for public water supply systems; abbreviated as DEQ Circular-1 (NOTE: This document can be found at <http://deq.mt.gov/wqinfo/Circulars.asp>.)
2. Department of Environmental Quality Circular DEQ Circular-3, 2006 edition, which sets forth minimum design standards for small water systems; abbreviated as DEQ Circular-3. (NOTE: This document can be found at <http://deq.mt.gov/wqinfo/Circulars.asp>.)
3. 40 CFR 141.5, which sets forth siting requirements for public water supply components.

Definitions

- *Abandoned Well* - a well whose use has been permanently discontinued (ARM 36.21.-801) [Added February 2004].
- *Beneficial Use* - a use of groundwater designated under the appropriate classification in ARM 17.30.1006 (ARM 17.30.1001) [Added May 1999].
- *Bioconcentrating Parameters* - the parameters listed in Department of Environmental Quality Circular 7 (DEQ Circular-7), Montana Department of Environmental Quality, Numeric Water Quality Standards, which have a bioconcentration factor greater than 300 (ARM 17.30.602) [Revised January 2007].
- *Carcinogenic Parameters* - the parameters categorized as carcinogens in Circular DEQ Circular-7 (ARM 17.30.602) [Revised January 2007].
- *Class I Groundwaters* - groundwaters with a natural specific conductance less than or equal to 1 000 microSiemens/cm at 25 deg C (ARM 17.30.1006) [Added May 1999].
- *Class II Groundwaters* - groundwaters with a natural specific conductance that is greater than 1 000 and less than or equal to 2500 microSiemens/cm at 25 deg C (ARM 17.30.1006) [Added May 1999].
- *Class II injection well* - a well that (ARM 36.22.1401) [Added February 2004]:
 1. injects fluids brought to the surface in conjunction with conventional oil and gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection

2. is used to inject brines or other fluids brought to the surface in connection with oil or gas production or gas storage operations
 3. is used to inject brines or other fluids described in (b) which, prior to injection, have been:
 - (i) used on-site for purposes integrally associated with oil and gas production or storage
 - (ii) chemically treated or altered to the extent necessary to make them useable for purposes integrally related to oil and gas production or storage
 - (iii) commingled with fluid wastes resulting from the treatment so long as they do not constitute a hazardous waste
 4. is used to inject fresh water (i.e., water containing less than 10,000 mg/L total dissolved solids) from groundwater or surface water sources, added to or substituted for the brine may also be injected, as long as the only use of the water is for purposes integrally associated with oil and gas production or storage;
 5. is used to inject fluids for the enhanced recovery of oil or gas;
 6. is used to inject fluids for storage of hydrocarbons that are liquid under standard conditions of temperature and pressure; or
 7. is used to inject exempt waste fluids associated with oil or natural gas exploration and production as long as their physical state allows it, including produced fluid, drilling fluids, drill cuttings, rigwash, well completion fluids, work-over wastes, gas plant dehydration wastes, gas plant sweetening wastes, spent filters and backwash, packing fluids, produced sand, production tank bottoms, gathering line pigging wastes, hydrocarbon-bearing soil, and waste crude oil from primary field sites.
- *Class III Groundwaters* - groundwaters with a natural specific conductance that is greater than 2500 and less than or equal to 15,000 microSiemens/cm at 25 deg C (ARM 17.30.1006) [Added May 1999].
 - *Class IV Groundwaters* - groundwaters with a natural specific conductance greater than 15,000 microSiemens/cm at 25 deg C (ARM 17.30.1006) [Added May 1999].
 - *Contamination* - the degradation of natural water quality as a result of man's activities. There is no indication of specific limits, since the degree of permissible contamination depends upon the intended use, or uses, of the water (ARM 36.21.801) [Added February 2004].
 - *Conventional Water Treatment* - in order of application the processes of coagulation, sedimentation, filtration, and disinfection. The term includes, if deemed necessary by the Department, taste and odor control and lime softening (ARM 17.30.602) [Revised February 2003].
 - *Degradation* - a change in water quality that lowers the quality of high-quality waters for a parameter. The term does not include those changes in water quality determined to be nonsignificant (MCA 7-5-103) [Added February 2003].
 - *DEQ Circular-7* - the Department circular that is adopted and incorporated by reference in ARM 17.30.619 and is entitled "Montana Numeric Water Quality Standards" February 2008 edition). This circular establishes water quality standards for toxic, carcinogenic, bioconcentration, nutrient, radioactive and harmful parameters (ARM 17.30.602) [Added January 2007; Revised February 2009].
 - *Dewatered Stream* - a perennial or intermittent stream from which water has been removed for one or more beneficial uses (ARM 17.30.602).
 - *Discharge* - the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent of it may enter into state waters, including groundwater (ARM 17.30.602).
 - *Ephemeral Stream* - a stream or part of a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and whose channel bottom is always above the local water table (ARM 17.30.602).

- *Geometric Mean* - the value obtained by taking the Nth root of the product of the measured values where zero values for measured values are taken to be the detection limit (ARM 17.30.602) [Added February 2003].
- *Groundwater* - water occupying the voids within a geologic stratum and within the zone of saturation (ARM 17.30.1001) [Added May 1999].
- *Ground Water Under the Direct Influence of Surface Water (GWUDISW)* - has the same meaning as adopted and incorporated by reference from 40 C.F.R. 141.2, except that GWUDISW determinations for regulatory compliance purposes are made in accordance with the Department of Environmental Quality Circular PWS-5, Ground Water Under the Direct Influence of Surface Water, as adopted and incorporated by reference in ARM 17.38.209 (ARM 17.38.202) [Added February 2010].
- *Harmful Parameters* - the parameters listed as harmful in Circular DEQ Circular-7 (ARM 17.30.602) [Revised January 2007].
- *Intermittent stream* - a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface runoff and groundwater discharge (ARM 17.30.602) [Added February 2003].
- *Mixing Zone* - a portion of groundwater to which pollutants are discharged and in which otherwise applicable groundwater standards may be exceeded (ARM 17.30.1001) [Added May 1999].
- *Monitoring Well* - a well that is used for monitoring ground water quality or flow direction, but is not used for withdrawing ground water for purposes other than water quality sampling or pump testing (ARM 36.21.801) [Added February 2004].
- *Monitoring Well Log Report Form* - the form required by the Department of natural resources and conservation to be filed for each monitoring well completed (ARM 36.21.801) [Added February 2004].
- *MPDES* - Montana Pollutant Discharge Elimination System (ARM 17.30.602) [Added February 2003].
- *NPDES* - National Pollutant Discharge Elimination System (ARM 17.30.602) [Added February 2003].
- *Naturally Occurring* - conditions or material present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil, and water conservation practices have been applied. Conditions resulting from the reasonable operation of dams in existence as of 1 July 1971 are natural (ARM 17.30.602).
- *Neutron Tube* - tubing installed in a borehole for the purpose of measuring soil-water content by neutron moderation techniques. Neutron tubes are constructed of a variety of materials, including plastic, fiberglass, fluorocarbons, or metal (ARM 36.21.801) [Added February 2004].
- *Nonpoint Source* - the source of pollutants that originates from diffuse runoff, seepage, drainage, or infiltration (ARM 17.30.602).
- *Operator-In-Training* - an operator who has passed the certification examination but does not yet meet the experience requirements set out in ARM 17.40.207 (ARM 17.40.201) [Added July 1998].
- *Person* - an individual, firm, partnership, company, association, corporation, city, town, local government entity, federal agency, or any other governmental or private entity, whether organized for profit or not (ARM 17.38.202) [Added February 2010].

- *Pesticide* - insecticides, herbicides, rodenticides, fungicides, or any substance or mixture of substances intended for preventing, destroying, controlling, repelling, altering life processes, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life (ARM 17.30.602).
- *Public Water Supply System* - a system for the provision of water for human consumption from a community well, water hauler for cisterns, water bottling plant, water dispenser, or other water supply that has at least 15 service connections or that regularly serves at least 25 persons daily for any 60 or more days in a calendar yr (ARM 17.38.202) [Revised July 1998; Revised May 1999; Revised April 2001; Revised February 2004].
- *Reasonable Land, Soil, and Water Conservation Practices* - methods, measures, or practices that protect present and reasonably anticipated beneficial uses. These practices include but are not limited to structural and nonstructural controls and operation and maintenance procedures. Appropriate practices may be applied before, during, or after pollution-producing activities (ARM 17.30.602) [Added February 2003].
- *Responsible Charge* - responsibility exercised by an individual in day-by-day operation or supervision of a water system, waste water system, or any part thereof, which may affect the quality or quantity of water for human consumption or the quality of effluent produced by the waste water system (ARM 17.40.201) [Added July 1998].
- *Seasonal Lake or Pond* - a natural depression in the land surface that periodically holds water from precipitation or snow and ice melt in the immediate watershed (ARM 17.30.602) [Added February 2003].
- *Secondary Contact Recreation* - activities in or on the water where the potential for immersion or ingestion of water is low, such as wading or boating (ARM 17.30.602) [Added February 2003].
- *Sediment* - solid material settled from suspension in a liquid; mineral or organic solid material that is being transported or has been moved from its site of origin by air, water or ice and has come to rest on the earth's surface, either above or below sea level; or inorganic or organic particles originating from weathering, chemical precipitation or biological activity (ARM 17.30.602) [Added February 2003].
- *Semi-permanent Lake or Pond* - a natural depression in the land surface, not including reservoirs, that receives groundwater in addition to precipitation runoff from the immediate watershed, and occasionally goes dry (ARM 17.30.602) [Added February 2003].
- *Settleable Solids* - inorganic or organic particles that are being or have been transported by water from the site(s) of origin and are settled, or are capable of being settled, from suspension (ARM 17.30.602).
- *Sewer* - a pipe or conduit that carries wastewater or drainage water (ARM 17.30.602).
- *Surface Waters* - any waters on the earth's surface, including but not limited to, streams, lakes, ponds, and reservoirs; and irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir or other surface water. Water bodies used solely for treating, transporting or impounding pollutants are not considered surface water (ARM 17.30.602) [Added February 2003].
- *Total Nitrogen* - the total nitrogen concentration (as N) of unfiltered water. This may be determined by direct methods, or derived as the sum of the soluble (as N) and non-soluble (as N) nitrogen fractions. The filter used to separate the soluble and non-soluble fractions must be 0.45 micrometers (ARM 17.30.602) [Added February 2003].
- *Total Phosphorus* - the total phosphorus concentration (as P) of unfiltered water (ARM 17.30.602) [Added February 2003].

- *Toxic Parameters* - those parameters listed as toxins in Circular DEQ Circular-7 (ARM 17.30.602) [Revised January 2007].
- *True Color* - the color of water from which the turbidity has been removed (ARM 17.30.602).
- *Turbidity* - a condition in water or wastewater caused by the presence of suspended matter resulting in the scattering and absorption of light rays (ARM 17.30.602) [Added February 2003].
- *Use Attainability Analysis* - a scientific assessment and analysis of the factors affecting the attainment of a use(s). Information that may be used include chemical, physical and biological data, as well as photo documentation and comparison to reference conditions, that are of sufficient detail to accurately portray the level and potential level of use support of a waterbody. The use attainability analysis is required by the US EPA according to 40 CFR 131.10(g), (h) and (j) (ARM 17.30.602) [Added February 2003].
- *Water Hauler* - the person engaged in the business of transporting water to be used for human consumption from a water source to a cistern or other reservoir by 10 or more families or 25 or more persons for at least 60 days of the calendar yr (ARM 17.38.502) [Citation Revised January 2007].

**WATER QUALITY MANAGEMENT
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REFER TO CHECKLIST ITEMS:

Missing Checklist Items	WQ.2.1.MT.
State-specific Requirements	
Operators	WQ.6.1.MT.
Operations	WQ.8.1.MT. through WQ.8.3.MT.
Public Water Systems	
General	WQ.10.1.MT. through WQ.10.10.MT.
Monitoring/Sampling	WQ.15.1.MT.
Disinfection and Filtration	WQ.20.1.MT. through WQ.20.5.MT.
Notification and Reporting Requirements	WQ.30.1.MT. through WQ.30.4.MT.
Community Water Systems	WQ.40.1.MT. through WQ.40.18.MT.
Noncommunity Water Systems	[Deleted]
Transient Noncommunity Water Systems	WQ.77.1.MT. through WQ.77.11.MT.
Nontransient, Noncommunity Water Systems	WQ.80.1.MT.
State-Specific Categories of Water Systems	[Deleted]
Drinking Water Wells	WQ.90.1.MT. through WQ.90.15.MT.
Miscellaneous Wells	WA.100.1.MT. through WQ.100.5.MT.
Underground Injection Control (UIC)	WQ.111.1.MT through WQ.111.3.MT.
Water Quality Standards	WQ.115.1.MT. through WQ.115.28.MT.
Water Use Permits	WQ.120.1.MT. and WQ.120.2.MT.

