Dear Senators SCHROEDER, Pearce & Stennett and LODGE, Broadsword & Werk, and Representatives RAYBOULD, Harwood & Elaine Smith:

The Legislative Services Office, Research and Legislation, has received the enclosed rules of the Dept. of Environmental Quality:

IDAPA 58.01.05 - Rules And Standards For Hazardous Waste (Docket #58-0105-0801)

58.01.08 - Idaho Rules For Public Drinking Water Systems (Docket #58-0108-0802)

58.01.11 - Ground Water Quality Rule (Docket #58-0111-0801)

58.01.16 - Wastewater Rules (Docket #58-0116-0801)

58.01.24 - Standards And Procedures For Application of Risk Based Corrective Action At Petroleum Release Sites (Docket #58-0124-0801) .

Pursuant to Section 67-454, Idaho Code, a meeting on the enclosed rules may be called by the cochairmen or by two (2) or more members of the subcommittee giving oral or written notice to Research and Legislation no later than fourteen (14) days after receipt of the rules' analysis from Legislative Services. The final date to call a meeting on the enclosed rules is no later than 8-7-08. If a meeting is called, the subcommittee must hold the meeting within forty-two (42) days of receipt of the rules' analysis from Legislative Services. The final date to hold a meeting on the enclosed rules is 9-4-08.

_____The germane joint subcommittee may request a statement of economic impact with respect to a proposed rule by notifying Research and Legislation. There is no time limit on requesting this statement, and it may be requested whether or not a meeting on the proposed rule is called or after a meeting has been held.

To notify Research and Legislation, call 334-2475, or send a written request to the address or FAX number indicated on the memorandum enclosed.

MEMORANDUM

TO: Rules Review Subcommittee of the Senate Resources and Environment Committee, the Senate Health and Welfare Committee (*) and the House Environment, Energy and Technology Committee

FROM: Principal Legislative Research Analyst - Katharine Gerrity

DATE: July 18, 2008

SUBJECT: Department of Environmental Quality

IDAPA 58.01.05 - Rules And Standards For Hazardous Waste (*)
(Docket #58-0105-0801)
IDAPA 58.01.08 - Idaho Rules For Public Drinking Water Systems (*)
(Docket #58-0108-0802)
IDAPA 58.01.11 - Ground Water Quality Rule
(Docket #58-0111-0801)
IDAPA 58.01.16 - Wastewater Rules
(Docket #58-0116-0801)
IDAPA 58.01.24 - Standards And Procedures For Application of Risk Based Corrective Action At Petroleum Release Sites
(Docket #58-0124-0801)

1. IDAPA 58.01.05 - Rules And Standards For Hazardous Waste

The Department of Environmental Quality submits notice of proposed rulemaking at **IDAPA 58.01.05 - Rules And Standards For Hazardous Waste**. According to the Department, these rules are updated annually to maintain consistency with EPA's regulations implementing the Resource Conservation and Recovery Act as directed by the Idaho Hazardous Waste Management Act. The Department notes that Idaho has historically adopted both required and optional federal regulations so that Idaho's hazardous waste rules are the same as federal requirements and because the optional regulations allow more flexibility to the regulated community. The Department states that the changes reflect revisions as of July 1, 2008 and also add a new Section 017 to include 40 CFR Part 278, Criteria For The Management of Granular Mine Tailings (CHAT) In Asphalt Concrete And Portland Cement Concrete In Transportation

Construction Projects Funded In Whole Or In Part By Federal Funds. The Department indicates that groups interested in hazardous waste and handlers of hazardous waste including generators, transporters, and treatment, storage, and disposal facilities may be interested in commenting on the rule.

The Department confirms that the rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal regulations. Negotiated rulemaking was not conducted.

We have no specific comments relating to this rule. The rule appears to be authorized pursuant to Chapters 44 and 58, Title 39, Idaho Code as well as 40 CFR 271.21(e) and Section 39-4404, Idaho Code.

2. IDAPA 58.01.08 - Idaho Rules For Public Drinking Water Systems

The Department of Environmental Quality submits notice of proposed rulemaking at **IDAPA 58.01.08 - Idaho Rules For Public Drinking Water Systems**. According to the Department, the EPA promulgated the Ground Water Rule in November of 2006. To maintain primacy for administering the Safe Drinking Water Act, Idaho has to adopt the rule within two years of promulgation by the EPA. The Department states that the proposed rule will provide greater protection against microbial pathogens in public water systems that use ground water sources. The Department states that the rule attempts to target the subset of ground water systems that are at higher risk of fecal contamination by requiring regular sanitary surveys, establishing a flexible program for identifying higher risk systems through existing bacterial monitoring and state determinations and providing for ground water source monitoring in systems that do not provide demonstrated virus inactivation through disinfection. The Department states that the rule requires that deficiencies detected during sanitary surveys be corrected on a reasonable schedule. In addition, systems that verify the presence of contamination in a ground water source must remove the source of contamination or provide disinfection treatment.

In IDAPA 58.01.08.002.02.cc, the Department has added reference material entitled "Implementation Guidance for the Ground Water Rule..." The Department notes that it is also seeking public comment on this document which provides assistance to public water system owners and operators in understanding and achieving compliance with the requirements of these rules.

The Department confirms that the rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal regulations. Negotiated rulemaking was conducted. The Department notes that drinking water system owners and operators, developers, consultants, engineers, cities, counties, industry, drinking water professional organizations, and the public at large may be interested in commenting on this proposed rule.

The rule appears to be authorized pursuant to Chapter 1, Title 39, and Chapter 21, Title 37, Idaho Code.

3. IDAPA 58.01.11 - Ground Water Quality Rule

The Department of Environmental Quality submits notice of proposed rulemaking at **IDAPA 58.01.11 - Ground Water Quality Rule**. According to the Department, the purpose of the proposed rule is to clarify portions of the Ground Water Quality Rule to promote consistency in application of the rule to mining activities. The Department states that the rule adds definitions necessary to improve statewide consistency with interpretation and implementation of mining provisions of the Ground Water Quality Rule, develops a procedure and process to follow for setting a point of compliance for ground water quality related issues at mining areas, provides for ground water monitoring at mining areas, and imposes a fee of $2,500 on mine operators making an application with the Department to set a ground water quality point of compliance.

Negotiated rulemaking was conducted. The Department states that members of the mining industry, conservation groups, environmental protection groups, state and federal land management agencies, and concerned citizens may be interested in commenting on the rule.

The Department notes that although the federal government does regulate mining activities, it does not have a regulatory program that specifically sets standards to protect ground water quality and beneficial uses of ground water as the ground water quality rule does. Based on this, the Department states it believes that Section 39-107D, Idaho Code, is applicable and that the amendments to the rule describe aspects of mining activities not regulated by the federal government. Consequently, the Department has provided information in an effort to satisfy the additional requirements of Section 39-107D, Idaho Code.

The Department states that the rule was initiated for clarification purposes rather than for scientific reasons and that by clarifying the language in the rule it is facilitating more efficient implementation of the ground water quality plan and the ground water quality rule thereby reducing the economic burden on the regulated community. The Department also states that the changes to the rule describe an administrative process to determine the application of the ground water quality rule to mining activities and that, although the Department relied on its experience dealing with mining activities in drafting the rule, the administrative process is not based on science.

The Department notes that the "changes to the rule set up an administrative process for DEQ to work with the mine operator and other interested persons to determine, on a site-specific basis, the application of the standards in the Ground Water Quality Rule in order to protect human health and the environment. This administrative process is not itself based upon any analysis of risk to specific populations or receptors, but rather sets out a process by which the risk to human health and the environment will be evaluated by DEQ as it reviews a specific mining site. Therefore, DEQ has no additional information relevant to this rulemaking pursuant to

Section 398-107D(3)."

We contacted the Department with some general questions for further clarification of the meaning and purpose of this rule change. The rule change was driven by the mining industry in an effort to clarify and make consistent the process by which points of compliance are established. The rule also imposes a fee of $2,500 for applications to establish a point or points of compliance. The Department notes that the fee will assist in offsetting the costs to the Department of establishing the point or points of compliance.

The rule appears to be authorized pursuant to provisions of Chapters 1, Title 39, Idaho Code.

4. IDAPA 58.01.16 - Wastewater Rules

The Department of Environmental Quality submits notice of proposed rulemaking at **IDAPA 58.01.16 - Wastewater Rules**. According to the Department, the purpose of the proposed rule is to allow qualified licensed professional engineers or DEQ review engineers to approve construction of simple sewer main extensions without first providing DEQ with updated facility plans, provided that the sewer system has sufficient capacity to service the area served by the sewer main extension. The rules define a simple sewer main extension as a new or replacement wastewater main(s) that will be connected by gravity, without the use of pumps or lift stations, to existing wastewater collection facilities that have the capacity to carry the additional wastewater flow. This modification, according to the Department, aligns the rule with statutory changes that were made by the Legislature in 2005 that allowed qualified licensed professional engineers to approve such sewer projects.

The Department indicates that negotiated rulemaking was conducted and that wastewater system owners and operators, developers, consultants, engineers, cities, counties, industry, wastewater professional organizations and the general public may be interested in this rule.

According to the Department this rule does regulate an activity not regulated by the federal government and, therefore, the provisions of Section 39-107D, Idaho Code, are applicable. The Department notes that "(t)he wastewater rules include facility and design standards which are intended to protect human health and the environment. The standards, however, are for the design and construction of wastewater systems. The rules are not based upon any express estimate or analysis of risk to public health or the environment. Instead, the facility and design standards are based upon guidelines set forth in documents, such as the "Recommended Standards for Wastewater Facilities," that are generally accepted and used throughout the United States by engineers and state regulators."

We contacted the Department for some further explanation of the proposed changes. Section 39-118, Idaho Code, provides that certain "(p)lans for sanitary sewer extensions, water main extensions, and storm drain extensions" may be approved by a qualified licensed

professional engineer. The rule (Section 400.03) provides that certain "(p)lans developed for simple wastewater main extensions" may be approved by a qualified licensed professional engineer. The Department explained that this covers sanitary sewer extensions. Water main extensions will be addressed in a similar fashion in a proposed change to IDAPA 58.01.08 - Idaho Rules For Public Drinking Water Systems that is being finalized by the Department at this time. The Department also notes that it does not regulate storm drain extensions.

We also asked the Department for additional explanation of the addition of facility and design standards for municipal wastewater treatment or disposal facilities (found in Section 409) and the requirement that new facilities demonstrate technical, financial and managerial capacity. According to the Department, this capacity demonstration requirement presently appears in the Idaho Rules For Public Drinking Water Systems. There is also a requirement in what is now Section 455.02.c (that is proposed to be stricken and replaced in essence with the proposed changes to the rule) that requires engineering reports for private municipal wastewater treatment plants to "present capital and operation and maintenance costs, monitoring requirements and reporting, preliminary sizing (design criteria), hydrogeologic studies, bonding, the operation and maintenance manual, district health department requirements (nutrient/pathogen study), and all requirements of Section 411."

The rule appears to be authorized pursuant to Chapters 1 and 36, Title 39, Idaho Code.

5. IDAPA 58.01.24 - Standards And Procedures For Application of Risk Based Corrective Action At Petroleum Release Sites

The Department of Environmental Quality submits notice of proposed rulemaking at **IDAPA 58.01.24 - Standards And Procedures For Application of Risk Based Corrective Action At Petroleum Release Sites**. According to the Department, it is faced with the task of approving and overseeing appropriate response actions at petroleum release sites across the state. The Department notes that in 2004 it issued the Idaho Risk Evaluation Manual (REM). The Department states that this rulemaking has been initiated to formalize the critical elements of the REM that are pertinent to evaluation of petroleum release sites in order to clarify and promote consistent corrective action decision-making at these sites. Negotiated rulemaking was conducted.

The Department states that the rule does not propose to regulate an activity not regulated by the federal government but that it does delineate a process that is not specifically delineated or required by the federal government. Consequently, the Department has included in the Notice additional information as required by Section 39-107D, Idaho Code relating to:

- The identification of each population or receptor addressed by an estimate of public health effects or environmental effects;
- Expected risk or central estimate of risk for the specific population or receptor and identification of each appropriate upper bound or lower bound estimate of risk;

- Identification of each significant uncertainty identified in the process of the assessment of public health effects or environmental effects and any studies that would assist in resolving the uncertainty; and
- Identification of studies known to the Department that support, are directly relevant to, or fail to support any estimate of public health effects or environmental effects and the methodology used to reconcile inconsistencies in the data.

The rule appears to be authorized pursuant to Chapter 1, Title 39, Idaho Code.

cc: Department of Environmental Quality
Paula J. Wilson
John Brueck
Tom John
Ed Hagan
Michael Stambulis
Orville Green
Bruce Wicherski

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.05 - RULES AND STANDARDS FOR HAZARDOUS WASTE

DOCKET NO. 58-0105-0801

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized by Chapters 44 and 58, Title 39, Idaho Code. In addition, 40 CFR 271.21(e) and Section 39-4404, Idaho Code, require DEQ to adopt amendments to federal law as proposed under this docket.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency.

Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: Idaho's Rules and Standards for Hazardous Waste are updated annually to maintain consistency with the U.S. Environmental Protection Agency's federal regulations implementing the Resource Conservation and Recovery Act (RCRA) as directed by the Idaho Hazardous Waste Management Act (HWMA). Idaho has historically adopted both required and optional federal regulations so that Idaho's hazardous waste rules are the same as federal requirements. Optional federal regulations usually allow more flexibility to the regulated community; required federal regulations are necessary to maintain program primacy. Adoption by reference allows the Department of Environmental Quality (DEQ) to keep its rules up to date with federal regulation changes and minimizes the EPA Region 10 effort needed to keep Idaho's authorization current. Adoption by reference also simplifies compliance for the regulated community.

This proposed rule updates the federal regulations incorporated by reference to include those revised as of July 1, 2008. In addition, this proposed rule includes new Section 017 to include 40 CFR Part 278, Criteria For The Management Of Granular Mine Tailings (CHAT) In Asphalt Concrete And Portland Cement Concrete In Transportation Construction Projects Funded In Whole Or In Part By Federal Funds.

Groups interested in hazardous waste and handlers of hazardous waste including generators, transporters, and treatment, storage, and disposal facilities may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

NEGOTIATED RULEMAKING: Due to the nature of this rulemaking, negotiations were not held.

IDAHO CODE SECTION 39-107D STATEMENT: This proposed rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal regulations.

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning the proposed rulemaking, contact John Brueck, john.brueck@deq.idaho.gov, (208)373-0458.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson
Hearing Coordinator
Department of Environmental Quality
1410 N. Hilton/Boise, Idaho 83706-1255
(208)373-0418/Fax No. (208)373-0481
paula.wilson@deq.idaho.gov

THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0105-0801

002. INCORPORATION BY REFERENCE OF FEDERAL REGULATIONS.
Any reference in these rules to requirements, procedures, or specific forms contained in the Code of Federal Regulations (CFR), Title 40, Parts 124, 260 - 268, 270, 273, 278, and 279 shall constitute the full adoption by reference of that part and Subparts as they appear in 40 CFR, revised as of July 1, 2007~~7~~8, including any notes and appendices therein, unless expressly provided otherwise in these rules. ~~*(4-2-08)*~~( )

01. Exceptions. Nothing in 40 CFR Parts 260 - 268, 270, 273, 278, 279 or Part 124 as pertains to permits for Underground Injection Control (U.I.C.) under the Safe Drinking Water Act, the Dredge or Fill Program under Section 404 of the Clean Water Act, the National Pollution Discharge Elimination System (NPDES) under the Clean Water Act or Prevention of Significant Deterioration Program (PSD) under the Clean Air Act is adopted or included by reference herein. ~~*(3-30-07)*~~( )

02. Availability of Referenced Material. The federal regulations adopted by reference throughout these rules are maintained at the following locations: (7-2-97)

a. U.S. Government Printing Office, http://www.gpoaccess.gov/index.html; and (3-20-04)

b. State Law Library, 451 W. State Street, P.O. Box 83720, Boise, ID 83720-0051, (208)334-3316; and (7-2-97)

c. Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255, (208)373-0502. (7-2-97)

(BREAK IN CONTINUITY OF SECTIONS)

004. HAZARDOUS WASTE MANAGEMENT SYSTEM.
40 CFR Part 260 and all Subparts, except 40 CFR 260.2, are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 2007~~7~~8. For purposes of 40 CFR 260.10, in the definition of hazardous waste constituent, "Administrator" shall be defined as the U.S. Environmental Protection Agency Administrator. For purposes of 40 CFR 260.20, "Federal Register" shall be defined as the Idaho Administrative Bulletin. ~~*(4-2-08)*~~( )

005. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE.
40 CFR Part 261 and all Subparts, except the language "in the Region where the sample is collected" in 40 CFR 261.4(e)(3)(iii), except remanded waste codes "K064, K065, K066, K090 and K091" listed in 40 CFR Part 261 Appendix VII, and except 40 CFR 261.23(a)(8), are herein incorporated by reference as provided in 40 CFR, revised

as of July 1, 200~~7~~8. For purposes of 40 CFR 261.10 and 40 CFR 261.11, "Administrator" shall be defined as the U.S. Environmental Protection Agency Administrator. For purposes of 40 CFR 261.41(a), Regional Administrator shall be defined as U.S. Environmental Protection Agency Region 10 Regional Administrator. Copies of advance notification required under this section should also be sent to the Director. For purposes of 40 CFR 261.4(b)(11)(ii), 40 CFR 261.39(a)(5), and 40 CFR 261 Appendix IX, "EPA" shall be defined as the U.S. Environmental Protection Agency.
~~(4-2-08)~~( )

01. Excluded Wastes. Chemically Stabilized Electric Arc Furnace Dust (CSEAFD) generated by Envirosafe Services of Idaho, Inc. (ESII) at ESII's facility in Grand View, Idaho using the Super Detox(R) treatment process as modified by ESII and that is disposed of in a Subtitle D or Subtitle C landfill is excluded from the lists of hazardous waste provided ESII implements a program that meets the following conditions: (3-16-96)

a. Verification Testing Requirements. Sample Collection and analyses, including quality control procedures, conducted pursuant to Subsections 005.01.b. and 005.01.c., must be performed according to SW-846 methodologies and the RCRA Part B permit, including future revisions. (3-16-96)

b. Initial Verification Testing. (3-16-96)

i. For purposes of Subsections 005.01.b., "new source" shall mean any generator of Electric Arc Furnace Dust (EAFD), EPA and Idaho Department of Environmental Quality Hazardous Waste No. KO61, whose waste has not previously been processed by ESII using the Super Detox(R) treatment process resulting in processed EAFD which has been subjected to initial verification testing and has demonstrated compliance with the delisting levels specified in Subsection 005.01.d. (3-16-96)

ii. Prior to the initial treatment of any new source of EAFD, ESII must notify the Department in writing. The written notification shall include: (3-16-96)

(1) The waste profile information; and (3-16-96)

(2) The name and address of the generator. (3-16-96)

iii. The first four (4) consecutive batches treated must be sampled in accordance with Subsection 005.01.a. Each of the four (4) samples shall be analyzed to determine if the CSEAFD generated meets the delisting levels specified in Subsection 005.01.d. (3-16-96)

iv. If the initial verification testing demonstrates that the CSEAFD samples meet the delisting levels specified in Subsection 005.01.d., ESII shall submit the operational and analytical test data, including quality control information, to the Department, in accordance with Subsection 005.01.f. Subsequent to such data submittal, the CSEAFD generated from EAFD originating from the new source shall be considered delisted. (3-16-96)

v. CSEAFD generated by ESII from EAFD originating from a new source shall be managed as hazardous waste in accordance with Subtitle C of RCRA until: (3-16-96)

(1) Initial verification testing demonstrates that the CSEAFD meets the delisting levels specified in Subsection 005.01.d.; and (3-16-96)

(2) The operational and analytical test data is submitted to the Department pursuant to Subsection 005.01.b.iv. (3-16-96)

vi. For purposes of Subsections 005.01.b. and 005.01.c., "batch" shall mean the CSEAFD which results from a single treatment episode in a full scale mixing vessel. (3-16-96)

c. Subsequent Verification Testing. (3-16-96)

i. Subsequent to initial verification testing, ESII shall collect a representative sample, in accordance with Subsection 005.01.a., from each batch of CSEAFD generated by ESII. ESII may, at its discretion, conduct subsequent verification testing on composite samples. In no event shall a composite sample consist of representative

samples from more than twenty (20) batches of CSEAFD. (3-16-96)

ii. The samples shall be analyzed prior to disposal of each batch of CSEAFD to determine if the CSEAFD meets the delisting levels specified in Subsection 005.01.d. (3-16-96)

iii. Each batch of CSEAFD generated by ESII shall be subjected to subsequent verification testing no later than thirty (30) days after it is generated by ESII. (3-16-96)

iv. If the levels of constituents measured in a sample, or composite sample, of CSEAFD do not exceed the levels set forth in Subsection 005.01.d., then any batch of CSEAFD which contributed to the sample that does not exceed the levels set forth in Subsection 005.01.d. is non-hazardous and may be managed and/or disposed of in a Subtitle D or Subtitle C landfill. (3-16-96)

v. If the constituent levels in a sample, or composite sample, exceed any of the delisting levels set forth in Subsection 005.01.d., then ESII must submit written notification of the results of the analysis to the Department within fifteen (15) days from receiving the final analytical results, and any CSEAFD which contributed to the sample must be: (3-16-96)

(1) Retested, and retreated if necessary, until it meets the levels set forth in Subsection 005.01.d.; or (3-16-96)

(2) Managed and disposed of in accordance with Subtitle C of RCRA. (3-16-96)

vi. Each batch of CSEAFD shall be managed as hazardous waste in accordance with Subtitle C of RCRA until subsequent verification testing demonstrates that the CSEAFD meets the delisting levels specified in Subsection 005.01.d. (3-16-96)

d. Delisting Levels. (3-16-96)

i. All leachable concentrations for these metals must not exceed the following levels (mg/l):

antimony	0.06		mercury	0.009
arsenic	0.50		nickel	1
barium	7.60		selenium	0.16
beryllium	0.010		silver	0.30
cadmium	0.050		thallium	0.020
chromium	0.33		vanadium	2
lead	0.15		zinc	70

(3-16-96)

ii. Metal concentrations must be measured in the waste leachate by the method specified in 40 CFR Part 261.24. (3-16-96)

e. Modification of Treatment Process. (3-16-96)

i. If ESII makes a decision to modify the Super Detox(R) treatment process from the description of the process as set forth in ESII's Petition for Delisting Treated K061 Dust by the Super Detox(R) Process submitted to the Department on July 14, 1995, ESII shall notify the Department in writing prior to implementing the modification. (3-16-96)

ii. After ESII's receipt of written approval from the Department, and subject to any conditions included with the approval, ESII may implement the proposed modification. (3-16-96)

iii. If ESII modifies its treatment process without first receiving written approval from the Department, this exclusion of waste will be void from the time the process was modified. (3-16-96)

iv. ESII's Petition for Delisting Treated K061 Dust by the Super Detox(R) Process submitted to the Department on July 14, 1995 is available at the Department of Environmental Quality, Permits and Enforcement, 1410 N. Hilton, Boise, Idaho 83706. (3-16-96)

f. Records and Data Retention and Submittal. (3-16-96)

i. Records of disposal site, operating conditions and analytical data from verification testing must be compiled, summarized, and maintained at ESII's Grand View facility for a minimum of five (5) years from the date the records or data are generated. (3-16-96)

ii. The records and data maintained by ESII must be furnished upon request to the Department or EPA. (3-16-96)

iii. Failure to submit requested records or data within ten (10) business days of receipt of a written request or failure to maintain the required records and data on site for the specified time, will be considered by the Department, at its discretion, sufficient basis to revoke the exclusion to the extent directed by the Department. (3-16-96)

iv. All records or data submitted to the Department must be accompanied by a signed copy of the following certification statement to attest to the truth and accuracy of the records or data submitted: "Under civil and/or criminal penalty of law for the making or submission of false or fraudulent statements or representations, I certify that the information contained in or accompanying this document is true, accurate, and complete. As to any identified sections of this document for which I cannot personally verify the truth and accuracy, I certify as the ESII official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete. In the event that any of this information is determined by the Department in its sole discretion to be false, inaccurate, or incomplete, and upon conveyance of this fact to ESII, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by the Department and that ESII will be liable for any actions taken in contravention of ESII's RCRA and CERCLA obligations premised upon ESII's reliance on the void exclusion." (3-16-96)

g. Facility Merger and Name Change. On May 4, 2001, the Department was notified of a stock transfer that resulted in ESII's facility merging with American Ecology. This created a name change from Envirosafe Services of Idaho, Inc. (ESII) to US Ecology Idaho, Inc. effective May 1, 2001. All references to Envirosafe Services of Idaho, Inc. or ESII now refer to US Ecology Idaho, Inc. (3-15-02)

006. STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE.

01. Incorporation by Reference. 40 CFR Part 262 and all Subparts, except for the language "for the Region in which the generator is located" in 40 CFR 262.42(a)(2) and 40 CFR 262.42(b), are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR 262.55, 262.56, and 262.57(b), "Administrator" shall be defined as the U.S. Environmental Protection Agency Region 10 Regional Administrator. Copies of advance notification, annual reports, and exception reports, required under those sections, shall also be provided to the Director. For purposes of 40 CFR 262.21, 262.51, 262.53, 262.54(e), 262.54(g)(1), 262.60, and 262.85(g), EPA shall be defined as the U.S. Environmental Protection Agency. For purposes of 40 CFR Part 262 Subparts E, F, H, and 40 CFR 262.41(a)(4), "United States or U.S." shall be defined as the United States.
~~*(4-2-08)*~~( )

02. Generator Emergency Notification. In addition to the emergency notification required by 40 CFR 265.56(d)(2), 262.34(d)(5)(iv)(C), (see 40 CFR 262.34(a)(4)), 263.30(c)(1), and 264.56(d)(2), the emergency coordinator must also immediately notify the State Communications Center by telephone, 1-800-632-8000, to file an identical report. (3-15-02)

007. STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE.

40 CFR Part 263 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR 263.20(g), 263.20(g)(1), 263.20(g)(4), 263.21(a)(4), and 263.22(d), "United States" shall be defined as the United States. ~~(4-2-08)~~( )

008. STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES.
40 CFR Part 264 and all Subparts (excluding 40 CFR 264.1(f), 264.149, 264.150, 264.301(l), 264.1030(d), 264.1050(g), 264.1080(e), 264.1080(f) and 264.1080(g)) are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR Subsection 264.12(a), "Regional Administrator" shall be defined as the U.S. Environmental Protection Agency Region 10 Regional Administrator. For purposes of 40 CFR 264.71(a)(3) and 264.1082(c)(4)(ii), "EPA" shall be defined as the U.S. Environmental Protection Agency.
~~(4-2-08)~~( )

009. INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES.
40 CFR Part 265, and all Subparts (excluding Subpart R, 40 CFR 265.1(c)(4), 265.149, 265.150, 265.1030(c), 265.1050(f), 265.1080(e), 265.1080(f), and 265.1080(g)) and except the language contained in 40 CFR 265.340(b)(2) as replaced with, "The following requirements continue to apply even when the owner or operator has demonstrated compliance with the MACT requirements of part 63, subpart EEE of this chapter: 40 CFR 265.351 (closure) and the applicable requirements of Subparts A through H, BB and CC of this part," are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR Subsection 265.12(a), "Regional Administrator" shall be defined as the U.S. Environmental Protection Agency Region 10 Regional Administrator. For purposes of 40 CFR 265.71(a)(3) and 265.1083(c)(4)(ii), "EPA" shall be defined as the U.S. Environmental Protection Agency. ~~(4-2-08)~~( )

010. STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE FACILITIES.
40 CFR Part 266 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. ~~(4-2-08)~~( )

011. LAND DISPOSAL RESTRICTIONS.
40 CFR Part 268 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8, except for 40 CFR 268.1(e)(3), 268.5, 268.6, 268.13, 268.42(b), and 268.44(a) through (g). The authority for implementing the provisions of these excluded sections remains with the EPA. However, the requirements of Sections 39-4403(17) and 39-4423, Idaho Code, shall be applied in all cases where these requirements are more stringent than the federal standards. If the Administrator of the EPA grants a case-by-case variance pursuant to 40 CFR 268.5, that variance will simultaneously create the same case-by-case variance to the equivalent requirement of these rules. For purposes of 40 CFR 268.(2)(j) "EPA" shall be defined as the U.S. Environmental Protection Agency. For purposes of 40 CFR 268.40(b), "Administrator" shall be defined as U.S. Environmental Protection Agency Administrator. In 40 CFR 268.7(a)(9)(iii), "D009" is excluded, (from lab packs as noted in 40 CFR Part 268 Appendix IV.) In 40 CFR 268.48(a), the entry for "2,4,6-Tribromophenol" is excluded. ~~(4-2-08)~~( )

012. HAZARDOUS WASTE PERMIT PROGRAM.
40 CFR Part 270 and all Subparts, except 40 CFR 270.12(a) and 40 CFR 270.14(b)(18), are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR 270.2, 270.5, 270.10(e)(2), 270.10(e)(3), 270.10(f)(2), 270.10(f)(3), 270.10(g), 270.11(a)(3), 270.32(a), 270.32(b)(2), 270.32(c), 270.51, 270.72(a)(5), and 270.72(b)(5), "EPA" and "Administrator" or "Regional Administrator" shall be defined as the U.S. Environmental Protection Agency and the U.S. Environmental Protection Agency Region 10 Regional Administrator respectively. ~~(4-2-08)~~( )

013. PROCEDURES FOR DECISION-MAKING (STATE PROCEDURES FOR RCRA OR HWMA PERMIT APPLICATIONS).
40 CFR Part 124, Subparts A, B and G are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8, except that 40 CFR 124.19, the fourth sentence of 40 CFR 124.31(a), the third sentence of 40 CFR 124.32(a), and the second sentence of 40 CFR 124.33(a) are expressly omitted from the incorporation by reference of each of those subsections. For purposes of 40 CFR 124.6(e), 124.10(b), and 124.10(c)(1)(ii) "EPA" and "Administrator" or "Regional Administrator" shall be defined as the U.S. Environmental Protection Agency and the

U.S. Environmental Protection Agency Region 10 Regional Administrator, respectively. ~~*(4-2-08)*~~( )

(BREAK IN CONTINUITY OF SECTIONS)

015. STANDARDS FOR THE MANAGEMENT OF USED OIL.

01. Incorporation by Reference. 40 CFR Part 279 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR 279.43(c)(3)(ii) "Director" shall be defined as the Director, U.S.DOT Office of Hazardous Materials Regulation. ~~*(4-2-08)*~~( )

02. Used Oil as a Dust Suppressant. 40 CFR Part 279 contains a prohibition on the use of used oil as a dust suppressant at 279.82(a), however, States may petition EPA to allow the use of used oil as a dust suppressant. Members of the public may petition the State to make this application to EPA. This petition to the State must: (2-11-94)

a. Be submitted to the Idaho Department of Environmental Quality, 1410 North Hilton, Boise, Idaho 83706-1255; and (2-11-94)

b. Demonstrate how the requirements of 40 CFR 279.82(b) will be met. (2-11-94)

016. STANDARDS FOR UNIVERSAL WASTE MANAGEMENT.
40 CFR Part 273 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. For purposes of 40 CFR 273.32(a)(3), "EPA" shall be defined as the U.S. Environmental Protection Agency. ~~*(4-2-08)*~~( )

017. ~~*(RESERVED)*~~ CRITERIA FOR THE MANAGEMENT OF GRANULAR MINE TAILINGS (CHAT) IN ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE IN TRANSPORTATION CONSTRUCTION PROJECTS FUNDED IN WHOLE OR IN PART BY FEDERAL FUNDS.
40 CFR Part 278 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 2008. ( )

018. STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE FACILITIES OPERATING UNDER A STANDARDIZED PERMIT.
40 CFR Part 267 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 200~~7~~8. ~~*(4-2-08)*~~( )

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.08 - IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS

DOCKET NO. 58-0108-0802

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has proposed rulemaking. The action is authorized by Chapter 1, Title 39, Idaho Code, and Chapter 21, Title 37, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency.

Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: The U.S. Environmental Protection Agency (EPA) promulgated the Ground Water Rule on November 6, 2006. This is a national primary drinking water regulation. As a state that has primacy for administering the Safe Drinking Water Act, Idaho must adopt this rule within two years of promulgation by EPA.

The Ground Water Rule is expected to provide greater protection against microbial pathogens in public water systems that use ground water sources. The rule attempts to target the subset of ground water systems that are at higher risk of fecal contamination by requiring regular sanitary surveys, establishing a flexible program for identifying higher risk systems through existing bacterial monitoring and state determinations, and providing for ground water source monitoring in systems that do not provide demonstrated virus inactivation through disinfection. The rule requires that deficiencies detected during sanitary surveys be corrected on a reasonable schedule. Systems that verify the presence of contamination in a ground water source must remove the source of contamination or provide disinfection treatment.

As a primacy agency, the Department of Environmental Quality (DEQ) must adopt state rules that are no less stringent than the federal rule. Under direction from the Idaho Legislature, DEQ must adopt state rules that are no more stringent than the federal rule. To ensure that Idaho's rules will be neither more nor less stringent than the federal rule, this proposed rule incorporates the federal rule by reference. The federal rule contains certain special primacy requirements that provide limited flexibility to the state. The negotiated rulemaking conducted by DEQ was limited to consideration of how the special primacy requirements should be met. The proposed rule also includes corrections that are typographical and nonsubstantive in nature.

While not part of this rulemaking, DEQ is also seeking public comment on the "Implementation Guidance for the Ground Water Rule." This document provides assistance to public water system owners and operators in understanding and achieving compliance with the requirements of these rules and may be obtained at http://www.deq.idaho.gov/rules/drinking_water/58_0108_0802_proposed.cfm or by contacting Tom John at thomas.john@deq.idaho.gov or (208)373-0191.

Drinking water system owners and operators, developers, consultants, engineers, cities, counties, industry, drinking water professional organizations, and the public at large may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

NEGOTIATED RULEMAKING: The text of the proposed rule has been drafted based on discussions held and concerns raised during negotiations conducted pursuant to Idaho Code Section 67-5220 and IDAPA 04.11.01.810-815. On June 4, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-6, pages 83 and 84, and a preliminary draft rule was made available for public review. One meeting was held on

June 23, 2008. Members of the public participated in this negotiated rulemaking process by attending the meeting.

IDAHO CODE SECTION 39-107D STATEMENT: This proposed rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal regulations.

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year: The proposed rule does not impact the state general fund because the drinking water program is funded by EPA grants and by dedicated fees paid by regulated water systems. The agency intends to address the impact of the increased workload required by this rule through redirection of existing staff, use of existing vacant positions, and/or through contracting. Together these strategies will add the equivalent of 1.4 full time persons to the drinking water program in approximately four years. DEQ is not requesting an increase in personnel as a result of adopting the proposed rule.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning the proposed rulemaking, contact Tom John at thomas.john@deq.idaho.gov, (208)373-0191.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson
Hearing Coordinator
Department of Environmental Quality
1410 N. Hilton/Boise, Idaho 83706-1255
(208)373-0418/Fax No. (208)373-0481
paula.wilson@deq.idaho.gov

THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0108-0802

002. INCORPORATION BY REFERENCE AND AVAILABILITY OF REFERENCED MATERIALS.

01. Incorporation by Reference. The following documents are incorporated by reference into these rules. (4-11-06)

a. 40 CFR Parts 141 and 143. Any reference in these rules to requirements, procedures, or specific forms contained in any section or subsection of 40 CFR Parts 141 and 143 shall constitute the full adoption by reference of that section or subsection, including any notes and appendices therein, unless expressly provided otherwise in these rules (4-11-06)

b. American Water Works Association (AWWA) Standards, effective July 2006, available from the AWWA, 6666 West Quincy Avenue, Denver, Colorado 80235, Telephone (800) 926-7337. (3-30-07)

02. Availability of Specific Referenced Material. Copies of specific documents referenced within these rules are available at the following locations: (4-11-06)

a. All federal regulations: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Telephone (202)783-3238; U.S. Government Bookstore, Room 194, Federal Bldg., 915 Second Ave., Seattle, WA 98174, (206) 553-4270; or http://www.gpoaccess.gov/index.html. (4-11-06)

b. All documents incorporated by reference: Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255, (208) 373-0502. (4-11-06)

c. Recommended Standards for Water Works: a report of the Water Supply Committee of the Great Lakes -- Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, published by Health Education Services, P.O. Box 7126, Albany, New York 12224, 2003, Telephone (518) 439-7286. (4-6-05)

d. Manual of Individual and Non-Public Water Supply Systems (EPA 570/9-91-004), published by the U.S. Environmental Protection Agency, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.20402, Telephone (202) 782-3238. (5-3-03)

e. U.S. Department of Commerce, National Bureau of Standards Handbook, No. 69, "Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure" as amended in 1963, NCRP Publications, P.O. Box 20175, Washington, D.C. 20014. (12-10-92)

f. Rules of the Idaho Water Resources Board available at www.adm.idaho.gov/adminrules/rules/idapa37/37index.htm, or the Idaho Department of Water Resources, Idaho Water Center, 322 E. Front St., P.O. Box 83720, Boise, Idaho 83720-0098, Telephone (208) 287-4800. (3-30-07)

g. ANSI/NSF Standard 44-2002e -- 2004, Residential Cation Exchange Water Softeners, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

h. ANSI/NSF Standard 53-2002e -- 2003, Drinking Water Treatment Units -- Health Effects, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

i. ANSI/NSF Standard 55-2002 -- 2002, Ultraviolet Microbiological Water Treatment Systems, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

j. ANSI/NSF Standard 58-2003 -- 2004, Reverse Osmosis Drinking Water Treatment Systems, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

k. ANSI/NSF Standard 60-2000a -- 2000, Drinking Water Treatment Chemicals -- Health Effects, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

l. ANSI/NSF Standard 61-2000a -- 2000, Drinking Water System Components -- Health Effects, available from the National Sanitation Foundation, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, Telephone (734) 769-8010. (4-6-05)

m. American Water Works Association (AWWA) Standards, available from the AWWA, 6666 West Quincy Avenue, Denver, Colorado 80235, (800) 926-7337, www.awwa.org. (3-30-07)

n. Cross Connection Control Manual, available from Pacific Northwest Section of the American Water Works Association, P.O. Box 19581, Portland, OR, 97280-0581, Telephone (503) 246-5845. (3-30-07)

o. Manual of Cross-Connection Control, Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, KAP-200 University Park MC-2531, Los Angeles, CA 90089-2531, (866)545-6340, www.usc.edu/dept/fccchr/. (3-30-07)

p. Manual on Slow Sand Filtration (1991), published by AWWA Research Foundation 6666 West Quincy Avenue, Denver, CO 80235, (800)926-7337, www.awwa.org. (3-30-07)

q. Slow Sand Filtration (1991), published by the American Society of Civil Engineers American Society of Civil Engineers,1801Alexander Bell Drive, Reston, VA 20191, (800)548-2723, www.asce.org. (3-30-07)

r. Slow Sand Filtration and Diatomaceous Earth Filtration for Small Water Systems, DOH Pub #331-204 (4/03), Washington State Department of Health, Division of Environmental Health, Office of Drinking Water, PO Box 47828, Olympia WA 98504-7828, (360)236-3100 or (800)521-0323, http://www.doh.wa.gov/ehp/dw/Programs/water_sys_design.htm. (3-30-07)

s. Water System Design Manual, DOH Pub #331-123 (Rev. 8/01), Washington State Department of Health, Division of Environmental Health, Office of Drinking Water, PO Box 47828, Olympia WA 98504-7828, (360)236-3100 or (800)521-0323, http://www.doh.wa.gov/ehp/dw/Programs/water_sys_design.htm. (3-30-07)

t. Submersible Motors: Application, Installation, Maintenance (Franklin Electric AIM manual), Franklin Electric, Bluffton, Indiana 46714, (800)348-2420, http://www.franklin-electric.com/Manual/pdf/fullAIM.pdf. (3-30-07)

u. Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources (March 1991 Edition), U.S. Environmental Protection Agency, http://www.epa.gov/safewater/mdbp/implement.html. (3-30-07)

v. Standard Methods for the Examination of Water and Wastewater, a joint publication of the American Public Health Association, the Water Environment Federation, and the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235, 800-926-7337, www.standardmethods.org (3-30-07)

w. F480-02 Standard Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension ratios (SDR), SCH 40 and SCH 80, American Society for Testing and Materials (ASTM Standard F480-02). (3-30-07)

x. "Idaho Standards for Public Works Construction," 2005 Edition, and subsequent revisions, Local Highway Technical Assistance Council, 3330 Grace Street, Boise, ID 83605, (208)344-0565. (4-11-06)

y. Memorandum of Understanding between the Idaho Department of Environmental Quality and the Idaho Division of Building Safety Plumbing Bureau, Idaho Department of Environmental Quality, 1410 North Hilton, Boise, Idaho 83706, www.deq.idaho.gov. (3-30-07)

z. Idaho General Safety and Health Standards (IGSHS), available from the Idaho Division of Building Safety, 1090 E. Watertower St., Meridian, Idaho 83642, (208)334-3950, http://dbs.idaho.gov/safety_code/000.html. (3-30-07)

aa. Implementation Guidance for the Long Term 2 Enhanced Surface Water Treatment Rule, Idaho Department of Environmental Quality, 1410 North Hilton, Boise, Idaho 83706, www.deq.idaho.gov. (4-2-08)

bb. Implementation Guidance for the Stage 2 Disinfectants and Disinfection Byproducts Rule, Idaho Department of Environmental Quality, 1410 North Hilton, Boise, Idaho 83706, www.deq.idaho.gov. (4-2-08)

cc. Implementation Guidance for the Ground Water Rule, Idaho Department of Environmental Quality, 1410 North Hilton, Boise, Idaho 83706, www.deq.idaho.gov. (____)

03. Precedence. In the event of conflict or inconsistency between the language in these rules and that found in any document incorporated by reference, these rules shall prevail .(4-11-06)

(BREAK IN CONTINUITY OF SECTIONS)

100. MONITORING AND ANALYTICAL REQUIREMENTS.

01. Microbiological Contaminant Sampling and Analytical Requirements. (10-1-93)

a. 40 CFR 141.21, revised as of July 1, 200~~1~~7, is herein incorporated by reference. ~~*(3-15-02)*~~( )

b. The Department may reduce the total coliform monitoring frequency for community water systems serving twenty-five (25) to one thousand (1000) persons, as specified in 40 CFR 141.21(a)(2) and Subsection 100.01. The Department may allow community water systems serving twenty-five (25) to one thousand (1000) persons to reduce the total coliform monitoring frequency to once per quarter when; (12-10-92)

i. The system submits a written request to the Department in advance of the requirement; and (12-10-92)

ii. There has been no history of total coliform contamination in it's current configuration; and (10-1-93)

iii. The system has been in compliance with the total coliform monitoring requirements for the last three (3) years; and (12-10-92)

iv. A sanitary survey has been conducted within the past five (5) years which indicates to the Department that there are no deficiencies which could affect microbial quality; and (12-10-92)

v. The system uses only a groundwater source that is protected. (12-10-92)

c. The Department may reduce the total coliform monitoring frequency for noncommunity water systems serving less than one thousand (1000) persons as specified in 40 CFR 141.21(a)(3)(i) and Subsection 100.01 of this rule. The Department may allow noncommunity water systems serving less than one thousand (1000) persons to reduce the total coliform monitoring frequency to once per year when; (12-10-92)

i. The system submits a written request to the Department in advance of the requirement; and (12-10-92)

ii. No coliforms have been detected in the last three (3) years of monitoring; and (12-10-92)

iii. The system has been in compliance with the total coliform monitoring requirements for the last three (3) years; and (12-10-92)

iv. A sanitary survey has been conducted within the past five (5) years which indicates to the Department that there are no deficiencies which could affect microbial quality; and (12-10-92)

v. The system uses only a groundwater source that is protected. (12-10-92)

d. The Department may reduce the total coliform monitoring frequency for noncommunity water systems serving more than one thousand (1000) persons during any month the system serves one thousand (1000) persons or fewer as specified in 40 CFR 141.21(a)(3)(ii) and Subsection 100.01 of this rule. The Department will allow noncommunity water systems serving more than one thousand (1000) persons to reduce the total coliform monitoring frequency for any month the system serves one thousand (1000) persons or fewer, down to a minimum of one (1) sample per year, provided; (10-1-93)

i. The system submits a written request to the Department in advance of the requirement; and (12-10-92)

ii. No coliforms have been detected in the last three (3) years of monitoring; and (12-10-92)

iii. The system has been in compliance with the total coliform monitoring requirements for the last three (3) years; and (12-10-92)

iv. A sanitary survey has been conducted within the past five (5) years which indicates that there are no deficiencies which could effect microbial quality; and (12-10-92)

v. The system uses only a groundwater source that is protected. (12-10-92)

e. A system must collect repeat samples within twenty-four (24) hours of notification of positive results as specified in 40 CFR 141.21(b) and Subsection 100.01 of this rule. The Department may allow a system to delay collection of repeat samples if the system; (12-10-92)

i. Identifies the cause of the contamination; (12-10-92)

ii. Is making progress towards correcting the problem; (12-10-92)

iii. Submits a written request to delay collecting repeat samples and a written statement admitting an acute MCL violation; (12-10-92)

iv. Follows public notification requirements specified under 40 CFR Part 141, Subpart Q, revised as of July 1, 2006, for Tier 1 MCL violations including notice for consumers to boil their water; (4-2-08)

v. Continues to collect the regularly scheduled number of routine samples; (12-10-92)

vi. Collects all repeat samples immediately following correction of the problem; and (12-10-92)

vii. Collects five (5) routine samples during the month following the end of the violation as required under 40 CFR 141.21 (b)(5), unless waived as allowed under that paragraph. (12-10-92)

02. Turbidity Sampling and Analytical Requirements. 40 CFR 141.22, revised as of July 1, 2001, is herein incorporated by reference. (3-15-02)

03. Inorganic Chemical Sampling and Analytical Requirements. 40 CFR 141.23, revised as of July 1, 2004~~7~~, is herein incorporated by reference. ~~(4-6-05)~~( )

04. Organic Chemicals Other Than Total Trihalometranes, Sampling and Analytical Requirements. 40 CFR 141.24, revised as of July 1, 2004~~7~~, is herein incorporated by reference. ~~(4-6-05)~~( )

05. Analytical Methods for Radioactivity. 40 CFR 141.25, revised as of July 1, 2001, is herein incorporated by reference. (3-15-02)

06. Monitoring Frequency and Compliance Requirements for Radioactivity in Community Water Systems. 40CFR 141.26, revised as of July 1, 2001, is herein incorporated by reference. (3-15-02)

07. Waivers and Vulnerability Assessments. (10-1-93)

a. Waivers from sampling requirements in Subsections 100.03, 100.04, 200.01, 551.01.h. and 551.01.i., of this rule, may be available to all systems for all contaminants except nitrate, nitrite, arsenic and trihalomethanes, and are based upon a vulnerability assessment, use assessment and/or the analytical results of previous sampling. (10-1-93)

b. There are two (2) general types of monitoring waivers: (12-10-92)

i. Waivers based exclusively upon previous analytical data (12-10-92)

ii. Waivers based on a use or vulnerability assessment. (12-10-92)

c. Waivers are to be made by the Department on a contaminant specific basis and must be in writing. (12-10-92)

d. Vulnerability assessments may be conducted by the Department, the water system, or a third party organization. The Department shall approve or disapprove all vulnerability assessments in writing. (12-10-92)

e. Water systems which do not receive waivers shall sample at the required initial and repeat monitoring frequencies. (12-10-92)

f. If a system elects to request a waiver from monitoring, it shall do so in writing at least sixty (60) days prior to the required monitoring deadline date. (10-1-93)

08. Initial Monitoring Schedule. In addition to the requirements specified in 40 CFR 141.23, revised as of July 1, 2004, 40 CFR 141.24, revised as of July 1, 2004, and 40 CFR 141.40, revised as of July 1, 2001, initial monitoring must be completed according to the following schedule unless otherwise specified by the Department: (4-6-05)

a. Public water systems serving more than one hundred (100) people must conduct initial monitoring before January 1, 1995 except that: (10-1-93)

i. Initial monitoring for nitrate and nitrite must be completed before January 1, 1994 for all surface water sources serving transient noncommunity public water systems and for all ground water sources serving any public water system .(10-1-93)

ii. Initial monitoring for nitrate and nitrite must be completed before April 1, 1993 for all surface water sources serving community or nontransient noncommunity public water systems. (10-1-93)

iii. Initial monitoring required under 40 CFR 141.23(c) must be completed before January 1, 1994 for all surface water sources serving community or nontransient noncommunity public water systems. (10-1-93)

b. Public water systems serving one hundred (100) or less people must conduct initial monitoring before January 1, 1996 except that: (10-1-93)

i. Initial monitoring for nitrate and nitrite must be completed before January 1, 1994 for all surface water sources serving transient noncommunity public water systems and for all ground water sources serving a public water system. (10-1-93)

ii. Initial monitoring for nitrate and nitrite must be completed before April 1, 1993 for all surface water sources serving community or nontransient noncommunity public water systems. (10-1-93)

iii. Initial monitoring required under 40 CFR 141.23(c) must be completed before January 1, 1994 for all surface water sources serving community or nontransient noncommunity public water systems. (10-1-93)

09. Alternate Analytical Techniques. 40 CFR 141.27 is herein incorporated by reference. (10-1-93)

10. Approved Laboratories. 40 CFR 141.28, revised as of July 1, 2007, is herein incorporated by reference. All analyses conducted pursuant to ~~*this chapter*~~ these rules, except those listed below, shall be performed in laboratories certified or granted reciprocity by the ~~*Department. The following analyses shall be conducted by the public water system in accordance with the procedures approved in*~~ Idaho Department of Health and Welfare ~~*Rules*~~, Bureau of Laboratories, as provided in IDAPA 16.02.13, ~~*Subsection 008.02,*~~ "Rules Governing Certification of Idaho Water Quality Laboratories." The following analyses may be performed by any person acceptable to the Department of Environmental Quality: ~~*(10-1-93)*~~( )

a. pH; (12-10-92)

b. Turbidity (Nephelometric method only); (12-10-92)

c. Daily analysis for fluoride; (12-10-92)

d. Temperature; ~~*and*~~ ~~*(12-10-92)*~~( )

e. Disinfectant residuals, except ozone, which shall be analyzed using the Indigo Method or an acceptable automated method pursuant to Subsection 300.05.c. of this rule; ~~*(12-10-92)*~~( )

f. Alkalinity; ( )

g. Calcium; ( )

h. Conductivity; ( )

i. Silica; and ( )

j. Orthophosphate. ( )

11. Consecutive Water System. 40 CFR 141.29 is herein incorporated by reference. (10-1-93)

101. -- 149.(RESERVED).

150. REPORTING, PUBLIC NOTIFICATION, RECORDKEEPING.

01. Reporting Requirements. 40 CFR 141.31, revised as of July 1, 2001, is herein incorporated by reference. (3-15-02)

02. Public Notification. 40 CFR Part 141, Subpart Q, revised as of July 1, 200~~6~~7, is herein incorporated by reference. ~~*(4-2-08)*~~( )

03. Record Maintenance. 40 CFR 141.33, revised as of July 1, 2006, is herein incorporated by reference. (4-2-08)

04. Unregulated Contaminant Reporting and Public Notification. 40 CFR 141.35, revised as of July 1, 2003, is herein incorporated by reference. (3-20-04)

05. Reporting and Record Keeping for the Interim Enhanced Surface Water Treatment Rule. 40 CFR 141.175, revised as of July 1, 2002, is herein incorporated by reference. (5-3-03)

06. Reporting and Record Keeping Requirements for the Disinfectants and Disinfectant Byproducts Rule. 40 CFR 141.134, revised as of July 1, 2002, is herein incorporated by reference. (5-3-03)

151. CONSUMER CONFIDENCE REPORTS.
40 CFR Part 141, Subpart O, revised as of July 1, 200~~6~~7, is herein incorporated by reference. ~~*(4-2-08)*~~( )

(BREAK IN CONTINUITY OF SECTIONS)

302. SANITARY SURVEYS FOR SYSTEMS USING SURFACE WATER OR GROUND WATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER.
The Department shall conduct a sanitary survey of all public water systems which use surface water or ground water under the direct influence of surface water. (4-5-00)

01. Frequency. For noncommunity water systems, a sanitary survey shall be conducted every five (5) years. For community water systems, a sanitary survey shall be conducted every three (3) years, except that a community water system that has been determined to have outstanding performance, according to criteria established by the Department, may have a sanitary survey conducted every five (5) years. (4-5-00)

02. Report. A report describing the results of the sanitary survey will be provided to the water system. (4-5-00)

a. As part of the sanitary survey report or as an independent action, the Department shall provide written notice to the water system describing any significant deficiency within thirty (30) days after the Department identifies the significant deficiency. The notice may specify corrective actions and deadlines for completion of corrective actions. ( )

b. The Department may, at its discretion, provide this written notice at the time of the sanitary survey. ( )

03. *~~Response Required~~*. *~~A water system must respond in writing not later than forty-five (45) days after receipt of the sanitary survey report describing how and on what schedule the system will address significant deficiencies identified in the survey.~~* Consultation with the Department. Public water systems shall consult with the Department prior to taking specific corrective actions in response to significant deficiencies identified during a sanitary survey, unless such corrective actions are specified in detail by the Department in its written notification under Subsection 302.02 of this rule. *~~(4-5-00)~~*( )

04. Violation. Failure to address significant deficiencies identified in a sanitary survey that are within the control of the public water system and its governing body shall constitute a violation of these rules. (4-5-00)

303. SANITARY SURVEYS FOR PUBLIC WATER SYSTEMS USING GROUND WATER.
The Department shall conduct a sanitary survey of all public water systems that use ground water. ( )

01. Frequency. For non-community water systems, a sanitary survey shall be conducted every five (5) years. For community water systems, a sanitary survey shall be conducted every three (3) years, except as provided below. ( )

a. A community water system may have a sanitary survey conducted every five (5) years if the system provides at least a four (4)-log treatment of viruses (using inactivation, removal, or a Department approved combination of 4-log inactivation and removal) before or at the first customer for all of its ground water sources. ( )

b. A community water system may have a sanitary survey conducted every five (5) years if it has an outstanding performance record, as determined by the Department and documented in previous sanitary surveys, and has no history of Total Coliform Rule MCL or monitoring violations under Subsection 100.01.a. of these rules since the last sanitary survey. ( )

02. Report. A report describing the results of the sanitary survey shall be provided to the water system. ( )

a. As part of the sanitary survey report or as an independent action, the Department shall provide written notice to the water system describing any significant deficiency within thirty (30) days after the Department identifies the significant deficiency. The notice may specify corrective actions and deadlines for completion of corrective actions. ( )

b. The Department may, at its discretion, provide this written notice at the time of the sanitary survey. ( )

03. Significant Deficiencies. For each of the eight (8) elements of a sanitary survey of a ground water system, the following deficiencies shall in all cases be considered significant for the purposes of the notice required in Subsection 303.02 of this rule. Decisions about the significance of other deficiencies identified during the sanitary survey shall be at the Department's discretion, as indicated in the Department's sanitary survey protocol. ( )

a. Source: Lack of a sanitary well cap as specified in Subsection 511.06.b. of this rule. ( )

b. Treatment: Chemical addition is not flow proportioned or lacks emergency shut-off, as specified in

Subsection 531.02.b.ii. of this rule. ( )

c. Distribution system: No means for flushing dead end water mains, as specified in Subsection 542.09 of this rule. ( )

d. Finished water storage: Roof leaking, as specified in Subsections 544.09 and 544.09.c. of this rule. ( )

e. Pumps, pump facilities, and controls: No accessible check valve between pump and shut-off valve, as specified in Subsection 511.04 of this rule. ( )

f. Monitoring, reporting, and data verification: Repeated failure to collect the required number and type of Total Coliform Rule samples during the most recent two (2) year period, as specified in Subsection 100.01.a., of this rule. ( )

g. System management and operation: History of frequent depressurization in the distribution system in violation of Subsection 552.01 of this rule. ( )

h. Operator compliance with state licensing requirements: Responsible charge operator is not licensed as required in Subsection 554.02 of this rule. ( )

04. Consultation with the Department. Public water systems shall consult with the Department prior to taking specific corrective actions in response to significant deficiencies identified during a sanitary survey, unless such corrective actions are specified in detail by the Department in its written notification under Subsection 303.02 of this rule. ( )

05. Violation. Failure to address significant deficiencies identified in a sanitary survey that are within the control of the public water system and its governing body shall constitute a violation of these rules. ( )

30~~3~~4. COMPOSITE CORRECTION PROGRAM (CCP).
The Department may require a public water system to conduct a composite correction program, as defined in Section 003 of these rules, for the purpose of identifying and correcting deficiencies in water treatment and distribution. Failure to implement the performance improvement factors identified through the CCP constitutes a violation of these rules. (4-5-00)

30~~4~~5. -- 309.(RESERVED).

(BREAK IN CONTINUITY OF SECTIONS)0

323. Ground Water Rule.
40 CFR 141, Subpart S, revised as of July 1, 2007, is herein incorporated by reference. "Implementation Guidance for the Ground Water Rule," as referenced in Section 002 in this rule, provides assistance to public water system owners and operators in understanding and achieving compliance with the requirements of 40 CFR 141, Subpart S. ( )

01. Monitoring and Compliance Requirements for Membranes. Ground water systems that use membrane filtration (or a combination of membrane filtration and disinfection) to achieve a four (4)-log inactivation/ removal of viruses at a ground water source must comply with the following requirements in addition to those specified in 40 CFR 141, Subpart S. ( )

a. All membrane skids or modules must undergo direct integrity testing a minimum of once each week that the source is contributing water to the distribution system. More frequent direct integrity testing may be required by the Department. Membrane systems shall contain sufficient redundancy to allow for offline direct integrity testing of all skids at the required interval while retaining the capability to supply peak hour demand to the water system. No membrane system shall have fewer than two (2) skids or modules. ( )

i. The direct integrity test shall have a resolution capable of detecting a response at the absolute molecular weight cut-off or other parameter that describes the exclusion capability of the membrane, as provided by the manufacturer. ( )

ii. The direct integrity test shall have a sensitivity capable of verifying four (4)-log virus removal (or a lesser Department approved log removal that achieves, in combination with disinfection, a total of four (4)-log virus treatment). ( )

b. Systems using membrane filtration shall submit a monthly operating report which includes the following information. ( )

i. Verification of direct integrity testing of each membrane skid or module and action taken in response to a failure of the direct integrity test. ( )

ii. Records of any monitoring conducted for the purpose of indirect integrity verification. ( )

iii. Any additional information considered necessary by the Department on a case-specific basis to verify proper operation and maintenance of the membrane filtration process. ( )

02. Discontinuation of Treatment. Systems that wish to discontinue four (4)-log virus treatment at a ground water source must meet the following criteria. Ground water sources on which treatment has been discontinued shall be subject to the triggered source water monitoring requirements of 40 CFR 141, Subpart S. ( )

a. Demonstration that any known source of contamination has been removed. ( )

b. Demonstration that structural deficiencies of the well have been rehabilitated and no longer exist. ( )

c. Provide evidence that the well is drawing from a protected or confined aquifer. ( )

d. Submit results of one (1) year of monthly monitoring for a fecal indicator organism during which no positive results occurred. ( )

03. Chlorine Purging Prior to Triggered Source Sampling. 40 CFR 141.402(e), incorporated by reference into these rules at Section 323, requires that ground water source samples be collected at a location prior to any treatment. Pursuant to this requirement, systems that add chlorine to a source, either in the well bore or near enough to the wellhead that chlorinated water could backflow into the well, shall ensure that all chlorine residual has been purged prior to taking a triggered source water sample. This shall be accomplished by measuring chlorine residual in the source water until a reading of zero is obtained and be recorded in the space provided for chlorine residual on the sample submittal form. ( )

32~~3~~4. -- 349. (RESERVED).

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.11 - GROUND WATER QUALITY RULE

DOCKET NO. 58-0111-0801(FEE RULE)

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has proposed rulemaking. The action is authorized by Sections 39-105, 39-107, 39-120, and 39-126, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency.

Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: The purpose of this rulemaking is to clarify portions of the Ground Water Quality Rule to promote consistency in application of the rule to mining activities. The proposed rule addresses the following issues:

1. Adds definitions necessary to improve statewide consistency with interpretation and implementation of mining provisions of the Ground Water Quality Rule;
2. Develops a procedure and process to follow for setting a point(s) of compliance for ground water quality related issues at mining areas;
3. Ground water monitoring at mining areas;
4. Applicability of rule changes; and
5. Imposes a fee on mine operators making an application with the department to set a ground water quality point of compliance.

Mining industry, conservation groups, environmental protection groups, state and federal land management agencies, and concerned citizens of the state of Idaho may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, the Department of Environmental Quality (DEQ) intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

FEE SUMMARY: This proposed rule includes a requirement that applicants submit a $2500 fee at the time the application is submitted to DEQ (Subsection 401.02.a.). Imposition of the fee is authorized by Section 39-119, Idaho Code.

NEGOTIATED RULEMAKING: The text of the proposed rule has been drafted based on discussions held and concerns raised during negotiations conducted pursuant to Idaho Code Section 67-5220 and IDAPA 04.11.01.812-815. On April 4, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-4, pages 38 and 39, and a preliminary draft rule was made available for public review. Meetings were held on April 23, May 7, May 21, and June 4, 2008. Several members of the public participated in this negotiated rulemaking process by attending the meetings and by submitting written comments.

IDAHO CODE SECTION 39-107D STATEMENT: Section 39-107D, Idaho Code, also applies to a rule which "proposes to regulate an activity not regulated by the federal government." This rule amends portions of the Ground Water Quality Rule that address mining activities. Mining activities are regulated by the federal government. The federal government, however, does not have a regulatory program that specifically sets standards to protect ground water quality and beneficial uses of ground water as the Ground Water Quality Rule does. For this reason, DEQ believes Section 39-107D is applicable and that the amendments to the rule describe aspects of mining activities not regulated by the federal government.

The following is a summary of additional information required by Sections 39-107D(3) and (4), Idaho Code.

Information relating to Section 39-107D(2) has also been provided.

Section 39-107D(2)(a), Idaho Code. To the degree that a department action is based on science, the department shall utilize the best available peer reviewed science and supporting studies conducted in accordance with sound objective scientific practices.

The proposed rule changes were initiated for clarification purposes rather than for scientific reasons. By clarifying the language in the Ground Water Quality Rule, DEQ is facilitating more efficient implementation of the Ground Water Quality Plan and the Ground Water Quality Rule thereby reducing the economic burden on the regulated community. Improved rules also allow the public to better understand the requirements imposed on the regulated community to protect human health and the environment. Thus, the changes to the rule describe an administrative process to determine the application of the Ground Water Quality Rule to mining activities. The administrative process is not based on science. DEQ has, however, relied upon its experience dealing with mining activities in drafting the proposed changes to the rule.

Section 39-107D(2)(b), Idaho Code. To the degree that a department action is based on science, the department shall utilize data collected by accepted methods or best available methods if the reliability of the method and the nature of the decision justifies use of the data.
This provision is not applicable because the proposed rule changes are based on clarifying existing rule language. Please see explanation above.

Section 39-107D(3), Idaho Code. Any proposed rule subject to this section which proposes a standard necessary to protect human health and the environment shall also include in the rulemaking record requirements under chapter 52, title 67, Idaho Code, the following additional information:

(a) Identification of each population or receptor addressed by an estimate of public health effects or environmental effects;
(b) Identification of the expected risk or central estimate of risk for the specific population or receptor;
(c) Identification of each appropriate upper bound or lower bound estimate of risk;
(d) Identification of each significant uncertainty identified in the process of the assessment of public health effects or environmental effects and any studies that would assist in resolving the uncertainty; and
(e) Identification of studies known to the department that support, are directly relevant to, or fail to support any estimate of public health effects or environmental effects and the methodology used to reconcile inconsistencies in the data.