**WATER QUALITY MANAGEMENT
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REFER TO APPENDIX ITEMS

13-1

Federal Regulations Incorporated by Reference

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>WQ.2.</p> <p>MISSING CHECKLIST ITEMS</p> <p>WQ.2.1.MT. Federal facilities are required to comply with all applicable state regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applicable regulation as a basis of finding).</p>	<p>Determine whether any new regulations have been issued since the finalization of the manual.</p> <p>Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists.</p> <p>Verify that the Federal facility is in compliance with all applicable and newly issued regulations.</p>

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<p>STATE-SPECIFIC REQUIREMENTS</p> <p>WQ.6. Operators</p> <p>WQ.6.1.MT. Water supply systems operators must meet requirements for certified operators (ARM 17.38.208(1)(c) and 17.40.208) [Revised February 2003 ; Revised January 2006 ; Revised January 2007].</p>	<p>Verify that the owner of a community or non-transient non-community public water supply retains a certified operator to perform monitoring and reporting.</p> <p>Verify that the certified operator is in responsible charge of the public water supply.</p> <p>Verify that the owner of a public water supply system reports any change in certified operator or designated person to the Department within 30 days after the change.</p> <p>Verify that every water system has an individual in responsible charge at the system site or on call at all times who can respond in a timely manner to threats to public or environmental health.</p> <p>Verify that the individual in responsible charge of a system is a fully certified operator for that class or a more complex class of system.</p> <p>(NOTE: A non-operator with a temporary certificate or a non-operator-in-training certificate may be the operator in responsible charge of a system upon:</p> <ul style="list-style-type: none"> - written request to the Department by the system owner and verification by the owner that the system is unable to employ a fully certified operator - a finding by the Department that the operator has the basic knowledge necessary to operate the system and that public health will be protected.) <p>Verify that each public water supply system, except a transient non-community system, using a surface water source or a ground water source under the direct influence of surface water is operated by qualified personnel.</p>

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: February 2010
<p>STATE-SPECIFIC REQUIREMENTS</p> <p>WQ.8. Operations</p> <p>WQ.8.1.MT. Finished water storage must meet location requirements for ground-level reservoirs (DEQ Circular-1 Section 7.0.2) [Revised February 2003 ; Citation Revised January 2007].</p> <p>WQ.8.2.MT. Finished water storage must meet protection and access requirements (DEQ Circular-1 Sections 7.0.3, 7.0.4, and 7.0.8) [Citation Revised February 2003; Revised January 2007].</p> <p>WQ.8.3.MT. Finished water</p>	<p>Verify that the bottom of reservoirs and standpipes are above maximum flood level.</p> <p>(NOTE: The bottom of reservoirs and standpipes should be placed at the normal ground surface.)</p> <p>Verify that, when the bottom is required to be below normal ground surface, it is placed above the groundwater table.</p> <p>(NOTE: At least 50 percent of the water depth should be above grade.)</p> <p>Verify that sewers, drains, standing water, and similar sources of possible contamination are kept at least 50 ft from the reservoir.</p> <p>(NOTE: Water main pipe, pressure tested in place to 50 psi without leakage, may be used for gravity sewers at distances greater than 20 ft and less than 50 ft.)</p> <p>Verify that the tops of reservoirs are not less than 2 ft above normal ground surface.</p> <p>(NOTE: Clearwells constructed under filters may be accepted from this requirement when the total design gives the same protection.)</p> <p>Verify that all finished water storage structures have watertight roofs that exclude birds, animals, insects, and excessive dust.</p> <p>Verify that there are locks on access manholes and any other necessary precautions to minimize the potential for vandalism and sabotage.</p> <p>Verify that finished water storage structures have reasonably convenient access to the interior for cleaning and maintenance.</p> <p>Verify that at least 2 manholes above the waterline are provided at each water compartment where space permits.</p> <p>Verify that finished water storage structures are vented.</p>

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<p>storage must meet venting requirements (DEQ Circular-1 Section 7.0.9) [Citation Revised February 2003 ; Revised January 2007].</p>	<p>(NOTE: Overflows are not considered vents. Open construction between the sidewall and roof is not permitted.)</p> <p>Verify that vents meet the following requirements:</p> <ul style="list-style-type: none"> - vents prevent the entrance of surface water and rainwater - vents exclude birds and animals - exclude insects and dust, as much as this function can be made compatible with effective venting - vents, on ground level structures, open downward with the opening 24 in. above the roof or sod - vents, on ground level structures, are covered with 24 mesh noncorrodible screen installed within the pipe at a location least susceptible to vandalism. <p>(NOTE: Vents should. For elevated tanks and standpipes, 4 mesh noncorrodible screen may be used.)</p>

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<p>PUBLIC WATER SYSTEMS</p> <p>WQ.10. General</p> <p>WQ.10.1.MT. Small water systems must meet approval requirements (DEQ Circular-3 Section 1.0) [Revised January 2007].</p> <p>WQ.10.2.MT. Public water systems must eliminate cross connections whenever reasonably practicable (ARM 17.38.305) [Revised January 2007; Revised February 2009].</p>	<p>Verify that systems have a approval from the MDEQ prior to commencing construction.</p> <p>Verify that a cross-connection on a public water supply system is eliminated by the disconnection of the cross-connection whenever reasonably practicable.</p> <p>Verify that, whenever elimination of a cross-connection is not reasonably practicable and the cross-connection creates a health or water contamination hazard, the hazard is eliminated by the insertion into the piping of an approved backflow prevention assembly or device.</p> <p>Verify that for the cross-connections identified below, the following types of approved backflow prevention assemblies or devices are used:</p> <ul style="list-style-type: none"> - a health hazard created by a cross-connection that may be subject to back pressure: an approved reduced pressure zone backflow prevention assembly or an air-gap - a health hazard created by a cross-connection that may be subject to back siphonage, but not subject to back pressure: an approved air-gap, pressure vacuum breaker assembly, atmospheric vacuum breaker, or a reduced pressure zone backflow prevention assembly - a water pollution hazard created by a cross-connection that may be subject to back pressure: an approved double check valve assembly, or an air-gap or an approved reduced pressure zone backflow prevention assembly - a water pollution hazard created by a cross-connection that may be subject to back siphonage, but is not subject to back pressure: an approved double check valve assembly, pressure vacuum breaker assembly, or an atmospheric vacuum breaker device, or an air-gap or an approved reduced pressure zone backflow prevention assembly. <p>Verify that a backflow prevention assembly or device is installed and maintained, at a minimum, in accordance with the manufacturer's specifications.</p> <p>(NOTE: This rule applies to piping between water systems outside of any building and to piping within any building, including cross-connections in</p>

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<p>WQ.10.3.MT. Public water systems must meet point-of-entry (POE) and point-of-use (POU) device requirements (DEQ Circular-1, <i>Policy for Application of POU/POE Technology to Treat for MCL Violations</i>) [Revised January 2007].</p> <p>WQ.10.4.MT. Public water systems must meet operation and sanitation requirements for water hauled for cisterns (ARM 17.38.503 and 17.38.510).</p>	<p>plumbing systems.)</p> <p>(NOTE: The Department will not approve a plan for the construction of a public water supply system containing provisions for cross-connection unless provisions for the protection of the public water supply are demonstrated in the plan.)</p> <p>Verify that POU or POE technologies are not used for treatment of nitrate, nitrite, VOCs, microbials, microbial indicators, or any treatment technique for surface water and ground water under the direct influence of surface water systems.</p> <p>Verify that POU and POE technologies are not used by new or proposed water systems as a means to achieve compliance with an MCL.</p> <p>Verify that, where POU is used, all water with the potential for human consumption, including all bathroom sources (hot and cold), refrigerator water dispensers, and icemakers, are treated.</p> <p>Verify that all POU/POE treatment systems are approved.</p> <p>Verify that the following operational requirements are met:</p> <ul style="list-style-type: none"> - equipment used for conveying and hauling water has water contact surfaces that are made of noncorrodible and nontoxic materials - all interior coatings, platings, or paints are free of toxic materials - water contact surfaces are smooth for easy cleaning and sanitizing - inlets, outlets, piping, hose, and tank openings are constructed to prevent entrance of foreign materials that may contaminate the water - tanks or containers are free from deep pits, excessive scale, dents, or crimps which may tend to hold contaminating matter - all water contact surfaces, including tanks, have never been used to transport or handle toxic or noxious substances - all inlet openings are kept closed except when filling or cleaning - flexible deliver piping, connectors, and ends are protected at all times - during delivery, cistern or reservoir is protected from contamination - tanks used for hauling water for human consumption are not used for any other purpose. <p>Verify that the following sanitizing requirements are met:</p> <ul style="list-style-type: none"> - hauling equipment is cleaned and sanitized as follows: <ul style="list-style-type: none"> - before being used the first time and after a period of no use - after any portion of equipment has been dismantled or repaired - after known errors by the operator in sanitary procedures - at least weekly

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<p>WQ.10.5.MT. Public water systems must meet general requirements for water hauled for cisterns (ARM 17.38.511 through 17.38.513) [Revised February 2010].</p> <p>WQ.10.6.MT. Plans for the construction, alteration, or extension of a public water supply system must be approved (ARM 17.38.101(4), (9), (10), and (12)) [Revised July 1998; Revised May 1999; Revised February 2004; Citation Revised January 2007; Revised February 2008].</p>	<ul style="list-style-type: none"> - equipment is cleaned by scrubbing with normal cleaning aids and flushing away all foreign materials - equipment is sanitized by exposing it to one of the following: <ul style="list-style-type: none"> - steam at 170 °F for 15 min - steam at 200 °F for 5 min - chlorine, iodine, or other approved sanitizers at recommended strength and contact time applied by fogging, spraying, jet-blowing, or any other procedure approved by the Department. <p>Verify that water hauled is taken from a supply approved by the Department.</p> <p>Verify that filling points are constructed to protect against contamination of the filling pipe or hose when not in use and during tank filling in order to prevent contamination of the water being piped or the water in the public water supply system.</p> <p>Verify that there is no direct connection between the hose or pipe on the public water supply and the hauling tank itself.</p> <p>Verify that an airgap is provided or an adequate back flow prevention device is installed on the filler pipe.</p> <p>Verify that each load of water is dosed with enough chlorine to provide a free chlorine or total chlorine residual of 0.4 ppm and that the water hauler has DPD test kits to check the chlorine residual.</p> <p>Verify that sufficient chlorine is added when delivering water into the cistern to have a chlorine residual of 0.4 ppm detected when the cistern is filled.</p> <p>Verify that, before commencing the construction, alteration or extension of a public water supply system, a design report is submitted to the Department along with the necessary plans and specifications.</p> <p>Verify that the design receives written approval from the Department.</p> <p>Verify that the water system does not deviate from the approved plans and specifications without first receiving approval from the governmental entity that approved the plans and specifications.</p> <p>(NOTE: The approval is void unless the construction, alteration or extension is completed within 2 years after the Department issued its written approval.)</p> <p>Verify that, within 90 days after completion of construction, alteration, or extension, a complete set of certified ‘as-built’ drawings are signed and submitted</p>

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<p>WQ.10.7.MT. Public water systems must meet requirements for certified operators and operator in responsible charge (ARM 17.38.249) [Revised April 2000; Citation Revised February 2003; Revised February 2004; Revised February 2005].</p> <p>WQ.10.8.MT. [Deleted February 2009].</p> <p>WQ.10.9.MT. Water supply systems must meet laboratory testing requirements (DEQ Circular 1 , 2.5) [Added February 2008].</p> <p>WQ.10.10.MT. Consecutive</p>	<p>to the Department.</p> <p>Verify that suppliers of water for community or non-transient, non-community water systems retain a certified operator to perform monitoring and reporting.</p> <p>Verify that the certified operator is in responsible charge of the public water supply system.</p> <p>Verify that public water supply systems have designated a person who is responsible for contact and communications with the Department in matters relating to system alteration, construction, monitoring, sampling, maintenance, operation, recordkeeping, and reporting.</p> <p>Verify that, when public water systems have designated a person who is responsible for contact and communications with the Department, the Department is notified within 30 days.</p> <p>Verify that any change in assigned responsibilities or designated persons is reported to the Department within 30 days.</p> <p>(NOTE: ARM 17.38.305, see WQ.10.2.MT.)</p> <p>Verify that each public water supply obtains its own equipment and facilities for routine laboratory testing necessary to ensure proper operation.</p> <p>Verify that laboratory equipment selection is based on the characteristics of the raw water source, anticipated time spent on-site by the operator, and the complexity of the treatment process involved.</p> <p>(NOTE: Laboratory test kits, which simplify procedures for making one or more tests, may be acceptable.)</p> <p>Verify that an operator or chemist is qualified to perform the necessary laboratory tests.</p> <p>Verify that analyses conducted to determine compliance with drinking water regulations, except control testing, is performed in a Department of Public Health and Human Services certified laboratory.</p> <p>Verify that, in order to be considered for the exclusion, a consecutive system</p>

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<p>water systems may be excluded from the drinking water regulations when specific criteria are met (ARM 17.38.210) [Added February 2009; Revised February 2010].</p>	<p>meets the following criteria:</p> <ul style="list-style-type: none"> - consist only of distribution and storage facilities and not have any collection or treatment facilities - obtain all of its water from, but not be owned or operated by, a public water system to which the regulations of 40 CFR 141 apply - not sell water to any person - not be a carrier that conveys passengers in interstate commerce - document that the wholesale water system from which it obtains all of its water will: <ul style="list-style-type: none"> - include the consecutive system in its sampling plans - be responsible for issuing public notice - be responsible for issuing consumer confidence reports for the consecutive system. <p>Verify that the system has applied in writing to the Department for exclusion.</p> <p>Verify that the request documents the system's conformance with the requirements and include a signed copy of the written agreement between the wholesale and consecutive systems to implement the requirements above.</p> <p>(NOTE: Unless otherwise required by the Department, consecutive systems are not required to duplicate their wholesaler's entry-point sampling.)</p> <p>(NOTE: A consecutive system that is granted an exclusion under this rule is not excluded from any requirements, additional to those in 40 CFR Part 141, which are applicable to the system under Title 75, chapter 6, MCA, or rules adopted thereunder.)</p>

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<p>PUBLIC WATER SYSTEMS</p> <p>WQ.15. Monitoring/Sampling</p> <p>WQ.15.1.MT. New sources of water supply, both surface and ground, must meet analyses requirements (ARM 17.38.216 (4)) [Added February 2010].</p>	<p>Verify that every new source of water supply, both surface and ground, is sampled for nitrate and nitrite analyses to demonstrate compliance before the water is served to the public.</p> <p>Verify that, unless otherwise directed by the department, a supplier also samples all new sources of water supply for a analysis of the parameters identified in 17.28.216 (2) (see Appendix 13-1) before the end of the calendar quarter in which the source is connected to the public water supply.</p> <p>(NOTE: Appendix 13-1 identifies the adopted federal requirements.)</p>

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<p>PUBLIC WATER SYSTEMS</p> <p>WQ.20. Disinfection And Filtration</p> <p>WQ.20.1.MT. Water works must meet surface water source development requirements (DEQ Circular-1 Section 3.1.3.c) [Citation Revised February 2003 ; Citation Revised January 2007].</p> <p>WQ.20.2.MT. Water works must meet disinfection and chlorine residual requirements (DEQ Circular-1 Sections 4.3, 4.3.3, and 5.0) [Citation Revised February 2003 ; Citation Revised January 2007].</p>	<p>Verify that filtration preceded by a appropriate pretreatment is provided for all surface waters.</p> <p>Verify that all surface water supplies and any groundwater supply of questionable sanitary quality, or where any other treatment, i.e., chemical addition, is provided receive disinfection.</p> <p>(NOTE: Chlorine is the preferred disinfecting agent and continuous disinfection is recommended for all water supplies.)</p> <p>Verify that the need for pretreatment is addressed where the following levels are exceeded:</p> <ul style="list-style-type: none"> - iron > 0.3 mg/L - manganese > 0.05 mg/L - hydrogen sulfide > 0.5 mg/L - total organic carbon > 10 mg/L - total dissolved solids > 500 mg/L. <p>Verify that minimum free chlorine residual at distant points in a water distribution system are between 0.2 to 0.5 mg/L. and combined chlorine residuals, if appropriate, are between 1.0 to 2.0 mg/L.</p> <p>(NOTE: Higher residuals may be required depending on pH, temperature and other characteristics of the water.)</p> <p>Verify that no chemicals are applied to treat drinking waters unless specifically permitted by the MDEQ.</p>

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<p>WQ.20.3.MT. Water works must meet safety requirements (DEQ Circular-1 Section 5.3) [Citation Revised February 2003 ; Revised January 2007].</p>	<p>Verify that chlorine feed and storage rooms are ventilated.</p> <p>Verify that respiratory protection equipment, meeting the requirements of the National Institute for Occupational Safety and Health, is available where chlorine gas is handled.</p> <p>Verify that respiratory protection equipment is stored at a convenient location, but not inside any room where chlorine is used or stored.</p> <p>Verify that respiratory protection equipment uses compressed air, has at least a 30 min capacity, and is compatible with or exactly the same as units used by the fire Department responsible for the plant.</p> <p>Verify that a bottle of ammonium hydroxide, 56 percent ammonia solution, is available for chlorine leak detection.</p> <p>Verify that a leak repair kit approved by the Chlorine Institute is provided where ton containers are used.</p> <p>Verify that leak detection equipment is equipped with both an audible alarm and a warning light.</p> <p>(NOTE: Continuous chlorine leak detection equipment is recommended.)</p> <p>Verify that the following protective equipment is provided for each operator:</p> <ul style="list-style-type: none"> - at least one pair of rubber gloves - a dust respirator certified by National Institute for Occupational Safety and Health for toxic dusts - an apron or other protective clothing - goggles or face mask. <p>Verify that a deluge shower and/or eyewashing device is installed where strong acids and alkalis are used or stored.</p> <p>Verify that a water holding tank that will allow water to come to room temperature is installed in the water line feeding the deluge shower and eyewashing device.</p>
<p>WQ.20.4.MT. Public water systems must meet chlorination and chlorine residual monitoring requirements (ARM 17.38.229 and 17.38.225) [Revised April 2001; Revised</p>	<p>Verify that full-time disinfection with chlorine, chlorine dioxide, chloramines, or a disinfectant that maintains a residual is conducted when the source of water is from lakes, reservoirs, or streams, or groundwater sources under the direct influence of surface water, or where the water may be exposed to a potential source of contamination including, but not limited to:</p> <ul style="list-style-type: none"> - losses of pressure within the system that could result in backflow or

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<p>February 2004 ; Revised January 2007 ; Revised February 2010].</p> <p>WQ.20.5.MT. When systems use conventional filtration or direct filtration, the turbidity level of representative samples of a system's effluent must meet specific requirements (ARM 17.38.205) [Added February</p>	<p>infiltration conditions</p> <ul style="list-style-type: none"> - substandard distribution, pumping or storage facilities - other circumstances where the department determines that the history and nature of contamination indicates a residual is required for a safe water. <p>Verify that full-time microbial treatment that provides adequate inactivation or removal of harmful pathogens is conducted whenever the water may be exposed to a potential source of contamination through:</p> <ul style="list-style-type: none"> - treatment processes, as determined by the department or - unprotected or poorly protected ground water sources. <p>Verify that methods of full-time microbial treatment are approved by the Department.</p> <p>Verify that, when the department determines a residual is required in a ground water system, the residual disinfectant concentration measured as free chlorine, total chlorine, combined chlorine, chlorine dioxide, or other department approved disinfectant(s) is not less than 0.2mg/l using the DPD method or 0.1mg/l using the amperometric titration method.</p> <p>(NOTE: A heterotrophic bacteria concentration in water in the distribution system less than or equal to 500 per milliliter, measured as heterotrophic plate count (HPC), is an acceptable substitute for disinfectant residual for purposes of determining compliance.)</p> <p>Verify that the supplier of a public water supply system employing full time chlorination of a groundwater source, or a supplier of a public water supply system using a surface water source, conducts 2 chlorine residual tests daily, one at the point of application and one in the distribution system.</p> <p>(NOTE: The frequency of chlorine residual monitoring may be reduced by the Department for non-community groundwater systems on a case by basis.)</p> <p>Verify that tests for chlorine residual in the distribution system are made at selected points and changed regularly so that the system is completely tested at least each week.</p> <p>(NOTE: The following is in addition to 40 C FR 141.73(a)(2). The following replaces 40 C FR 141.73(a)(2), and is also added at the end of 40 C FR 141.173(a)(1) and 141.551. See WQ.20.1.US.)</p> <p>Verify that, when systems use conventional filtration or direct filtration, the turbidity level of representative samples of a system's effluent from individual filter, measured at a point prior to mixing with effluent from other filters or other sources, does not exceed 0.5 NTU in at least 95 percent of the measurements</p>

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2010].	<p>taken each month, and does not at any time exceed 5.0 NTU.</p> <p>(NOTE: This requirement is not violated if the turbidity reading for the effluent from each individual filter is the first reading of the month that exceeds 0.5 NTU and the individual filter is taken off-line within 24 hours after the sample analysis that shows the exceedance.")</p>

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<p>PUBLIC WATER SYSTEMS</p> <p>WQ.30. Notification and Reporting Requirements</p> <p>WQ.30.1.MT. [Deleted July 1998].</p> <p>WQ.30.2.MT. [Deleted July 1998].</p> <p>WQ.30.3.MT. [Deleted July 1998].</p> <p>WQ.30.4.MT. Public water systems must meet recordkeeping and reporting requirements (ARM 17.38.234(2), (5), and (8)) [Revised February 2004 ; Citation R evised J anuary 2006; R evised February 2010].</p>	<p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: These requirements are in addition to the adopted Federal requirements.)</p> <p>Verify that a public water supplier keeps a daily record of samples and control tests.</p> <p>Verify that the records are kept on report forms approved by the Department and are prepared in duplicate.</p> <p>Verify that the original records are forwarded to the Department by the tenth day of the month following testing.</p> <p>Verify that a public water supplier utilizing a water treatment plant employing coagulation, settling, softening, or filtration keeps a daily record of the following:</p> <ul style="list-style-type: none"> - operations performed in the treatment process - measured flows - phenolphthalein (p) - alkalinity - total alkalinity - hardness (where softening is utilized) - chemical doses - observations -costs related to the operation of the plant.

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	Verify that, upon discovering that a waterborne disease outbreak potentially attributable to that water system has occurred, a supplier reports that occurrence to the Department as soon as possible, but no later than by the end of the next business day.

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WQ.40.	
COMMUNITY WATER SYSTEMS	
WQ.40.1.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.2.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.3.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.4.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.5.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.6.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.7.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.8.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.9.MT. [Deleted July	(NOTE: Equivalent to the Federal.)

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1998].	
WQ.40.10.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.11.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.12.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.13.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.14.MT. Community water systems must meet monitoring requirements for fluoride (ARM 17.38.230).	<p>Verify that analysis of the water after fluoridation is conducted at least once daily.</p> <p>Verify that the average fluoride content is not over 1.5 ppm in the finished water, using a control range of 0.9 ppm lower limits to 1.5 ppm upper limit.</p> <p>Verify that records of the analysis are kept on file and submitted to the Department on a monthly basis.</p> <p>Verify that one sample of treated water is submitted monthly to the Department for analysis.</p>
WQ.40.15.MT. [Deleted July 1998].	(NOTE: Equivalent to the Federal.)
WQ.40.16.MT. [Deleted February 2008].	(NOTE: DEQ Circular 1 was revised.)
WQ.40.17.MT. Community water samples must sample	Verify that community water supplies collect water samples taken from each entry

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<p>for specific inorganic chemicals (ARM 17.38.216(1)) [Added February 2004].</p> <p>WQ.40.18.MT. Control tests must be performed to determine water characteristics (ARM 17.38.225) [Added January 2006].</p>	<p>point for analysis by an approved laboratory of the following inorganic chemicals:</p> <ul style="list-style-type: none"> - alkalinity total - calcium - pH value - sodium - iron - manganese - hardness - specific conductance - sulphate - chloride - magnesium. <p>(NOTE: The Department may waive the sampling and analysis requirement for any or all of these chemicals if the results of at least one sample demonstrates that further sampling is unnecessary.)</p> <p>Verify that at least 2 chlorine residual test are conducted daily, one at the point of application and one in the distribution system:</p> <ul style="list-style-type: none"> - by a supplier of a public water supply system employing full time chlorination of a groundwater source - by a supplier of a public water supply system using a surface water source. <p>Verify that a test for chlorine residual in the distribution system is made at selected points consistent with the microbiological sample siting plan and changed regularly so as to cover the system completely at least each week.</p> <p>Verify that turbidity measurements are taken as set forth in 40 CFR 141.74.</p> <p>(NOTE: Secondary turbidity standards may be used for daily calibration of turbidimeters if those standards are calibrated against an EPA-approved primary standard at least quarterly and documentation of the date, analyst performing the procedure, procedures used and results of the quarterly calibration checks must be maintained by the water system and reported to the Department within 10 days following the end of the month during which this procedure took place.)</p> <p>Verify that the Departmental approval is obtained if DPD colorimetric test kits are used to measure residual disinfectant concentrations for free chlorine and combined chlorine.</p> <p>Verify that measurements for pH, temperature, turbidity, and residual disinfectant concentrations for a community water supply systems is conducted by a person certified or by a person who has been properly trained to conduct these</p>

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	<p>measurements by the operator in responsible charge or by the Department.</p> <p>Verify that bacteriological samples for a community water supply systems are collected by a person approved by the Department or certified.</p> <p>Verify that measurements for total coliform bacteria, fecal coliform bacteria, and heterotrophic plate count are conducted by an approved laboratory.</p>

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<p>WQ.65.</p> <p>NONCOMMUNITY WATER SYSTEMS</p> <p>WQ.65.1.MT. [Deleted July 1998].</p> <p>WQ.65.2.MT. [Deleted July 1998].</p> <p>WQ.65.3.MT. [Deleted February 2008].</p>	<p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: Equivalent to the Federal.)</p> <p>(NOTE: DEQ Circular 1 was revised.)</p>

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<p>WQ.77.</p> <p>NONTRANSIENT, NONCOMMUNITY WATER SYSTEMS</p>	
<p>WQ.77.1.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.2.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.3.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.4.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.5.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.6.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.7.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)
<p>WQ.77.8.MT. [Deleted July 1998].</p>	(NOTE: Equivalent to the Federal.)