The proposed changes to the rule set up an administrative process for DEQ to work with the mine operator and other interested persons to determine, on a site-specific basis, the application of the standards in the Ground Water Quality Rule in order to protect human health and the environment. This administrative process is not itself based upon any analysis of risk to specific populations or receptors, but rather sets out a process by which the risk to human health and the environment will be evaluated by DEQ as it reviews a specific mining site. Therefore, DEQ has no additional information relevant to this rulemaking pursuant to Section 39-107D(3).

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning the proposed rulemaking, contact Ed Hagan at ed.hagan@deq.idaho.gov, (208)373-0356.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson
Hearing Coordinator
Department of Environmental Quality
1410 N. Hilton/Boise, Idaho 83706-1255
(208)373-0418/Fax No. (208)373-0481/paula.wilson@deq.idaho.gov

THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0111-0801

007. DEFINITIONS.

01. Agricultural Chemical. Any pesticide, nutrient or fertilizer used for the benefit of agricultural production or pest management. (3-20-97)

02. Aquifer. A geological unit of permeable saturated material capable of yielding economically significant quantities of water to wells and springs. (3-20-97)

03. Beneficial Uses. Various uses of ground water in Idaho including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, aquacultural water supplies, and mining. A beneficial use is defined as actual current or projected future uses of ground water. (3-20-97)

04. Best Available Method. Any system, process, or method which is available to the public for commercial or private use to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

05. Best Management Practice. A practice or combination of practices determined to be the most effective and practical means of preventing or reducing contamination to ground water and interconnected surface water from nonpoint and point sources to achieve water quality goals and protect the beneficial uses of the water. (3-20-97)

06. Best Practical Method. Any system, process, or method that is established and in routine use which could be used to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

07. Board. The Idaho Board of Environmental Quality. (3-20-97)

08. Cleanup. The removal, treatment or isolation of a contaminant from ground water through the directed efforts of humans or the removal or treatment of a contaminant in ground water through management practice or the construction of barriers, trenches and other similar facilities for prevention of contamination, as well as the use of natural processes such as ground water recharge, natural decay and chemical or biological decomposition. (3-20-97)

09. Constituent. Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance occurring in ground water. (3-20-97)

10. Contaminant. Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance which does not occur naturally in ground water or which naturally occurs at a lower concentration. (3-20-97)

11. Contamination. The direct or indirect introduction into ground water of any contaminant caused in

whole or in part by human activities. (3-20-97)

12. **Crop Root Zone**. The zone that extends from the surface of the soil to the depth of the deepest crop root and is specific to a species of plant, group of plants, or crop. (3-20-97)

13. **Degradation**. The lowering of ground water quality as measured in a statistically significant and reproducible manner. (3-20-97)

14. **Department**. The Department of Environmental Quality. (3-20-97)

15. **Extraction**. Physical removal of ore or waste rock from mineral-bearing deposits. Extraction does not include processing, which is the removal of target minerals from ores by physical or chemical methods. ( )

156. **Ground Water**. Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (3-20-97)

167. **Ground Water Quality Standard**. Values, either numeric or narrative, assigned to any constituent for the purpose of establishing minimum levels of protection. (3-20-97)

178. **Highly Vulnerable Ground Water**. Ground water characterized by a relatively high potential for contaminants to enter and/or be transported within the flow system. Determinations of ground water vulnerability will include consideration of land use practices and aquifer characteristics. (3-20-97)

189. **Irreplaceable Source**. A ground water source serving a beneficial use(s) where the reliable delivery of comparable quality and quantity of water from an alternative source in the region would be economically infeasible or precluded by institutional constraints. (3-20-97)

20. **Mine Operator**. Any person authorized to engage in mining activities, including without limitation those authorized by law, lease, contract, permit, or plan of operation. It does not include a governmental agency that grants mineral leases or similar contracts or permits unless the agency is engaged in mining activities. ( )

21. **Mining Activity**. Recovery of a mineral from mineral-bearing deposits, which includes reclamation, extraction, excavation, overburden placement, and disposal of mineral extraction wastes, including tailings that are the result of extraction, waste rock, and other extraction wastes uniquely associated with mining. ( )

22. **Mining Area**. The area on or within which one (1) or more mining activities occur. The Department shall determine the boundaries of the mining area as provided in Section 401 of this rule. ( )

1923. **Natural Background Level**. The level of any constituent in the ground water within a specified area as determined by representative measurements of the ground water quality unaffected by human activities. (3-20-97)

204. **Person**. Any individual, association, partnership, firm, joint stock company, joint venture, trust, estate, political subdivision, public or private corporation, state or federal governmental department, agency or instrumentality, or any legal entity which is recognized by law as the subject of rights and duties. (3-20-97)

25. **Point of Compliance**. The vertical surface where the Department determines compliance with ground water quality standards as provided in Subsection 400.05 and Section 401 of this rule. ( )

216. **Practical Quantitation Level**. The lowest concentration of a constituent that can be reliably quantified among laboratories within specified limits of precision and accuracy during routine laboratory operating conditions. Specified limits of precision and accuracy are the criteria listed in the calibration specifications or quality control specifications of an analytical method. (3-20-97)

227. **Projected Future Beneficial Uses**. Various uses of ground water, such as drinking water,

aquaculture, industrial, mining or agriculture, that are practical and achievable in the future based on hydrogeologic conditions, water quality, future land use activities and social/economic considerations. (3-20-97)

2~~3~~8. **Recharge Area**. An area in which water infiltrates into the soil or geological formation from, including but not limited to precipitation, irrigation practices and seepage from creeks, streams, and lakes, and percolates to one (1) or more aquifers. (3-20-97)

29. **Reclamation**. The process of restoring an area affected by a mining activity to its original or another beneficial use, considering previous uses, possible future uses, and surrounding topography. The objective is to re-establish a diverse, self-perpetuating plant community, and to minimize erosion, remove hazards, and maintain water quality. ( )

~~24~~30. **Remediation**. Any action taken (1) to control the source of contamination, (2) to reduce the level of contamination, (3) to mitigate the effects of contaminants, and/or (4) to minimize contaminant movement. Remediation includes providing alternate drinking water sources when needed. (3-20-97)

~~25~~31. **Site Background Level**. The ground water quality at the hydraulically upgradient site boundary. (3-20-97)

(BREAK IN CONTINUITY OF SECTIONS)

400. GROUND WATER CONTAMINATION.

01. **Releases Degrading Ground Water Quality**. No person shall cause or allow the release, spilling, leaking, emission, discharge, escape, leaching, or disposal of a contaminant into the environment in a manner that: (3-20-97)

a. Causes a ground water quality standard to be exceeded; (3-20-97)

b. Injures a beneficial use of ground water; or (3-20-97)

c. Is not in accordance with a permit, consent order or applicable best management practice, best available method or best practical method. (3-20-97)

02. **Prevention Measures**. (3-20-97)

a. When a numerical standard is not exceeded, but degradation of ground water quality is detected and deemed significant by the Department, the Department shall take one (1) or more of the following actions: (3-20-97)

i. Require a modification of regulated activities to prevent continued degradation; (3-20-97)

ii. Coordinate with the appropriate agencies and responsible persons to develop and implement prevention measures for activities not regulated by the Department; (3-20-97)

iii. Allow limited degradation of ground water quality for the constituents identified in Subsection 200.01.a. if it can be demonstrated that: (3-30-07)

(1) Best management practices, best available methods or best practical methods, as appropriate for the aquifer category, are being applied; and (3-20-97)

(2) The degradation is justifiable based on necessary and widespread social and economic considerations; or (3-20-97)

iv. Allow degradation of ground water quality up to the standards in Subsection 200.01.b., if it can be

demonstrated that: (3-20-97)

(1) Best management practices are being applied; and (3-20-97)

(2) The degradation will not adversely impact a beneficial use. (3-20-97)

b. The following criteria shall be considered when determining the significance of degradation: (3-20-97)

i. Site specific hydrogeologic conditions; (3-20-97)

ii. Water quality, including seasonal variations; (3-20-97)

iii. Existing and projected future beneficial uses; (3-20-97)

iv. Related public health issues; and (3-20-97)

v. Whether the degradation involves a primary or secondary constituent in Section 200. (3-20-97)

03. Contamination Exceeding a Ground Water Quality Standard. The discovery of any contamination exceeding a ground water standard that poses a threat to existing or projected future beneficial uses of ground water shall require appropriate actions, as determined by the Department, to prevent further contamination. These actions may consist of investigation and evaluation, or enforcement actions if necessary to stop further contamination or clean up existing contamination, as required under the Environmental Protection and Health Act, Section 39-108, Idaho Code. (3-20-97)

04. Agricultural Chemicals. Agricultural chemicals found in intermittently saturated soils within the crop root zone will not be considered ground water contaminants as long as the chemicals remain within the crop root zone, and have been applied in a manner consistent with all appropriate regulatory requirements. (3-20-97)

05. Site-Specific Ground Water Quality Levels or Points of Compliance. The Department may allow site-specific ground water quality levels, for any aquifer category, that vary from a standard(s) in Section 200 or Section 300, or may allow site-specific points of compliance, based on consideration of effects to human health and the environment, for: ~~(3-20-97)~~( )

a. Remediation conducted under the Department's oversight; (3-20-97)

b. Permits issued by the Department; (3-20-97)

c. Situations where the site background level varies from the ground water quality standard; ~~or~~ ~~(3-20-97)~~( )

d. Dissolved concentrations of secondary constituents listed in Section 200 of this rule. The Department may allow the use of dissolved concentrations for secondary constituents if the requesting person demonstrates that doing so will not adversely affect human health and the environment; or ( )

~~**d.**~~ **e.** Other situations authorized by the Department in writing. (3-20-97)

~~***06. Mineral Extraction.*** *Naturally occurring constituents found in ground water within a specified area surrounding an active mineral extraction area, as determined by the Department, will not be considered contaminants as long as all applicable best management practices, best available methods or best practical methods, as approved by the Department, are applied.* *(7-1-98)*~~

401. MINING.

01. Request for Setting Point(s) of Compliance. At the request of a mine operator, the Department shall set a point of compliance, or points of compliance, at which the mine operator must meet the ground water

quality standards as described in Subsection 150.01 of this rule. If a request is not made, the mine operator must meet the ground water quality standards in ground water both within and beyond the mining area unless the Department establishes the point(s) of compliance consistent with Subsection 401.03 of this rule. Mining activities must be managed using the level of protection appropriate for the aquifer category in accordance with Subsection 150.02 and Section 301 of this rule. ( )

02. Application Process. ( )

a. If the mine operator requests a point of compliance, or points of compliance, the mine operator shall make written application to the Department. The application shall be accompanied by a fee of two thousand five hundred dollars ($2,500). The application shall include the following information in sufficient detail to allow the Department to establish point(s) of compliance: ( )

i. Name, location, and mailing address of the mining operation; ( )

ii. Name, mailing address, and phone number of the mine operator; ( )

iii. Land ownership status of the mining operation (federal, state, private or public); ( )

iv. The legal structure (corporation, partnership, etc.) and residence of the mine operator; ( )

v. The legal description, to the quarter-quarter section, of the location of the proposed mining operation; ( )

vi. Evidence the mine operator is authorized by the Secretary of State to conduct business in the state of Idaho; ( )

vii. A general description of the operational plans for the mining operation from construction through final reclamation. This description shall include any proposed phases for construction, operations, and reclamation and a map that identifies the location of all mining activities; ( )

viii. A preconstruction topographic site map or aerial photos extending at least one (1) mile beyond the outer limits of the mining area, identifying and showing the location and extent of the following features: ( )

(1) All wells, perennial and intermittent springs, adit discharges, wetlands, surface waters and irrigation ditches; ( )

(2) All public and private drinking water supply source(s) within one (1) mile of the mining area; ( )

(3) All service roads and public roads; ( )

(4) All buildings and structures within one (1) mile of the mining area; ( )

(5) All special resource waters within one (1) mile of the mining area; and ( )

(6) All Clean Water Act Section 303(d) listed streams, and their listed impairments, within one (1) mile of the mining area; ( )

ix. To the extent such information is available, a description and location of underground mine workings and adits and a description of the structural geology that may influence ground water flow and direction; ( )

x. Information regarding the relevant factors set forth in Subsection 401.03 of this rule; and ( )

xi. A proposed point of compliance, or points of compliance. ( )

b. Within thirty (30) days of receipt of an application, the Department shall issue a written notice to the mine operator indicating: ( )

i. That the application is complete; or ( )

ii. That the Department is rejecting the application as incomplete. In such a case, the Department shall provide a list of deficiencies. Upon a determination that the application is incomplete, the Department shall refund one-half (1/2) of the application fee. ( )

c. The Department shall establish the point(s) of compliance within one hundred eighty (180) days after receipt of a complete application unless the Department determines that additional time is necessary due to unusual circumstances. ( )

03. Setting the Point(s) of Compliance. The point(s) of compliance shall be set as close as possible to the boundary of the mining area, taking into consideration the relevant factors set forth in Subsections 401.03.i. through 401.03.viii., of this rule, but in no event shall the point(s) of compliance be within the boundary of the mining area. The mining area boundary means the outermost perimeter of the mining area (projected in the horizontal plane) as it would exist at the completion of the mining activity. The point(s) of compliance shall be set so that, outside the mining area boundary, there is no injury to current or projected future beneficial uses of ground water and there is no violation of water quality standards applicable to any interconnected surface waters. The Department's determination regarding the point(s) of compliance shall be based on an analysis and consideration of all relevant factors including, but not limited to: ( )

a. The hydrogeological characteristics of the mining area and surrounding land, including any dilution characteristics of the aquifer and any natural attenuation supported by site-specific data; ( )

b. The concentration, volume, and physical and chemical characteristics of contaminants resulting from the mining activity, including the toxicity and persistence of the contaminants; ( )

c. The quantity, quality, and direction of flow of ground water underlying the mining area; ( )

d. The proximity and withdrawal rates of current ground water users; ( )

e. A prediction of projected future beneficial uses; ( )

f. The availability of alternative drinking water supplies; ( )

g. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water; and ( )

h. Public health, safety, and welfare effects. ( )

04. Ground Water Monitoring and Reporting. The Department may require ground water monitoring and reporting whenever the Department sets the point(s) of compliance. The Department shall not require ground water monitoring that duplicates ground water monitoring required by other state or federal agencies as long as the mine operator provides the data to the Department. ( )

a. A ground water monitoring system required under Subsection 401.04.a. of this rule, shall be designed to: ( )

i. Represent the quality of background ground water that has not been affected by the mining activity; and ( )

ii. Represent the quality of ground water passing the point(s) of compliance in order to determine compliance with ground water quality standards or effectiveness of best management practices. ( )

b. When practicable, indicator monitoring wells or other devices may be required. Such indicator wells and other devices shall not be used to determine compliance with the ground water quality standards, but instead may be used to evaluate modeling results, to predict the quality of ground water at the point(s) of compliance, or to determine the effectiveness of best management practices. ( )

c. All monitoring wells shall be constructed (well depth, well screen size, well screen interval, gravel pack, etc.) and developed so that ground water samples represent the quality of ground water that is relevant to current and future beneficial uses. **( )**

05. Coordination with Other State or Federal Agencies/Public Notice. Before setting the point(s) of compliance or requiring ground water monitoring, the Department shall coordinate with and seek recommendations from other state or federal agencies that have regulatory authority over the mining activities. The Department may provide public notice and an opportunity for public comment prior to setting the point(s) of compliance. The Department shall issue a public notice after it sets the point(s) of compliance. ( )

06. Limitations. Section 401 of this rule addresses only those contaminants that naturally occur in the mining area ground water or in the surrounding rock or soil and are present in concentrations above the natural background level as a result of mining activities. ( )

07. Application of Provisions. The provisions set out in Section 401, of this rule, apply to new mining activities or to an expansion of existing mining activities commencing after July 1, 2009. All consent orders, compliance schedules, and other agreements adopted or issued by the Department prior to July 1, 2009 pertaining to ground water protection at mine sites shall remain in full force and effect. ( )

08. Change in Point(s) of Compliance/Ground Water Monitoring. ( )

a. A change in the point(s) of compliance may be requested by the mine operator when there is a change in, or new information regarding, the mining activity or any of the factors set forth in Subsection 401.03 of this rule. A change requested by the mine operator shall include an identification of the new proposed point(s) of compliance, a description of the cause for the change and any data supporting the change. The mine operator's request shall be handled as an application submitted pursuant to Subsection 401.02.a. of this rule, and shall be subject to all other provisions of Section 401 of this rule. ( )

b. The Department may initiate a change in the point(s) of compliance if there is a change in, or new information regarding, the mining activity or any of the factors set forth in Subsection 401.03 of this rule, and the Department determines that the change is necessary to ensure there is no injury to current or projected future beneficial uses of ground water and no violation of water quality standards applicable to any interconnected surface waters. The Department shall notify the mine operator in writing of the Department's intent to change the point(s) of compliance. The Department shall make its final decision to change the point(s) of compliance within sixty (60) days of the notice to the mine operator, unless the Department and the mine operator agree more time is necessary to make the decision. ( )

c. The Department may require additional or new ground water monitoring or indicator wells when the Department changes the point(s) of compliance. The Department may also require additional or different ground water monitoring or indicator wells if the Department determines, based upon a change in or new information regarding the mining activity or any of the factors listed in Subsection 401.03 of this rule, that the monitoring no longer meets the requirements set forth in Subsection 401.04 of this rule. The mine operator may also request a change in the monitoring. ( )

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.16 - WASTEWATER RULES

DOCKET NO. 58-0116-0801

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking. The action is authorized by Chapters 1 and 36, Title 39, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency. Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

Under the provisions of IDAPA 58.01.16, Wastewater Rules, sewer expansions such as major collection and interceptor sewer projects, whether approved for construction by the Idaho Department of Environmental Quality (DEQ) or by a qualified licensed professional engineer (QLPE), require a facility plan or a facility plan update unless the existing approved facility plan covers the entire scope of the proposed extension. Facility plans are currently not required for minor or routine collection system projects. However, the determination of classification as major or minor collection interceptor sewer projects is currently made by DEQ based on review of the owner's recommended classification. In 2005 the Idaho Legislature revised Section 39-118, Idaho Code, to allow sewer main extensions to be approved for construction by a QLPE without prior review by DEQ (2005 Senate Bill 1220). The requirement for an updated facility plan may preclude QLPE-approved sewer main extensions. A requirement by DEQ that all portions of the system affected by the sewer main extension must be in compliance with the current rules, even though the system has sufficient capacity in the new service area, may also preclude QLPE-approved sewer main extensions.

DEQ is proposing this rule revision to allow a QLPE or DEQ review engineer to approve construction of a simple sewer main extension without first providing DEQ with an updated facility plan, provided that the sewer system has sufficient capacity to service the area served by the sewer main extension. The rules define a simple sewer main extension as a new or replacement wastewater main(s) that will be connected by gravity, without the use of pumps or lift stations, to existing wastewater collection facilities that have the capacity to carry the additional wastewater flow. The objective of this rulemaking is to modify the recently updated Wastewater Rules so that the engineering community can approve simple sewer main extensions as intended by 2005 Senate Bill 1220 as codified at Idaho Code, 39-118.

The following list sets out the major issues included in the proposed rules:

1. Add and/or revise definitions (Section 010) and revise rule sections as necessary;
2. Revise Sections 400 and 401, review of plans and specifications;
3. Add new Section 409, Demonstration of Technical, Financial, and Managerial Capacity;
4. Modify the content of facility plans and preliminary engineering reports contained in Sections 410 and 411, respectively;
5. Clarify the requirements for operation and maintenance manuals (Section 425);
6. Clarify Subsection 430.02.o., Non-Potable Pipelines in Relation to Potable Water Pipelines;
7. Streamline the rules for private municipal wastewater treatment plants (Section 455);
8. Revise the lagoon separation distance requirement and clarify seepage testing requirements (Section 493);
9. Add requirements for septage transfer stations (Section 519);
10. Clarify operating criteria for public wastewater systems; and
11. Add new Section 660, Waivers.

This proposed rule also includes any necessary corrections that are typographical and nonsubstantive in nature (e.g., making corrections for consistency with other sections in this rule chapter, IDAPA 58.01.08, Idaho Rules for Public Drinking Water Systems, and other DEQ rules). These proposed changes were made based on feedback from the regulated community and DEQ staff who routinely use the rules.

Wastewater system owners and operators, developers, consultants, engineers, cities, counties, industry, wastewater professional organizations, and the public at large may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

NEGOTIATED RULEMAKING: The text of the proposed rule has been drafted based on discussions held and concerns raised during negotiations conducted pursuant to Idaho Code Section 67-5220 and IDAPA 04.11.01.810-815. On April 2, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-4, pages 40-41, and a preliminary draft rule was made available for public review. Meetings were held on April 22 and May 6, 2008. Several members of the public participated in this negotiated rulemaking process by attending the meetings and by submitting written comments.

IDAHO CODE SECTION 39-107D STATEMENT: Section 39-107D, Idaho Code, provides that DEQ must meet certain requirements when it formulates and recommends rules which are broader in scope or more stringent than federal law or regulations, or which propose to regulate an activity not regulated by the federal government. There is no federal law or regulation that is comparable to plan and specification review and facility standard provisions set forth in the Wastewater Rules. Therefore, the changes to the rules are not broader in scope or more stringent than federal law or regulations.

Section 39-107D, Idaho Code, also applies to a rule which "proposes to regulate an activity not regulated by the federal government." The Wastewater Rules address the review and approval of plans and specifications for sewage treatment plants and other waste treatment and disposal facilities and the standard by which the agency does the review and approval. This is not an activity regulated by the federal government. Therefore, Section 39-107D, Idaho Code, applies.

Section 39-107D(3), Idaho Code, provides that any rule subject to 39-107D that proposes a standard necessary to protect human health and the environment must also include in the rulemaking record and in the notice of rulemaking additional information. This additional information includes any estimates of risk accomplished, identification of populations or receptors addressed by any estimates, and other information related to an estimation of risk. The Wastewater Rules include facility and design standards which are intended to protect human health and the environment. The standards, however, are for the design and construction of wastewater systems. The rules are not based upon any express estimate or analysis of risk to public health or the environment. Instead, the facility and design standards are based upon guidelines set forth in documents, such as the "Recommended Standards for Wastewater Facilities", that are generally accepted and used throughout the United States by engineers and state regulators.

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning the proposed rulemaking, contact Michael Stambulis at michael.stambulis@deq.idaho.gov, (208)373-0123.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson
Hearing Coordinator
Department of Environmental Quality
1410 N. Hilton/Boise, Idaho 83706-1255
(208)373-0418/Fax No. (208)373-0481
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THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0116-0801

004. INCORPORATION BY REFERENCE.
Sections 401.2.9, 401.3.4 and 401.3.6, 501.3.4, and 505.3.3 of "Idaho Standards for Public Works Construction," 200~~5~~7 Edition, are incorporated by reference into these rules. These documents are available for review at the Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255, (208)373-0502 or~~,~~ can be purchased for a fee~~,~~ from the Local Highway Technical Assistance Council (LHTAC) at LHTAC, 3330 Grace Street, Boise, ID, 83703, (208) 344-0565. ~~*(3-30-07)*~~( )

(BREAK IN CONTINUITY OF SECTIONS)

007. USE OF GUIDANCE IN DESIGN AND REVIEW.
Guidance documents are to be used to assist both designers and reviewers in determining a reasonable way to achieve compliance with the rules. Nothing in these rules makes the use of a particular guidance or guidance document mandatory. If the plans and specifications comply with applicable facility and design standards as set out in these rules, Section 39-118, Idaho Code, requires that the ~~*reviewing authority*~~ Department not substitute his or her judgment for that of the design engineer concerning the manner of compliance. If the design engineer needs assistance as to how to comply with a particular rule, the design engineer may use the referenced guidance documents listed in Section 008 for that assistance. However, the design engineer may also use other guidance or provide documentation to substantiate his or her own professional judgment. ~~*(3-30-07)*~~( )

(BREAK IN CONTINUITY OF SECTIONS)

010. DEFINITIONS.
For the purpose of the rules contained in IDAPA 58.01.16, "Wastewater Rules," the following definitions apply: (4-11-06)

01. Available. Based on public wastewater system size, complexity, and variation in raw waste, a licensed wastewater operator must be on site, on call, or able to be contacted as needed to initiate the appropriate action for normal or emergency conditions in a timely manner. (4-11-06)

02. Adequate Emergency Storage Capacity. The emergency storage capacity of a lift station wet well is the volume of the wet well measured between the high water alarm and the gravity sewer invert into the wet well. The collection system shall not be used in the calculation for emergency storage. For the purpose of this definition, "adequate" shall be defined as twice the estimated emergency response time multiplied by the ~~*daily*~~ peak hour flow to the wet well. The high water alarm shall be placed at an elevation below the wet well invert sufficient to achieve the defined volumetric emergency storage capacity. ~~*(3-30-07)*~~( )

03. **Average Day Flow**. The average day flow is the average of daily volumes to be received for a continuous twelve (12) month period expressed as a volume per unit time. However, the average day flow for design purposes for facilities having critical seasonal high hydraulic loading periods, such as recreational areas or industrial facilities, shall be based on the average day flow during the seasonal period. See also the definition of Wastewater Flows. ( )

0~~3~~4. **Beneficial Use**. Any of the various uses which may be made of the water of Idaho, including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics. The beneficial use is dependent upon actual use, the ability of the water to support a non-existing use either now or in the future, and its likelihood of being used in a given manner. The use of water for the purpose of wastewater dilution or as a receiving water for a waste treatment facility effluent is not a beneficial use. (4-11-06)

0~~4~~5. **Biochemical Oxygen Demand (BOD)**. The measure of the amount of oxygen necessary to satisfy the biochemical oxidation requirements of organic materials at the time the sample is collected; unless otherwise specified, this term will mean the five (5) day BOD incubated at twenty (20) degrees C. (4-11-06)

06. **Blackwaste**. Human body waste, such as excreta or urine. This includes toilet paper and other products used in the practice of personal hygiene. ( )

07. **Blackwater**. A wastewater whose principal pollutant is blackwaste; a combination of blackwaste and water. ( )

0~~5~~8. **Board**. The Idaho Board of Environmental Quality. (4-11-06)

09. **Capacity**. The capabilities required of a wastewater system in order to achieve and maintain compliance with these rules. It is divided into three (3) main elements: ( )

a. Technical capacity means the system has the physical infrastructure to safely collect wastewater and consistently meet discharge standards and treatment requirements, and is able to meet the requirements of routine and emergency operations. It further means the ability of system personnel to adequately operate and maintain the system and to otherwise implement technical knowledge. Training of operator(s) is required, as appropriate, for the system size and complexity. ( )

b. Financial capacity means the financial resources of the wastewater system, including an appropriate budget; rate structure; cash reserves sufficient for current operation and maintenance, future needs and emergency situations; and adequate fiscal controls. ( )

c. Managerial capacity means that the management structure of the wastewater system embodies the aspects of wastewater system operations, including, but not limited to; ( )

i. Short and long range planning; ( )

ii. Personnel management; ( )

iii. Fiduciary responsibility; ( )

iv. Emergency response; ( )

v. Customer responsiveness; and ( )

vi. Administrative functions such as billing and consumer awareness. ( )

***0~~6~~*10.** **Class A Effluent**. Class A effluent is treated municipal reclaimed wastewater that must be oxidized, coagulated, clarified, and filtered, or treated by an equivalent process and adequately disinfected. For comprehensive Class A Effluent criteria and permitting requirements refer to IDAPA 58.01.17, "Rules for the

Reclamation and Reuse of Municipal and Industrial Wastewater." (3-30-07)

***07*11. Class A Effluent Distribution System**. The delivery system for Class A effluent. The distribution system does not include any of the collection or treatment portions of the wastewater facility and is not subject to operator licensing requirements in Section 203 of these rules. (4-11-06)

***08*12. Collection System**. That portion of the wastewater system or treatment facility in which wastewater is received from the premises of the discharger and conveyed to the point of treatment through a series of lines, pipes, manholes, pumps/lift stations and other appurtenances. (3-30-07)

***09*13. Compliance Schedule or *Schedule of* Compliance Agreement Schedule**. A schedule of remedial and preventative measures *including an enforceable* and sequence of actions *or operations* leading to compliance with a*n effluent limitation, other limitation, prohibition, or standard* regulation, statute or rule, enforceable as set forth in Sections 39-116 and 39-116A, Idaho Code, respectively. *(4-11-06)*( )

1*0*4. Department. The Idaho Department of Environmental Quality. (4-11-06)

1*1*5. Design Flow. The critical flow used for steady-state wasteload allocation modeling. (4-11-06)

1*2*6. Designated Beneficial Use or Designated Use. Those beneficial uses assigned to identify waters in Idaho Department of Environmental Quality Rules, IDAPA 58.01.02, "Water Quality Standards," Sections 110 through 160, whether or not the uses are being attained. (4-11-06)

1*3*7. Director. The Director of the Idaho Department of Environmental Quality or his authorized agent. (4-11-06)

1*4*8. Discharge. When used without qualification, any spilling, leaking, emitting, escaping, leaching, or disposing of a pollutant into the waters of the state. (4-11-06)

1*5*9. Disinfection. A method of reducing the pathogenic or objectionable organisms by means of chemicals or other acceptable means. (4-11-06)

***16*20. Disposal Facility**. Any facility used for disposal of any wastewater. Facilities for the disposal of sludge are regulated under Section 650 of these rules. (3-30-07)

2*17*. Effluent**. Any treated wastewater discharged from a treatment facility. *(4-11-06)*( )

***18*22. Environmental Review**. An environmental review document for a specific project includes a description of purpose and need for the project; a description of the affected environment and environmental impacts including, but not limited to, endangered species, historical and archaeological impacts, air impacts, surface and ground water impacts, and noise and visual impacts; a description of the planned mitigation for these impacts; and descriptions of the public process, agencies consulted, referenced documents, and a mailing list of interested parties. A checklist, which can be used as guidance, can be found at http://www.deq.idaho.gov/water/permits_forms/forms/waste_water/form_j_eid_outline_checklist.doc. This checklist is for Department grant and loan projects, but can be used in part or in whole as a guide. *(3-30-07)*( )

***19*23. EPA**. The United States Environmental Protection Agency. (4-11-06)

24. Equivalent Dwelling Unit (EDU). A measure where one (1) unit is equivalent to wastewater generated from one (1) single-family detached housing unit. For example, a business generating three (3) times as much wastewater as an average single-family detached housing unit would be considered three (3) equivalent dwelling units. ( )

2*0*5. Facility Plan. The *F*facility *P*plan for a municipal wastewater treatment and disposal facility describes the overall system, including the collection system, the treatment systems, and the disposal systems. It is a comprehensive planning document for the existing infrastructure and includes the plan for the future of the systems, including upgrades and additions. It is usually updated on a regular basis due to anticipated or unanticipated growth

patterns, regulatory requirements, or other infrastructure needs. A Facility Plan is sometimes referred to as a master plan or facilities planning study. In general, a Facility Plan is an overall system-wide plan as opposed to a project specific plan. ~~*(3-30-07)*~~( )

2~~1~~6. Facility and Design Standards. Facility and design standards are described in Sections 400 through 599 of these rules. Facility and design standards found in Sections 400 through 599 of these rules must be followed in the planning, design, construction, and review of municipal wastewater facilities. (3-30-07)

2~~2~~7. Geometric Mean. The geometric mean of "n" quantities is the "nth" root of the product of the quantities. (4-11-06)

28. Gray Water. Domestic wastewater that does not contain wastewater from toilets, kitchen sinks, dishwashers, cloth washing machines, and water softeners. ( )

2~~3~~9. Ground Water. Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (4-11-06)

~~24~~30. Industrial Wastewater. Any waste, together with such water as is present, that is the by-product of industrial processes including, but not limited to, food processing or food washing wastewater. (4-11-06)

~~25~~31. Land Application. A process or activity involving application of wastewater, surface water, or semi-liquid material to the land surface for the purpose of disposal, pollutant removal, or ground water recharge. (4-11-06)