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<p>WQ.77.9.MT. [Deleted January 2007].</p> <p>WQ.77.10.MT. Nontransient noncommunity water systems must collect samples for specific inorganic chemicals (ARM 17.38.216(1)) [Added February 2004].</p> <p>WQ.77.11.MT. Nontransient noncommunity water systems must perform control tests to determine water characteristics (ARM 17.38.225 (2) through (5)) [Added January 2006 ; Revised January 2007].</p>	<p>Verify that non-transient non-community public water supply system collects water samples taken from each entry point location for analysis by an approved laboratory of the following inorganic chemicals:</p> <ul style="list-style-type: none"> - alkalinity total - calcium - pH value - sodium - iron - manganese - hardness - specific conductance - sulphate - chloride - magnesium. <p>(NOTE: The Department may waive the sampling and analysis requirements for any or all of these chemicals if the results of at least one sample demonstrate that further sampling is unnecessary.)</p> <p>Verify that at least 2 chlorine residual test are conducted daily, one at the point of application and one in the distribution system:</p> <ul style="list-style-type: none"> - by a supplier of a public water supply system employing full time chlorination of a groundwater source - by a supplier of a public water supply system using a surface water source. <p>Verify that a test for chlorine residual in the distribution system is made at selected points consistent with the microbiological sample siting plan and changed regularly so as to cover the system completely at least each week.</p> <p>Verify that turbidity measurements are taken as set forth in 40 CFR 141.74.</p> <p>(NOTE: Secondary turbidity standards may be used for daily calibration of turbidimeters if those standards are calibrated against an EPA-approved primary standard at least quarterly and documentation of the date, analyst performing the procedure, procedures used and results of the quarterly calibration checks must be maintained by the water system and reported to the Department within 10 days following the end of the month during which this procedure took place.)</p> <p>Verify that the Departmental approval is obtained if DPD colorimetric test kits are used to measure residual disinfectant concentrations for free chlorine and</p>

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	<p>combined chlorine.</p> <p>Verify that measurements for pH, temperature, turbidity, and residual disinfectant concentrations for a non-transient non-community water supply systems is conducted by a person certified or by a person who has been properly trained to conduct these measurements by the operator in responsible charge or by the Department.</p> <p>Verify that bacteriological samples for a non-transient non-community water supply systems are collected by a person approved by the Department or certified.</p> <p>Verify that measurements for total coliform bacteria, fecal coliform bacteria, and heterotrophic plate count are conducted by an approved laboratory.</p>

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<p>WQ.80.</p> <p>TRANSIENT NONCOMMUNITY WATER SYSTEMS</p> <p>WQ.80.1.MT. Transient non-community water systems must meet sampling requirements (ARM 17.38.215 (1) (b) and (c) and 17.38.216(4)) [Added February 2010].</p>	<p>Verify that the supplier samples a new source serving a transient non-community water system for an alysis o f ei ther t otal d issolved s olids (TDS) o r s pecific conductance.</p> <p>Verify t hat a supplier o f water f or a tr ansient non-community water s ystem samples for total coliforms according to Appendix 13-6 in TEAM Guide.</p> <p>Verify that a supplier of water for a t ransient non-community water system that uses only ground water that is not under the direct influence of surface water and serves a maximum da ily popu lation o f 1, 000 pe rsons or f ewer samples for coliform bacteria in each calendar month during which the system provides water to the public unless allowed to sample quarterly.</p> <p>(NOTE: The department will not grant permission to sample quarterly pursuant to for a minimum of 24 months of system operation after a system initially becomes regulated.)</p>

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<p>WQ.85.</p> <p>STATE SPECIFIC CATEGORIES OF WATER SYSTEMS</p> <p>WQ.85.1.MT. [Deleted February 2003].</p>	<p>(NOTE: Regulations repealed.)</p>

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<p>WQ.90.</p> <p>DRINKING WATER WELL</p> <p>WQ.90.1.MT. Small water systems must meet specific well construction, disinfection, and monitoring requirements (DEQ Circular-3 Sections 3.2, 3.2.2.1, 3.2.2.2.a, 3.2.2.2.a.i, and 3.2.2.2.b) [Citation Revised February 2003 ; Revised January 2007]</p> <p>WQ.90.2.MT. Small water systems must meet general well construction requirements (DEQ Circular-3 Section 3.2.5.6) [Citation Revised February 2003 ; Revised January 2007].</p>	<p>Verify that, prior to construction of a well intended to serve a public water supply, the proposed location and the plans and specifications are approved by MDEQ.</p> <p>Verify that all wells for small systems are constructed by a licensed water well contractor.</p> <p>Verify that new, modified, or reconditioned groundwater sources are disinfected prior to and after placement of permanent pumping equipment.</p> <p>Verify that, more than 72 hours after disinfection, 2 or more water samples are submitted to certified laboratory for microbiological analysis.</p> <p>Verify that satisfactory results of microbiological testing are reported to the MDEQ prior to placing the well into service.</p> <p>Verify that new, modified, or reconditioned groundwater sources are examined for applicable physical, chemical, and radiological characteristics by a analysis of representative samples in certified laboratories and that the results are reported to the MDEQ.</p> <p>Verify that samples are collected at the conclusion of the test pumping procedure and examined as soon as practical.</p> <p>(NOTE: This testing must include nitrate/nitrite and total dissolved solids or conductivity as a minimum for individual systems and TNC public water systems.)</p> <p>Verify that surface of the floors in well houses are at least 6 in. above the final ground elevation.</p> <p>Verify that sites subject to flooding have an earth mound surrounding the casing that terminates at an elevation at least 2 ft above the 100-yr flood level or highest known flood elevation.</p> <p>Verify that sites subject to flooding have the top of the well casing terminating at least 3 ft above the 100-yr flood level or highest known flood elevation.</p> <p>Verify that protection from physical damage and tampering is provided.</p>

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<p>WQ.90.3.MT. Discharge piping of small water systems must meet general construction requirements (DEQ Circular-3 Section 3.2.7.2) [Citation Revised February 2003 ; Revised January 2007].</p> <p>WQ.90.4.MT. Hydropneumatic finished water storage tanks for small water systems wells must meet general construction requirements (DEQ Circular-3 Section 7.1) [Citation Revised February 2003 ; Revised January 2007].</p>	<p>Verify that discharge piping meets the following requirements:</p> <ul style="list-style-type: none"> - has control valves and appurtenances located above the pumphouse floor when an aboveground discharge is provided - is protected against the entry of contamination - is equipped with a check valve, a shutoff valve, a pressure gauge, and a smooth nosed sampling tap located at a point where positive pressure is maintained - where applicable, is equipped with an air release-vacuum relief valve located upstream from the check valve, with exhaust/relief piping terminating in a down-turned position at least 18 in. above the floor which is covered with a 24 mesh corrosion resistant screen - is valved to permit test pumping and control of each well - has all exposed piping, valves, and appurtenances protected against physical damage and freezing. <p>Verify that the discharge piping is provided with a means of pumping to waste, but not directly connected to a sewer.</p> <p>Verify that hydropneumatic (pressure) tanks serve as the sole storage facility for very small water systems only.</p> <p>Verify that pressure storage tanks for which the American Society of Mechanical Engineer code does not apply (i.e., those with nominal water containing capacity of 120 gal or less) meet the American Society of Mechanical Engineer code requirements or satisfactorily pass a hydrostatic test of 1.5 times the maximum allowable working pressure of the tank and that the maximum allowable working pressure is marked on each tank.</p> <p>Verify that pressure storage tanks are located above normal ground surface and are completely housed.</p> <p>Verify that the capacity of the wells and pumps in a hydropneumatic system is equal to the peak instantaneous demand.</p> <p>Verify that the active storage volume of the pressure storage tanks is sufficient to limit pump cycling to manufacturer's and industry recommendations.</p> <p>(NOTE: The reduction of required tank volume for systems with alternating pump controls is not permitted.)</p> <p>Verify that each tank in a multiple tank system has bypass piping or valves to permit operation of the system while the tank is being repaired or painted.</p>

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<p>WQ.90.5.MT. Water works must meet surface water source development requirements for raw water pumping wells (DEQ Circular-1 Section 3.1.4.2) [Citation Revised February 2003; Revised January 2007].</p> <p>WQ.90.6.MT. Water works must meet groundwater quantity requirements when developing sources (DEQ Circular-1 Sections 3.2, 3.2.1.2, and 3.2.1.3.) [Citation Revised February 2003 ; Revised January 2007].</p>	<p>Verify that each pressure storage tank has a means of draining, automatic or manual air blow-off, and a means for adding air.</p> <p>Verify that each pressure storage tank has control equipment which consists of the following:</p> <ul style="list-style-type: none"> - a pressure gage - a pressure relieving device - pressure operated start-stop controls for the pumps. <p>Verify that shut-off valves are not installed between the pump and the pressure operated start-stop controls.</p> <p>Verify that the pressure-relieving device prevents the pressure from rising more than 10 percent above the maximum allowable working pressure.</p> <p>Verify that pressure gages have a range of no less than 1.2 times the pressure at which the pressure-relieving device is set to function.</p> <p>Verify that raw water pumping wells meet the following requirements:</p> <ul style="list-style-type: none"> - have motors and electrical controls located above grade which are protected from flooding as specified by the Reviewing Authority - are accessible - are designed against flotation - are equipped with removable or traveling screens before the pump suction well - allow the introduction of chlorine or other chemicals in the raw water transmission main if necessary for quality control - have intake valves and provisions for backflushing or cleaning by a mechanical device and testing for leaks, where practical - have provisions for withstanding surges where necessary. <p>(NOTE: Groundwater sources include all water obtained from dug, drilled, bored, or driven wells, and infiltration lines.)</p> <p>Verify that all groundwater wells are constructed by a licensed water well contractor.</p> <p>Verify that a minimum of 2 sources of groundwater is provided.</p> <p>Verify that, if power failure would cause cessation of minimum essential service, power sufficient to meet average day demand is provided by one of the following:</p>

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<p>WQ.90.7.MT. Water works must meet groundwater quality requirements when developing sources (DEQ Circular-1 Sections 3.2.2) [Citation Revised February 2003; Revised January 2007].</p> <p>WQ.90.8.MT. Water works developing groundwater sources must meet general construction requirements for discharge piping (DEQ Circular-1 Section 3.2.7.3) [Citation Revised February 2003; Revised January 2007].</p>	<ul style="list-style-type: none"> - connection to at least 2 independent public power sources - portable or in-place auxiliary power. <p>(NOTE; Auxiliary power is not required when documentation is submitted that shows power outages are infrequent and of short duration, and fire protection is not diminished.)</p> <p>Verify that new, modified, or reconditioned groundwater sources are disinfected prior to and after placement of permanent pumping equipment.</p> <p>Verify that, more than 72 hours after disinfection, 2 or more water samples are submitted to a certified laboratory for microbiological analysis and that satisfactory results are reported to the MDEQ prior to placing the well in to service.</p> <p>Verify that representative samples from new, modified, or reconditioned groundwater sources are examined for applicable physical and chemical characteristics by a certified laboratory and that the results are reported to the MDEQ.</p> <p>Verify that these samples are collected at the conclusion of the test pumping procedure and examined as soon as practicable.</p> <p>Verify that representative samples from new, modified, or reconditioned groundwater sources are examined for radiological activity by a certified laboratory and that the results are reported to the MDEQ.</p> <p>Verify that discharge piping meets the following requirements:</p> <ul style="list-style-type: none"> - has control valves and appurtenances located above the pump house floor when an aboveground discharge is provided - is protected against the entry of contamination - is equipped with a check valve, a shutoff valve, a pressure gauge, and a smooth nosed sampling tap located at a point where positive pressure is maintained - where applicable, is equipped with an air release-vacuum relief valve located upstream from the check valve, with exhaust/relief piping terminating in a down-turned position at least 18 in. above the floor which is covered with a 24 mesh corrosion resistant screen - is valved to permit test pumping and control of each well - has all exposed piping, valves, and appurtenances protected against physical damage and freezing - is properly anchored to prevent movement - is protected against surge or water hammer.

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<p>WQ.90.9.MT. Water works developing groundwater sources must meet general construction requirements for casing vents (DEQ Circular-1 Section 3.2.7.5) [Citation Revised February 2003 ; Citation Revised January 2007].</p> <p>WQ.90.10.MT. Water works must meet general construction requirements for pumping facilities (DEQ Circular-1 Section 6.6.1) [Citation Revised February 2003; Citation Revised January 2007].</p> <p>WQ.90.11.MT. Wells drilled to supply water to the public must meet recordkeeping requirements (MCA 75-6-105) [Revised February 2008].</p> <p>WQ.90.12.MT. Water wells must meet location standards (ARM 36.21.638) [Revised July 1998].</p>	<p>Verify that the discharge piping is provided with a means of pumping to waste, but not directly connected to a sewer.</p> <p>Verify that venting is provided by a factory manufactured vented well cap or a fabricated vent assembly.</p> <p>Verify that all vents are screened with corrosion-resistant material to prevent entry of insects and that vents are oriented so as to prevent entry of rainwater.</p> <p>Verify that fabricated vents terminate in a downturned position at or above the top of the casing or pitless unit and have a minimum 1 1/2 in. diameter opening covered with a 24 mesh screen.</p> <p>Verify that the pipe connecting the casing to the vent is large enough to allow rapid venting of the casing.</p> <p>Verify that fabricated vent assemblies are vandal resistant.</p> <p>Verify that pumps are valved to permit satisfactory operation, maintenance, and repair of the equipment.</p> <p>Verify that each pump has a positive-acting check valve on the discharge side between the pump and the shut-off valve.</p> <p>Verify that every person drilling a water well to furnish water for public consumption maintains a complete record of the depth, thickness, and character of different strata.</p> <p>Verify that the data is furnished to the Department on prescribed forms.</p> <p>Verify that, at a minimum, water wells are not located within:</p> <ul style="list-style-type: none"> - 10 ft of property lines unless properly protected by easement or agreement - 50 ft of septic tanks or underground storage tanks and associated lines - 100 ft of drain fields, seepage pits or cesspools, or other site treatment systems

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<p>WQ.90.13.MT. Abandoned or substandard wells must meet abandonment requirements (ARM 36.21.669A and 36.21.670).</p> <p>WQ.90.14.MT. Water wells must meet specific construction standards (ARM 36.21.647, 36.21.665, and 36.21.668) [Added February 2004; Revised January 2007].</p>	<ul style="list-style-type: none"> - 10 ft of sewer lines with permanent watertight joints - 50 ft of other sewer lines. <p>(NOTE: The local flood plain administrators should be contacted for rules pertaining to wells in flood plain areas.)</p> <p>Verify that the following wells are permanently abandoned:</p> <ul style="list-style-type: none"> - whose use has been permanently discontinued - which is in such disrepair that its continued use for the purpose of obtaining groundwater is impractical or may be a health hazard - whose existence allows intermixing of waters which contributes to significant degradation and loss of the water source - a well in the process of being drilled that is rendered unusable because of driller error and for which drilling must be discontinued. <p>Verify that wells that need to be permanently abandoned are properly plugged and sealed.</p> <p>(NOTE: Any well that is to be permanently abandoned must be completely filled in such a manner that vertical movement of water within the well bore, including vertical movement of water within the annular space surrounding the well casing, is effectively and permanently prohibited. All fluids within a well are to be permanently confined to the specific strata in which they were originally encountered.)</p> <p>Verify that the casing head or pitless unit of any water well extends not less than 18 inches above the finished ground surface or pump house floor, and not less than 18 inches above the local surface runoff level.</p> <p>Verify that no casing is cut off below land surface except during permanent abandonment of a well.</p> <p>Verify that the ground surface immediately surrounding the top of the well casing or pitless unit is graded so as to drain surface water away from the well.</p> <p>Verify that the casing of any water well extends not less than 18 inches above the established 100 year floodplain elevation or is capped with a watertight seal and vented above flood level.</p> <p>Verify that all wells are equipped with an access port 1/2 inch minimum that will allow for the unobstructed measurement of the depth to water surface or a pressure gauge that will indicate the shut-in pressure of a flowing well.</p>

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<p>WQ.90.15.MT. Water wells contractors and drillers must meet licensing requirements (ARM 36.21.402 and 36.21.403) [Added February 2004; Revised February 2005].</p>	<p>Verify that the access ports and pressure gauges or other openings in the cover are sealed or capped to prevent entrance of surface water or foreign material into the well.</p> <p>(NOTE: Removable caps are acceptable as access ports.)</p> <p>Verify that during or immediately following construction and development, the water in all wells is sampled.</p> <p>Verify that materials encountered during the sampling are indicated on the well log report form.</p> <p>Verify that water well contractors or drillers are licensed.</p> <p>Verify that each drill rig has a sign showing the company or contractor name and license number in letters 3 inches high.</p> <p>Verify that each firm has a licensed and bonded water well contractor who is in charge of drilling operations.</p>

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<p>WQ.100.</p> <p>MISCELLANEOUS WELLS</p> <p>WQ.100.1.MT. Monitoring wells contractors and drillers must meet licensing requirement (ARM 36.21.809) [Added February 2004; Revised February 2005; Revised January 2007].</p> <p>WQ.100.2.MT. Monitoring wells must meet construction standards (ARM 36. 21.802, 36.21.804, and 36.21.806(1) and (4)) [A dded February 2004; C itation R evised February 2008].</p>	<p>Verify that a licensed monitoring well constructor prepares a monitoring well report form for each monitoring well drilled.</p> <p>Verify that the monitoring well constructor supplies copies of the report to the monitoring well owner and the Department of natural resources and conservation within 60 days of completing the well.</p> <p>Verify that the monitoring well constructor retains a copy as a record in his files.</p> <p>(NOTE: Exclusions from construction standards include the following wells:</p> <ul style="list-style-type: none"> - recovery wells - all wells less than 10 feet deep - vapor detection wells that do not penetrate the water table - lysimeters - neutron tubes - injection wells for the oil and gas industry - holes drilled for non-hydrologic geotechnical information - piezometers and observation wells in dams - monitoring wells installed under the authority of another governmental agency where the construction standards of that agency are more stringent than these rules - special cases, with prior approval of the board.) <p>Verify that the well screen configuration, construction, and type of material used are based on the in-field environmental and physical conditions.</p> <p>Verify that drilling fluids that could contaminate the aquifer are not used.</p> <p>Verify that, in areas of known contamination, materials that will not corrode in the environment are used.</p> <p>Verify that the well screen and well casing are new and of sufficient structural strength to protect the integrity of the well.</p> <p>Verify that, in installing and developing a monitoring well, care is taken to preserve the natural barriers to ground-water movement between aquifers.</p> <p>Verify that all sealing is performed by adding the mixture from the bottom of the space to be sealed toward the surface in one continuous operation, except for</p>

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<p>WQ.100.3.MT. Monitoring wells must prevent contamination by equipment (ARM 36.21.807) [Added February 2004].</p> <p>WQ.100.4.MT. Monitoring wells must provide site protection and security (ARM 36.21.808) [Added February 2004].</p>	<p>driven wells.</p> <p>Verify that a monitoring well encountering an artesian condition is sealed and controlled in the same manner as an artesian water well (see ARM 36.21.658).</p> <p>Verify that, when practicable or feasible, monitoring well installation proceeds from areas with no or low levels of contamination to areas with higher levels of contamination.</p> <p>Verify that, if contamination is detected during installation of a monitoring well, down-hole equipment is decontaminated before use on another well or at another site.</p> <p>Verify that contamination of down-hole equipment on the drill rig itself by hazardous materials requires thorough cleaning to prevent transport of hazardous contaminants to other locations.</p> <p>(NOTE: On-site decontamination may be necessary under particularly hazardous conditions.)</p> <p>Verify that the top of the well is fitted with a tight fitting slip cap, threaded plug or cap, or locking cap.</p> <p>Verify that monitoring wells within the radius of influence of a well used as a domestic supply well and hydraulically connected to the aquifer from which the well is drawing water have a locking cap or be surrounded by a fenced controlled enclosure.</p> <p>(NOTE: The following are suggested methods for site protection:</p> <ul style="list-style-type: none"> - If the well is cased with metal and completed above the ground surface, a lockable watertight cap may be welded to the top of the casing - If the well is not cased with metal and completed above the ground surface, a metal protective casing may be installed around the well. The protective casing may extend at least six inches above the top of the well casing and at least 2 feet into the ground. A lockable cap may be welded to the top of the protective casing - If the well is completed below ground surface, a lockable "water-meter cover," or equivalent, may be installed around the well. The cover must be designed to withstand the maximum expected loadings. A watertight seal on the casing itself shall be installed to prevent the inflow of surface water. Drains may be provided, when feasible, to keep water out of the well and below the well cap.) <p>Verify that wells completed above ground are protected from damage by one of</p>

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<p>WQ.100.5.MT. Abandoned monitoring wells must meet management requirements (ARM 36. 21.810) [Added February 2004].</p>	<p>the following suggested methods:</p> <ul style="list-style-type: none"> - 3 metal posts at least 3 inches in diameter installed in a triangular array around the casing with each post extending at least 3 feet above and below the ground surface - a reinforced concrete pad installed to prevent freeze/thaw cracking of the surface seal (when a concrete pad is used, the annular seal must be contiguous to the concrete pad) - other methods agreed upon by the well owner and the monitoring well constructor may be used. <p>Verify that the final surface is sloped away from the monitoring well.</p> <p>Verify that, if slabs or pavements prevent a slope, the surface is sealed with at least 4 inches of Portland cement or asphaltic concrete.</p> <p>Verify that a surface condition that allows surface runoff to run down the side of the casing or borehole is repaired.</p> <p>Verify that wells that have not been monitored for more than 3 years are deemed abandoned unless written permission is obtained from the Board to maintain the well.</p> <p>Verify that a properly abandoned well does not produce water nor serve as a channel for movement of water.</p> <p>Verify that one of the methods of abandonment detailed below or a method approved by the Board is used.</p> <p>Verify that, if the casing and screen are left in place, the casing and screen is sealed from the bottom up using a pump and hose or tremie pipe to conduct the grout to the bottom of the well or by filling the casing and screen with bentonite pellets or chips placed in a manner that will prevent bridging.</p> <p>Verify that metal casings are cut off 3 feet below the ground surface and the last 3 feet backfilled with naturally occurring soils.</p> <p>(NOTE: It is recommended that in all cases where possible the casing be pulled.)</p> <p>Verify that, if the casing and/or screen are removed, the hole is filled with sealing material, concrete, or bentonite pellets or chips from the bottom up, as the casing and/or screen is removed.</p> <p>Verify that from 6 feet to 3 feet from the surface, bentonite is added to the well, and the last 3 feet is filled with naturally occurring soils.</p>

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	<p>Verify that sealing material is bentonite pellets or chips, bentonite clay grout, neat cement grout, or concrete.</p> <p>(NOTE: Sealing material may contain nonbiodegradable fluidizing admixtures, provided they will not contaminate the ground water. Sealing material that settle must be topped to provide a continuous column of grout to within 3 feet of the surface.)</p> <p>(NOTE: For flowing wells, the abandonment procedures outlined in ARM 36.21.671 apply.)</p>

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<p>WQ.111.</p> <p>UNDERGROUND INJECTION CONTROL (UIC)</p> <p>WQ.111.1.MT. Class I I injection wells require a permit (ARM 36. 22.1402) [Added February 2004].</p> <p>WQ.111.2.MT Owners o f operators of Class II injection wells m ust meet recordkeeping r equirements (ARM 36.22.1415(1) and (2)) [Added February 2004].</p> <p>WQ.111.3.MT. Owners of operators of Class II injection wells permitted after May 10, 1996 m ust c onduct c hemical analysis of the typical injected fluids (ARM 36. 22.1415(3)) [Added February 2004].</p>	<p>Verify that class II injection well or existing wells converted to injection, whether for the purpose of disposal, or as part of an enhanced recovery project, or for the storage of liquid hydrocarbons, have a permit from the board.</p> <p>Verify that the owner or operator of any Class II injection well or wells retain the following records for at least 5 years:</p> <ul style="list-style-type: none"> - the cumulative amount of fluid injected into such well or wells - the wellhead p ressure o r p ressure, a nd t he injection r ate at t he t ime t he pressure is recorded - the t otal a mount o f water p roduced, a nd t he t otal a mount o f o il a nd g as produced from an enhanced recovery project - the pressure in the casing -- tubing annulus if monitoring of such pressure is required as part of a mechanical integrity test - the results of any chemical or physical analyses performed on injection zone fluids and injected fluids. <p>Verify that the above information, if applicable, is observed at least weekly and a representative observation recorded at least monthly and filed with the board.</p> <p>Verify that t he o wner o r o perator o f an y Class II injection well permitted after May 10, 1996, conducts a c hemical analysis of the typical injected fluids during the 12th month of injection.</p> <p>Verify that samples of typical injected fluids are taken at the injection wellhead, or, w here more t han o ne well i s r eceiving fluid f rom a c ommon facility, t he sample is taken from the discharge line of such facility.</p> <p>Verify t hat t he c hemical a nalysis o f t he t ypical i njected f luids i nclude t he following tests:</p> <ul style="list-style-type: none"> - total dissolved solids (TDS) - specific conductivity - pH - percent oil and grease.

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	Verify that results of the analysis are submitted in writing to the board within 45 days after the sample is taken.

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<p>WQ.115.</p> <p>WATER QUALITY STANDARDS</p> <p>WQ.115.1.MT. Water quality must be protected (ARM 17.30.617, 17.30.717, and 17.30.638) [Revised February 2005; Revised February 2010].</p> <p>WQ.115.2.MT. Waters classified A-Closed must meet specific water quality criteria (ARM 17. 30.621) [Revised January 2 007; Revised February 2010].</p>	<p>Verify that owner of a new or increased source for which no water quality protection practices are approved by the Department designs and submits a viable plan for implementation of the necessary water quality protection practices for Department review, modification, and approval prior to implementation.</p> <p>Verify that there is no new or increased point source discharge that would result in a permanent change in outstanding resource water quality.</p> <p>(NOTE: All state surface waters located wholly within the boundaries of designated national parks or wilderness areas as of October 1, 1995, are outstanding resource waters (ORWs). Other state waters may be designated an ORW by the board, subject to approval by the legislature.)</p> <p>(NOTE: Waters classified A-Closed are to be maintained suitable for drinking, culinary, and food processing purposes after simple disinfection. Water quality is to be maintained suitable for swimming, recreation, growth, and propagation of fishes and associated aquatic life, although access restrictions to protect public health may limit actual use of A-Closed waters for these uses.)</p> <p>Verify that public access and activities such as livestock grazing and timber harvest are controlled by the utility owner as specified by the Department.</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - geometric mean number of Escherichia coli bacteria do not exceed 32 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 64 colony forming units per 100 milliliters during any 30-day period - no change from naturally occurring dissolved oxygen levels - no change from natural pH - no increase above naturally occurring turbidity - no increase above naturally occurring water temperature - no increases above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - no increase in true color - no increases of carcinogenic, bioconcentrating, toxic or harmful parameters, pesticides, and organic and inorganic materials, including heavy metals,

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<p>WQ.115.3.MT. Waters classified A-1 must meet specific water quality criteria (ARM 17.30.622) [Revised February 2003 ; Revised January 2007].</p>	<p>above naturally occurring concentrations - no increase in radioactivity above natural background levels.</p> <p>(NOTE: Waters classified A-1 are to be maintained suitable for drinking, culinary and food processing purposes after conventional treatment for removal of naturally present impurities. Water quality must be maintained suitable for bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - geometric mean number of Escherichia coli bacteria do not exceed 32 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 64 colony forming units per 100 milliliters during any 30-day period if resulting from domestic sewage - dissolved oxygen concentration maintained at Circular DEQ Circular-7 standards - induced variation less than 0.5 pH units within the range of 6.5 to 8.5, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - no increase above naturally occurring turbidity or suspended sediment - temperature increases/decreases: <ul style="list-style-type: none"> - 1 °F maximum increase above naturally occurring water temperature within the range of 32 deg F to 66 deg F - within the naturally occurring range of 66 deg F to 66.5 deg F, no increase above 67 deg F - 0.5 deg F maximum increase above a naturally occurring water temperature of 66.5 deg F or greater - 2 deg F /h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of suspended sediment or suspended sediment (except as permitted), settleable solids, oils, or floating solids that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 2 color units above naturally occurring color - concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed

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<p>WQ.115.4.MT. Waters classified B-1 must meet specific water quality criteria (ARM 17.30.623) [Revised February 2003 ; Revised January 2007].</p>	<p>the applicable standards specified in Circular DEQ Circular-7 when stream flows equal or exceed the design flows.</p> <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: Waters classified B-1 are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period - dissolved oxygen maintained at the applicable standards specified in Circular DEQ Circular-7 - induced variation less than 0.5 pH units within the range of 6.5 to 8.5, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 5 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 1 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 66 deg F - within the naturally occurring range of 66 deg F to 66.5 deg F, no increase above 67 deg F - 0.5 deg F maximum increase above a naturally occurring water temperature of 66.5 deg F or greater - 2 deg F /h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids which will or are likely to create a nuisance or