~~26~~32. License. A physical document issued by the Idaho Bureau of Occupational Licenses certifying that an individual has met the appropriate qualifications and has been granted the authority to practice in Idaho under the provisions of Chapter 24, Title 54, Idaho Code. (4-11-06)

33. Major Wastewater Collection System Project. A wastewater collection system project that is not a simple wastewater main extension. ( )

~~27~~34. Material Deviation. A change from the design plans that significantly alters the type or location of facilities, requires engineering judgment to design, or impacts the public safety or welfare. (4-11-06)

~~28~~35. Material Modification. Material modifications are those that are intended to increase system capacity or to alter the methods or processes employed. Any project that increases the pumping capacity of a system, increases the potential population served by the system or the number of service connections within the system, adds new or alters existing wastewater system components, or effects the wastewater flow of the system is considered to be increasing system capacity or altering the methods or processes employed. Maintenance and repair performed on the system and the replacement of valves, pumps, or other similar items with new items of the same size and type are not considered a material modification. ~~*(4-11-06)*~~( )

36. Maximum Day Flow. The design maximum day flow is the largest volume of flow to be received during a continuous twenty four (24) hour period expressed as a volume per unit time. See also Wastewater Flows. ( )

37. Maximum Month Flow. The maximum month flow is the largest volume of flow to be received during any calendar month expressed as a volume per unit time. See also the definition of Wastewater Flows. ( )

~~29~~38. Mixing Zone. A defined area or volume of the receiving water surrounding or adjacent to a wastewater discharge where the receiving water, as a result of the discharge, may not meet all applicable water quality criteria or standards. It is considered a place where wastewater mixes with receiving water and not as a place where effluents are treated. (4-11-06)

3~~0~~9. Municipal Wastewater. Unless otherwise specified, sewage and associated solids, whether treated or untreated, together with such water that is present. Also called domestic wastewater. Industrial wastewater may also be present, but is not considered part of the definition. (4-11-06)

~~31~~40. **National Pollutant Discharge Elimination System (NPDES)**. Point source permitting program established pursuant to Section 402 of the federal Clean Water Act. (4-11-06)

~~32~~41. **Natural Background Conditions**. No measurable change in the physical, chemical, biological, or radiological conditions existing in a water body without human sources of pollution within the watershed. (4-11-06)

~~33~~42. **Non-Contact Cooling Water**. Water used to reduce temperature which does not come into direct contact with any raw material, intermediate product, waste product (other than heat) or finished product. Non-contact cooling water is not considered wastewater. Non-contact cooling water can be land applied as recharge water as discussed in Section 600 based on a Department approval as described in Subsections 600.04 and 600.05. (3-30-07)

~~34~~3. **Nuisance**. Anything which is injurious to the public health or an obstruction to the free use, in the customary manner, of any waters of the state. (4-11-06)

~~35~~44. **Nutrients**. The major substances necessary for the growth and reproduction of aquatic plant life, consisting of nitrogen, phosphorus, and carbon compounds. (4-11-06)

~~36~~45. **Non-Potable Mains**. The pipelines that collect and convey non-potable discharges from or to multiple service connections. Examples would include sewage collection and interceptor mains, storm sewers, non-potable irrigation mains, and reclaimed wastewater mains. (3-30-07)

~~37~~46. **Non-Potable Services**. The pipelines that convey non-potable discharges from individual facilities to a connection with the non-potable main. This term also refers to pipelines that convey non-potable water from a pressurized irrigation system, reclaimed wastewater system, and other non-potable systems to individual consumers. (4-11-06)

~~38~~47. **Operating Personnel**. Any person who is employed, retained, or appointed to conduct the tasks associated with the day-to-day operation and maintenance of a public wastewater system. Operating personnel shall include every person making system control or system integrity decisions about water quantity or water quality that may affect public health. (4-11-06)

~~39~~48. **Owner**. The person, company, corporation, district, association or other organizational entity that owns the public wastewater system, and who provides, or intends to provide, wastewater service to system users and is ultimately responsible for the public wastewater system operation. (3-30-07)

49 **Peak Instantaneous Flow**. The design peak instantaneous flow is the instantaneous maximum flow rate to be received. See also the definition of Wastewater Flows. ( )

50. **Peak Hour Flow**. The design peak hour flow is the largest volume of flow to be received during a one (1) hour period expressed as a volume per unit time. See also the definition of Wastewater Flows. ( )

~~40~~51. **Person**. An individual, public or private corporation, partnership, association, firm, joint stock company, joint venture, trust, estate, state, municipality, commission, political subdivision of the state, state or federal agency, department or instrumentality, special district, interstate body or any legal entity, which is recognized by law as the subject of rights and duties. (4-11-06)

~~41~~52. **Point Source**. Any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged to surface waters of the state. This term does not include return flows from irrigated agriculture, discharges from dams and hydroelectric generating facilities or any source or activity considered a nonpoint source by definition. (4-11-06)

~~42~~53. **Pollutant**. Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, silt, cellar dirt; and industrial, municipal and agricultural waste, gases entrained in water; or other materials which, when discharged to water in excessive quantities, cause or contribute to water pollution. Provided however,

biological materials shall not include live or occasional dead fish that may accidentally escape into the waters of the state from aquaculture facilities. (4-11-06)

5~~43~~. **Potable Water**. A water which is free from impurities in such amounts that it is safe for human consumption without treatment. (4-11-06)

~~44~~55. **Potable Mains**. Pipelines that deliver potable water to multiple service connections. (3-30-07)

~~4~~56. **Potable Service**. Pipelines that convey potable water from a connection to the potable water main across private property to individual consumers. (3-30-07)

~~46~~57. **Preliminary Engineering Report**. The ~~P~~preliminary ~~E~~engineering ~~R~~report for the municipal wastewater treatment or disposal facility is the report that addresses specific portions of the systems as they are being contemplated for design. These reports address specific purpose and scope, design requirements, alternative solutions, costs, operation and maintenance requirements, and other requirements as described in Section 411. Preliminary ~~E~~engineering ~~R~~reports are generally project specific as opposed to an overall system-wide plan, such as a ~~F~~facility ~~P~~plan. ~~(3-30-07)~~( )

~~47~~58. **Primary Treatment**. Processes or methods that serve as the first stage treatment of wastewater, intended for removal of suspended and settleable solids by gravity sedimentation; provides no changes in dissolved and colloidal matter in the sewage or wastes flow. (4-11-06)

~~48~~59. **Private ~~Community~~ Municipal Wastewater Treatment Plant**. A wastewater facility that treats municipal wastewater ~~from a private community or subdivision~~ and is under private ownership. These systems are typically initially owned, operated, and maintained by a developer with the ownership, operation and maintenance transferring to a homeowners association, ~~sewer district,~~ or similar entity as lots are sold within the development. ~~(3-30-07)~~( )

~~49~~60. **Public Wastewater System or Wastewater System**. For purposes of Sections 202 through 204, a public wastewater system or wastewater system is any publicly or privately owned collection system or treatment system that generates, collects, or treats two thousand five hundred (2,500) or more gallons of wastewater per day. This does not include any wastewater treatment system operated and maintained exclusively by a single family residence or any wastewater system consisting solely of a gravity flow, non-mechanical septic tank and subsurface treatment and distribution system, any wastewater system with individual septic tanks and individual pump stations that discharge to a common gravity flow subsurface treatment and distribution system when ownership of each septic tank and pumping station is by individual property owner and ownership of the common system is by a public or private entity; any animal waste system used for agricultural purposes that have been constructed in part or whole by public funds, or industrial wastewater systems under private ownership. This definition also does not include any industrial or other nonmunicipal wastewater system which is covered under Section 401 of these rules. (3-30-07)

61. Qualified Licensed Professional Engineer (QLPE). A professional engineer licensed by the state of Idaho; qualified by education or experience in the specific technical fields involved in these rules; and retained or employed by a city, county, quasi-municipal corporation, or regulated public utility for the purposes of plan and specification review. ( )

~~50~~62. **Quasi-Municipal Corporation**. A public entity, other than community government, created or authorized by the legislature to aid the state in, or to take charge of, some public or state work for the general welfare. For the purpose of these rules, this term refers to wastewater or sewer districts. (4-11-06)

~~51~~63. **Receiving Waters**. Those waters which receive pollutants from point or nonpoint sources. (4-11-06)

~~52~~64. **Recharge**. The process of adding water to the zone of saturation. (4-11-06)

~~53~~65. **Recharge Water**. Water that is specifically utilized for the purpose of adding water to the zone of saturation. (4-11-06)

~~54~~**66. Redundancy**. Redundancy for wastewater treatment and disposal facilities is generally focused on supplying or installing backup equipment and facilities to make the operation of the systems more reliable. These redundant systems are sometimes required to provide backup for emergencies, taking certain processes off-line, or for treating spikes in wastewater flow or strength. (3-30-07)

~~55~~**67. Reliability**. Reliability for wastewater collection and treatment and disposal facilities is usually based on its ability to consistently handle the wastewater flows in the community and to meet the requirements of its permit. This reliability is in part based on the redundancy built into the wastewater infrastructure and proper maintenance of the system. (3-30-07)

68. Reasonably Accessible. The following criteria shall be used to determine whether a private municipal wastewater treatment plant is reasonably accessible to a public municipal wastewater collection system. ( )

a. For an existing private municipal wastewater treatment plant, reasonably accessible means the public municipal wastewater collection system becomes located within a minimum of one thousand (1,000) feet of any portion of the discharge piping of a private municipal wastewater treatment plant, and the owner of the public municipal wastewater collection system will provide a "will serve" letter. ( )

b. For a proposed new private municipal wastewater treatment plant, reasonably accessible means the public municipal wastewater collection system is located within a minimum of one thousand (1,000) feet of any portion of the proposed development or existing development property boundary. The person proposing to construct a new private municipal wastewater treatment plant must obtain a "will serve" letter from the owner of the public municipal wastewater collection system. ( )

c. The Department may determine that a private municipal wastewater treatment plant may be reasonably accessible to the public municipal wastewater collection system at distances greater than those distances specified in Paragraphs a. or b. of this Subsection based on site-specific factors. ( )

~~56~~**69. Responsible Charge (RC)**. For purposes of Sections 202 through 204, responsible charge means, active, daily on-site ~~and/~~or on-call responsibility for the performance of operations or active, on-going, on-site ~~and/~~or on-call direction of employees and assistants. ~~(4-11-06)~~( )

~~57~~**70. Responsible Charge Operator**. For purposes of Sections 202 through 204, a responsible charge operator is an operator licensed at a class equal to or greater than the classification of the system and who has been designated by the system owner to have direct supervision of and responsibility for the performance of operations of a specified wastewater treatment system(s) or wastewater collection system(s) and the direction of personnel employed or retained at the same system. The responsible charge operator has an active daily on-site ~~and/~~or on-call presence at the specified facility. ~~(4-11-06)~~( )

~~58~~**71. Reuse**. The use of reclaimed wastewater for beneficial uses including, but not limited to, land treatment, irrigation, ground water recharge using surface spreading, seepage ponds, or other unlined surface water features. (3-30-07)

~~59~~**72. Reviewing Authority**. For those projects requiring preconstruction approval by the Department, the Department is the reviewing authority. For those projects allowing for preconstruction approval by others, pursuant to Subsection 400.0~~1~~3.b. of these rules, the ~~q~~Qualified ~~Idaho l~~Licensed ~~p~~Professional ~~e~~Engineer (QLPE) is also the reviewing authority. ~~(3-30-07)~~( )

~~60~~**73. Sanitary Sewer Extension**. As used in Section 400, an extension of an existing wastewater collection system that does not require a lift station or force main and is intended to increase the service area of the wastewater collection system. (4-11-06)

~~61~~**74. Secondary Treatment**. Processes or methods for the supplemental treatment of wastewater, usually following primary treatment, to affect additional improvement in the quality of the treated wastes by biological means of various types which are designed to remove or modify organic matter. (4-11-06)

~~62~~75. **Septage**. Septage is a general term for the contents removed from septic tanks, portable vault toilets, privy vaults, wastewater holding tanks, very small wastewater treatment plants, or semi-public facilities (i.e., schools, motels, mobile home parks, campgrounds, small commercial endeavors) receiving wastewater from domestic sources. Non-domestic (industrial) wastes are not included in this definition. This does not include drinking water treatment residuals that may be held in a holding tank. (3-30-07)

76. **Septage Transfer Station**. A place where septage from more than one (1) hauler is accumulated for collection and subsequent removal without processing to a treatment facility. ( )

~~63~~77. **Sewage**. The water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present. (4-11-06)

78. **Simple Wastewater Main Extension**. New or replacement wastewater main(s) that require plan and specification review per these rules and that will be connected by gravity, without the use of pumps or lift stations, to existing wastewater collection facilities that have the capacity to carry the additional wastewater flow. ( )

~~64~~79. **Sludge**. The semi-liquid mass produced and removed by the wastewater treatment process. (3-30-07)

~~65~~80. **Special Resource Water**. Those specific segments or bodies of water which are recognized as needing intensive protection: (4-11-06)

a. To preserve outstanding or unique characteristics; or (4-11-06)

b. To maintain current beneficial use. (4-11-06)

~~66~~81. **State**. The state of Idaho. (4-11-06)

~~67~~82. **Substitute Responsible Charge Operator**. A public wastewater operator holding a valid license at a class equal to or greater than the public wastewater system classification, designated by the system owner to replace and to perform the duties of the responsible charge operator when the responsible charge operator is not available or accessible. (4-11-06)

~~68~~83. **Surface Water Body**. All surface accumulations of water, natural or artificial, public or private, or parts thereof which are wholly or partially within, which flow through or border upon the state. This includes, but is not limited to, rivers, streams, canals, ditches, lakes, and ponds. It does not include private waters as defined in Section 42-212, Idaho Code. (4-11-06)

~~69~~84. **Total Maximum Daily Load (TMDL)**. The sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. (3-30-07)

~~70~~85. **Treatment**. A process or activity conducted for the purpose of removing pollutants from wastewater. (4-11-06)

~~71~~86. **Treatment Facility**. Any physical facility or land area for the purpose of collecting, treating, neutralizing or stabilizing pollutants including treatment plants; the necessary collecting, intercepting, outfall and outlet sewers; pumping stations integral to such plants or sewers; disposal or reuse facilities; equipment and furnishing thereof; and their appurtenances. For the purpose of these rules, a treatment facility may also be known as a treatment system, a wastewater system, wastewater treatment system, wastewater treatment facility, or wastewater treatment plant. (3-30-07)

87~~2~~. **User**. Any person served by a public wastewater system. (4-11-06)

~~73~~**88.** **Wastewater**. ~~*Unless otherwise specified, sewage, industrial waste, agricultural waste, and associated solids or combinations of these, whether treated or untreated, together with such water as is present.*~~ Any combination of liquid or water and pollutants from activities and processes occurring in dwellings, commercial buildings, industrial plants, institutions and other establishments, together with any ground water, surface water, and storm water that may be present; liquid or water that is chemically, biologically, physically or rationally identifiable as containing blackwater, gray water or commercial or industrial pollutants; and sewage. ~~*(4-11-06)*~~( )

89. **Wastewater Flows**. The following flows for the design year shall be identified as required and used as a basis for design of sewer systems including sewer mains, lift stations, wastewater treatment plants, treatment units, and other wastewater handling facilities. The definition contained in this Subsection applies where any of the terms defined in Paragraphs a. through e. are used in these rules. ( )

a. Average Day Flow. The average day flow is the average of daily volumes to be received for a continuous twelve (12) month period expressed as a volume per unit time. However, the average day flow for design purposes for facilities having critical seasonal high hydraulic loading periods, such as recreational areas or industrial facilities, shall be based on the average day flow during the seasonal period. ( )

b. Maximum Day Flow. The design maximum day flow is the largest volume of flow to be received during a continuous twenty-four (24) hour period expressed as a volume per unit time. ( )

c. Maximum Month Flow. The maximum month flow is the largest volume of flow to be received during any calendar month expressed as a volume per unit time. ( )

d. Peak Instantaneous Flow. The design peak instantaneous flow is the instantaneous maximum flow rate to be received. ( )

e. Peak Hour Flow. The design peak hour flow is the largest volume of flow to be received during a one (1) hour period expressed as a volume per unit time. ( )

~~74~~**90.** **Wastewater Lagoon**. Manmade impoundments for the purpose of storing or treating wastewater. (4-11-06)

~~75~~**91.** **Wastewater Pipelines**. The pipelines that collect and convey non-potable discharges from or to multiple service connections. (4-11-06)

~~76~~**92.** **Wastewater Pumping Station**. A wastewater facility that collects wastewater from the collection system or the treatment system and pumps it to a higher elevation. Also called lift station or wastewater lift station. (3-30-07)

~~77~~**93.** **Wastewater System Operator**. The person who is employed, retained, or appointed to conduct the tasks associated with routine day to day operation and maintenance of a public wastewater treatment or collection system in order to safeguard the public health and environment. (4-11-06)

~~78~~**94.** **Water Main Extension**. An extension of the distribution system of an existing public water system that does not require a booster pumping station and is intended to increase the service area of the water system. (4-11-06)

~~7~~**95.** **Water Pollution**. Any alteration of the physical, thermal, chemical, biological, or radioactive properties of any waters of the state, or the discharge of any pollutant into the waters of the state, which will or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to fish and wildlife, or to domestic, commercial, industrial, recreational, aesthetic, or other beneficial uses. (4-11-06)

~~80~~**96.** **Waters and Waters of the State**. All the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof which are wholly or partially within, which flow through or border upon the state. (4-11-06)

~~*81*~~97. **Watershed**. The land area from which water flows into a stream or other body of water which drains the area. (4-11-06)

011. -- 200. (RESERVED).

201. POINT SOURCE WASTEWATER TREATMENT REQUIREMENTS.

01. Appropriate Control Measures. The Department, through approval or disapproval of plans for wastewater treatment and disposal facilities, the issuance of wastewater discharge permits, orders, compliance schedules, directives or any of the mechanisms at its disposal, will require persons to apply appropriate control measures necessary to achieve and maintain the water quality standards contained in IDAPA 58.01.02, "Water Quality Standards." (4-11-06)

02. Degree of Treatment. The degree of wastewater treatment required to restore and maintain the standards of quality will be determined in each instance by the Department, based upon the following: (4-11-06)

a. The uses which are made or desired of the receiving water; (4-11-06)

b. The volume and nature of flow of the receiving water; (4-11-06)

c. The quantity and quality of the wastewater to be treated; and (4-11-06)

d. The presence or absence of other sources of water pollution on the same watershed, stream segment or aquifer. (4-11-06)

03. Operation. Any person who owns or operates any sewage or other wastewater treatment facility must at all times: (4-11-06)

a. ~~I~~Ensure that such facility is operated under competent supervision and with the highest efficiency that can reasonably be expected; and ~~*(4-11-06)*~~( )

b. Maintain such facility in good repair. (4-11-06)

04. Treatment Records. Any person who owns or operates any facility or carries out any operation which results in the discharge of wastewater must furnish to the Department such information concerning quality and quantity of discharged wastewaters and maintain such treatment records as the Department requires to evaluate the effects of any receiving waters. Required information can include, but is not limited to: (4-11-06)

a. Treated wastewater discharge volumes; and (4-11-06)

b. Treated wastewater discharge biochemical oxygen demand (BOD); and (4-11-06)

c. Treated wastewater discharge suspended solid concentration; and (4-11-06)

d. Discharge pH; and (4-11-06)

e. Discharge temperatures. (4-11-06)

05. Falsification of Records. It is a violation of these rules for any person to falsify or knowingly render inaccurate any treatment record which can be required as provided in these regulations. (4-11-06)

(BREAK IN CONTINUITY OF SECTIONS)

400. REVIEW OF PLANS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES.

Plans and specifications for municipal wastewater treatment or disposal facilities must comply with the facility and design standards set forth in Sections 410 through 599. If design issues are not addressed by the facility and design standards, then guidance documents, some of which are listed in Section 008, shall be used as guidance in the design and review of plans and specifications for municipal wastewater treatment or disposal facilities. See also Section 007. (3-30-07)

01. Ownership. Documentation of the ownership and responsibility for operating the proposed system shall be made available to the Department prior to or concurrent with the submittal of plans and specifications as required in Subsection 400.03. The documentation must show the financial arrangements adequate to demonstrate the ability for construction and operation and maintenance of the system according to these rules. Documentation shall also include the name of the wastewater system; the name, address, and phone number of the wastewater treatment facility; and the name, address, and phone number of the responsible charge operator. ( )

02. Connection to Existing System. If the proposed project is to be connected to an existing wastewater system, a letter from the existing system must be submitted to the Department stating that the existing system will be able to provide services to the proposed project. The Department may require further documentation showing the ability of the existing system to provide service to the new system. This letter must be submitted prior to or concurrent with the submittal of plans and specifications as required in Subsection 400.03. ( )

0~~1~~3. Plan and Specification Review. (4-11-06)

a. Except as provided in Subsection 400.0~~1~~3.b., all plans and specifications for the construction of new sewage systems, sewage treatment plants or systems, other municipal wastewater treatment or disposal facilities, or for material modifications to existing sewage treatment plants or systems, municipal wastewater treatment or disposal facilities shall be submitted to the Department for review and approval before construction may begin and all construction shall be in substantial compliance therewith. This does not include plan and specifications for facilities for sludge disposal, but does include plans and specifications for treatment or storage of sludge. If construction does not commence within twelve (12) months of the Department's final approval of plans and specifications, the Department may require resubmittal of all or part of the plans and specifications for review. The Department shall review plans and specifications and endeavor to resolve design issues within forty-two (42) calendar days of submittal such that approval can be granted. If the Department and applicant have not resolved design issues within forty-two (42) calendar days or at any time thereafter, the applicant may file a written demand to the Department for a decision. Upon receipt of such written demand, the Department shall deliver a written decision to the applicant within no more than seven (7) calendar days explaining any reasons for disapproval. The Department shall maintain records of all written demands for decision made pursuant to Subsection 400.0~~1~~3.a. with such records including the final decision rendered and the timeliness thereof. No material deviation shall be made to the approved plans and specifications without the prior approval of the Department. ~~*(3-30-07)*~~( )

b. Plans developed for ~~*sanitary sewer*~~ simple wastewater main extensions, when such facilities will be owned and operated by a city, county, quasi-municipal corporation or regulated public utility, shall not require preconstruction approval by the Department, provided that such plans and specifications are reviewed and approved by a~~*nother qualified Idaho licensed professional engineer*~~ QLPE to verify compliance with the requirements of these rules prior to initiation of construction. ~~*Any plans approved pursuant to Subsection 400.01.b. shall be transmitted to the Department at the time construction is authorized along with a statement that the plans comply with the requirements of these rules and that construction has been authorized by the city, county, quasi-municipal corporation or regulated public utility that will own and operate the system.*~~ At the discretion of the city, county, quasi-municipal corporation or regulated public utility, the plans addressed by this subsection may be referred to the Department for review and approval prior to initiation of construction. The Department has the authority to review plans and specifications approved by a ~~*qualified Idaho licensed professional engineer*~~ QLPE and can require modifications if the plans and specifications do not meet facility and design standards. Any plans and specifications approved pursuant to Subsection 400.03.b. shall be transmitted to the Department at the time construction is authorized and shall be marked or stamped as "Approved for Construction." Along with the plans and specifications, the transmittal must include the items listed in Subsections 400.03.b.i. through 400.03.b.vii. The plans and specifications must be sealed, signed, and dated by the professional engineer in responsible charge of their preparation, and the approval or transmittal letter must be sealed, signed, and dated by the QLPE that is approving the

plans and specifications. ~~(3-30-07)~~( )

i. A statement that the author of the transmittal letter is the QLPE representing the city, county, quasi-municipal corporation or regulated public entity. ( )

ii. A statement that the extension project complies with the current facility plan or preliminary engineering report, or a statement that the sewer system/treatment facility has adequate capacity. ( )

iii. A statement from the city, county, quasi-municipal corporation or regulated public entity or its authorized agent that the wastewater system owner will serve the project. ( )

iv. A statement from the city, county, quasi-municipal corporation or regulated public entity or its authorized agent that the wastewater system owner will own and operate the project after construction is complete. ( )

v. A statement by the QLPE that the plans and specifications are approved for construction. ( )

vi. A statement by the QLPE that the plans and specifications comply with the facility standards within these rules. ( )

vii. A statement recommending whether sanitary restrictions can be released or should remain in force. ( )

c. Subsections 400.03.c.i. through 400.03.c.vi. outline the projects which QLPEs may approve and which QLPEs may not approve. ( )

i. A QLPE may approve plans and specifications for simple wastewater main extensions that will be able to discharge to an existing wastewater system owned by a city, county, quasi-municipal corporation, or regulated public utility at the time the extension is approved for construction by the QLPE. ( )

ii. A QLPE may approve plans for simple wastewater main extensions which will discharge to an existing wastewater system owned by a city, county, quasi-municipal corporation, or regulated public utility, but are unable to connect to the system at the time the extension is approved for construction by the QLPE, provided sanitary restrictions remain in force for the proposed extension. ( )

iii. A QLPE may not approve plans and specifications which include mechanical systems such as lift stations or treatment works. ( )

iv. A QLPE may not approve plans and specifications for projects which the QLPE was the design engineer or otherwise involved in the design. ( )

v. A QLPE employed by a city, county, quasi-municipal corporation, or regulated public utility may approve a design that was prepared by a subordinate engineer or an engineer from a separate design group within the city, county, quasi-municipal corporation, or regulated public utility. ( )

vi. A QLPE who is not employed by a city, county, quasi-municipal corporation, or regulated public utility, but is retained by a city, county, quasi-municipal corporation, or regulated public utility for the purpose of plan and specification review may not approve projects designed by the company with which the QLPE is employed. ( )

0~~2~~4. Professional Engineer. Plans and specifications for construction, alteration or expansion of any sewage system, sewage treatment plant or system, or other municipal wastewater treatment or disposal facility shall be prepared by or under the supervision of an Idaho licensed professional engineer and shall bear the imprint of the engineer's seal. Construction shall be observed by an Idaho licensed professional engineer or a person under the supervision of an Idaho licensed professional engineer. (3-30-07)

0~~3~~5. Record Plans and Specification. ( )

a. Within thirty (30) calendar days of the completion of construction of facilities covered by Subsection 400.0~~1~~3, record plans and specifications based on information provided by the construction contractor and field observations made by the engineer or the engineer's designee depicting the actual construction of facilities performed, must be submitted to the Director by the engineer representing the city, county, quasi-municipal corporation or regulated public utility that owns the project, or by the design engineer or owner-designated substitute engineer if the constructed facilities will not be owned and operated by a city, county, quasi-municipal corporation or regulated public utility. Such submittal by the engineer must confirm material compliance with the approved plans and specifications or disclose material deviations therefrom. If the construction does not materially deviate from the approved plans and specifications, the owner may have a statement to that affect prepared by an Idaho licensed professional engineer and filed with the Department in lieu of submitting a complete and accurate set of record drawings. ~~(3-30-07)~~( )

b. Record plans and specifications, or a statement submitted in lieu of record plans and specifications, must be sealed, signed, and dated by the professional engineer in responsible charge of their preparation. ( )

0~~4~~6. Compliance With Applicable Standards and Rules. All plans and specifications submitted to satisfy the requirements of Sections 400 through 599 or approved in compliance with Sections 400 through 599, shall be in compliance with the requirements of these rules and shall conform in style and quality to regularly accepted engineering standards. The Department shall review plans and specifications to determine compliance with these rules and engineering standards of care. If the plans and specifications comply with these rules and engineering standards of care, the Department shall not substitute its judgment for that of the owner's design engineer concerning the manner of compliance with these rules. (3-30-07)

0~~5~~7. Waiver of Approval Requirement. The Department may waive the plan and specification approval for any particular facility or category of facilities~~, or may waive any portion of these rules,~~ which will have no significant impact on the environment or on the public health. ~~(3-30-07)~~( )

0~~6~~8. Requirement to Have Approved Plans and Specifications and Approval Letter On-site During Construction. It is the responsibility of the owner to maintain one (1) copy of the approved plans and specifications and the approval letter from the reviewing authority on-site during construction at all times. (3-30-07)

0~~7~~9. Construction Inspection Requirement. Except as provided in Subsection 400.0~~1~~3.b., no construction shall commence until all of the necessary approvals have been received from the Department. The owner shall provide for the inspection of the construction of a municipal wastewater treatment or disposal facility by an Idaho licensed professional engineer to the extent required to confirm material compliance with the approved plans and to produce accurate record documents as required by Subsection 400.0~~3~~5. ~~(3-30-07)~~( )

401. REVIEW OF PLANS FOR NONMUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES.

01. Plan and Specification Approval Required. The construction, alteration or expansion of any nonmunicipal wastewater treatment or disposal facility must not begin before plans and specifications for the proposed facility have been submitted to and approved by the Department. Deviations may be allowed as provided in Subsection 401.02. The Department does not require review of industrial in-plant processes. (4-11-06)

02. Deviations from Approved Plans. No material deviations are to be made from the approved plans and specifications without prior approval of the Department. (3-30-07)

03. Professional Engineer. Plans and specifications for construction, alteration or expansion of any nonmunicipal wastewater treatment or disposal facility shall be prepared by or under the supervision of an Idaho licensed professional engineer and shall bear the imprint of the engineer's seal. Construction shall be observed by an Idaho licensed professional engineer or a person under the supervision of an Idaho licensed professional engineer. ( )

0~~3~~4. Record Plans and Specifications. ( )

a. If actual construction deviates from the approved plans and specifications, complete and accurate plans and specifications depicting the actual construction, alteration, or modification performed, shall be submitted to the Department for review and approval within thirty (30) days of completion of construction. If the construction does not materially deviate from the approved plans and specifications, the owner may have a statement to that ~~a~~effect prepared by an Idaho licensed professional engineer and filed with the Department in lieu of submitting a complete and accurate set of record drawings. ~~(3-30-07)~~( )

b. Record plans and specifications, or a statement submitted in lieu of record plans and specifications, must be sealed, signed, and dated by the professional engineer in responsible charge of their preparation. ( )

04~~5~~. Waiver of Approval Requirement. The Department can waive the plan and specification approval required in Subsection 401.01 for any particular facility or category of facilities~~, or may waive any portion of these rules,~~ which will have no significant impact on the environment or on the public health. ~~(3-30-07)~~( )

05~~6~~. Applicability of Standards. The facility and design standards for municipal wastewater treatment or disposal facilities set out in these rules do not apply to nonmunicipal wastewater treatment or disposal facilities covered under Section 401. (3-30-07)

(BREAK IN CONTINUITY OF SECTIONS)

403. -- 40~~9~~8. (RESERVED).

409. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES -- DEMONSTRATION OF TECHNICAL, FINANCIAL, AND MANAGERIAL CAPACITY.

No person shall proceed, or cause to proceed, with construction of a new public wastewater system, a new private municipal treatment plant, a new wastewater treatment facility, or a new privately owned wastewater pumping station until it has been demonstrated to the Department that the wastewater system will have adequate technical, financial, and managerial capacity, as defined in Section 010 of these rules. Demonstration of capacity shall be submitted to the Department prior to or concurrent with the submittal of plans and specifications, as required in Section 39-118, Idaho Code, and Subsection 400.03 of these rules. The Department shall issue in writing its approval of the new system capacity demonstration. ( )

01. Technical Capacity. In order to meet this requirement, the public wastewater system shall submit documentation to demonstrate the following: ( )

a. The system meets the relevant design, construction, and operating requirements of these rules; ( )

b. A plan is in place to deal with emergencies; ( )

c. A plan exists for replacement or improvement of infrastructure as necessary; and ( )

d. The system has trained personnel with an understanding of the technical and operational characteristics of the system. ( )

02. Financial Capacity. A demonstration of financial capacity must include, but is not limited to, the following information: ( )

a. Documentation that organizational and financial arrangements are adequate to construct and operate the wastewater system in accordance with these rules. This information can be provided by submitting estimated construction, operation, and maintenance costs, letters of credit, or other access to financial capital through public or private sources and, if available, a certified financial statement; ( )

b. Demonstration of revenue sufficiency, that includes, but is not limited to, billing and collection procedures; a proposed rate structure which demonstrates the availability of operating funds; revenues for depreciation and reserves; and the ability to accrue a capital replacement fund. A preliminary operating budget shall be provided; and ( )

c. Adequate fiscal controls must be demonstrated. ( )

d. For private municipal wastewater treatment plants, a performance bond, maintenance bond, or cash reserve of one (1) year of operation and maintenance costs is required to ensure continuous and adequate operation and maintenance. ( )

03. Managerial Capacity. In order to demonstrate adequate managerial capacity, the owner or operator of a new wastewater system shall submit at least the following information to the Department: ( )

a. Clear documentation of legal ownership and any plans that may exist for transfer of that ownership upon completion of construction or after a period of operation; ( )

b. The name, address, and telephone number of the person who will be accountable for ensuring that the wastewater system is in compliance with these rules; ( )

c. The name, address, and telephone number of the responsible charge operator; ( )

d. A description of the manner in which the wastewater system will be managed. Information such as by-laws, restrictive covenants, articles of incorporation, or procedures and policy manuals which describe the management organizational structure shall be provided; ( )

e. A recommendation of staff qualifications, including training, experience, certification or licensing, and continuing education; ( )

f. An explanation of how the wastewater system will establish and maintain effective communications and relationships between the wastewater system management, its customers, professional service providers, and any applicable regulatory agencies; and ( )

g. Evidence of planning for future growth, equipment repair and maintenance, and long term replacement of system components. ( )

04. Consolidation. In demonstrating new system capacity, the owner of the proposed new system must investigate the feasibility of obtaining wastewater service from an established public wastewater system. If such service is available, but the owner elects to proceed with an independent system, the owner must explain why this choice is in the public interest in terms of environmental protection, affordability to wastewater users, and protection of public health. ( )

410. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES -- FACILITY PLANS.

01. Facility Plans Required. All new municipal wastewater treatment or disposal facilities, and all existing municipal wastewater treatment or disposal facilities undergoing material modification or expansion, are required to have a current ~~*F*~~facility ~~*P*~~plan that shall address all applicable issues specifically required in Sections 410 and 4~~1~~20 through 599 of these rules including, but not limited to, ~~*and shall address*~~ hydraulic capacity, treatment capacity, project financing, and operation and maintenance considerations. The facility plan shall address these issues sufficiently to determine the effects of the project on the overall wastewater infrastructure. Material modification or expansion that requires a ~~*F*~~facility ~~*P*~~plan includes upgraded, or rehabilitated municipal wastewater treatment or disposal facilities and major collection, interceptor sewer, ~~*and*~~ pump station projects, and septage transfer station projects. Facility ~~*P*~~plans must address the entire potential service area of the project. ~~*Facility Plans are not required for minor or routine collection system projects or, at the Department's discretion, temporary lift stations. The determination of classification as major or minor collection interceptor sewer and pump station projects will be made by the Department based on review of the owner's recommended classification.*~~ A ~~*F*~~facility ~~*P*~~plan may be completed

for collection systems only. If such a collection system ~~F~~facility ~~P~~plan is ~~conducted~~ prepared, and flows increase in excess of the design capacity of downstream collection and treatment facilities, the impact of the flow shall be addressed in the ~~F~~facility ~~P~~plan. ~~(3-30-07)~~( )

a. Department-reviewed simple wastewater main extension projects. A facility plan is not required if the Department is provided documentation supporting the ability of the wastewater system to provide service for the simple wastewater main extension without adding wastewater pumping stations or treatment capacity to the system and without overloading the existing collection system. Documentation may be in the form of: ( )

i. Hydraulic modeling; ( )

ii. Usage data and flow calculations; ( )

iii. Declining balance reports that demonstrate the system has the capacity to supply the service area of the system served by the extension; or ( )

iv. Other documentation acceptable to the Department. ( )

b. QLPE-Reviewed Simple Wastewater Main Extension Projects. A Department-approved facility plan is not required to be in place prior to the QLPE approving simple wastewater main extensions pursuant to Subsection 400.03.b, provided that the system is in compliance with the facility and design standards in the area served by the extension. If the Department has not approved a facility plan which covers the proposed simple wastewater main extension, then the system owner or the QLPE must include with the transmittal letter documentation supporting the ability of the system owner to provide service for the simple wastewater main extension without adding wastewater pumping stations or treatment capacity to the system and without overloading the existing collection system. The system owner shall provide this documentation to the QLPE as necessary. Documentation may be in the form of: ( )

i. Hydraulic modeling; ( )

ii. Usage data and flow calculations; ( )

iii. Declining balance reports that demonstrate the system has the capacity to supply the service area of the system served by the extension; or ( )

iv. Other documentation acceptable to the Department. ( )

02. Submittal to Department. Facility ~~P~~plans shall be submitted to the Department for review and approval prior to the submission of plans and specifications for a project related to the ~~F~~facility ~~P~~plan. ~~*In the case of a sanitary sewer extension reviewed by a qualified Idaho licensed professional engineer pursuant to Subsection 400.01.b., an updated Facility Plan shall be submitted to the Department for review and approval unless the reviewing authority already has a Department approved Facility Plan in his possession.*~~ ~~(3-30-07)~~( )

~~***03. Facility Plan Contents**. The Facility Plan must include sufficient detail to demonstrate that the proposed project meets applicable criteria. The Facility Plan generally addresses the overall system-wide plan. The Facility Plan shall identify and evaluate wastewater related problems; assemble basic information; present criteria and assumptions; examines alternative solutions with preliminary layouts and cost estimates; describes financing methods; set forth anticipated charges for users; review organizational and staffing requirements; offer a conclusion with a proposed project for client consideration; and outline official actions and procedures to implement the project. If the project is funded by the state revolving fund or a grant, other requirements may also apply. See IDAPA 58.01.12, "Rules for Administration of Water Pollution Control Loans," and IDAPA 58.01.04, "Rules for Administration of Wastewater Treatment Facility Grants." A checklist, which can be used as guidance, can be found at http://www.deq.idaho.gov/water/permits_forms/forms/waste_water/form_i_report_checklist.pdf. The guidance document is for Department grant and loan projects, but may be used in part or in whole as a guide to assist in the development of a Facility Plan for any proposed project.* (3-30-07)~~

043. Engineer's Seal Required. Facility ~~P~~plans submitted to the Department shall bear the imprint of

an Idaho licensed professional engineer's seal that is both signed and dated by the engineer. ~~(3-30-07)~~( )

04. Facility Plan Contents. The facility plan shall assemble basic information, present criteria and assumptions, and examine alternative solutions with preliminary layouts and cost estimates. The facility plan is intended to address system wide growth, to identify system deficiencies, and to lay out a plan for system upgrades and expansion. The minimum requirements for a facility plan are located in Subsections 410.04.a. through 410.04.c. If specific items are not applicable to a particular facility plan, then the engineer shall state this in the facility plan and state the reason why it is not applicable. ( )

a. New Wastewater System Facility Plan. The facility plan for a new wastewater system must include sufficient detail to support the requirements of Sections 410 through 520 and address the items listed in Subsections 410.04.a.i. through 410.04.a.vii. of this rule. ( )

i. Location. Provide a general description and location of the system including service boundaries. ( )

ii. Population. Provide the estimated design population of the system. ( )

iii. Wastewater flows. Provide design data for domestic, commercial, and industrial wastewater generation, including average day, maximum day, maximum month, or peak hour flows. ( )

iv. Collection. Identify and describe any anticipated or proposed wastewater collection systems. Include specific detail on any anticipated or proposed wastewater pumping stations and on any anticipated or proposed wastewater interceptor or trunk lines. ( )

v. Treatment. Identify and describe any anticipated or proposed treatment works. Provide specific detail on the type and level of treatment and the required capacity of the treatment system. ( )

vi. Disposal. Identify and describe any anticipated or proposed wastewater disposal system(s). Include specific information on the location and method of disposal and information on any existing disposal permits or estimated timelines to obtain anticipated required permits. ( )

vii. Drinking water. Describe the drinking water distribution system with reference to the relationship to existing or proposed wastewater structures which may affect the operation and location of the wastewater system. ( )

b. Existing Wastewater System Facility Plan. The facility plan for an existing wastewater system must include sufficient detail to support the requirements of Sections 410 through 520, address all items in Subsections 410.04.a.i. through 410.04.a.vii., and address all items in Subsections 410.04.b.i. through 410.04.b.viii. ( )

i. Provide a hydraulic analysis of the collection system if requested by the Department. Any analysis of an existing collection system shall be properly calibrated. The type and sophistication of the analysis shall be dependent on the type of the system. ( )

ii. Identify and evaluate problems or deficiencies related to the wastewater system. ( )

iii. Identify the design capacity of existing facilities and the current operating flows. ( )

iv. Describe financing options for projects identified in the facility plan. ( )

v. Set forth anticipated charges for users. ( )

vi. Review organizational and staffing requirements. ( )

vii. Offer a project(s) recommendation for client consideration. ( )

viii. Outline official actions and procedures to implement the project. ( )

c. Wastewater System Facility Plan Funded by the State Revolving Fund. If the project is funded by the state revolving fund or a state grant, the facility plan must meet the requirements of Subsections 410.04.a. and 410.04.b., and other requirements that may also apply. See IDAPA 58.01.12 "Rules for Administration of Water Pollution Control Loans," and IDAPA 58.01.04, "Rules for Administration of Wastewater Treatment Facility Grants." ( )

d. Facility Plan Guidance. A checklist which can be used for guidance can be found at http://www.deq.idaho.gov/water.permits_forms/forms/waste_water/form_i_report_checklist.pdf. This checklist is for Department grant and loan projects, but may be used in part or in whole as a guide to assist in the development of any facility plan. ( )

411. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - PRELIMINARY ENGINEERING REPORTS.

01. Preliminary Engineering Reports Required. Preliminary ~~E~~engineering ~~R~~reports are required for municipal wastewater treatment or disposal facility projects that require plan and specification review and approval pursuant to Subsection 400.0~~1~~3 and shall address all applicable issues specifically required in Sections 411 through 599 of these rules including, but not limited to, purpose, scope, hydraulic capacity, treatment capacity, and operation and maintenance considerations sufficiently to determine the effects of the project on the overall wastewater infrastructure. Preliminary ~~E~~engineering ~~R~~reports must be completed for major wastewater collection system projects, ~~*and*~~ all pump station projects, ~~*all interceptor projects, and*~~ all treatment plant designs and upgrades, and all septage transfer stations. ~~*The determination of classification as major or minor collection system projects will be made by the Department based on review of the owner's recommended classification.*~~ Preliminary ~~E~~engineering ~~R~~reports are not required for ~~*minor or routine collection system projects*~~ simple wastewater main extensions that are approved in accordance with Subsections 410.01.a. or 410.01.b. ~~*(3-30-07)*~~( )

02. Submittal to Reviewing Authority. Preliminary ~~E~~engineering ~~R~~reports shall be submitted to the ~~*reviewing authority*~~ Department for review and ~~*approval*~~ must be approved by the Department prior to the submission of plans and specifications. ~~*(3-30-07)*~~( )

03. Preliminary Engineering Report Contents. The ~~P~~preliminary ~~E~~engineering ~~R~~report must include sufficient detail to demonstrate that the proposed project meets applicable criteria. The ~~P~~preliminary ~~E~~engineering ~~R~~report generally addresses project specific issues rather than the overall system-wide plan. The ~~P~~preliminary ~~E~~engineering ~~R~~report shall identify and evaluate wastewater related problems; assemble basic information; present criteria and assumptions; examine alternative solutions with preliminary layouts and cost estimates; offer a conclusion with a proposed project; and outline official actions and procedures to implement the project. The items included in Subsections 411.03.a. through 411.03.~~k~~c., and other items specifically called for in Sections 426 through 599, shall be addressed in detail in the ~~P~~preliminary ~~E~~engineering ~~R~~report ~~*for all municipal wastewater treatment plant projects*~~. If specific items are not applicable to a particular design, then the designer shall state this in the ~~P~~preliminary ~~E~~engineering ~~R~~report and state the reason why it is not applicable. Items adequately addressed in the ~~F~~facility ~~P~~plan under which the project is being designed, may be addressed by reference for purposes of the ~~P~~preliminary ~~E~~engineering ~~R~~report. ~~*(3-30-07)*~~( )

a. ~~*Coordination with Facilities Plan.*~~ Major Wastewater Collection System Projects. Items applicable to preliminary engineering reports for major wastewater collection system projects are listed in Subsections 411.03.a.i. through 411.03.a.vi. ~~*(3-30-07)*~~( )

i. Coordination with Facility Plan. The preliminary engineering report shall discuss or reference items provided in the Department-approved facility plan. These items include, but are not limited to: ( )

(1) Location of project; ( )

(2) Population served by project; ( )

(3) Existing and proposed wastewater flows; ( )

(4) Existing and proposed collection system; ( )

(5) Existing and proposed treatment works; ( )

(6) Existing and proposed disposal methods; ( )

(7) Drinking water system impacts; ( )

(8) Hydraulic analysis; and ( )

(9) Financing methods. ( )

ii. Design criteria. The preliminary engineering report shall discuss and present the design criteria applicable to the proposed project. The design criteria includes, but is not limited to: ( )

(1) Wastewater flow rates including peak hour flows; ( )

(2) Current project fifty (50) year design and build-out conditions; ( )

(3) Piping size, material, and installation methods; ( )

(4) Depth of bury and slope; ( )

(5) Soil and ground water conditions; ( )

(6) Corrosion protection; and ( )

(7) Odor control. ( )

iii. Code provisions. The preliminary engineering report shall include a summary of applicable codes and standards that apply to the proposed project. ( )

iv. Cost estimate. The preliminary engineering report shall provide as applicable estimated construction costs for public works projects or projects funded by public monies. ( )

v. Construction schedule. The preliminary engineering report shall include the proposed construction schedule. ( )

vi. Environmental review. The preliminary engineering report shall include an environmental review. See the definition for environmental review in Section 010 for additional information. ( )

b. ~~*Design Criteria*~~. Wastewater Pump Station Projects. Items applicable to preliminary engineering reports for wastewater pump station projects include all items listed in Subsection 411.03.a. and items listed in Subsections 411.03.b.i. through 411.03.b.iv. ~~*(3-30-07)*~~( )

i. ~~*Influent flow rates: average annual, maximum month, peak hour.*~~ Design criteria. The preliminary engineering report shall discuss and present the design criteria applicable to the proposed project. The design criteria includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Wastewater flow rates including average day, maximum day, and peak hour flows; ( )

(2) Influent wastewater characteristics, including characteristics during periods of wet weather flows; ( )

(3) Size and configuration; and ( )

(4) Redundancy provisions. ( )

ii. ~~*Influent wastewater characteristics, including wet weather flows.*~~ Site evaluation and layout. The preliminary engineering report shall describe the proposed site and layout of the wastewater pumping station. This information includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Currently proposed facilities; ( )

(2) Geotechnical investigation and provisions including buoyancy calculations if required; ( )

(3) Flood control provisions; ( )

(4) Security; ( )

(5) Operations and maintenance assessments; and ( )

(6) Odor management plans. ( )

iii. ~~*Effluent requirements.*~~ Instrumentation and control system. The preliminary engineering report shall discuss instrumentation and control that will be provided. This information includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) System configuration; ( )

(2) Operator interface; ( )

(3) Process and instrumentation diagrams; and ( )

(4) Alarm systems. ( )

iv. ~~*Solids production, disposal or recycling requirements.*~~ Emergency operation. The preliminary engineering report shall describe how the system will be operated during power outages, equipment failures, or other unforeseen system failures. ~~*(3-30-07)*~~( )

~~*v. Process units design criteria, process selection, and support data.* (3-30-07)~~

~~*vi. Mass balance calculations for process units, including but not limited to flow and solids.* (3-30-07)~~

~~*vii. Redundancy provisions.* (3-30-07)~~

c. ~~*Site Evaluation and Layout.*~~ Wastewater Treatment Plants. Items applicable to preliminary engineering reports for wastewater treatment plant designs and upgrades include all items listed in Subsection 411.03.a., Subsection 411.03.b., and Subsections 411.03.c.i. through 411.03.c.iv. ~~*(3-30-07)*~~( )

i. ~~*Currently proposed facilities.*~~ Design criteria. The preliminary engineering report shall discuss and present the design criteria applicable to the proposed project. The design criteria includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Wastewater flow rates including average day, maximum day, maximum month, and peak hour flows; ( )

(2) Effluent requirements; ( )

(3) Solids production, disposal, or recycling requirements; ( )

(4) Process units design criteria, process selection, and support data; ( )

(5) Mass balance calculations for process units including, but not limited to, flow and solids; and

~~( )~~

(6) Monitoring and reporting requirements. ( )

ii. ~~*Facilities for twenty (20) year design condition.*~~ Site evaluation and layout. The preliminary engineering report shall describe the proposed site and layout of the wastewater system. This information includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Currently proposed facilities; ( )

(2) Facilities for twenty (20) year design conditions; ( )

(3) Facilities for build-out conditions; ( )

(4) Space for facilities potentially necessary to meet higher levels of treatment; ( )

(5) Liquid process facilities and conveyance; ( )

(6) Solids process facilities and conveyance; ( )

(7) Plant access and on-site roads and walkways; ( )

(8) Process piping and utilities; ( )

(10) Buffer zones; ( )

(11) Landscaping; ( )

(12) Administration and operations buildings; ( )

(13) Onsite laboratory facilities; and ( )

(14) Treatment during construction. ( )

iii. ~~*Facilities for build-out conditions.*~~ Hydraulic profile. The preliminary engineering report shall provide a hydraulic profile for the proposed system. This information includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Twenty (20) year design facilities; ( )

(2) Provision for higher levels of treatment; ( )

(3) Receiving stream one hundred (100) year surface water elevation; and ( )

(4) Hydraulics and pipe sizing for build-out conditions. ( )

iv. ~~*Space for facilities to meet higher levels of treatment.*~~ Process units. The preliminary engineering report shall describe in detail the proposed process units and discuss how the proposed units will interface with any existing process units. This information includes, but is not limited to: ~~*(3-30-07)*~~( )

(1) Current project and twenty (20) year design and build-out conditions; ( )

(2) Size and number of units and loading rates; ( )

(3) Redundancy provisions; ( )

(4) Equipment type, size, performance criteria, and power requirements; ( )

(5) Structure, equipment, and piping layout; ( )

(6) Special code requirements; ( )

(7) Cold temperature operation; and ( )

(8) Procedures required for initial start-up of process unit(s), including procedures required for handling initial system flows that are less than minimum flow requirements for the process unit(s). ( )

~~*v. Liquid process facilities and conveyance.* (3-30-07)~~

~~*vi. Solids process facilities and conveyance.* (3-30-07)~~

~~*vii. Plant access and on-site roads and walkways.* (3-30-07)~~

~~*viii. Process piping and utilities.* (3-30-07)~~

~~*ix. Primary electric system.* (3-30-07)~~

~~*x. Flood control provisions.* (3-30-07)~~

~~*xi. Geotechnical investigation and provisions.* (3-30-07)~~

~~*xii. Buffer zones.* (3-30-07)~~

~~*xiii. Landscaping.* (3-30-07)~~

~~*xiv. Security.* (3-30-07)~~

~~*xv. Administration and Operations Buildings.* (3-30-07)~~

~~*xvi. Laboratory.* (3-30-07)~~

~~*xvii. Operations and Maintenance assessments.* (3-30-07)~~

~~*xviii. Treatment during construction.* (3-30-07)~~

~~*xix. Odor Management Plan.* (3-30-07)~~

~~***d.** Hydraulic Profile.* (3-30-07)~~

~~*i. Twenty (20) year design facilities.* (3-30-07)~~

~~*ii. Provision for higher levels of treatment.* (3-30-07)~~

~~*iii. Receiving stream one hundred (100) year water surface elevation.* (3-30-07)~~

~~*iv. Hydraulics and pipe sizing for build-out condition.* (3-30-07)~~

~~***e.** Process Units.* (3-30-07)~~

~~*i. Current project, twenty (20) year design, build-out conditions.* (3-30-07)~~

~~*ii. Size, number of units and loading rates.* (3-30-07)~~

~~*iii. Redundancy provisions.* (3-30-07)~~

~~*iv. Equipment type, size, performance criteria and power requirements. (3-30-07)*~~

~~*v. Structure, equipment and piping layout. (3-30-07)*~~

~~*vi. Special code requirements. (3-30-07)*~~

~~*vii. Cold temperature operation. (3-30-07)*~~

~~*f. Instrumentation and Control System. (3-30-07)*~~

~~*i. System configuration. (3-30-07)*~~

~~*ii. Operator interface. (3-30-07)*~~

~~*iii. Process and Instrumentation Diagrams. (3-30-07)*~~

~~*g. Collection system piping materials. (3-30-07)*~~

~~*i. Current project fifty (50) year design, build-out conditions. (3-30-07)*~~

~~*ii. Depth of bury. (3-30-07)*~~

~~*iii. Soil and ground water conditions. (3-30-07)*~~

~~*iv. Corrosion protection. (3-30-07)*~~

~~*v. Odor control. (3-30-07)*~~

~~*h. Code Provisions. Summary of applicable codes. (3-30-07)*~~

~~*i. Cost Estimate. (3-30-07)*~~

~~*j. Schedule. (3-30-07)*~~

~~*k. Environmental Review. (3-30-07)*~~

04. Engineer's Seal Required. Preliminary ~~E~~engineering ~~R~~reports submitted to the Department shall bear the imprint of an Idaho licensed professional engineer's seal that is both signed and dated by the engineer. ~~(3-30-07)~~( )

(BREAK IN CONTINUITY OF SECTIONS)

425. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - OPERATION AND MAINTENANCE MANUALS.

01. Manual Contents. An operation and maintenance manual or manuals shall be provided for all wastewater systems. The manual shall include, but is not limited to, the following contents: daily operating instructions, operator safety procedures, location of valves and other key system features, a parts list and parts order form(s), and information for contacting the responsible charge operators. An operational trouble-shooting section shall be supplied to the wastewater works as part of any proprietary unit installed in system facilities. ( )

02. Approval Required. Final operation and maintenance manuals for construction of wastewater systems that include lift stations or treatment works must be submitted to the Department for review and approval prior to start-up of the proposed system unless the system components are already covered in an existing manual.

~~(3-30-07)~~(____)

426. -- 429. (RESERVED).

430. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES -- DESIGN AND CONSTRUCTION OF WASTEWATER PIPELINES.

01. Design Capacity and Design Flow. In general, sewer capacities shall be designed for the estimated ultimate tributary population, except in considering parts of the systems that can be readily increased in capacity. (4-11-06)

02. Details of Design and Construction. (4-11-06)

a. Minimum Pipe Size. Minimum pipe size for gravity sewer mains shall be eight (8) inches in diameter. Minimum pipe size for gravity sewer services shall be four (4) inches in diameter. Pipe diameters larger than these minimums shall be based on cleaning capability and hydraulic capacity, and shall conform with the required planning documents. (3-30-07)

b. Depth. Wastewater pipelines shall be installed sufficiently deep or specifically designed to prevent freezing and to protect the facilities from surface loading. (4-11-06)

c. Buoyancy. Buoyancy of wastewater pipelines shall be considered and flotation of the pipe shall be prevented with appropriate construction where high groundwater conditions are anticipated. (4-11-06)

d. Slope. Gravity wastewater pipelines shall be designed to have sufficient slope and velocity to "self clean" or transport constituent solids to the treatment facility. Justification for these slopes shall be included in the ~~P~~preliminary ~~E~~engineering ~~R~~report and shall be based on widely used guidance documents or published friction coefficients and Manning's formula. ~~(3-30-07)~~(____)

i. If the current or future ownership of the system is by a city, county, quasi-municipal corporation or regulated public utility and the velocities are less than self cleaning, the owner shall, as a condition of the Department's approval of plans and specifications, provide justification for the lower velocities and commit to, at a minimum, annually service wastewater pipelines to flush, transport, or remove solids from wastewater pipelines. This would include the use of cutting tools for roots, vactor trucks, and any other method required to keep the pipelines clean, intact and flowing. That commitment shall be in the form of a letter from both the owner and the future owner entity stating said commitment, and shall include a discussion of the current and future owners' capacity to do said flushing. (3-30-07)

ii. If the current or future ownership of the system is by a developer that is passing the operation and maintenance on to a homeowner's association or other similar entity, then the design shall not allow for velocities that are less than self cleaning. (3-30-07)

e. Materials. (4-11-06)

i. Any generally accepted material for wastewater pipelines will be given consideration. The material selected should be adapted to local conditions, such as: character of industrial wastes, possibility of septicity, soil characteristics, exceptionally heavy external loadings, abrasion, corrosion, and similar problems. (4-11-06)

ii. Couplings complying with applicable standard specifications shall be used for joining dissimilar materials. (4-11-06)

iii. For new pipe materials for which standards have not been established, the design engineer shall provide complete pipe specifications and installation specifications developed on the basis of criteria adequately documented and certified in writing by the pipe manufacturer to be satisfactory for the specific application. (4-11-06)

f. Installation. Installation specifications shall contain appropriate requirements based on the criteria, standards, and requirements established by industry in its technical publications. Reference current edition of the

Idaho Standards for Public Works Construction for assistance in designing such specifications. (3-30-07)

g. Joints and Infiltration. (4-11-06)

i. The installation of joints and the materials used shall be included in the specifications. Wastewater pipeline joints shall be designed to minimize infiltration and to prevent the entrance of roots throughout the life of the system. Reference current edition of the Idaho Standards for Public Works Construction for assistance in designing such specifications. (3-30-07)

ii. Service connections to the wastewater pipeline main shall be water tight and not protrude into the wastewater pipelines. If a saddle type connection is used, it shall be a device designed to join with the types of pipe which are to be connected. All materials used to make service connections shall be compatible with each other and with the pipe materials to be joined and shall be corrosion proof. (4-11-06)

h. Manholes. Manholes shall be installed at the end of each line; at all changes in grade, size, or alignment; at all intersections. Cleanouts may be used only for special conditions and shall not be substituted for manholes nor installed at the end of laterals greater than one hundred fifty (150) feet in length. (4-11-06)

i. Testing. Testing shall conform with Section 500.3.4 of the "Idaho Standards for Public Works Construction," incorporated by reference into these rules at Section 004. (3-30-07)

j. Inverted Siphons. Inverted siphons shall have not less than two (2) barrels or pipes. They shall be provided with necessary appurtenances for maintenance, convenient flushing, and cleaning equipment. Design shall provide sufficient head and appropriate pipe sizes to secure sufficient velocities for design average flows. (3-30-07)

k. Wastewater Pipelines in Relation to Surface Water Bodies. The top of all wastewater pipelines entering or crossing surface water bodies shall be at a sufficient depth below the natural bottom of the bed or otherwise designed to protect the wastewater pipeline. (4-11-06)

i. Wastewater pipelines located adjacent to surface water bodies shall be located outside of the bed and sufficiently removed therefrom to provide for future possible stream widening and to prevent pollution by siltation during construction. (3-30-07)

ii. Structures. Wastewater pipeline outfalls, headwalls, manholes, gate boxes, or other structures shall be designed to address anticipated flood flows of the surface water bodies. (4-11-06)

iii. Alignment. Wastewater pipelines crossing surface water bodies should be designed to cross the surface water body as nearly perpendicular to the surface water body flow as possible and shall be free from change in grade. (4-11-06)

iv. Materials. Wastewater pipelines entering or crossing surface water bodies shall be constructed of water transmission pressure rated pipe with restrained joints conforming to Section 401.2.9 of the "Idaho Standards for Public Works Construction," incorporated by reference into these rules at Section 004, or other suitable pipe with restrained joints capable of being installed to remain watertight and free from changes in alignment or grade. Material used to back-fill the trench shall be concrete slurry, stone, coarse aggregate, washed gravel, or other materials which will not readily erode, cause siltation, damage pipe during placement, or corrode the pipe. (3-30-07)

v. Siltation and Erosion. Construction methods that will minimize siltation and erosion shall be employed. (4-11-06)

l. Aerial Crossings. Support shall be provided for all joints in pipes utilized for aerial crossings. Restrained joints or structural casings are required. (4-11-06)

m. Cross Connections Prohibited. There shall be no physical connections between a public or private potable water supply system and a wastewater pipeline, or appurtenance thereto, which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come into contact with any part of a wastewater pipeline manhole. (4-11-06)

n. Protection of Water Sources, Supplies. When wastewater pipelines are proposed in the vicinity of any drinking water sources or supplies or other drinking water facilities, requirements of IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems," shall be used to confirm acceptable isolation distances. (4-11-06)

o. Non-Potable Pipelines in Relation to Potable Water Pipelines. The Department will use the Memorandum of Understanding with the Plumbing Bureau as guidance in determining the relative responsibilities for reviewing service lines. The conditions of Subsections 542.07.a. and 542.07.b. shall apply to all potable services constructed or reconstructed after April 15, 2007 and where the Department or the QLPE is the reviewing authority. ~~(3-30-07)~~( )

i. ~~Non-potable mains in relation to potable mains.~~ Parallel installation requirements. ~~(3-30-07)~~( )

(1) ~~Parallel installation requirements.~~ Non-potable mains in relation to potable mains: ~~(4-11-06)~~( )

(a) Greater than ten (10) feet separation: no ~~conditions~~ additional requirements based on separation distance. ~~(4-11-06)~~( )

(b) Ten (10) feet to six (6) feet separation: separate trenches, with potable main above non-potable main, and non-potable main constructed with potable-water class pipe. (4-11-06)

(c) Less than six (6) feet separation: design engineer to submit data to the Department for review and approval that this installation will protect public health and environment and non-potable main constructed with potable-water class pipe. (3-30-07)

(d) Non-potable mains are prohibited from being located in the same trench as potable mains. (3-30-07)

(e) Pressure sewage mains shall be no closer horizontally than ten (10) feet from potable mains. (3-30-07)

(2) ~~Non-potable mains crossing potable mains requirements.~~ New non-potable services in relation to potable services, new non-potable services in relation to potable mains, and new potable services in relation to non-potable mains. ~~(3-30-07)~~( )

(a) ~~Eighteen (18) inches or more vertical separation with potable main above non-potable main: non-potable main joint as far as possible from potable water main.~~ Greater than six (6) feet separation: no additional requirements based on separation distances. ~~(3-30-07)~~( )

(b) ~~Less than eighteen (18) inches vertical separation: non-potable main constructed with potable water class pipe for a minimum of ten (10) feet either side of potable main with a single twenty (20) foot section of potable water class pipe being centered on the crossing, or sleeve non-potable or potable main with potable water class pipe for ten (10) feet either side of crossing. Use of concrete slurry encasement is not allowed as a substitute for sleeving. If potable main is below non potable main, the non potable main must also be supported through the crossing to prevent settling.~~ Less than six (6) feet separation: design engineer to submit data that this installation will protect public health and the environment and non-potable service constructed with potable water class pipe. ~~(3-30-07)~~( )

(c) ~~Pressure sewage mains shall be no closer vertically than eighteen (18) inches from potable mains.~~ New potable services are prohibited from being located in the same trench as non-potable mains or non-potable services. ~~(3-30-07)~~( )

ii. ~~New non potable services in relation to potable services and new non potable services in relation to potable mains. The Department will use the Memorandum of Understanding with the Plumbing Bureau as guidance in determining the relative responsibilities for reviewing service lines. The following conditions shall apply to all non potable services constructed or reconstructed after April 15, 2007, and where the Department or the qualified Idaho licensed professional engineer is the reviewing authority.~~ Requirements for potable water mains or

services crossing non-potable mains or services. For the purposes of Subsection 430.o.ii., the term "pipeline" applies to both mains and services. ~~(3-30-07)~~( )

(1) ~~Parallel installation requirements.~~ Eighteen (18) inches or more vertical separation with potable pipeline above non-potable pipeline: non-potable pipeline joint to be as far as possible from the potable water pipeline. ~~(4-11-06)~~( )

~~(a) Greater than six (6) feet separation: no conditions.~~ ~~(4-11-06)~~

~~(b) Less than six (6) feet separation: design engineer to submit data that this installation will protect public health and environment and non-potable service constructed with potable water class pipe.~~ ~~(4-11-06)~~

~~(c) New non-potable services are prohibited from being located in the same trench as potable mains or potable services.~~ ~~(3-30-07)~~

(2) ~~Non-potable services crossing potable services or potable mains requirements.~~ Less than eighteen (18) inches vertical separation: ~~(3-30-07)~~( )

(a) ~~Eighteen (18) inches or more separation with potable service or main above non-potable service: non-potable main joint as far as possible from potable main.~~ Non-potable pipeline joint to be as far as possible from the potable water pipeline; and either ~~(3-30-07)~~( )

(b) ~~Less than eighteen (18) inches separation or potable service or main below non-potable service: non-potable service or main constructed with potable water class pipe and non-potable main joint as far as possible from potable main, or sleeve non-potable service or main with potable water class pipe for ten (10) feet either side of crossing. Use of concrete slurry encasement is not allowed as a substitute for sleeving.~~ Non-potable pipeline constructed with potable water class pipe for a minimum of ten (10) feet either side of potable pipeline with a single twenty (20) foot section of potable water class pipe centered on the crossing; or ~~(3-30-07)~~( )

(c) Sleeve non-potable or potable pipeline with potable water class pipe for ten (10) feet either side of crossing. Use of hydraulic cementitious materials such as concrete, controlled density fill, and concrete slurry encasement is not allowed as a substitute for sleeving. ( )

(d) If the potable pipeline is below non-potable pipeline, the non-potable pipeline must also be supported through the crossing to prevent settling. ( )

(3) Eighteen (18) inches or more vertical separation with potable water pipeline below non-potable pipeline: Non-potable pipeline joint to be as far as possible from the potable water pipeline, and non-potable pipeline must be supported through the crossing to prevent settling. ( )

(4) Pressure sewage mains shall be no closer vertically than eighteen (18) inches from potable mains. ( )

iii. Existing potable services in relation to new non-potable mains, ~~and~~ existing non-potable services in relation to new potable mains, and existing potable services in relation to new non-potable services shall meet the requirements of Subsection 430.02.o.ii., where practical, based on cost, construction factors, and public health significance. If the Department determines that there are significant health concerns with these services, such as where a large existing service serves an apartment building or a shopping center, then the design shall conform with Subsection 430.02.o.ii. ~~(3-30-07)~~( )

(BREAK IN CONTINUITY OF SECTIONS)

441. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - INDIVIDUAL RESIDENCE WASTEWATER PUMPING STATIONS.