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<p>WQ.115.5.MT. Waters classified B-2 must meet specific water quality criteria (ARM 17.30.624) [Revised February 2003 ; Revised January 2007].</p>	<p>render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife</p> <ul style="list-style-type: none"> - true color is not increased more than 5 color units above naturally occurring color - carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular WQB-7 when stream flows equal or exceed the design flows. <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: Water in Parkley Pear Creek from McClellan Creek to the Montana Highway No. 443 crossing is allowed a 2 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 65 deg F. All other temperature requirements apply to these waters.)</p> <p>(NOTE: Waters classified B-2 are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period - dissolved oxygen concentration maintained at the applicable standards

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<p>WQ.115.6.MT. Waters classified B-3 must meet specific water quality criteria (ARM 17.30.625) [Revised February 2003 ; Revised January 2007].</p>	<ul style="list-style-type: none"> - specified in Circular DEQ Circular-7 - induced variation less than 0.5 pH units within the range of 6.5 to 9.0, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 10 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 2 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 66 deg F - within the naturally occurring range of 66 deg F to 66.5 deg F, no increase above 67 °F - 0.5 deg F maximum increase above a naturally occurring water temperature of 66.5 deg F or greater - 2 deg F/h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of suspended sediment or suspended sediment (except as permitted), settleable solids, oils, or floating solids that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 5 color units above naturally occurring color - concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular DEQ Circular-7 when stream flows equal or exceed the design flows. <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: Waters classified B-3 are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of nonsalmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p>

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	<p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period - dissolved oxygen concentration maintained at the applicable standards specified in Circular DEQ Circular-7 - induced variation less than 0.5 pH units within the range of 6.5 to 9.0, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 10 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 3 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 77 deg F - within the naturally occurring range of 77 deg F to 79.5 deg F, no increase above 80 °F - 0.5 deg F maximum increase above a naturally occurring water temperature of 79.5 deg F or greater - 2 deg F/h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of sediment or suspended sediment (except as permitted), settleable solids, oils, or floating solids which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 5 units above naturally occurring color - concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular WQB-7 when stream flows equal or exceed the design flows <p>(NOTE: Water in the main stem of the Yellowstone River from the Billings water supply intake to the water diversion at Intake is allowed a 3 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 79 deg F, within the range of 79 deg F to 81.5 deg F, no increase above 82 deg</p>

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<p>WQ.115.7.MT. Waters classified C -1 must meet specific water quality criteria (ARM 17.30.626) [Revised February 2003; Revised January 2007].</p>	<p>F, and a 0.5 deg F maximum increase above a naturally occurring water temperature of 81.5 deg F or greater.)</p> <p>(NOTE: Water from the diversion at Intake to the North Dakota state line is allowed a 3 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 82 deg F, within the naturally occurring range of 82 deg F to 84.5 deg F, no increase above 85 deg F, and a 0.5 deg F maximum increase above a naturally occurring water temperature of 84.5 deg F or greater.)</p> <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: Waters classified C -1 are to be maintained suitable for bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period - dissolved oxygen maintained at the applicable standards specified in Circular DEQ Circular-7 - induced variation less than 0.5 pH units within the range of 6.5 to 8.5, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 5 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 1 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 66 deg F - within the naturally occurring range of 66 deg F to 66.5 deg F, no increase above 67 deg F - 0.5 deg F maximum increase above a naturally occurring water temperature of 66.5 deg F or greater

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<p>WQ.115.8.MT. Water classified C -2 must meet specific water quality criteria (ARM 17.30.627(1) and (2)) [Revised February 2003 ; Revised January 2007].</p>	<ul style="list-style-type: none"> - 2 deg F /h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of suspended sediment or suspended solids (except as permitted), settleable solids, oils, or floating solids that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 5 color units above naturally occurring color - concentrations of carcinogenic, bioconcentrating, toxic radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular WQB-7 when stream flows equal or exceed the design flows. <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: Waters classified C -2 are to be maintained suitable for bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period - dissolved oxygen concentration maintained at the applicable standards specified in Circular DEQ Circular-7

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<p>WQ.115.9.MT.</p> <p>Waters</p>	<ul style="list-style-type: none"> - induced variation less than 0.5 pH units within the range of 6.5 to 9.0, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 10 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 1 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 66 deg F - within the naturally occurring range of 66 deg F to 66.5 deg F, no increase above 67 deg F - 0.5 deg F maximum increase above a naturally occurring water temperature of 66.5 deg F or greater - 2 deg F /h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of sediment or suspended sediment (except as permitted), settleable solids, oils, or floating solids that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 5 color units above naturally occurring color - concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters do not exceed levels that render the waters harmful, detrimental or injurious to public health - concentrations of toxic parameters do not exceed the applicable standards specified in Circular DEQ Circular-7 - permitted dischargers conform to the nondegradation rules (see ARM 17.30.7) - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular DEQ Circular-7 when stream flows equal or exceed the design flows. <p>(NOTE: Dissolved oxygen concentration levels for Ashley Creek below the bridge crossing on airport road are allowed to be maintained at 5.0 mg/L or above from 1 October through 1 June and maintained at 3.0 mg/L or above from 2 June through 30 September.)</p> <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>(NOTE: The goal of the state of Montana is to have these waters fully support the</p>

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<p>classified I must meet specific water quality criteria (ARM 17.30.628) [Revised February 2003; Revised January 2007].</p> <p>WQ.115.10.MT. Waters classified C -3 must meet specific water quality criteria (ARM 17.30.629(1) and (2)) [Revised February 2003 ; Revised January 2007].</p>	<p>following uses: drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. - dissolved oxygen concentration maintained at the applicable standards specified in Circular DEQ Circular-7 - pH is maintained within the range of 6.5 to 9.5 - no increases above naturally occurring turbidity, temperature, concentrations of sediment or suspended sediment (except as permitted), settleable solids, oils, floating solids, or true color that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - no discharges of toxic, carcinogenic, or harmful parameters that lower, or are likely to lower, the overall water quality of these waters - concentrations of toxic, carcinogenic or harmful parameters do not exceed the applicable standards specified in Circular WQB-7, when stream flows equal or exceed the design flows. <p>(NOTE: Waters classified C -3 are to be maintained suitable for bathing, swimming and recreation, and growth and propagation of nonsalmonid fishes and associated aquatic life, waterfowl and furbearers. The quality of these waters is naturally marginal for drinking, culinary and food processing purposes, agriculture and industrial water supply. Degradation that will impact established beneficial uses is not allowed.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the water quality standard for Escherichia coli bacteria (Ecoli) varies according to season, as follows: <ul style="list-style-type: none"> - from April 1 through October 31, the geometric mean number of E-coli do not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples do not exceed 252 colony forming units per

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<p>WQ.115.11.MT. Treatment standards, operation standards, and sampling</p>	<ul style="list-style-type: none"> 100 milliliters during any 30-day period - from November 1 through March 31, the geometric mean number of E-coli do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. - dissolved oxygen concentration maintained at the applicable standards specified in Circular DEQ Circular-7 - induced variation less than 0.5 pH units within the range of 6.5 to 9.0, natural pH outside this range maintained without change, and natural pH above 7.0 maintained above 7.0 - maximum increase of 10 NTU above naturally occurring turbidity - temperature increases/decreases: <ul style="list-style-type: none"> - 3 deg F maximum increase above naturally occurring water temperature within the range of 32 deg F to 77 deg F - within the naturally occurring range of 77 deg F to 79.5 deg F, no increase above 80 deg F - 0.5 deg F maximum increase above a naturally occurring water temperature of 79.5 deg F or greater - 2 deg F /h maximum decrease below naturally occurring water temperature when the water temperature is above 55 deg F - 2 deg F maximum decrease below naturally occurring water temperature within the range of 55 deg F to 32 deg F - no increases above naturally occurring concentrations of sediment or suspended sediment (except as permitted), settleable solids, oils, or floating solids that will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife - true color is not increased more than 5 color units above naturally occurring color - carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters do not exceed the applicable standards specified in Circular WQB-7 - permitted dischargers do not cause receiving water concentrations to exceed the applicable standards specified in Circular WQB-7 when stream flows equal or exceed the design flows. <p>Verify that, if site-specific criteria for aquatic life are adopted, the criteria is used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ Circular-7.</p> <p>(NOTE: It is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements.)</p> <p>Verify that sewage receives a minimum of secondary treatment as defined by the USEPA and 40 CFR Part 133.</p>

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<p>methodology requirements must be met (ARM 17.30.635(2) and (3), 636(1), and 641) [Revised February 2003].</p>	<p>Verify that industrial wastes receive a minimum of treatment equivalent to the best practicable control technology currently available as defined in 40 CFR Parts 400 through 424.</p> <p>Verify that new water impoundments provide temperature variations in discharging water that maintain or enhance the existing propagating fishery and associated aquatic life.</p> <p>(NOTE: The following temperature variations are recommended: - continuously less than 40 deg F during January and February - continuously greater than 44 deg F during June through September.)</p> <p>Verify that water quality monitoring, including methods of sample collection, preservation and analysis used to determine compliance with the standards, is in accordance with 40 CFR Part 136 or other method allowed by the Department.</p>
<p>WQ.115.12.MT. [Moved February 2010].</p>	<p>(NOTE: ARM 17.30.637 moved to WA.5.5.MT.)</p>
<p>WQ.115.13.MT. Radiological criteria must not be exceeded (ARM 17.30.645 (1)) [Citation Revised February 2003].</p>	<p>Verify that no person causes radioactive materials in surface waters to exceed the standards specified in Circular WQB-7.</p>
<p>WQ.115.14.MT. Class I groundwater must meet specific standards (ARM 17.30.1006(1) and (6)) [Added May 1999; Revised February 2003 ; Revised January 2007].</p>	<p>Verify that the quality of Class I groundwater is maintained so that it is suitable for public and private water supplies, culinary and food processing purposes, irrigation, drinking water for livestock and wildlife, and commercial and industrial purposes with little or no treatment.</p> <p>Verify that, with the exception of water within a mixing zone, a violation of the following Class I water quality standards is not caused:</p> <ul style="list-style-type: none"> - the human health standards for groundwater listed in Circular DEQ Circular-7 - for concentrations of parameters for which human health standards are not listed in Circular WQB-7, no increase of a parameter to a level that renders the waters harmful, detrimental, or injurious to the uses listed above - no increase of a parameter that causes a violation of Montana's nondegradation provisions. <p>(NOTE: The ground water quality standards for metal parameters are based on</p>

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<p>WQ.115.15.MT. Class I I groundwater must meet specific standards (ARM 17.30.1006(2) and (6)) [Added May 1999; R evised February 2003 ; Re vided January 2007].</p>	<p>the d issolved p ortion (after f iltration t hrough a 0 .45 m icron filter) o f th e contaminant i n th e gr ound water. T he gr ound water q uality s tandards for o ther parameters i n Department Circular DEQ C ircular-7 a re b a sed u pon u nfiltered samples.)</p> <p>Verify that the quality of Class I groundwater is maintained so that it is marginally suitable for pu blic a nd pr ivate water s upplies, c ulinary a nd food pr ocessing purposes, irrigation of s ome agricultural c rops, d rinking water for liv estock a nd wildlife, and most commercial and industrial purposes.</p> <p>Verify that, with the exception of water within a mixing zone, a violation of the following Class II water quality standards is not caused:</p> <ul style="list-style-type: none"> - the human health standards for groundwater listed in Circular DEQ Circular-7 - for concentrations of parameters for which human health standards are not listed in Circular WQB-7, no increase of a p arameter to a level that renders the waters harmful, detrimental, or injurious to the uses listed above - no i ncrease o f a p arameter t hat cau ses a violation o f M ontana's nondegradation provisions. <p>(NOTE: The ground water quality standards for metal parameters are based on the d issolved p ortion (after f iltration t hrough a 0 .45 m icron filter) o f th e contaminant i n th e gr ound water. T he gr ound water q uality s tandards for o ther parameters i n Department Circular DEQ C ircular-7 a re b a sed u pon u nfiltered samples.)</p>
<p>WQ.115.16.MT. Class I II groundwater must meet specific standards (ARM 17.30.1006(3), (5) and (6)) [Added May 1999; Re vided February 2003].</p>	<p>Verify t hat t he q uality o f Class I II g roundwater i s maintained s o t hat it is marginally s uitable f or ir rigation o f s ome s alt to lerant c rops, s ome c ommercial and i ndustrial p urposes, d rinking water f or s ome li vestock a nd wildlife, a nd drinking, culinary and food processing purposes where the specific conductance is less than 7000 microSiemens/cm at 25 deg C.</p> <p>Verify that, with the exception of water within a mixing zone, a violation of the following Class II water quality standards is not caused:</p> <ul style="list-style-type: none"> - the human health standards listed in Circular DEQ Circular-7, except that the nitrate nitrogen and nitrate plus nitrite nitrogen standards listed in Circular WQB-7 do not apply to groundwaters with a s pecific conductance equal to or greater than 7000 microSiemens/cm at 25 deg C (the nitrate nitrogen and nitrate plus nitrite nitrogen standards for these waters are each 50 mg/l) - for concentrations of parameters f or w hich h uman h ealth s tandards f or groundwater a re n ot lis ted in C ircular DEQ C ircular-7, no i ncrease o f a parameter to a level that renders the waters harmful, detrimental, or injurious to the uses listed above.