01. General. Section 441 regulates individual residence pump stations, individual residence grinder pump stations, and individual residence septic tank effluent pump stations. However, this rule does not regulate grinder pumps or their vaults that are inside of individual residences or other structures. Certain individual residence wastewater pumping stations may be under the jurisdiction of the Idaho Division of Building Safety, Plumbing Bureau. For further defining and delineating of the Plumbing Bureau's and the Department's statutory and regulatory duties and responsibilities with respect to individual residence wastewater pumping stations, see the Memorandum of Understanding referred to in Section 008. ~~(3-30-07)~~( )

a. Flooding. Wastewater pumping station structures and electrical and mechanical equipment shall be protected from physical damage by the one hundred (100) year flood. Wastewater pumping stations shall remain fully operational and accessible during the twenty-five (25) year flood. Local, state and federal flood plain regulations shall be considered. (3-30-07)

b. Accessibility and Security. The pumping station shall be accessible by maintenance vehicles during all weather conditions. (3-30-07)

02. Design. Design of wastewater pumping stations shall meet the applicable requirements of Subsections 441.02.a. through 441.02.c. (3-30-07)

a. Pumps. (3-30-07)

i. Multiple Units. Duplex pumps for individual residence wastewater pump stations are not required. However, for developments having five (5) or more similar facilities, one (1) working spare pump for each size shall be provided and be readily available at all times. (3-30-07)

ii. Pump Openings. Pumps handling raw wastewater shall be capable of passing spheres of at least three (3) inches in diameter or be a grinder pump. (3-30-07)

iii. Priming. The pump shall be placed so that, under normal operating conditions, it will operate under a positive suction head. (3-30-07)

b. Controls. Water level control sensing devices shall be designed to allow for automatic control of pumps. (3-30-07)

c. Valves. Suitable means to facilitate pump removal and to prevent backflow shall be provided. All shutoff and check valves shall be accessible for maintenance. (3-30-07)

03. Submersible Pump Stations - Special Considerations. (3-30-07)

a. Construction. Submersible pumps and motors shall be designed specifically for raw wastewater use, including totally submerged operation during a portion of each pumping cycle. An effective method to detect shaft seal failure or potential seal failure shall be provided. (3-30-07)

b. Pump Removal. Submersible pumps shall be readily removable and replaceable without personnel entering or dewatering the wet well, or disconnecting any piping in the wet well. (3-30-07)

c. Electrical Equipment. Section 009 provides a reference to the requirements of the National Electrical Code, compliance with which may be required by other law. (3-30-07)

i. Power Supply and Control Circuitry. Electrical supply, control, and alarm circuits shall be designed to provide strain relief and to allow disconnection from outside the wet well. Terminals and connectors shall be protected from corrosion by location outside the wet well or through use of watertight seals. (3-30-07)

ii. Controls. The motor control center shall be located outside the wet well, be readily accessible, and be protected by a conduit seal or other appropriate measures to prevent the atmosphere of the wet well from gaining access to the control center. The seal shall be located so that the motor may be removed and electrically disconnected

without disturbing the seal. When such equipment is exposed to weather, it is recommended that it meet the requirements of weatherproof equipment NEMA 3R or 4. (3-30-07)

iii. Power Cord. Pump motor power cords shall be designed for flexibility and serviceability under conditions of extra hard usage. Ground fault interruption protection shall be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable. Power cord terminal fittings shall be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, shall be provided with strain relief appurtenances, and shall be designed to facilitate field connecting. (3-30-07)

04. Alarm Systems. Audio-visual alarm systems with a backup power source shall be provided for pumping stations. The alarm shall be activated in cases of wet well high water levels and shall be visible from the outside of the structure. ~~(3-30-07)~~( )

05. Emergency Operation. The pumping station must be sized to allow for one (1) day's flow between the high water alarm and the building service invert or the pressure discharge pipe, whichever is closer to the high water alarm. ( )

0~~5~~6. Instructions and Equipment. Wastewater pumping stations shall be supplied with a complete set of operational instructions, including emergency procedures, maintenance schedules, tools, and such spare parts as may be necessary. (3-30-07)

0~~6~~7. Operation and Maintenance. An operation and maintenance manual shall be submitted to and approved by the Department as required by Section 425. Adherence to the terms of this approved manual shall be required. The owner shall be responsible for maintaining the wastewater facility in a manner that assures its designed operation. (3-30-07)

0~~7~~8. Force Mains. (3-30-07)

a. Velocity and Diameter. At design pumping rates, a cleansing velocity of at least two (2) feet per second shall be maintained. (3-30-07)

b. Special Construction. Force main construction near streams or water works structures and at water main crossings shall meet applicable provisions of Section 430. (3-30-07)

c. Design Friction Losses. (3-30-07)

i. Friction Coefficient. Friction losses through force mains shall be based on the Hazen and Williams formula or other acceptable methods. When the Hazen and Williams formula is used, the friction losses for varying values of "C" shall be evaluated for different types and ages of pipe. (3-30-07)

ii. Maximum Power Requirements. When initially installed, force mains will have a significantly higher "C" factor. The effect of the higher "C" factor shall be considered in calculating maximum power requirements and duty cycle time to prevent damage to the motor. The effects of higher discharge rates on selected pumps and downstream facilities shall also be considered. (3-30-07)

d. Identification. Where force mains are constructed of material which might cause the force main to be confused with potable water mains, the force main shall be appropriately identified using trench tape saying "raw sewage," "biohazard," or other appropriate wording. (3-30-07)

e. Leakage Testing. Leakage tests shall be specified including testing methods and leakage limits. Testing shall conform with Sections 401.3.6 and 505.3.3 of the "Idaho Standards for Public Works Construction," incorporated by reference into these rules at Section 004. (3-30-07)

f. Thrust Blocking. Thrust blocking shall conform with Sections 401.3.4 of the "Idaho Standards for Public Works Construction," incorporated by reference into these rules at Section 004. (3-30-07)

g. Maintenance Considerations. Isolation valves shall be used if force mains connect into a common

force main. (3-30-07)

h. Cover. Force mains shall be covered with sufficient earth or other insulation to prevent freezing or other physical damage. (3-30-07)

442. – 449. (RESERVED).

450. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - WASTEWATER TREATMENT FACILITIES - GENERAL.

01. Plant Location. (3-30-07)

a. General. The ~~P~~preliminary ~~E~~engineering ~~R~~report or ~~F~~facility ~~P~~plan shall include a detailed discussion for new facilities regarding site selection criteria and alternatives considered. See Sections 410 and 411. ~~(3-30-07)~~( )

b. Flood protection. The treatment plant structures, electrical, and mechanical equipment shall be protected from physical damage by the one hundred (100) year flood. Treatment plants shall be designed to remain fully operational and accessible during the one hundred (100) year flood. This requirement applies to new construction and to existing facilities undergoing major modification. Local, state and federal flood plain regulations shall be considered. (3-30-07)

c. Setback distances. ~~*New treatment and storage facilities for wastewater treatment shall have a minimum setbacks from their property line as follows: For f*~~Facilities open to the atmosphere such as lagoons, open clarifiers, open aeration basins, and other such facilities~~*, the minimum setback to property zoned as residential shall be three hundred (300) feet*~~ shall be placed a minimum of two hundred (200) feet from residential property lines. If ~~*the property with*~~ such open facilities ~~*is*~~ are adjacent to property zoned as commercial or industrial, a lesser setback will be considered by the Department on a case by case basis. For totally enclosed facilities with noise and odor controls, the minimum setback shall be fifty (50) feet if approved by the Department. Neighboring property owners may grant long term easements or other types of legal documents tied to the land to allow for similar setbacks from future development or public use. ~~(3-30-07)~~( )

02. Quality of Effluent. The required degree of wastewater treatment shall be based on the effluent requirements and water quality standards established by the responsible state agency and~~/or~~ appropriate federal regulations including discharge permit requirements. Combined sewer overflows are not allowed. ~~(3-30-07)~~( )

03. Design. (3-30-07)

a. Type of Treatment. The ~~P~~preliminary ~~E~~engineering ~~R~~report or ~~F~~facility ~~P~~plan shall include a detailed discussion regarding criteria and alternatives considered in selection of the appropriate type of treatment. See Sections 410 and 411. The plant design shall provide the necessary flexibility to perform satisfactorily within the expected range of waste characteristics and volumes. ~~(3-30-07)~~( )

b. Required Engineering Data for New Process and Application Evaluation. The policy of the Department is to encourage rather than obstruct the development of any valid methods or equipment for treatment of wastewater. The lack of inclusion in these standards of some types of wastewater treatment processes or equipment should not be construed as precluding their use. The Department may approve other types of wastewater treatment processes and equipment that meet the performance standards set forth in these rules under the condition that the operational reliability and effectiveness of the process or device shall have been demonstrated under similar conditions with a suitably-sized unit operating at its design load conditions, to the extent required. To determine that such new processes and equipment or applications have a reasonable and substantial chance of success, the Department may require the following: (3-30-07)

i. Monitoring observations, including test results and engineering evaluations, demonstrating the efficiency of such processes. (3-30-07)

ii. Detailed description of the test methods. (3-30-07)

iii. Testing, including appropriately-composited samples, under various ranges of strength and flow rates (including diurnal variations) and waste temperatures over a sufficient length of time to demonstrate performance under climatic and other conditions which may be encountered in the area of the proposed installations. (3-30-07)

iv. Other appropriate information. The Department may require that appropriate testing be conducted and evaluations be made under the supervision of a competent process engineer other than those employed by the manufacturer or developer. (3-30-07)

c. Design period. The design period shall be clearly identified in the ~~P~~preliminary ~~E~~engineering ~~R~~report or ~~F~~facility ~~P~~plan as required in Sections 410 and 411. ~~(3-30-07)~~( )

d. Design Loads. (3-30-07)

i. Hydraulic Design. (3-30-07)

(1) Critical Flow Conditions. Flow conditions critical to the design of the treatment plant shall be as described in the ~~P~~preliminary ~~E~~engineering ~~R~~report required by Section 411. Initial low flow conditions must be evaluated in the design to minimize operational problems with freezing, septicity, flow measurements and solids dropout. The appropriate design flows must be considered in evaluating unit processes, pumping, piping, etc. ~~(3-30-07)~~( )

(2) Treatment Plant Design Capacity. The treatment plant design capacity shall be as described in Section 411. The plant design flow selected shall meet the appropriate effluent and water quality standards that are set forth in the discharge or other appropriate permit. For plants subject to high wet weather flows or overflow detention pump-back flows, the design maximum flows that the plant is to treat on a sustained basis shall be specified. (3-30-07)

(3) Flow Equalization. Facilities for the equalization of flows and organic shock load shall be considered at all plants which are critically affected by surge loadings. (3-30-07)

ii. Organic Design. Organic loadings for wastewater treatment plant design shall be based on the information provided in the ~~P~~preliminary ~~E~~engineering ~~R~~report required by Section 411. The effects of septage flow which may be accepted at the plant shall be given consideration and appropriate facilities shall be included in the design. See Section 520. ~~(3-30-07)~~( )

iii. Shock Effects. The shock effects of high concentrations and diurnal peaks for short periods of time on the treatment process, particularly for small treatment plants, shall be considered. (3-30-07)

e. Conduits. All piping and channels shall be designed to carry the maximum expected flows. Conduits shall be designed to avoid creation of pockets and corners where solids can accumulate. (3-30-07)

f. Gates or Valves. Suitable gates or valves shall be placed in channels to seal off unused sections which might accumulate solids. The use of shear gates, stop plates or stop planks is permitted where they can be used in place of gate valves or sluice gates. Non-corrodible materials shall be used for control gates and conduits. (3-30-07)

g. Arrangement of Units. Component parts of the plant shall be arranged for appropriate operating and maintenance convenience, flexibility, economy, continuity of maximum effluent quality, and ease of installation of future units. (3-30-07)

h. Flow Division Control. Flow division control facilities shall be provided as necessary to ensure organic and hydraulic loading control to plant process units and shall be designed for easy operator access, change, observation, and maintenance. Appropriate flow measurement facilities shall be incorporated in the flow division control design. (3-30-07)

i. Odor Management. An odor management plan shall be submitted to and approved by the Department as a part of the ~~P~~preliminary ~~E~~engineering ~~R~~report described in Section 411. The Water Environment Federation Guidance referenced in Section 008 of these rules provides guidance for use in developing an odor management plan that is inclusive of the facilities being designed. ~~(3-30-07)~~( )

j. Cold Weather. Facilities shall be designed with regard for proper operation and maintenance and protection during cold weather temperatures expected at the specific location. The Water Environment Federation Guidance referenced in Section 008 of these rules provides guidance for use in designing, operating and maintaining facilities in cold weather. (3-30-07)

04. Plant Details. (3-30-07)

a. Unit Bypasses. (3-30-07)

i. Removal from Service. Properly located and arranged bypass structures and piping shall be provided so that each unit of the plant can be removed from service independently. The bypass design shall facilitate plant operation during unit maintenance and emergency repair so as to minimize deterioration of effluent quality and ensure rapid process recovery upon return to normal operational mode. The actuation of all bypasses shall require manual action by operating personnel. All power-actuated bypasses shall be designed to permit manual operation in the event of power failure. (3-30-07)

ii. Unit Bypass During Construction. Unit bypassing during construction shall be in accordance with the ~~P~~preliminary ~~E~~engineering ~~R~~report required by Section 411. ~~(3-30-07)~~( )

b. Unit dewatering, flotation protection, and plugging. Drains or sumps shall be provided to completely dewater each unit to an appropriate point in the process. Due consideration shall be given to the possible need for hydrostatic pressure relief devices to prevent flotation of structures. Pipes subject to plugging shall be provided with means for mechanical cleaning or flushing. (3-30-07)

c. Construction materials. Materials shall be selected that are appropriate under conditions of exposure to hydrogen sulfide and other corrosive gases, greases, oils, and other constituents frequently present in wastewater. This is particularly important in the selection of metals and paints. (3-30-07)

d. Painting. The contents and direction of flow shall be identified on the piping in a contrasting color. (3-30-07)

e. Operating equipment. Tools, accessories, and spare parts necessary for the plant operator's use shall be provided. (3-30-07)

f. Storage and work space facilities. Readily accessible storage and work space facilities shall be provided, and consideration shall be given to provision of a garage for large equipment storage, maintenance, and repair. (3-30-07)

g. Erosion control during construction. Effective site erosion control shall be provided during construction. (3-30-07)

h. Grading and landscaping. Upon completion of the plant, the ground shall be graded and landscaped in accordance with the ~~P~~preliminary ~~E~~engineering ~~R~~report developed in the ~~P~~preliminary ~~E~~engineering ~~R~~report required by Section 411. ~~(3-30-07)~~( )

05. Plant Outfalls. (3-30-07)

a. Discharge impact control. The outfall shall be designed to discharge to the receiving stream in a manner acceptable to various reviewing authorities including, but not limited to, EPA, the Idaho Department of Environmental Quality, U.S. Army Corp of Engineers, Idaho Department of Water Resources, and local jurisdictions. (3-30-07)

b. Protection and Maintenance. The outfall shall be so constructed and protected against the effects of floodwater, ice, or other hazards as to reasonably ensure its structural stability and freedom from stoppage. Hazards to navigation shall be considered in designing outfalls. (3-30-07)

c. Sampling Provisions. All outfalls shall be designed so that a sample of the effluent can be obtained at a point after the final treatment process and before discharge to or mixing with the receiving waters. (3-30-07)

06. Essential Facilities. (3-30-07)

a. Emergency Power Facilities. (3-30-07)

i. General. All wastewater treatment plants shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. Refer to Subsection 440.07.c. for design requirements. Methods of providing alternate sources include: (3-30-07)

(1) The connection of at least two (2) independent power sources such as substations. A power line from each substation is required if this method is used. The determination of the independent power sources shall be done by the appropriate power provider and stated in a letter from that provider. (3-30-07)

(2) In-place internal combustion engine equipment which will generate electrical or mechanical energy. (3-30-07)

(3) Portable pumping equipment when only emergency pumping is required. Where part or all of the engine-driven pumping equipment is portable, adequate emergency storage capacity with alarm system shall be provided to allow time for detection of pump station failure and transportation and hookup of the portable equipment. (3-30-07)

ii. Power for Aeration. Standby generating capacity normally is not required for aeration equipment used in the activated sludge process. In cases where a history of chronic, long-term (four (4) hours or more) power outages have occurred, auxiliary power for minimum aeration of the activated sludge will be required as provided in Subsections 450.06.a.i.(1) or 450.06.a.i.(2). ~~(3-30-07)~~( )

iii. Power for Disinfection. Standby generating capacity, as provided in Subsections 450.06.a.i.(1) or 450.06.a.i.(2), is required for disinfection facilities and dechlorination facilities. (3-30-07)

b. Water Supply. Section 009 provides a reference to the Uniform Plumbing Code, compliance with which may be required by other law. (3-30-07)

c. Sanitary Facilities. Section 009 provides a reference to the Uniform Plumbing Code, compliance with which may be required by other law. (3-30-07)

d. Stairways. Stairways shall be installed in lieu of ladders for top access to units requiring routine inspection and maintenance (such as digesters, trickling filters, aeration tanks, clarifiers, tertiary filters, etc.). (3-30-07)

e. Flow Measurement. (3-30-07)

i. Location. Flow measurement ~~*facilities*~~ devices shall be provided to measure the following flows: ~~(3-30-07)~~( )

(1) Plant influent or effluent flow. (3-30-07)

(2) If influent flow is significantly different from effluent flow, both shall be measured or otherwise accounted for by other flow measurement facilities. (3-30-07)

(3) Other flows required to be monitored under the provisions of the discharge permit. (3-30-07)

(4) Other flows such as return activated sludge, waste activated sludge, and recycle required for plant operational control. (3-30-07)

ii. ~~*Facilities*~~ Devices. Indicating, totalizing, and recording flow measurement devices for all influent or effluent flows shall be provided for all plants. Any other flow ~~*meters*~~ measurement device may be indicating and totalizing only. All flow measurement equipment must be sized to function to a satisfactory level of accuracy over the full range of flows expected and shall be protected against freezing. ~~*(3-30-07)*~~( )

iii. Hydraulic Conditions. Flow measurement equipment including approach and discharge conduit configuration and critical control elevations shall be designed to ensure the required hydraulic conditions necessary for the measurement accuracy needed for the specific application. (3-30-07)

iv. Calibration and Certification. The flow measurement devices specified in Subsections 450.06.e.i.(1) through 450.06.e.i.(3) shall be calibrated and certified at manufacturer-specified frequencies. ( )

f. Sampling Equipment. Effluent composite sampling equipment shall be provided at all mechanical plants and at other facilities where necessary to meet discharge permit monitoring requirements. Composite sampling equipment shall also be provided as needed for influent sampling and for monitoring plant operations. The influent sampling point shall be located prior to any process return flows. (3-30-07)

07. Safety. (3-30-07)

a. General. Provisions shall be made to consider the protection of maintenance personnel and visitors from typical and foreseeable hazards in accordance with the engineering standards of care. Enclosure of the plant site with a fence and signs designed to discourage the entrance of unauthorized persons and animals is required. (3-30-07)

b. Hazardous Chemical Handling. The materials utilized for storage, piping, valves, pumping, metering, splash guards, etc., shall be specially selected considering the physical and chemical characteristics of each hazardous or corrosive chemical. (3-30-07)

08. Laboratory. (3-30-07)

a. All treatment plants shall include a laboratory for making the necessary analytical determinations and operating control tests, except for those plants utilizing only processes not requiring laboratory testing for plant control and where satisfactory off-site laboratory provisions are made to meet the permit monitoring requirements. The laboratory shall have sufficient size, bench space, equipment, and supplies to perform all self-monitoring analytical work required by discharge permits, and to perform the process control tests necessary for good management of each treatment process included in the design. (3-30-07)

b. Treatment plant laboratory needs may be divided into the following three (3) general categories: (3-30-07)

i. Plants performing only basic operational testing; this typically includes pH, temperature, dissolved oxygen, and chlorine residual. (3-30-07)

ii. Plants performing more complex operational and permit laboratory tests including biochemical oxygen demand, suspended solids, and fecal coliform analysis. (3-30-07)

iii. Plants performing more complex operational, permit, industrial pretreatment, and multiple plant laboratory testing. (3-30-07)

c. Expected minimum laboratory needs for the three (3) plant classifications set out in Subsection 450.08.b. must be addressed in the ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report. ~~*(3-30-07)*~~( )

09. Instructions and Equipment. Wastewater treatment equipment shall be supplied with a complete set of operational instructions, including emergency procedures, maintenance schedules, tools and such spare parts as

may be necessary. (3-30-07)

10. Operation and Maintenance. An operation and maintenance manual shall be submitted to and approved by the Department as required by Section 425. Adherence to the terms of this approved manual shall be required. The owner shall be responsible for maintaining the wastewater facility in a manner that assures its designed operation. (3-30-07)

451. -- 454. (RESERVED).

455. PRIVATE ~~*COMMUNITY*~~ MUNICIPAL WASTEWATER TREATMENT PLANTS.

01. Scope. Section 455 includes additional requirements for approval of private ~~*community*~~ municipal wastewater treatment plants ~~*with a surface water discharge, a discharge to land application or reuse, or a discharge to a drainfield*~~. Individual extended treatment package systems for on-site systems are not covered by these rules, but are covered by IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules." See Technical Guidance Manual for Individual and Subsurface Sewage Disposal Systems available at http://www.deq.idaho.gov/water/assist_business/septic/tech_manual_updates.cfm. Private ~~*community*~~ municipal wastewater treatment plants may be considered if no other viable alternative is available. ~~*The use of these plants shall be fully protective of ground water and surface water quality standards.*~~ ~~*(3-30-07)*~~( )

02. Preliminary Engineering Report. A preliminary engineering report as described in Section 411 must be submitted to the Department for review and must be approved by the Department prior to submittal of plans and specifications. The ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report for private ~~*community*~~ municipal wastewater treatment plants shall include the ~~*following*~~ information listed in Subsections 455.02.a. and 455.02.b., as well as ~~*relevant*~~ information ~~*included*~~ specified in Section 411. ~~*(3-30-07)*~~( )

a. ~~*A*~~ The ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report ~~*as described in Section 411 must be submitted to and approved by the Department prior to submittal of plans and specifications.*~~ shall evaluate the following alternatives: ~~*(3-30-07)*~~( )

~~***b.*** *In addition to the requirement in Subsection 455.02.a., at a minimum, the Preliminary Engineering Report shall evaluate the following alternatives:* *(3-30-07)*~~

i. Wastewater treatment plants (possibly several ~~*brands*~~ technologies). ~~*(3-30-07)*~~( )

ii. Self-contained lagoon. (3-30-07)

iii. Conventional septic tank and drainfield (or alternate drainfield design). (3-30-07)

iv. Surface water discharge including impact on TMDLs. (3-30-07)

v. Gravity or pressure sewer into nearby community (see ~~*the Department's Policy for Determining Reasonable Access to Existing Public Wastewater Facilities*~~ Subsection 455.04.e. for distances to community systems and required hook-up.) ~~*(3-30-07)*~~( )

vi. Recirculating or intermittent sand filter. (3-30-07)

vii. Annual operation and maintenance costs. (3-30-07)

viii. Land application/reuse. (3-30-07)

~~***c.*** *The Preliminary Engineering Report must present capital and operation and maintenance costs, monitoring requirements and reporting, preliminary sizing (design criteria), hydrogeologic studies, bonding, the operation and maintenance manual, district health department requirements (nutrient/pathogen study), and all requirements of Section 411.* *(3-30-07)*~~

~~***d.***~~**b.** The ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report must thoroughly analyze the effect of the treatment plant

discharge on ground water quality, especially bacteria, viruses, phosphorus and nitrates as compared to the alternatives listed in Subsection 455.02.~~b~~a. ~~(3-30-07)~~( )

03. Plan and Specification Approval. (3-30-07)

a. Plans and specifications for the collection and treatment systems will not be approved until the owner is in receipt of one of the following (whichever is applicable): (3-30-07)

i. A draft NPDES permit from EPA for proposed surface water discharges; or ~~(3-30-07)~~( )

ii. A draft wastewater land application/reuse permit from the Department for proposed land application or reuse of the effluent. See the Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, http://www.deq.idaho.gov/water.permits_forms/permitting/guidance.cfm. ~~(3-30-07)~~( )

b. For a subsurface treatment and ~~*disposal*~~ dispersal system (SSDS)~~,~~: ~~*the plans and specifications for the collection system will not be approved until the owner is in receipt of the SSDS permit from the district health department.*~~ ~~(3-30-07)~~( )

i. The plans and specifications for the dispersal system must receive approval from the Department prior to receipt of the SSDS permit from the district health department having jurisdiction; and ( )

ii. The plans and specifications for the collection system will not be approved by the Department until the owner is in receipt of the SSDS permit from the district health department having jurisdiction. ( )

c. For private ~~*community*~~ municipal wastewater treatment plants storing their treated effluent prior to irrigation or surface water discharge, the following additional items shall be considered by the Department, prior to approving either the treatment systems or the disposal option. These include, but are not limited to, sealing of storage ponds, filtration and disinfection requirements ~~*just*~~ prior to ~~*irrigation*~~ use or ~~*surface water*~~ discharge, the degree of treatment, and the intended type and area of irrigation. See IDAPA 58.01.17, "Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater." ~~(3-30-07)~~( )

04. Private ~~*Community*~~ Municipal Wastewater Treatment Plants. ~~(3-30-07)~~( )

a. The private ~~*community*~~ municipal wastewater treatment plant ~~*must be NSF approved or equivalent as approved by the Department and the plant*~~ shall have at least two (2) full years of operating data on five (5) separate installations in the United States. The data submittal shall include the name, address, and telephone number for a regulatory agency contact person familiar with the performance of each reported installation. ~~*For individual package treatment plants with septic tanks and drainfields, IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules," apply and owners must comply with the requirements of those rules.*~~ ~~(3-30-07)~~( )

b. The owner shall provide for a ~~*minimum of a Class II*~~ wastewater system operator in responsible charge of the facility. The ~~*actual*~~ operator license classification requirement will depend on the classification of the system based on Section 202 and the licensure requirements of Section 203. If the operator is provided by contract, the contract shall be submitted to the Department for review and approval. ~~(3-30-07)~~( )

c. A sludge management plan must be submitted to and approved by the Department. The plan must include collection, treatment and disposal of the sludge. Additionally, a signed contract that provides for ultimate legal disposal of the sludge shall be submitted to the Department prior to plan and specification approval. (3-30-07)

d. The private ~~*community*~~ municipal wastewater treatment plant shall be a dual train type (or equivalent/greater) with redundant pumps and blowers from influent works to the disposal site and provide sufficient redundancy to continue processing incoming wastewater at peak flows while any one (1) component or process is out of service. Standby or emergency power shall be provided to fully operate the wastewater treatment plant during a power outage unless the water system would also be out during a power outage. ~~(3-30-07)~~( )

e. A compliance agreement schedule authorized by Section 39-116A, Idaho Code, shall be required for each private ~~community~~ municipal wastewater treatment plant approved unless specifically waived by the Department in writing. If a private ~~community~~ municipal wastewater treatment plant installation is only a temporary or interim measure in a long-term plan, a compliance agreement schedule will include a sunset clause with a date for the private ~~community~~ municipal wastewater treatment plant to cease operation and will require the plant owner to fund and construct the eventual hookup to the public municipal wastewater collection system when the system becomes reasonably accessible. ~~*For the purpose of Section 455, "reasonably accessible" shall mean when the public municipal wastewater collection system is located within one thousand (1,000) feet minimum of any portion of the discharge piping of the private community municipal wastewater treatment plant and the owner of the public municipal wastewater collection system provides a "will serve" letter. The Department will use its Policy for Determining Reasonable Access to Existing Public Wastewater Facilities to determine if a private community municipal wastewater treatment plant may also be found to be reasonably accessible at distances greater than one thousand (1,000) feet. If the Department determines that a proposed private community municipal wastewater treatment plant is reasonably accessible to a public municipal wastewater collection system, the use of the private community municipal wastewater treatment plant may be denied.*~~ The compliance agreement schedule shall address such things as operation and maintenance requirements and monitoring, ~~*and*~~ reporting requirements, and other project-specific items as applicable. The owner shall be responsible for complying with the requirements of the compliance agreement schedule. The compliance agreement schedule must be renewed every five (5) years; when ownership of the treatment plant changes; or at the request of the owner(s) or Department, so long as the system is in operation. ~~*(3-30-07)*~~( )

f. ~~*Operation and Maintenance. An operation and maintenance manual shall be submitted to and approved by the Department as required by Section 425. Adherence to the terms of this approved manual shall be required. The owner shall be responsible for maintaining the private community municipal wastewater treatment plant in a manner that assures its designed operation.*~~ If the Department determines that a proposed private municipal wastewater treatment plant is reasonably accessible to a public municipal wastewater collection system, the use of the private municipal wastewater treatment plant may be denied. ~~*(3-30-07)*~~( )

~~***g.*** *Monitoring and Reporting. As a part of the compliance agreement schedule discussed in Subsection 455.04.e., the owner and the Department shall create monitoring and reporting requirements for the Department to approve. The owner shall be responsible for complying with the requirements of the compliance agreement schedule.* *(3-30-07)*~~

~~***h.*** *A financial management plan shall be provided to show how the financial management of the system will occur. This will explain the formation of a required maintenance entity to provide continued funding, operation and maintenance of the private community municipal wastewater treatment plant and drainfields. The entity must have the authority to collect fees for operation and maintenance, including additional money for a sinking fund for replacement costs and for possible future connection to an available public municipal wastewater collection system.* *(3-30-07)*~~

~~***i.*** *A performance bond, maintenance bond, or cash reserve (one year of operation and maintenance costs) fund is required to ensure continuous and adequate operation and maintenance.* *(3-30-07)*~~

jg. Minimum Size. The minimum size of a private ~~community~~ municipal wastewater treatment plant allowed under these rules is twenty-five thousand (25,000) gallons per day design capacity based on average day flows. ~~*(3-30-07)*~~( )

i. The minimum size requirements do not apply to proposed systems with suitably configured passive wastewater treatment technologies including, but not limited to, facultative lagoons, free water surface wetlands, and vegetated submerged beds. ( )

ii. The Department may approve private municipal wastewater treatment plants smaller than twenty-five thousand (25,000) gallons per day design capacity, based on average day flows, provided the treatment plant will be maintained under original ownership. ( )

iii. For the Department to approve the transfer of ownership of a private municipal wastewater treatment plant smaller than twenty-five thousand (25,000) gallons per day design capacity, based on average day

flows, to another entity, the technical, financial, and managerial requirements in Section 409 must be demonstrated by the proposed new owner. ( )

05. Private ~~Community~~ Municipal Wastewater Treatment Plants with Drainfields. In addition to the applicable requirements of these rules, the subsurface sewage disposal design, construction and operation shall comply with IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules." The exception to this is for Class A reclaimed wastewater reuse facilities that discharge to the subsurface. These reuse facilities are regulated by IDAPA 58.01.17,"Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater." ~~(3-30-07)~~( )

~~***06. Private Community Municipal Wastewater Treatment Plants Discharging to Surface Water.*** *In addition to the applicable requirements of these rules, an NPDES permit is required for a facility discharging to surface water.* (3-30-07)~~

~~***07. Private Community Municipal Wastewater Treatment Plants Discharging to a Land Application or Reuse Site.*** (3-30-07)~~

~~***a.*** *In addition to the applicable requirements of these rules, a land application/reuse permit is required for land application or reuse of the effluent.* (3-30-07)~~

~~***b.*** *For a discharge to a land application or reuse site, treatment and monitoring requirements will be established in the land application/reuse permit. See the Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, http://www.deq.idaho.gov/water/permits_forms/permitting/guidance.cfm.* (3-30-07)~~

~~***08. Private Community Municipal Wastewater Treatment Plants Discharging to a Public Municipal Wastewater Collection System.*** *In addition to the applicable requirements of these rules, a "will-serve" letter from the public municipal wastewater collection system shall be submitted to the Department prior to plan and specification approval for private community municipal wastewater treatment plants discharging to a public municipal wastewater collection system.* (3-30-07)~~

(BREAK IN CONTINUITY OF SECTIONS)

490. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - BIOLOGICAL TREATMENT.
If biological treatment is used, the process shall be determined in the ~~P~~preliminary ~~E~~engineering ~~R~~report. The choice shall be based on influent characteristics and effluent requirements. ~~(3-30-07)~~( )

01. Trickling Filters. (3-30-07)

a. General. Trickling filters shall be preceded by effective settling tanks equipped with scum and grease collecting devices or other suitable pretreatment facilities. (3-30-07)

b. Hydraulics. The flow will be uniformly distributed across the surface of the media. The piping system, including dosing equipment and distributor, shall be designed to provide capacity for the design peak hour~~ly~~ flow, including recirculation. ~~(3-30-07)~~( )

c. Media. (3-30-07)

i. Quality. The media shall be appropriate for the wastewater and shall be of sufficient strength to support itself under design loading and build up of biomass. (3-30-07)

ii. Depth. Trickling filter media shall have a minimum depth of six (6) feet above the underdrains. (3-30-07)

d. Underdrainage System. (3-30-07)

i. Arrangement. Underdrains shall be provided and the underdrainage system shall cover the entire floor of the filter. Inlet openings into the underdrains shall have an unsubmerged gross combined area equal to at least fifteen (15) percent of the surface area of the filter. (3-30-07)

ii. Ventilation. The underdrainage system, effluent channels, and effluent pipe shall be designed to permit free passage of air. (3-30-07)

e. Special Features. (3-30-07)

i. Maintenance. All distribution devices, underdrains, channels, and pipes shall be installed so that they may be properly maintained, flushed or drained. (3-30-07)

ii. Winter Protection. Covers shall be provided to maintain operation and treatment efficiencies when climatic conditions are expected to result in problems due to cold temperatures. (3-30-07)

iii. Recirculation. The piping system shall be designed for recirculation as required to achieve the design efficiency. The recirculation rate shall be variable and subject to plant operator control at the range of 0.5:1 up to 4:1 (ratio of recirculation rate versus design average flow). A minimum of two (2) recirculation pumps shall be provided. (3-30-07)

f. Rotary Distributor Seals. Mercury seals shall not be permitted. (3-30-07)

g. Unit Sizing. Required volumes of filter media shall be based upon pilot testing with the particular wastewater or any of the various empirical design equations that have been verified through actual full scale experience. Such calculations must be submitted to the Department if pilot testing is not utilized. Trickling filter sizing design shall consider peak organic load conditions including the oxygen demands due to solids and process recycle flows. (3-30-07)

02. Activated Sludge. (3-30-07)

a. Aeration. (3-30-07)

i. Capacities and Permissible Loadings. The size of the aeration tank for any particular adaptation of the process shall be determined by full scale experience, pilot plant studies, or rational calculations based mainly on solids retention time, food to microorganism ratio, and mixed liquor suspended solids levels. Other factors, such as size of treatment plant, diurnal load variations, and degree of treatment required, shall also be considered. In addition, temperature, alkalinity, pH, and reactor dissolved oxygen shall be considered when designing for nitrification. Calculations shall be submitted to the Department in the ~~P~~preliminary ~~E~~engineering ~~R~~report to justify the basis for design of aeration tank capacity. ~~(3-30-07)~~( )

ii. Arrangement of Aeration Tanks. (3-30-07)

(1) Dimensions. The dimensions of each aeration tank or return sludge reaeration tank shall be such as to maintain effective mixing and utilization of air. An exception is that horizontally mixed aeration tanks shall have a depth of not less than five point five (5.5) feet. (3-30-07)

(2) Number of Units. Total aeration tank volume plus redundancy requirements shall be divided among two (2) or more equal units, capable of independent operation. (3-30-07)

(3) Inlets and Outlets. (3-30-07)

(a) Controls. Inlets and outlets for each aeration tank unit shall be designed to control flow to any unit with reasonable accuracy and to maintain reasonably constant liquid level. The properties of the system shall permit the design peak day flow to be treated with any single aeration tank unit out of service. The properties of the system shall permit the design peak hour hydraulic flow to be carried with any single aeration tank unit out of service. (3-30-07)

(b) Conduits. Channels and pipes carrying liquids with solids in suspension shall be designed to be self-cleansing. (3-30-07)

(c) Scum and Foam Control. Aeration tanks shall be designed to include adequate control or removal of scum and foam. (3-30-07)

(4) Freeboard. All aeration tanks should have a freeboard of not less than eighteen (18) inches. (3-30-07)

iii. Aeration Equipment. (3-30-07)

(1) General. Oxygen requirements generally depend on maximum diurnal organic loading, degree of treatment, and level of suspended solids concentration to be maintained in the aeration tank mixed liquor. Aeration equipment shall be capable of maintaining a minimum of two point zero (2.0) mg/L of dissolved oxygen in the mixed liquor at all times and provide thorough mixing of the mixed liquor (for a horizontally mixed aeration tank system, an average velocity of one (1) foot per second must be maintained). In the absence of experimentally determined values, the design oxygen requirements for all activated sludge processes shall be 1.1 lb 0_2 per lb of design peak hour~~ly~~ BOD_5 applied to the aeration tanks, with the exception of the extended aeration process, for which the value shall be one point five (1.5) to include endogenous respiration requirements. ~~(3-30-07)~~( )

(a) Where nitrification is required or will occur, the oxygen requirement for oxidizing ammonia must be added to the above requirement for carbonaceous BOD_5 removal and endogenous respiration requirements. The nitrogenous oxygen demand (NOD) shall be taken as four point six (4.6) times the diurnal peak hour~~ly~~ total Kjeldahl nitrogen content of the aeration tank influent. In addition, the oxygen demands due to recycle flows must be considered due to the high concentrations of BOD_5 and total Kjeldahl nitrogen associated with such flows. ~~(3-30-07)~~( )

(b) Meet maximum oxygen demand and maintain process performance with the largest unit out of service. Provide for varying the amount of oxygen transferred in proportion to the load demand on the plant. (3-30-07)

(2) Diffused Air Systems. Air requirements including, but not limited to, process air, channel aeration, aerobic digestion, and miscellaneous plant air shall be submitted to the Department in the ~~P~~preliminary ~~E~~engineering ~~R~~report. Blowers shall be provided in multiple units, so arranged and in such capacities as to meet the maximum air demand with the single largest unit out of service. The design shall also provide for varying the volume of air delivered in proportion to the load demand of the plant. Aeration equipment shall be easily adjustable in increments and shall maintain solids suspension within these limits. ~~(3-30-07)~~( )

(3) Mechanical Aeration Systems. (3-30-07)

(a) Oxygen Transfer Performance. The mechanism and drive unit shall be designed for the expected conditions in the aeration tank in terms of the power performance. Certified testing shall be provided to verify mechanical aerator performance. Refer to applicable provisions of Subsection 490.02. In the absence of specific design information, the oxygen requirements shall be calculated for mechanical aeration systems using a transfer rate not to exceed two (2) pounds of oxygen per horsepower per hour in clean water under standard test conditions. Design transfer efficiencies shall be included in the specifications. (3-30-07)

(b) Design Requirements. Motors, gear housing, bearings, grease fittings, etc., shall be easily accessible and protected from inundation and spray as necessary for proper functioning of the unit. (3-30-07)

(c) Winter Protection. Where extended cold weather conditions occur, the aerator mechanism and associated structure shall be protected from freezing due to splashing. Due to high heat loss, subsequent treatment units shall be protected from freezing. (3-30-07)

b. Non-Aerated Tanks or Zones. Non-aerated tanks or zones within aeration tanks shall have mixing equipment adequate to fully mix the contents. Provide calculations in the ~~P~~preliminary ~~E~~engineering ~~R~~report for sizing of this equipment. ~~(3-30-07)~~( )

c. Return Sludge Equipment. (3-30-07)

i. Return Sludge Rate. The return sludge rate of withdrawal from the final settling tank is a function of the concentration of suspended solids in the mixed liquor entering it, the sludge volume index of these solids, and the length of time these solids are retained in the settling tank. The rate of sludge return shall be varied by means of adjustable weirs, variable speed pumps, or timers (small plants) to pump sludge. (3-30-07)

ii. Return Sludge Pumps. If a consolidated return sludge pump facility is used, the maximum return sludge capacity shall be obtained with the largest pump out of service. If individual sludge pumps are used at each settling basin, the pumps shall be designed to facilitate their rapid removal and replacement with a standby unit stored at the treatment plant site. If air lifts are used for returning sludge from each settling tank hopper, no standby unit will be required provided the design of the air lifts facilitate their rapid and easy cleaning and provided other suitable standby measures are made available. Air lifts should be at least three (3) inches in diameter. (3-30-07)

iii. Return Sludge Piping. Discharge piping should be at least four (4) inches in diameter and shall be designed to maintain a velocity of not less than two (2) feet per second when return sludge facilities are operating at normal return sludge rates. Suitable devices for observing, sampling, and controlling return activated sludge flow from each settling tank hopper shall be provided. (3-30-07)

iv. Waste Sludge Facilities. Means for observing, measuring, sampling, and controlling waste activated sludge flow shall be provided. (3-30-07)

d. Sequencing Batch Reactors. The fill and draw mode of the activated sludge process commonly termed the Sequencing Batch Reactor may be used in Idaho. The design must be based on experience at other facilities and shall meet the applicable requirements under Sections 450, 470 and 490, except as modified in Subsection 490.02.d.i. through 490.02.d.xi. Continuity and reliability of treatment equal to that of the continuous flow through modes of the activated sludge process shall be provided. (3-30-07)

i. At least two (2) tanks shall be provided. (3-30-07)

ii. The decantable volume and decanter capacity of the sequencing batch reactor system with the largest basin out of service shall be sized to pass at least seventy-five (75) percent of the design maximum day flow without changing cycle times. A decantable volume of at least four (4) hours with the largest basin out of service based on one hundred (100) percent of the design maximum day flow is permissible. (3-30-07)

iii. System reliability with any single tank unit out of service and the instantaneous delivery of flow shall be evaluated in the design of decanter weirs and approach velocities. (3-30-07)

iv. Reactor design shall provide for scum removal and prevent overflow of settled solids. (3-30-07)

v. An adequate zone of separation between the sludge blanket and the decanter(s) shall be maintained throughout the decant phase. Decanters which draw the treated effluent from near the water surface throughout the decant phase are recommended. (3-30-07)

vi. Solids management to accommodate basin dewatering shall be considered. (3-30-07)

vii. The blowers shall be provided in multiple units, so arranged and in such capacities as to meet the maximum air demand in the oxic portions of the fill/react and react phases of the cycle with the single largest unit out of service. See Subsection 490.02. (3-30-07)

viii. Mechanical mixing independent of aeration shall be provided for all systems where biological phosphorus removal or denitrification is required. (3-30-07)

ix. Flow paced composite sampling equipment and continuous turbidity metering for separately monitoring the effluent quality from each basin may be required by the regulatory agency. All twenty-four (24) hour effluent quality composite samples for compliance reporting or monitoring plant operations shall be flow-paced and

include samples collected at the beginning and end of each decant phase. (3-30-07)

x. A programmable logic controller (PLC) shall be provided. Multiple PLCs shall be provided as necessary to assure rapid process recovery or minimize the deterioration of effluent quality from the failure of a single controller. An uninterruptible power supply with electrical surge protection shall be provided for each PLC to retain program memory (i.e., process control program, last-known set points and measured process/equipment status, etc.) through a power loss. A hard-wired backup for manual override shall be provided in addition to automatic process control. Both automatic and manual controls shall allow independent operation of each tank. In addition, a fail-safe control allowing at least twenty (20) minutes of settling between the react and decant phases shall be provided. The fail-safe control shall not be adjusted by the operator. (3-30-07)

xi. ~~*Provide*~~ A sufficient quantity of spare parts~~*, especially PLC module and valve operators*~~ shall be on hand. Consideration shall be given to parts with a low mean time between failure such as electrical relays and solid state electronics. ~~*(3-30-07)*~~( )

03. Other Biological Systems. (3-30-07)

a. General. Biological treatment processes not included in these rules shall be considered in accordance with Subsection 450.03. (3-30-07)

b. Membrane Bioreactors. Details for Membrane Bioreactor (MBR) plants shall be submitted and approved in the ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report. In addition to the requirements of Section 411, details shall include plant layout, calculations for hydraulic capacity and air required, membrane technology considered and membrane type and model selected, results from similar type MBR plants already in operation, and anticipated sludge production. ~~*(3-30-07)*~~( )

491. -- 492. (RESERVED).

493. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - WASTEWATER LAGOONS.

01. General. (3-30-07)

a. These rules pertain to all new and existing municipal wastewater lagoons, including discharging or non-discharging lagoons, municipal wastewater treatment lagoons, municipal wastewater storage lagoons, and any other municipal wastewater lagoons that, if leaking, have the potential to degrade waters of the state. Lagoons are also sometimes referred to as ponds. Section 493 does not apply to industrial lagoons or mining tailings ponds, single-family dwellings utilizing a single lagoon, two (2) cell infiltrative system, those animal waste lagoons excluded from review under Section 39-118, Idaho Code, or storm water ponds. (3-30-07)

b. Lagoons utilized for equalization, percolation, evaporation, and sludge storage do not have to meet the requirements set forth in Subsections 493.05 through 493.10, but must comply with all other applicable subsections. (3-30-07)

02. Seepage Testing Requirements. ( )

a. Existing Lagoons. All existing lagoons covered under these rules shall be seepage tested by an Idaho licensed professional engineer, an Idaho licensed professional geologist, or by individuals under their supervision by April 15, 2012 unless otherwise specified in a current permit issued by the Director~~.~~. ( )

b. New Lagoons. ~~*and, a*~~As part of the construction process, all new lagoons must be seepage tested by an Idaho licensed professional engineer, an Idaho licensed professional geologist, or by individuals under their supervision prior to being put into service. ( )

c. Subsequent Tests. All lagoons covered under these rules must be seepage tested by an Idaho licensed professional engineer, an Idaho licensed professional geologist, or by individuals under their supervision every ~~*five*~~ ten (~~5~~10) years after the initial testing. ( )

d. Testing Due to Change of Conditions to Liner. Prior to being returned to service, lagoons must be seepage tested if a change of condition to the liner occurs that may affect its permeability, including but not limited to liner repair below the high water line, liner replacement, lagoon dewatering of soil-lined lagoons which results in desiccation of the soil liner, seal installation, or earthwork affecting liner integrity. A seepage test may be required after solids removal. Prior to performing activities that may affect liner permeability, the system owner must contact the Department in writing to determine if a seepage test will be required prior to returning the lagoon to service. ( )

e. Procedures for Performing a Seepage Test. The procedure for performing a seepage test or alternative analysis must be approved by the Department, and the test results must be submitted to the Department. If an existing lagoon has ~~had~~ passed a seepage ~~testing done~~ test before April 15, 2012 and ~~results~~ submitted the results to the Department ~~before April 15, 2012~~, the owner of that lagoon has ~~five~~ ten (~~5~~10) years from the date of the testing to comply with this requirement. ~~(3-30-07)~~( )

03. Allowable Seepage Rates. (3-30-07)

a. Design Standard. Lagoons shall be designed for a maximum leakage rate of five hundred (500) gallons per acre per day. (3-30-07)

b. Operating Standard. The leakage rate for lagoons constructed after April 15, 2007 shall be no more than zero point one hundred twenty-five (0.125) inches (1/8 inch) per day, which is approximately thirty-four hundred (3400) gallons per acre per day. The leakage rate for existing lagoons constructed prior to April 15, 2007 shall be no more than zero point twenty-five (0.25) inches (1/4 inch) per day. (3-30-07)

c. For lagoons located over sensitive aquifers or near 303d listed stream segments, the leakage rate shall be no more than zero point one hundred twenty-five (0.125) inches (one-eighth (1/8) inch) per day, which is approximately thirty-four hundred (3400) gallons per acre per day. ~~t~~The operating standard may be considerably lower ~~than stated in Subsection 493.03.b.~~, based on a ground water investigation considering fate and transport of contaminants to determine the effect of the seepage on the aquifer or stream segment and the best capability of measurement at the time of the investigation. ~~(3-30-07)~~( )

04. Requirements for Lagoons Leaking Above the Allowable Amount. If a lagoon is found to be leaking at a rate higher than that allowed under Subsection 493.03.b., the owner of the lagoon, in accordance with a schedule negotiated with and approved by the Director, is required to: (3-30-07)

a. Repair the leak and retest for compliance; (3-30-07)

b. Re-line the lagoon and retest for compliance; (3-30-07)

c. Drain the lagoon in an approved manner and stop using the lagoon; or (3-30-07)

d. Determine the impact of the leaking lagoon on the environment based on ground water sampling and modeling. The procedure for performing ground water sampling and monitoring must be approved by the Department. Any impact must comply with IDAPA 58.01.11, "Ground Water Quality Rule," and IDAPA 58.01.02, "Water Quality Standards." If the impact does not comply with IDAPA 58.01.11, "Ground Water Quality Rule," and IDAPA 58.01.02, "Water Quality Standards," the owner of the lagoon must follow one (1) of the steps set out in Subsections 493.04.a. through 493.04.c. ~~(3-30-07)~~( )

05. Location. (3-30-07)

a. Wastewater treatment lagoons shall be placed a minimum of two hundred (200) feet from residential property lines. In all cases, the design location shall consider odors, nuisances, etc. This distance is to the toe of the exterior slope of the dike or to the top of the cut for a lagoon placed into a hillside. More restrictive planning and zoning or other local requirements shall apply. (3-30-07)

b. Ground Water Separation. A minimum separation of two (2) feet between the bottom of the pond

and the maximum ground water elevation shall be maintained. (3-30-07)

c. Bedrock Separation. A minimum separation of two (2) feet between the pond bottom and any bedrock formation shall be maintained. (3-30-07)

06. Basis of Design. (3-30-07)

a. Design variables such as climatic conditions, odor, pond depth, multiple units, detention time, and additional treatment units must be considered with respect to applicable standards for BOD_5, total suspended solids (TSS), fecal coliform, dissolved oxygen (DO), pH, and other effluent requirements and limits. (3-30-07)

b. The ~~P~~preliminary ~~E~~engineering ~~R~~report shall include all design criteria for the development of the pond design. ~~(3-30-07)~~( )

c. The reaction rate coefficient for domestic wastewater which includes some industrial wastes, other wastes, and partially treated wastewater must be determined experimentally for various conditions which might be encountered in the lagoons or actual data from lagoons in similar climates. Conversion of the reaction rate coefficient at other temperatures shall be made based on experimental data. (3-30-07)

d. Oxygen requirements generally will depend on the design average BOD_5 loading, the degree of treatment, and the concentration of suspended solids to be maintained. If needed, aeration equipment shall be capable of maintaining a minimum dissolved oxygen level of two (2) mg/L in the ponds at all times. Suitable protection from weather shall be provided for electrical controls. Aerated cells shall be followed by a polishing cell with a detention time of a minimum of twenty-four (24) hours. (3-30-07)

e. See Subsection 490.02 for details on aeration equipment. (3-30-07)

07. Industrial Wastes as a Part of the Municipal Wastewater. (3-30-07)

a. Consideration shall be given to the type and effects of industrial wastes on the treatment process. (3-30-07)

b. Industrial wastes shall not be discharged to ponds without assessment of the effects such substances may have upon the treatment process or discharge requirements in accordance with state and federal laws. (3-30-07)

08. Number of Cells Required. (3-30-07)

a. A wastewater treatment pond system shall consist of a minimum of three (3) cells designed to facilitate both series and parallel operations. Two (2) cell systems may be utilized in very small installations of less than fifty thousand (50,000) gallons per day. (3-30-07)

b. All systems shall be designed with piping flexibility to permit isolation of any cell without affecting the transfer and discharge capabilities of the total system. (3-30-07)

09. Pond Construction Details. (3-30-07)

a. Embankments and Dikes. (3-30-07)

i. Material. Dikes shall be constructed of relatively impervious soil and compacted to at least ninety-five (95) percent Standard Proctor Density to form a stable structure. Vegetation and other unsuitable materials shall be removed from the area where the embankment is to be placed. (3-30-07)

ii. Top Width. The minimum dike width shall be ten (10) feet to permit access for maintenance vehicles. (3-30-07)

iii. Maximum Slopes. Inner and outer dike slopes shall not be steeper than one (1) vertical to three (3) horizontal (1:3). (3-30-07)

iv. Minimum Slopes. Inner slopes should not be flatter than one (1) vertical to four (4) horizontal (1:4). Flatter slopes can be specified for larger installations because of wave action but have the disadvantage of added shallow areas being conducive to emergent vegetation. Outer slopes shall be sufficient to prevent surface runoff from entering the ponds. (3-30-07)

v. Freeboard. Minimum freeboard shall be three (3) feet, except that for small systems of less than fifty thousand (50,000) gallons per day, two (2) feet may be acceptable. (3-30-07)

vi. Design Depth. The minimum operating depth shall be sufficient to prevent growth of aquatic plants and damage to the dikes, bottom, control structures, aeration equipment, and other appurtenances. In no case shall pond depths be less than two (2) feet. (3-30-07)

b. Pond Bottom. (3-30-07)

i. Soil. Soil used in constructing the pond bottom (not including the seal) and dike cores shall be relatively incompressible and tight and compacted to at least ninety-five (95) percent Standard Proctor Density. (3-30-07)

ii. Seal. Ponds shall be sealed such that seepage loss through the seal complies with Subsection 493.03. Results of a testing program which substantiates the adequacy of the proposed seal must be incorporated into ~~*and/*~~or accompany the ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report. ~~*(3-30-07)*~~( )

c. Miscellaneous. (3-30-07)

i. Fencing. The pond area shall be enclosed with an adequate fence to prevent entering of livestock and discourage trespassing. This requirement does not apply to pond areas which store or impound Class A municipal reclaimed effluent. ~~*(3-30-07)*~~( )

ii. Access. An all-weather access road shall be provided to the pond site to allow year-round maintenance of the facility. (3-30-07)

iii. Warning Signs. Appropriate permanent signs shall be provided along the fence around the pond to designate the nature of the facility and advise against trespassing. At least one (1) sign shall be provided on each side of the site and one (1) for every five hundred (500) feet of its perimeter. (3-30-07)

iv. Flow Measurement. Flow measurement requirements are provided in Subsection 450.06.e. Effective weather protection shall be provided for the recording equipment. (3-30-07)

v. Ground Water Monitoring. A ground water monitoring plan shall be submitted to the Department for review and approval as a part of the ~~*P*~~preliminary ~~*E*~~engineering ~~*R*~~report. An approved system of wells or lysimeters shall be required around the perimeter of the pond site to facilitate ground water monitoring. ~~*(3-30-07)*~~( )

10. Closure. The owner shall notify the Department at least six (6) months prior to permanently removing any wastewater lagoon facility from service, including any treatment or storage pond. Prior to commencing closure activities, the facility shall: (3-30-07)

a. Participate in a pre-closure on-site meeting with the Department; (3-30-07)

b. Develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and (3-30-07)

c. Submit the completed site closure plan to the Department for review and approval within forty-five (45) days of the pre-site closure meeting. The facility must complete the Department approved site closure plan. (3-30-07)

494. -- 499. (RESERVED).

500. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES - DISINFECTION.

01. General. Disinfection of the effluent shall be provided as necessary to meet applicable standards. The design of new municipal wastewater treatment facilities, or municipal wastewater treatment facilities undergoing material modifications, shall consider meeting both the bacterial standards and the disinfectant residual limit in the effluent. The disinfection process shall be selected after due consideration of waste characteristics, type of treatment process provided prior to disinfection, waste flow rates, pH of waste, disinfectant demand rates, current technology application, cost of equipment and chemicals, power cost, and maintenance requirements as determined in the ~~P~~preliminary ~~E~~engineering ~~R~~report. Where a disinfection process other than chlorination, ~~or~~ ultraviolet disinfection, or ozone is proposed, supporting data from pilot plant installations or similar full scale installations shall be required as a basis for the design of the system. ~~(3-30-07)~~( )

02. Determining the Necessity For Disinfection of Sewage Wastewater Treatment Plant Effluent. (3-30-07)

a. Disinfection of municipal wastewater treatment facility effluent shall be required when: (3-30-07)

i. Required by an NPDES permit; or (3-30-07)

ii. The effluent is discharged to a land application/reuse facility and is required to meet the disinfection requirements found in IDAPA 58.01.17, "Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater." (3-30-07)

iii. The effluent discharged to a land application/reuse facility, where ground water contamination has exceeded the bacterial limit found in IDAPA 58.01.11, "Ground Water Quality Rules," and it has been determined by the Department that disinfection is required. (3-30-07)

b. The need for disinfection of sewage wastewater treatment plant effluent where treatment consists of lagoons with at least thirty (30) day retention time shall be evaluated on a case by case basis. (3-30-07)

03. Chlorine Disinfection. (3-30-07)

a. Type. Chlorine is available for disinfection in gas, liquid (hypochlorite solution), and pellet (hypochlorite tablet) form. The type of chlorine should be carefully evaluated during the facility planning or preliminary engineering process. The use of chlorine gas or liquid will be most dependent on the size of the facility and the chlorine dose required. Large quantities of chlorine, such as are contained in ton cylinders and tank cars, can present a considerable hazard to plant personnel and to the surrounding area should such containers develop leaks. Both monetary cost and the potential public exposure to chlorine shall be considered when making the final determination. (3-30-07)

b. Dosage. For disinfection, the capacity shall be adequate to produce an effluent that will meet the applicable bacterial limits specified by the regulatory agency for that installation. Required disinfection capacity will vary, depending on the uses and points of application of the disinfection chemical. The chlorination system shall be designed on a rational basis and calculations justifying the equipment sizing and number of units shall be submitted for the whole operating range of flow rates for the type of control to be used. System design considerations shall include the controlling wastewater flow meter (sensitivity and location), telemetering equipment, and chlorination controls. (3-30-07)

c. Piping and Connections. Piping systems shall be as simple as practicable, specifically selected and manufactured to be suitable for chlorine service, with consideration for minimizing number of joints. Piping should be well supported and protected against temperature extremes. Venting of excess gas shall be provided. Special considerations shall be given to piping and fixture selection for hypochlorite and chlorine use. Section 008 provides a reference to guidance documents; see Subsections 008.01, 008.04 and 008.05. (3-30-07)

d. Standby Equipment and Spare Parts. Standby equipment of sufficient capacity should be available to replace the largest unit during shutdowns. Spare parts shall be available for all disinfection equipment to replace parts which are subject to wear and breakage. (3-30-07)

e. Housing. (3-30-07)

i. Feed and Storage Rooms. Gas chlorination equipment and chlorine cylinders shall be housed in a building. If this building is used for other purposes, a gas-tight room shall separate this equipment from any other portion of the building. Floor drains from the chlorine room shall not be connected to floor drains from other rooms. Doors to this room shall open only to the outside of the building and shall be equipped with panic hardware. Rooms shall permit easy access to all equipment. Section 009 provides a reference to requirements of other regulatory entities, compliance with which may be required by other law. (3-30-07)

ii. Ventilation. Section 009 provides a reference to the requirements of the National Electric Code, compliance with which may be required by other law. (3-30-07)

iii. Electrical Controls. Section 009 provides a reference to the requirements of the National Electric Code, compliance with which may be required by other law. (3-30-07)

iv. Protective and Respiratory Gear. Respiratory air-pac protection equipment shall be available where chlorine gas is handled, and shall be stored at a convenient location, but not inside any room where chlorine is used or stored. Instructions for using the equipment shall be posted. Section 008 provides a reference to guidance documents; see Subsections 008.01, 008.04 and 008.05. (3-30-07)

04. Dechlorination. (3-30-07)

a. Types. (3-30-07)

i. Dechlorination of wastewater effluent may be necessary to reduce the toxicity due to chlorine residuals. The most common dechlorination chemicals are sulfur compounds, particularly sulfur dioxide gas or aqueous solutions of sulfite or bisulfite. Pellet dechlorination systems are also available for small facilities. (3-30-07)

ii. The type of dechlorination system should be carefully selected considering criteria including the following: type of chemical storage required, amount of chemical needed, ease of operation, compatibility with existing equipment, and safety. (3-30-07)

b. Dosage. The dosage of dechlorination chemical depends on the residual chlorine in the effluent, the final residual chlorine limit, and the particular form of the dechlorinating chemical used. (3-30-07)

c. Standby Equipment and Spare Parts. The same requirements apply as for chlorination systems. See Subsection 500.04.d. (3-30-07)

d. Housing Requirements/Feed and Storage Rooms. The requirements for housing SO2 gas equipment shall follow the same guidelines as used for chlorine gas. Refer to Subsection 500.04.e. for specific details. When using solutions of the dechlorinating compounds, the solutions may be stored in a room that meets the safety and handling requirements set forth in Subsection 450.07. The mixing, storage, and solution delivery areas must be designed to contain or route solution spillage or leakage away from traffic areas to an appropriate containment unit. (3-30-07)

e. Protective and Respiratory Gear. The respiratory air-pac protection equipment is the same as for chlorine. See Subsection 500.04.e. (Refer to The Compressed Gas Association Publication CGA G-3-1995, “Sulfur Dioxide.”) (3-30-07)

05. Ultraviolet (UV) Radiation. (3-30-07)

a. The following documents are recommended to be used as references for UV system sizing and

facility design: (3-30-07)

i. "Wastewater Engineering, Treatment and Reuse," Metcalf and Eddy, referenced in Section 008. (3-30-07)

ii. For reuse applications, "Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse," National Water Research Institute/AWWA Research Foundation, referenced in Section 008. (3-30-07)

b. For UV systems to be installed at any existing wastewater treatment facility, collection of one (1) year's worth of UV transmittance (UVT) data (four (4) times per day) prior to predesign is encouraged, especially for facilities larger than five million gallons per day (5 mgd) (design peak hour~~ly~~ flow), and facilities that have industries that vary discharge throughout the year. ~~(3-30-07)~~( )

c. The ~~P~~preliminary ~~E~~engineering ~~R~~report for all UV disinfection facilities shall include the following: ~~(3-30-07)~~( )

i. A minimum of two (2) open channels (or justification for using a smaller system). (3-30-07)

ii. A minimum of two (2) banks of UV lamps per channel (or justification for using a smaller system). (3-30-07)

iii. Description of the redundancy provided. (3-30-07)

iv. Description of the upstream flow splitting device (which splits flow to the two (2) or more UV channels). (3-30-07)

v. Description of water level control device. (3-30-07)

vi. Description of method used to take a channel off-line for maintenance, and method to dewater a channel. (3-30-07)

vii. Type of UV system technology (low-pressure low-intensity, low-pressure high-intensity, medium pressure, etc.), with consideration given to power consumption. (3-30-07)

viii. Summary of UVT data and~~/or~~ collimated beam data. ~~(3-30-07)~~( )

ix. Description of HVAC system requirements to ensure adequate UV system performance during summer peak temperature period. (3-30-07)

x. Description of maintenance requirements including removal (cleaning) of biofilms from the channel walls upstream and downstream of the UV system. (3-30-07)

xi. General description of alarming and controls. (3-30-07)

xii. Description of procedure used for UV system sizing. (3-30-07)

xiii. Design criteria: (3-30-07)

(1) Design UVT. (3-30-07)

(2) TSS. (3-30-07)

(3) Design water temperature range. (3-30-07)

(4) Dose. (3-30-07)

(5) End of lamp life factor. (3-30-07)

(6) Fouling factor. (3-30-07)

(7) Quartz sleeve transmittance factor. (3-30-07)

(8) Design peak hour~~ly~~ flow. ~~(3-30-07)~~( )

(9) Existing minimum flow. (3-30-07)

(10) Number of channels. (3-30-07)

(11) Disinfection requirements (coliform concentration). (3-30-07)

(12) Maximum head-loss from upstream of the first bank to downstream of the last bank of lamps (lamp spacing divided by two (2)). (3-30-07)

d. Use of bioassay method of UV system sizing is encouraged if all manufacturers under consideration have existing bioassays performed using identical protocol, and the bioassay was performed under conditions similar to the design application. Use of the bioassay method of UV system sizing is discouraged if the conditions of Subsection 500.05.d. cannot be met. (3-30-07)

e. Closed chamber units will be reviewed on a case by case basis in accordance with Subsection 450.03.b. (3-30-07)

06. Ozone. Ozone systems for disinfection shall be evaluated on a case-by-case basis. Design of these systems shall be based upon experience at similar full scale installations or thoroughly documented prototype testing with the particular wastewater. ( )

(BREAK IN CONTINUITY OF SECTIONS)

511. -- 51~~9~~8. (RESERVED).