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<p>WQ.115.17.MT. Class I V groundwater must meet specific standards (ARM 17.30.1006(4), (5), and (6)) [Added May 1999; Revised February 2003; Revised January 2007].</p>	<p>(NOTE: The nondegradation provisions of MCA 75-5-303, do not apply to Class III groundwater.)</p> <p>(NOTE: For Class III waters, where it can be demonstrated to the satisfaction of the Department that the field hydraulic conductivity is less than 0.1 ft/day in an affected or potentially affected groundwater zone, the nitrate nitrogen and nitrate plus nitrite nitrogen standards do not apply, provided that all existing and anticipated uses of the groundwaters are protected.)</p> <p>(NOTE: The ground water quality standards for metal parameters are based on the dissolved portion (after filtration through a 0.45 micron filter) of the contaminant in the ground water. The ground water quality standards for other parameters in Department Circular DEQ Circular-7 are based upon unfiltered samples.)</p> <p>Verify that the quality of Class IV groundwater is maintained so that it is suitable for industrial and commercial uses.</p> <p>Verify that, with the exception of water within a mixing zone, a violation of the following Class IV water quality standards is not caused:</p> <ul style="list-style-type: none"> - the human health standards for parameters categorized as carcinogens in Circular DEQ Circular-7 - for concentrations of parameters in Circular DEQ Circular-7 which are not listed as carcinogens, no increase of a parameter to a level that would adversely affect the uses listed above (the nitrate nitrogen and nitrate plus nitrite nitrogen standards for these waters are each 50 mg/l) - for concentrations of parameters for which human health standards are not listed in Circular DEQ Circular-7, no increase of a parameter to a level that would adversely affect the uses listed above. <p>(NOTE: The nondegradation provisions of MCA 75-5-303, do not apply to Class IV groundwater.)</p> <p>(NOTE: For Class IV waters, where it can be demonstrated to the satisfaction of the Department that the field hydraulic conductivity is less than 0.1 ft/day in an affected or potentially affected groundwater zone, the nitrate nitrogen and nitrate plus nitrite nitrogen standards do not apply, provided that all existing and anticipated uses of the groundwaters are protected.)</p> <p>(NOTE: The ground water quality standards for metal parameters are based on the dissolved portion (after filtration through a 0.45 micron filter) of the contaminant in the ground water. The ground water quality standards for other parameters in Department Circular DEQ Circular-7 are based upon unfiltered samples.)</p>

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<p>WQ.115.18.MT. Surface waters classified D -1 must meet specific water quality criteria (ARM 17. 30.650(1) and (2)) [Added February 2003; Revised January 2007].</p>	<p>(NOTE: Waters classified D -1 are to be maintained suitable for agricultural purposes and secondary contact recreation.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the designated uses of a receiving water body under a different classification are fully maintained - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.
<p>WQ.115.19.MT. Surface waters classified D -2 must meet specific water quality criteria (ARM 17. 30.651(1) and (2)) [Added February 2003; Revised February 2005; Revised January 2007].</p>	<p>(NOTE: Waters classified D-2 are to be maintained suitable for agricultural purposes and secondary contact recreation. Because of conditions resulting from flow regulation, maintenance of the ditch or geomorphological and riparian habitat conditions, the quality of these waters is marginally suitable for aquatic life.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the aquatic life standards for priority pollutants listed in DEQ Circular-7 - the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ Circular-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific waterbody - the designated uses of a receiving water body under a different classification must be fully maintained - the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.
<p>WQ.115.20.MT. Surface waters classified E -1 must meet specific water quality criteria (ARM 17. 30.652(1) and (2)) [Added February 2003; Revised January 2007].</p>	<p>(NOTE: Waters classified E -1 are to be maintained suitable for agricultural purposes, secondary contact recreation, and wildlife.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the designated uses of a receiving water body under a different classification are fully maintained - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

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<p>WQ.115.21.MT. Surface waters classified E -2 must meet specific water quality criteria (ARM 17. 30.653) [Added February 2003 ; Revised January 2007].</p>	<p>(NOTE: Waters classified E -2 are to be maintained suitable for agricultural purposes, secondary contact recreation, and wildlife. Because of habitat, low flow, hydro-geomorphic and other physical conditions these waters are marginally suitable for aquatic life.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the aquatic life standards for priority pollutants listed in DEQ Circular-7 - the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ Circular-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific waterbody - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.
<p>WQ.115.22.MT. Surface waters classified E -3 must meet specific water quality criteria (ARM 17. 30.654(1) and (2)) [Added February 2003; Revised January 2007].</p>	<p>(NOTE: Waters classified E -3 are to be maintained suitable for agricultural purposes, secondary contact recreation, and wildlife.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the designated uses of a receiving water body under a different classification are fully maintained - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.
<p>WQ.115.23.MT. Surface waters classified E -4 must meet specific water quality criteria (ARM 17. 30.655) [Added February 2003 ; Revised January 2007].</p>	<p>(NOTE: Waters classified E-4 are to be maintained suitable for aquatic life, agricultural purposes, secondary contact recreation, and wildlife.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the acute aquatic and chronic life standards in Circular DEQ Circular-7 apply - the designated uses of a receiving water body under a different classification are fully maintained - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

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<p>WQ.115.24.MT. [Deleted January 2007].</p>	
<p>WQ.115.25.MT. Surface waters classified E -5 must meet specific water quality criteria (ARM 17. 30.656) [Added February 2003; Revised February 2005 ; Revised January 2007].</p>	<p>(NOTE: Waters classified E -5 are to be maintained suitable for agricultural purposes, secondary contact recreation, saline tolerant aquatic life and wildlife.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the designated uses of a receiving water body under a different classification are fully maintained - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30 -day period. <p>Changes in the water quality must support existing and designated uses.</p>
<p>WQ.115.26.MT. Surface waters classified F -1 must meet specific water quality criteria (ARM 17. 30.657) [Added February 2003; Revised February 2005 ; Revised January 2007].</p>	<p>(NOTE: Waters classified F-1 are to be maintained suitable for secondary contact recreation, wildlife, and aquatic life not including fish.)</p> <p>Verify that the following water quality criteria and prohibitions are met:</p> <ul style="list-style-type: none"> - the aquatic life standards for priority pollutants listed in DEQ Circular-7 - the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ Circular-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific waterbody - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30 -day period.
<p>WQ.115.27.MT. Surface waters classified G -1 must meet specific water quality criteria (ARM 17. 30.658) [Added February 2004 ; Revised January 2007].</p>	<p>Verify that waters classified G-1 are maintained suitable for watering wildlife and livestock, aquatic life not including fish, secondary contact recreation, and marginally suitable for irrigation after treatment or with mitigation measures.</p> <p>Verify the following specific water quality standards for waters classified G-1 are not violated:</p> <ul style="list-style-type: none"> - the geometric mean number of Escherichia coli bacteria do not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples do not exceed 1,260 colony forming units per 100 milliliters during any 30 -day

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<p>WQ.115.28.MT. Surface waters must meet electrical conductivity and sodium adsorption ratio restrictions (ARM 17. 30.670) [Added February 2004].</p>	<p>period</p> <ul style="list-style-type: none"> - EC does not exceed 3000 $\mu\text{S}/\text{cm}$ - the surface and ground water standards listed in DEQ Circular-7 do not apply. <p>Verify that no person violates the numeric standards for electrical conductivity (EC) and sodium adsorption ratio (SAR) as follows:</p> <ul style="list-style-type: none"> -for the main stems of Rosebud Creek, the Tongue, Powder, and Little Powder rivers from November 1 through March 1 as follows: <ul style="list-style-type: none"> - Rosebud Creek and the Tongue River, the monthly average numeric water quality standard for EC is 1500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 5.0 and no sample may exceed an SAR value of 7.5 - Powder River and the Little Powder River, the monthly average numeric water quality standard for EC is 2500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 6.5 and no sample may exceed an SAR value of 9.75 - for the main stems of Rosebud Creek, the Tongue, Powder, and Little Powder rivers from March 2 through October 31 are as follows: <ul style="list-style-type: none"> - Rosebud Creek and the Tongue River, the monthly average numeric water quality standard for EC is 1000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 1500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 3.0 and no sample may exceed an SAR value of 4.5 - Powder River and Little Powder River, the monthly average numeric water quality standard for EC is 2000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 5.0 and no sample may exceed an SAR value of 7.5 - all tributaries and other surface waters in the Rosebud Creek, Tongue, Powder, and Little Powder River watersheds, the monthly average numeric water quality standard for EC is 500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR from March 2 through October 31 is 3.0 and no sample may exceed an SAR value of 4.5. The monthly average numeric water quality standard for SAR from November 1 through March 1 is 5.0 and no sample may exceed an SAR value of 7.5 - the Tongue River Reservoir, the monthly average numeric water quality standard for EC is 1000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 1500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 3.0 and no sample may exceed an SAR value of 4.5. <p>(NOTE: Changes in existing surface or ground water quality with respect to EC</p>

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	and SAR are nonsignificant provided that the change will not have a measurable effect on any existing or anticipated use or cause measurable changes in aquatic life or ecological integrity.)

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<p>WQ.120.</p> <p>WATER USE PERMITS</p> <p>WQ.120.1.MT. Persons who withdraw water from groundwater or surface water source must have a permit (ARM 36.12.102(1) and 36.12.106) [Revised January 2006; Citation Revised January 2007 ; Revised February 2008 ; Revised February 2009 ; Revised February 2010].</p> <p>WQ.120.2.MT. [Deleted February 2010].</p>	<p>Verify that an application for beneficial water is filed and the conditions of the permit are met.</p> <p>(NOTE: Form No. 600 is filed when an applicant desires to use ground water that exceeds 35 gallons per minute or a volume of 10 acre-feet. Form No. 600A, "Criteria Addendum, Application for Beneficial Water Use Permit," in formation must be submitted for appropriations of less than 4000 acre-feet and 5.5 cfs; or, Form No. 600B, "Criteria Addendum, Application for Beneficial Water Use Permit," in formation must be submitted for appropriations of 4000 acre-feet or more and 5.5 cfs or more.)</p> <p>(NOTE: The following do not need a permit:</p> <ul style="list-style-type: none"> - water testing or monitoring - conducting aquifer test, water quality tests, water level monitoring or other testing, or monitoring of a water source.) <p>(NOTE: Salvage water applications (ARM 36.12.2001) are a subset of water use permits.)</p>

Appendix 13-1

Federal Regulations Incorporated by Reference

(ARM 17.38.203 through 17.38.234(6)) [Added January 2006; Revised February 2010; Revised February 2010].

The State of Montana incorporates by reference the following requirements and procedures as part of Montana's surface water quality standards:

- Department Circular WQB-7, *Montana Numeric Water Quality Standard*, (December 2002 edition), specifying water quality standards for toxic, carcinogenic, bioconcentration, nutrient, radioactive, and harmful parameters
- the *Water Quality Standards Handbook*, Second Edition, EPA-823-B-94-005a, August 1994, specifying procedures for development of site-specific criteria
- DEQ Circular PWS-5, *Ground Water Under the Direct Influence of Surface Water*, 2002 edition (ARM 17.38.209)

ARM 17.38.203 Maximum Inorganic Chemical Contaminant Levels

- (1) The board adopts and incorporates by reference:
 - (a) 40 CFR 141.6(j) and 141.6(k), which set forth effective dates associated with a revised maximum contaminant level for arsenic;
 - (b) 40 CFR 141.11 and 141.62(b), which set forth maximum contaminant levels for inorganic contaminants;
 - (c) 40 CFR 141.65, which sets forth maximum residual disinfectant levels; and
 - (d) 40 CFR 141.80(c) as modified by 72 Fed. Reg. 57,782 (Oct. 10, 2007), which sets forth the action levels for lead and copper.

ARM 17.38.204 Maximum Organic Chemical Contaminant Levels

- (1) The board adopts and incorporates by reference, which set forth maximum contaminant levels for synthetic organic contaminants, volatile organic contaminants, and disinfection byproducts. 40 CFR 141.61(a), 141.61(c), 141.64(a)(1), 141.64(b)(1)(i), and 141.64(b)(2)(i).

ARM 17.38.205 Maximum Turbidity Contaminant Levels

(1) The board adopts and incorporates by reference 40 CFR 141.13, 141.73, 141.173, 141.550, and 141.551, which set forth maximum contaminant levels for turbidity, except for the following changes:

- (a) The terms "one turbidity unit" and "1 NTU" mean 1.0 nephelometric turbidity unit, and the terms "five turbidity units" and "5 NTU" mean 5.0 nephelometric turbidity units for the purposes of this subchapter.
- (b) The following replaces 40 CFR 141.73(a)(1): "For systems using conventional filtration or direct filtration, the turbidity level of representative samples of the system's combined filtered water must be less than or equal to 0.5 NTU in at least 95% of the measurements taken each month, and may not at any time exceed 1.0 NTU."
- (c) The following replaces 40 CFR 141.73(a)(2), and is also added at the end of 40 CFR 141.173(a)(1) and 141.551: "For systems using conventional filtration or direct filtration, the turbidity level of representative samples of a system's effluent from individual filter, measured at a point prior to mixing with effluent from other filters or other sources, may not exceed 0.5 NTU in at least 95% of the measurements taken each month, and may not at any time exceed 5.0 NTU. This requirement is not violated if the turbidity reading for the effluent from each individual filter is the first reading of the month that exceeds 0.5 NTU and the individual filter is taken off-line within 24 hours after the sample analysis that shows the exceedance."
- (d) The first sentence in 40 CFR 141.551 is replaced with the following sentence: "Your system must meet three strengthened combined filter effluent turbidity limits."
- (2) The department may invalidate a turbidity measurement based on documentation that demonstrates the exceedance was caused by turbidimeter performance difficulty or sample site location problems and that the measurements were not indicative of true water quality. If the department invalidates the turbidity reading on one of these bases, the turbidity reading may not be included in the 95% compliance calculations required under this rule.

ARM 17.38.206 Maximum Radiological Contaminant

- (1) The board hereby adopts and incorporates by reference 40 CFR 141.15, 141.16, and 141.66(b), (c), (d), (e), and (f), which set forth maximum contaminant levels for radiological contaminants.

ARM 17.38.207 Maximum Microbiological Contaminant Levels

- (1) The board hereby adopts and incorporates by reference 40 CFR 141.63(a), 141.63(b), and 141.63(c), which set forth maximum contaminant levels for microbiological contaminants.

ARM 17.38.208 Treatment Requirements

- (1) The board hereby adopts and incorporates by reference 40 CFR 141.70, which sets forth general surface water treatment requirements
- (NOTE: (c) 40 CFR 141.70(c) is modified to read "Each public water supply system, except a transient non-community system, using a surface water source or a ground water source under the direct influence of surface water must be operated by qualified personnel who meet the requirements specified in Title 37, chapter 42, parts 1 through 3, MCA."
- (2) The board hereby adopts and incorporates by reference 40 CFR 141.71, which sets forth requirements for avoiding filtration, except for the following changes:
 - (a) Only surface water sources from watersheds classified as A-Closed in ARM 17.30.621 may be considered for use as a public water supply source without filtration.
 - (e) The board hereby adopts and incorporates by reference 40 CFR 141.171, which sets forth requirements, in addition to the requirements in 40 CFR 141.71, for avoiding filtration.
- (3) The board hereby adopts and incorporates by reference 40 CFR 141.72, which sets forth treatment requirements for public water suppliers that use surface water
- (4) The board adopts and incorporates by reference the following:
 - (a) 40 CFR 141.43(a) and (d), which set forth prohibition on use of lead pipes, solder, and flux;
 - (b) 40 CFR 141.61(b), which sets forth best available technologies (BATs) for synthetic and volatile organic contaminants;
 - (c) 40 CFR 141.62(c), which sets forth BATs for inorganic contaminants, and 40 CFR 141.62(d), which sets forth small system compliance technologies (SSCT) for arsenic;
 - (d) 40 CFR 141.63(d), which sets forth BATs for microbiological contaminants;
 - (e) 141.64(a)(2), 141.64(b)(1)(ii), 141.64(b)(2)(ii), and 141.64(b)(2)(iii), which set forth BATs for disinfection byproducts
 - (f) 40 CFR 141.66(g), which sets forth BATs for radionuclides;
 - (g) 40 CFR 141.76(a) and (c), which set forth recycle provisions;
 - (h) 40 CFR 141.81, as modified by 72 Fed. Reg. 57,782 (Oct.10, 2007), which sets forth the applicability of lead and copper corrosion control treatment steps to small, medium and large water systems;
 - (i) 40 CFR 141.82, which sets forth a description of the lead and copper corrosion control requirements;
 - (j) 40 CFR 141.83, as modified by 72 Fed. Reg. 57,782 (Oct.10, 2007), which sets forth lead and copper source water treatment requirements;
 - (k) 40 CFR 141.84, as modified by 72 Fed. Reg. 57,782 (Oct.10, 2007), which sets forth lead service line replacement requirements;
 - (l) 40 CFR 141, Subpart J, which sets forth requirements for the use of non-centralized treatment devices;
 - (m) 40 CFR 141, Subpart K, which sets forth treatment technique requirements for a cyanamide and epichlorohydrin;
 - (n) 40 CFR 141.135, which sets forth treatment technique requirements for control of disinfection byproduct precursors;
 - (o) 40 CFR 141.170, which sets forth general treatment technique requirements in addition to the requirements in 141.70 for public water suppliers that use surface water;
 - (p) 40 CFR 141.173(b), which sets forth treatment requirements, in addition to the requirements in 40 CFR 141.72, for public water suppliers that use filtered surface water;
 - (q) 40 CFR 141.500, which sets forth general treatment requirements, in addition to the requirements in 141.70, for public water suppliers that use surface water or GWUDISW and that serve fewer than 10,000 people;

- (r) 40 CFR 141.501, which identifies the public water suppliers that are subject to the requirements of 40 CFR Part 141, Subpart T;
- (s) 40 CFR 141.502 which stipulates the effective date for the requirements of 40 CFR Part 141, Subpart T, except that "January 14, 2005" is changed to "January 1, 2005";
- (t) 40 CFR 141.503, which stipulates that public water suppliers that use surface water or GWUDISW and that serve fewer than 10,000 people must comply with the applicable requirements of 40 CFR Part 141, Subpart T;
- (u) 40 CFR 141.510 and 141.511, which set forth requirements for construction of finished water storage reservoirs for public water suppliers that use surface water or GWUDISW and that serve fewer than 10,000 people;
- (v) 40 CFR 141.520, 141.521 and 141.522, which stipulate that public water suppliers that use surface water or GWUDISW, do not provide filtration, and that serve fewer than 10,000 people must comply with the new watershed protection requirements of 40 CFR Part 141, Subpart T; and
- (w) 40 CFR 141.552, which describes microbiological contaminant removal efficiencies that public water suppliers must demonstrate to obtain state approval of alternative filtration technologies.

ARM 17.38.209 Ground Water Under the Direct Influence of Surface Water Determinations

- (1) The board hereby adopts and incorporates by reference the Department of Environmental Quality Circular PWS-5, Ground Water Under the Direct Influence of Surface Water, 2008 edition, which sets forth the standards for making ground water under the direct influence of surface water determinations.

ARM 17.38.211 Ground Water Rule

- (1) The board adopts and incorporates by reference 40 CFR Part 141, subpart S, which sets forth the requirements to ensure that systems using ground water sources are adequately protected.

ARM 17.38.212. Initial Distribution System Evaluations

- (1) The board adopts and incorporates by reference 40 CFR Part 141, subpart U, which sets forth the requirements for determining monitoring locations and other requirements for subpart V compliance monitoring.

ARM 17.38.213. Stage 2 Disinfection Byproducts Requirements

- (1) The board adopts and incorporates by reference 40 CFR Part 141, subpart V, which sets forth the requirements for monitoring and other requirements for achieving compliance with maximum contaminant levels based on running annual averages for disinfection byproducts.

ARM 17.38.214. Enhanced Treatment For Cryptosporidium

- (1) The board adopts and incorporates by reference 40 CFR Part 141, subpart W, which establishes or extends treatment technique requirements in lieu of maximum contaminant levels for cryptosporidium.

ARM 17.38.215 Bacteriological Quality Samples

- (1) The board adopts and incorporates by reference the table in 40 CFR 141.21(a)(2), which sets forth total coliform monitoring frequency requirements.
- (3) 40 CFR 141.21(a)(2) is not adopted, except for the table adopted in (1)(a). 40 CFR 141.21(a)(3) is not adopted.
- (4) 40 CFR 141.21(a)(6) is replaced with the following: "A special purpose samples, including a sample taken to determine whether adequate disinfection has occurred after pipe placement or repair, may not be taken from a part of the public water supply system that is actively serving the public. Repeat samples taken pursuant to 40 CFR 141.21(b) are not special purpose samples."
- (5) 40 CFR 141.21(b)(5) is replaced with the following: "If a supplier who collects fewer than five routine samples per month has one or more total coliform-positive samples and the Department does not invalidate the sample or samples under subsection 40 CFR 141.21(c), the supplier shall collect at least five routine samples during the next month the system provides water to the public. At least one of these routine samples must be collected from the site where the previous month's contaminated sample was taken unless that site was invalidated according to 40 CFR 141.21(c)(1)(ii)."

ARM 17.38.216 Chemical and Radiological Quality Samples

- (3) The board adopts and incorporates by reference the following monitoring and analytical requirements:
- (a) 40 CFR 141.23, which sets forth sampling and analytical method requirements for inorganic chemicals
 - (b) 40 CFR 141.24, which sets forth sampling and analytical method requirements for organic chemicals other than total trihalomethanes;
 - (c) 40 CFR 141.25, which sets forth analytical method requirements for radioactive contaminants;
 - (d) 40 CFR 141.26, which sets forth sampling requirements for radioactive contaminants in community water systems;
 - (e) 40 CFR 141.27, which sets forth requirements for alternate analytical methods;
 - (f) 40 CFR 141.28, which sets forth requirements for the use of certified laboratories by public water system suppliers and by the Department, except that, for the purpose of this subchapter, the phrase "certified laboratory" means "approved laboratory" as defined in ARM 17.38.202. References in 40 CFR 141.28 to 40 CFR 141.21 also refer to ARM 17.38.215;
 - (g) 40 CFR 141.29, which sets forth sampling requirements for consecutive public water systems;
 - (h) 40 CFR 141.30, which sets forth sampling and analytical method requirements for total trihalomethanes;
 - (i) 40 CFR 141.40, which sets forth special sampling and analytical method requirements for unregulated inorganic and organic contaminants;
 - (j) 40 CFR 141.41, which sets forth special monitoring and analytical method requirements for sodium.
 - (k) 40 CFR 141.42, which sets forth special requirements for water system materials subject to corrosion;
 - (l) 40 CFR 141.80, which sets forth general requirements for the control of lead and copper;
 - (m) 40 CFR 141.86, which sets forth sampling and analytical method requirements for lead and copper;
 - (n) 40 CFR 141.87, which sets forth sampling requirements for water quality parameters;
 - (o) 40 CFR 141.88, which sets forth sampling requirements for lead and copper in source water;
 - (p) 40 CFR 141.89, which sets forth analytical method requirements for lead, copper and water quality parameters;
 - (q) 40 CFR 141.130, which, in addition to 40 CFR 141.30, sets forth general requirements for control of disinfectants and disinfection byproducts;
 - (r) 40 CFR 141.131, which, in addition to 40 CFR 141.30, sets forth analytical method requirements for disinfectants and disinfection byproducts;
 - (s) 40 CFR 141.132, which, in addition to 40 CFR 141.30, sets forth sampling requirements for disinfectants and disinfection byproducts; and
 - (t) 40 CFR 141.133, which, in addition to 40 CFR 141.30, sets forth compliance requirements for disinfectants and disinfection byproducts.

ARM 17.38.225 Control Tests

- (6) The board adopts and incorporates by reference the following:
- (a) 40 CFR 141.22, which sets forth turbidity sampling and analytical requirements, except for the second and third sentences in 141.22(a).
 - (b) 40 CFR 141.74, which sets forth analytical and monitoring requirements
 - (c) 40 CFR 141.172, which sets forth disinfection profiling and benchmarking requirements;
 - (d) 40 CFR 141.174, which sets forth filtration sampling requirements;
 - (e) 40 CFR 141.530, 141.531, 141.532, 141.533, 141.534, 141.535, 141.536, 141.540, 141.541, 141.542, 141.543 and 141.544, which set forth requirements for disinfection profiling and benchmarking for public water suppliers using surface water or GWUDISW and that serve fewer than 10,000 people;
 - (f) 40 CFR 141.553, which describes turbidity monitoring provisions for systems that utilize lime softening;
 - (g) 40 CFR 141.560, which describes individual filter monitoring requirements for public water suppliers that utilize direct or conventional filtration treatment;
 - (h) 40 CFR 141.561, which describes monitoring requirements for public water suppliers when continuous turbidity monitoring equipment fails;
 - (i) 40 CFR 141.562, which describes turbidity monitoring requirements for public water suppliers that utilize two or fewer filters

ARM 17.38.234 Testing and Sampling Records and Reporting Requirements

- (6) The board adopts and incorporates by reference the following:

- (a) 40 CFR 141.31, which sets forth general reporting requirements for public water supplies;
- (b) 40 CFR 141.33, which sets forth general record keeping requirements for public water supplies;
- (c) 40 CFR 141.35, which sets forth reporting requirements for unregulated chemicals;
- (d) 40 CFR 141.75, which sets forth reporting requirements for public water supplies that use surface water or GWUDISW, except for the following changes:
 - (i) "5 NTU" means 5.0 nephelometric turbidity units for the purposes of this subchapter; and
 - (ii) "not detected" with respect to residual chlorine concentration means less than 0.20 by the DPD method, or 0.10 concentration means less than 0.20 by the DPD method, or 0.10 by the amperometric titration method for the purposes of the subchapter.
- (e) 40 CFR 141.76(b) and (d), which set forth reporting and recordkeeping requirements for the recycle provisions;
- (f) 40 CFR 141.90 and 141.91, as modified by 72 Fed. Reg. 57,782 (Oct. 10, 2007), which set forth reporting and recordkeeping requirements for lead and copper;
- (g) 40 CFR 141.134, which in addition to 40 CFR 141.31, sets forth reporting requirements for disinfection byproducts;
- (h) 40 CFR 141.175, which, in addition to 40 CFR 141.75, sets forth reporting requirements for public water supplies that serve 10,000 or more people that use surface water or GWUDISW;
- (i) 40 CFR 141.563, which sets forth reporting and follow up actions that public water suppliers that utilize surface water or GWUDISW, serve fewer than 10,000 people, and are required to filter must take when certain individual filter turbidity limits are exceeded;
- (j) 40 CFR 141.564, which sets forth reporting and follow up actions that public water suppliers that utilize surface water or GWUDISW, serve fewer than 10,000 people, are required to filter, and utilize lime softening must take when certain individual filter turbidity limits are exceeded;
- (k) 40 CFR 141.570, which, in addition to 40 CFR 141.75, sets forth general reporting requirements for public water suppliers that utilize surface water or GWUDISW and serve fewer than 10,000 people; and
- (l) 40 CFR 141.571, which, in addition to 40 CFR 141.75, sets forth general recordkeeping requirements for public water suppliers that utilize surface water or GWUDISW and that serve fewer than 10,000 people.

ARM 17.38.239 Public Notification for Community and Non-Community Supplies

- (1) The board hereby adopts and incorporates by reference 40 CFR Part 141, subpart Q, which sets forth public notification requirements for drinking water violations.
- (2) The board hereby adopts and incorporates by reference 40 CFR Part 141, Subpart O, which sets forth requirements for consumer confidence reports.
- (3) The board adopts and incorporates by reference 40 CFR 141.85, as modified by 72 Fed. Reg. 57,782 (Oct. 10, 2007), which sets forth the public education and supplemental monitoring requirements for exceedances of the lead action level.

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14. ABSTRACT Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency. Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide. The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The Montana Supplement was developed to be used in conjunction with the TEAM Guide, using existing Montana state environmental legislation and regulations as well as suggested management practices.					
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