519. FACILITY AND DESIGN STANDARDS FOR MUNICIPAL WASTEWATER TREATMENT OR DISPOSAL FACILITIES -- SEPTAGE TRANSFER STATIONS.
Prior to construction of a new septage transfer station or upon material modification of an approved existing station, the owner of the station must satisfy the following requirements. ( )

01. Design. Septage holding tanks, transfer/storage tanks, and transfer hoses for either type of tank shall meet the applicable requirements of Subsections 519.01.a. through 519.01.c. ( )

a. All tanks shall be watertight, not open to the air, and provided with containment structures to prevent the discharge of septage spills to the surrounding environment. ( )

b. All piping, transfer hoses, valves, and connections shall be watertight, accessible, and capable of being cleaned, repaired, and replaced. ( )

c. All inlet and outlet connections shall be constructed and maintained such that septage will not leak, spill, or overflow the holding tank. ( )

d. No septage holding or transfer/storage tank shall be permitted within the one hundred (100) year flood plain as defined and delineated by the flood insurance rate maps published by the Federal Emergency Management Agency. ( )

e. Odor controls shall be provided to mitigate nuisance odor discharge during transfer. Odor control

may be attained by employing appropriate setback distances to neighboring facilities, using appropriate air scrubbing technologies in conjunction with an enclosed transfer station or other suitably engineered configuration that provides assurances of minimal odor nuisances. ( )

f. The property is owned by the individual(s) operating the septage transfer station, or the property owner has granted permission to so use the property. ( )

g. Septage transfer stations shall provide total containment for the entire volume of the holding tanks and transfer/storage tanks in the event of spilled septage. ( )

h. Truck washing facilities shall be constructed to retain all wash water on site. ( )

02. Plans and Specifications. In addition to the requirements of Section 400, plans and specifications for septage transfer stations must include the requirements of Subsections 519.02.a. through 519.02.f. ( )

a. A map which identifies the proposed septage holding or transfer/storage tank location. ( )

b. The footprint of the proposed activity area. ( )

c. All access roads and access control measures. ( )

d. All roads, property boundary lines, and structures within two hundred (200) feet of the septage holding or transfer/storage tank location; any structures on the property; and any easements or rights-of-way which exist on the property. ( )

e. Surrounding land use within two hundred (200) feet of the footprint of the proposed activity area on which the septage holding or transfer/storage tank is proposed to be located. ( )

f. A spill response plan, describing spill response equipment and disinfection and containment capability at the septage transfer station, shall be submitted to and approved by the Department. ( )

03. Record Keeping. Every owner of a septage transfer station shall maintain the following records for a minimum of five (5) years. ( )

a. For each load of septage received: ( )

i. The date received or picked up; ( )

ii. The name and address of the client(s) from whom the septage was received; and ( )

iii. The volume of the septage received, in gallons; and ( )

b. Records indicating the final disposal destination(s) for septage removed from the transfer/storage tank. ( )

(BREAK IN CONTINUITY OF SECTIONS)

651. -- ~~99~~659. (RESERVED).

660. WAIVERS.
Waivers from the requirements of these rules may be granted by the Director on a case-by-case basis upon full demonstration by the person requesting the waiver(s) that such activities for which the waivers are granted will have no significant impact on the environment or on the public health. ( )

661. -- 999. (RESERVED).

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.24 - STANDARDS AND PROCEDURES FOR APPLICATION OF RISK BASED CORRECTIVE ACTION AT PETROLEUM RELEASE SITES

DOCKET NO. 58-0124-0801

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has proposed rulemaking. The action is authorized by Chapter 1, Title 39, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency.

Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: DEQ is faced with the task of approving and overseeing appropriate response actions at petroleum release sites across the state. In June 2004, DEQ issued the Idaho Risk Evaluation Manual (REM). This manual describes an integrated risk evaluation process for managing chemical release sites that assist DEQ in determining the need for corrective action and, when necessary, the site-specific cleanup levels protective of human health and the environment. The manual also describes the key methodologies and elements of the risk evaluation process. This rulemaking has been initiated to formalize the critical elements of the REM that are pertinent to evaluation of petroleum release sites in order to clarify and promote consistent corrective action decision-making at these sites.

This rule will describe standards and procedures for application of risk based corrective action at petroleum release sites. Cities, counties, bankers, lenders, realtors, petroleum marketers, consultants, and members of the public may be interested in commenting on this proposed rule.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

NEGOTIATED RULEMAKING: The text of the proposed rule has been drafted based on discussions held and concerns raised during negotiations conducted pursuant to Section 67-5220, Idaho Code, and IDAPA 04.11.01.810-815. On April 2, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-4, page 43, and a preliminary draft rule was made available for public review. Meetings were held on May 15, May 28, May 29, June 11, and June 25, 2008. Members of the public participated in this negotiated rulemaking process by attending the meetings and by submitting written comments.

IDAHO CODE SECTION 39-107D STATEMENT: Section 39-107D, Idaho Code, provides that DEQ must meet certain requirements when it formulates and recommends rules which are broader in scope or more stringent than federal law or regulations. There is no federal law or regulation that is comparable to the Standards and Procedures for Application of Risk Based Corrective Action at Petroleum Release Sites. Therefore, this rule is not broader in scope or more stringent than federal law or regulations.

Section 39-107D, Idaho Code, also applies to a rule which "proposes to regulate an activity not regulated by the federal government." This rule does not propose to regulate an activity not regulated by the federal government. However, the rule does delineate a process that is not specifically delineated or required by the federal government. The following is a summary of additional information specified in Sections 39-107D(3) and (4), Idaho Code.

Section 39-107D(3)(a), Idaho Code. Identification of each population or receptor addressed by an estimate of public health effects or environmental effects.
This rule delineates a process to evaluate the human health risks resulting from exposure to chemicals associated with petroleum releases. It is not known prior to the release of petroleum at a specific site which potential populations or receptors may be exposed. During the initial conservative screening portion of the process it is assumed that the target populations at risk are residential receptors and sensitive subpopulations such as children in day care facilities and schools, elderly residents of nursing homes and individuals with compromised health at hospitals. In subsequent steps in the risk evaluation process described in the rule, site-specific determination of current and likely potential future

receptors can be made. For example, other types of receptors may include but are not limited to commercial/industrial and construction workers.

Section 39-107D(3)(b) and (c), Idaho Code. Identification of the expected risk or central estimate of risk for the specific population or receptor and identification of each appropriate upper bound or lower bound estimate of risk.
This rule describes a procedure for risk evaluation at petroleum release sites and requirements, both general and specific, for the site-specific estimation of risk. In the initial step of the risk evaluation process described by this rule, a screening level approach is utilized. The screening levels are compared to site media-specific petroleum chemical concentrations to determine the need for further evaluation or corrective action.
The screening levels were calculated using target cancer and non-cancer health risks in combination with specific parameter values for each of the variables in the equations used to calculate acceptable concentrations. For some factors central estimate values were used while for other factors an upper bound estimate was selected. The screening levels can be characterized as representing upper bound estimates of risk for residential receptors for the routes of exposure evaluated.

The more detailed risk evaluation process described in the rule allows the incorporation of site-specific data and assumptions, such as the likely future land use and receptors, into the risk calculation. The requirements for site-specific risk evaluation described in this rule specify 1) the acceptable cumulative risk and hazard that should apply at all sites and 2) that calculated risks should represent a reasonable maximum exposure scenario.

Section 39-107D(3)(d), Idaho Code. Identification of each significant uncertainty identified in the process of the assessment of public health effects or environmental effects and any studies that would assist in resolving the uncertainty.
There are a number of uncertainties in the risk evaluation process described in the rule. These include uncertainty in the estimation of exposure for specific receptors or populations, as well as uncertainty in the magnitude of effects associated with a specific dose of a chemical. The estimation of exposure is based on both environmental transport pathways from a petroleum release to a receptor, as well as on physiological and behavioral characteristics of the receptor.

Examples of physiological characteristics include body weight and breathing rate. Behavioral characteristics include such things as how much time a receptor spends outdoors each day, and how long a receptor lives at one location. Within a population there is variability in physiological and behavioral characteristics; uncertainty results from lack of knowledge of the characteristics of current or future individuals who may be exposed to chemicals from a petroleum release. In the initial screening step of the risk evaluation process described in the rule, this uncertainty is addressed by utilizing values for these parameters from databases that are universally accepted in standard risk assessment practice. Many of the values selected for the screening step are upper-bound values from distributions in the databases, as the goal in this initial evaluation is to evaluate risk to residential and sensitive populations. In subsequent steps of the risk evaluation process, it is sometimes possible to collect site-specific data that can reduce uncertainty for a specific population. For example, there might be information available that allows a more accurate estimation of exposure frequency or duration, thereby reducing uncertainty for this population.

Uncertainty in environmental transport, such as the leaching of chemicals in soil to ground water, is related to the physical and chemical properties of the chemicals present in a petroleum release, as well as physical characteristics of the setting, such as depth to ground water. Parameter values from the scientific literature and accepted databases are utilized to assess environmental transport for the initial screening step of the process described in the rule. In the subsequent site-specific risk evaluation, collection of site-specific data is a powerful tool to reduce uncertainty, resulting in a better understanding of risks at the site.

Uncertainty in dose-response assessment is addressed by use of the best available toxicological data from databases which are universally recognized and accepted as part of standard risk assessment practice.

Section 39-107D(3)(e), Idaho Code. Identification of studies known to the department that support, are directly relevant to, or fail to support any estimate of public health effects or environmental effects and the methodology used to reconcile inconsistencies in the data.
The referenced studies and analyses will be included in the rulemaking record and can be reviewed during the public comment period for further detailed information regarding health effects.

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FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning the proposed rulemaking, contact Orville Green at orville.green@deq.idaho.gov, (208)373-0278 or Bruce Wicherski at bruce.wicherski@deq.idaho.gov, (208)373-0246.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson
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THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0124-0801

IDAPA 58
TITLE 01
CHAPTER 24

58.01.24 - STANDARDS AND PROCEDURES FOR APPLICATION OF RISK BASED CORRECTIVE ACTION AT PETROLEUM RELEASE SITES

000. LEGAL AUTHORITY.
Chapters 1, 36, 44, 72 and 74, Title 39, Idaho Code grant authority to the Board of Environmental Quality to adopt rules and administer programs to protect public health and the environment, including the protection of surface water, ground water quality, drinking water quality. ( )

001. TITLE, SCOPE AND APPLICABILITY.

01. **Title**. These rules shall be cited as IDAPA 58.01.24, "Standards and Procedures for Application of Risk Based Corrective Action at Petroleum Release Sites." ( )

02. **Scope**. These rules establish standards and procedures to determine whether and what risk based corrective action measures should be applied to property subject to assessment and cleanup requirements under IDAPA 58.01.02, Sections 851 and 852, "Water Quality Standards," and associated definitions; IDAPA 58.01.11, Subsection 400.05, "Ground Water Quality Rule;" or when assessment and cleanup requirements are incorporated into compliance documents entered into per Chapter 1, Title 39, Idaho Code. Compliance with these rules shall not relieve persons from the obligation to comply with other applicable state or federal laws. These rules do not apply to previously closed sites. The Department will not require any additional evaluation of petroleum sites previously granted closure unless there is a new petroleum release. ( )

002. WRITTEN INTERPRETATIONS.
As described in Section 67-5201(19)(b)(iv), Idaho Code, the Department of Environmental Quality may have written statements which pertain to the interpretation of these rules. If available, such written statements can be inspected and copied at cost at the Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho 83706-1255. ( )

003. ADMINISTRATIVE PROVISIONS.
Persons may be entitled to appeal agency actions authorized under these rules pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." ( )

004. INCORPORATION BY REFERENCE.
These rules do not contain documents incorporated by reference. ( )

005. AVAILABILITY OF REFERENCED MATERIAL.
Documents and data bases referenced within these rules are available at the following locations: ( )

01. **Idaho Risk** Evaluation Manual. Idaho Risk Evaluation Manual and subsequent editions, http://www.deq.idaho.gov/Applications/Brownfields/index.cfm?site=risk.htm. ( )

02. **U.S. EPA RAGS.** U.S. EPA RAGS, Volume 1, http://www.epa.gov/oswer/riskassessment/policy.htm#5. ( )

03. **U.S. EPA Exposure Factors Handbook**. U.S. EPA Exposure Factors Handbook, http://www.epa.gov/ncea/pdfs/efh/front.pdf. ( )

04. **U.S. EPA IRIS Database**. U.S. EPA IRIS Database, http://cfpub.epa.gov/ncea/iris/index.cfm. ( )

05. Idaho Source Water Assessment Plan. Idaho Source Water Assessment Plan,http://www.deq.idaho.gov/water/data_reports/source_water/swa_plan_1999.pdf. ( )

06. Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons. Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons. 1993. U.S. Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, DC, EPA/600/R-93/089, http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=49732. ( )

006. OFFICE HOURS -- MAILING ADDRESS AND STREET ADDRESS.
The state office of the Department of Environmental Quality and the office of the Board of Environmental Quality are located at 1410 N. Hilton, Boise, Idaho 83706-1255, (208) 373-0502, www.deq.idaho.gov. The office hours are 8 a.m. to 5 p.m. Monday through Friday. ( )

007. CONFIDENTIALITY OF RECORDS.
Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 9, Chapter 3, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Idaho Department of Environmental Quality." ( )

008. LIST OF TABLES.
The following tables are found in Section 800 of this rule. ( )

01. Table 1. Chemicals of Interest for Various Petroleum Products. ( )

02. Table 2. Residential Use Screening Levels. ( )

03. Table 3. Default Toxicity Values for Risk Evaluation. ( )

009. ACRONYMS.

01. ATSDR. Agency for Toxic Substances and Disease Registry. ( )

02. EPA. The United States Environmental Protection Agency. ( )

03. IRIS. Integrated Risk Information System. ( )

04. NCEA. National Center for Environmental Assessment. ( )

05. PST. Petroleum Storage Tank System. ( )

06. RAGS. Risk Assessment Guidance for Superfund. ( )

07. UECA. Uniform Environmental Covenant Act. See definition in Section 010 of this rule. ( )

010. DEFINITIONS.
For the purpose of the rules contained in IDAPA 58.01.24, "Standards and Procedures for Risk Based Corrective Action at Petroleum Release Sites," the following definitions apply: ( )

01. Acceptable Target Hazard Index. The summation of the hazard quotients of all chemicals and routes of exposure to which a receptor is exposed and equal to a value of one (1). If the initial value exceeds one (1), further evaluation, including individual organs, can be completed. ( )

02. Acceptable Target Hazard Quotient. A hazard quotient of 1 for a specified receptor when applied to individual chemicals. ( )

03. Acceptable Target Risk Level. Acceptable risk level for human exposure to carcinogens. For exposure to individual carcinogens a lifetime excess cancer risk of less than or equal to one per one million (1 E-6)

for a receptor at a reasonable maximum exposure. For combined exposure to all carcinogens and routes of exposure, a lifetime excess cancer risk of less than or equal to one per one hundred thousand (1 E-5) for a receptor at a reasonable maximum exposure. ( )

04. Activity and Use Limitations. Restrictions or obligations created under UECA with respect to real property. Activity and use limitations may include, but are not limited to, land use controls, activity and use restrictions, environmental monitoring requirements, and site access and security measures. Also known as institutional controls. ( )

05. Background. Media specific concentration of a chemical that is consistently present in the environment in the vicinity of a site which is the result of human activities unrelated to release(s) from that site under investigation. ( )

06. Board. The Idaho Board of Environmental Quality. ( )

07. Corrective Action Plan. A document, subject to approval by the Department, which describes the actions and measures that will be implemented to ensure that adequate protection of human health and the environment is achieved and maintained. A corrective action plan also describes the applicable remediation standards. Also may be known as a risk management plan or a remediation workplan. ( )

08. Delineated Source Water Protection Area. The physical area around a public drinking water supply well or surface water intake identified in an approved Department source water assessment that contributes water to a well (the zone of contribution). The area may be mapped as a one thousand (1000) ft. fixed radius around the well (transient public water systems) or divided into three (3), six (6), and ten (10) year time of travel zones (e.g. zones indicating the number of years necessary for a particle of water to reach a well or surface water intake). The size and shape of the delineated source water area depend on the delineation method and site specific factors. For the purposes of these rules, where ground water time of travel zones have been delineated, the three (3) year time of travel zone shall apply. Where surface water systems have been delineated, this area includes a five hundred (500) ft. buffer around a lake or reservoir, or a five hundred (500) ft. buffer along the four (4) hour upstream time of travel of streams. See the Idaho Source Water Assessment Plan, which is available at http://www.deq.idaho.gov/water/data_reports/source_water/swa_plan_1999.pdf. ( )

09. Department. The Idaho Department of Environmental Quality. ( )

10. Environmental Covenant. As defined in the Uniform Environmental Covenant Act (UECA), Chapter 30, Title 55, Idaho Code, an environmental covenant is a servitude arising under an environmental response project that imposes activity and use limitations. ( )

11. Exposure Point Concentration. The average concentration of a chemical to which receptors are exposed over a specified duration within a specified geographical area. The exposure point concentration is typically a conservative estimate of the mean. Also referred to as the representative concentration. ( )

12. Hazard Quotient. The ratio of a dose of a single chemical over a specified time period to a reference dose for that chemical derived for a similar exposure period. ( )

13. Method Detection Limit. The minimum concentration of a substance that can be reported with ninety-nine percent (99%) confidence is greater than zero. Method detection limits can be operator, method, laboratory, and matrix specific. ( )

14. Operator. Any person presently or who was at any time during a release in control of, or responsible for, the daily operation of the petroleum storage tank (PST) system. ( )

15. Owner. Any person who owns or owned a PST system any time during a release and the current owner of the property where the PST system is or was located. ( )

16. Person. An individual, public or private corporation, partnership, association, firm, joint stock company, joint venture, trust, estate, state, municipality, commission, political subdivision of the state, state or federal

agency, department or instrumentality, special district, interstate body, or any legal entity which is recognized by law as the subject of rights and duties. ( )

17. Petroleum. Crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (sixty (60) degrees Fahrenheit and fourteen and seven-tenths (14.7) pounds per square inch absolute). This includes petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, and lubricants. ( )

18. Petroleum Storage Tank (PST) System. Any one (1) or combination of storage tanks or other containers, including pipes connected thereto, dispensing equipment, and other connected ancillary equipment, and stationary or mobile equipment, that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. ( )

19. Practical Quantitation Limit. The lowest concentration of a chemical that can be reliably quantified among laboratories within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions. Specified limits of precision and accuracy are the criteria listed in the calibration specifications or quality control specifications of an analytical method. Practical quantitation limits can be operator, method, laboratory, and matrix specific. ( )

20. Reasonable Maximum Exposure. The highest exposure that can be reasonably expected to occur for a human or other living organism at a site under current and potential future site use. ( )

21. Reference Dose. For chronic or long-term exposures an estimate of a daily exposure level to a chemical for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious noncarcinogenic effects during a lifetime, expressed in units of milligrams per kilogram body weight per day. ( )

22. Release. Any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from a PST into soil, ground water, or surface water. ( )

23. Remediation Standard. A media specific concentration which, when attained, is considered to provide adequate protection of human health and the environment. ( )

24. Residential Use. For the purposes of these rules, residential use means land uses which include residential or sensitive populations. ( )

25. Risk Based Concentration.The residual media specific concentration of a chemical that is determined to be protective of human health and the environment under specified exposure conditions. ( )

26. Risk Evaluation. The process used to determine the probability of an adverse effect due to the presence of a chemical. A risk evaluation includes development of a site conceptual model, identification of the chemicals present in environmental media, assessment of exposure and exposure pathways, assessment of the toxicity of the chemicals present, characterization of human risks, and characterization of impacts or risks to the environment. ( )

27. Screening Level. A media specific concentration which, based on specified levels of risk or hazard, exposure pathways and routes of exposure, expected land use, and exposure factors that can be used to assess the need for additional investigation or corrective action. ( )

28. Slope Factor. A plausible upper-bound estimate of the probability of an individual developing cancer as a result of a lifetime of exposure to a particular level of a potential carcinogen. It is expressed as the probability of a response per unit intake of a chemical over a lifetime. ( )

29. Uniform Environmental Covenant Act (UECA). UECA is found in Chapter 30, Title 55, Idaho Code. UECA provides a statutory mechanism for creating, modifying, enforcing and terminating environmental covenants. ( )

011. -- 099. (RESERVED).

100. CHEMICALS EVALUATED AT PETROLEUM RELEASE SITES.

01. General Applicability. For petroleum sites governed by Sections 851 and 852 of IDAPA 58.01.02, "Water Quality Standards," the chemicals listed in Subsection 800.01 (Table 1), of this rule, will be evaluated, based on the specific petroleum product or products known or suspected to have been released. ( )

02. Additional Chemicals. Evaluation of non-petroleum chemicals in addition to those in Subsection 800.01 (Table 1) of this rule, may be required by the Department when there is a reasonable basis based on site-specific information. A reasonable basis shall be demonstrated by the Department when it can show documentation of releases or suspected releases of other non-petroleum chemicals. ( )

101. -- 199. (RESERVED).

200. RISK EVALUATION PROCESS.
The following risk evaluation process shall be used for petroleum releases in accordance with the Petroleum Release Reporting and Corrective Action Rules described in IDAPA 58.01.02, "Water Quality Standards," Section 852. ( )

01. Screening Evaluation. The screening evaluation may be performed at any time during the release response and corrective action process described in IDAPA 58.01.02, "Water Quality Standards," Section 852. The screening evaluation shall include, at a minimum: ( )

a. Collection of media-specific (soil, surface water, ground water) data; and ( )

b. Identification of maximum soil and ground water petroleum chemical concentrations for the chemicals identified in Subsection 800.01 (Table 1), of this rule, as appropriate for the petroleum product or products released. ( )

c. Comparison of the maximum media-specific petroleum contaminant concentrations to the screening levels identified in Subsection 800.02 (Table 2) of this rule. If the maximum media-specific petroleum contaminant concentrations at a site do not exceed the screening levels, the owner and/or operator may petition for site closure, subject to other Department regulatory obligations. If the maximum media-specific concentrations at a site exceed the screening levels, the owner and/or operator shall proceed to: ( )

i. Adopt the screening levels as cleanup levels and develop a corrective action plan to achieve those levels pursuant to Subsection 200.03 of this rule; or ( )

ii. Perform a site specific risk evaluation pursuant to Section 300 of this rule. The Department may require the collection of additional site-specific data prior to the approval of the risk evaluation. ( )

02. Results of Risk Evaluation. If the results of the approved risk evaluation do not exceed the acceptable target risk level, acceptable target hazard quotient, or acceptable target hazard index specified in Section 300, of this rule, the owner and/or operator may petition for site closure, subject to other Department regulatory obligations. If the results of the approved risk evaluation indicates exceedance of the acceptable target risk level, acceptable target hazard quotient, or acceptable target hazard index specified in Section 300, of this rule, the risk evaluation shall: ( )

a. Be modified by collection of additional site-specific data, or review of chemical toxicological information, and resubmitted to the Department for review and approval; or ( )

b. Provide the basis for the development of risk based concentrations, establishment of remediation standards as described in Section 400, of this rule, and development of a corrective action plan. ( )

03. Development and Implementation of Corrective Action Plan. Corrective Action plans

required as a result of the risk evaluation process described in Section 200 of this rule, shall include, but not be limited to, the following information, as applicable: ( )

a. Description of remediation standards, points of exposure, and points of compliance where remediation standards shall be achieved; ( )

b. Description of remedial strategy and actions that will be taken to achieve the remediation standards; ( )

c. Current and reasonably anticipated future land use and use of on-site and immediately adjacent off-site ground water, and surface water; ( )

d. Activity and use limitations, if any, that will be required as part of the remedial strategy; ( )

e. Proposed environmental covenants, developed to implement activity and use limitations, in accordance with Section 600 of this rule; ( )

f. Estimated timeline for completion; and ( )

g. Monitoring Plan to monitor effectiveness of remedial actions. ( )

h. Description of practical quantitation limits as they apply. ( )

i. Description of background concentrations as they apply. ( )

04. Department Review and Approval of Risk Evaluation or Corrective Action Plan. Within thirty (30) days of receipt of the risk evaluation or corrective action plan, the Department shall provide in writing either approval, approval with modifications, or rejection of the risk evaluation or corrective action plan. If the Department rejects the risk evaluation or corrective action plan, it shall notify the owner and/or operator in writing specifying the reasons for the rejection. If the Department needs additional time to review the documents, it will provide written notice to the owner and/or operator that additional time to review is necessary and will include an estimated time for review. Extension for review time shall not exceed one hundred eighty (180) days without a reasonable basis and written notice to the owner and/or operator. ( )

201. -- 299. (RESERVED).

300. SITE SPECIFIC RISK EVALUATION REQUIREMENTS.

01. General Requirements. The general requirements for human health risk evaluations shall include, at a minimum: ( )

a. A conceptual site model which describes contaminant sources; release mechanisms; the magnitude, spatial extent, and temporal trends of petroleum contamination in all affected media; transport routes; current and reasonably likely future land use and human receptors; and relevant exposure scenarios. ( )

b. Toxicity Information derived from Subsection 800.03 (Table 3) of this rule. ( )

c. Data quality objectives and sampling approaches based on the conceptual site model that support the risk evaluation and risk management process. ( )

d. Estimated exposure point concentrations for a reasonable maximum exposure based on a conservative estimate of the mean of concentrations of chemicals that would be contacted by an exposed receptor. ( )

e. Exposure analysis including identification of contaminants of concern, potentially exposed populations, pathways and routes of exposure, exposure point concentrations and their derivation, and a quantitative estimate of reasonable maximum exposure for both current and reasonably likely future land and water use scenarios.

Appropriate reference sources of reasonable maximum exposure factor information may include, but are not limited to: ( )

i. U.S. EPA RAGS, Volume 1; ( )

ii. U.S. EPA Exposure Factors Handbook; ( )

iii. Idaho Risk Evaluation Manual; and ( )

iv. Other referenced technical publications. ( )

f. Risk characterization presenting the quantitative human health risks and a qualitative and quantitative assessment of uncertainty for each portion of the risk evaluation. ( )

g. Risk evaluations may include the use of transport and fate models, subject to Department approval of the model and the data to be used for the parameters specified in the model. ( )

02. Specific Requirements. Human health risk evaluations shall, at a minimum: ( )

a. Utilize an acceptable target risk level as defined in Section 010 of this rule. ( )

b. Utilize an acceptable target hazard index as defined in Section 010 of this rule; ( )

c. Utilize an acceptable target hazard quotient as defined in Section 010 of this rule; ( )

d. Evaluate the potential for exposure from: ( )

i. Ground water ingestion; ( )

ii. Direct contact with contaminated soils resulting from soil ingestion, dermal contact, and inhalation of particulates and vapors; ( )

iii. Indoor inhalation of volatile chemicals via volatilzation of chemicals from soil, ground water, or free phase product; ( )

iv. Ingestion, inhalation, or dermal exposure to ground water and/or surface water which has been impacted by contaminants that have leached from the soils; and ( )

v. Other complete or potentially complete routes of exposure; ( )

e. Evaluate the potential for exposure to: ( )

i. Adult and child residential receptors; ( )

ii. Adult construction and utility workers; ( )

iii. Aquatic life; ( )

iv. Recreational receptors; and ( )

v. Other relevant potentially exposed receptors; ( )

f. Evaluate the potential for use of impacted ground water for ingestion: ( )

i. The current and historical use of the ground water for drinking water or irrigation; ( )

ii. The location and approved use of existing ground water wells in a one half (½) mile radius from the

contaminated site at the release point; ( )

iii. The degree of hydraulic connectivity between the impacted ground water and other ground water bearing zones or surface water; ( )

iv. The location of delineated source water protection areas for public drinking water systems; and ( )

301. -- 399. (RESERVED).

400. ESTABLISHMENT OF REMEDIATION STANDARDS.
If, as a result of the assessment and risk evaluation completed as described in Section 300, of this rule, it is determined that corrective action is required, remediation standards shall be established. The remediation standards established in these rules shall be no more stringent than applicable or relevant and appropriate federal and state standards and are consistent with Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. Section 9621) and Section 39-107D, Idaho Code, taking into consideration site specific conditions. These standards shall be established as part of a corrective action plan approved in writing by the Department. The standards may consist of the following. ( )

01. Screening Levels. The petroleum contaminant concentrations in soil and ground water in Subsection 800.02 (Table 2) of this rule. ( )

02. Risk Based Levels. Site-specific, media-specific petroleum contaminant concentrations established in accordance with the risk evaluation procedures and requirements described in Section 300 of this rule. ( )

03. Generic Health Standards. An established state or federal generic numerical health standard which achieves an appropriate health-based level so that any substantial present or probable future risk to human health or the environment is eliminated or reduced to protective levels based upon present and reasonably anticipated future uses of the site. ( )

04. Other. Remediation standards may be a combination of standards found in Subsections 400.01 through 400.03 of this rule. ( )

401. -- 499. (RESERVED).

500. FACTORS WHEN PRACTICAL QUANTITATION LIMITS ARE GREATER THAN SCREENING LEVELS AND CLEANUP LEVELS.
Practical quantitation limits may be greater than screening levels or risk based concentrations for certain chemicals. In such cases the following factors may be used in allowing practical quantitation limits as remediation standards: ( )

01. Analytical Method. The published or expected practical quantitation limit for a specific chemical and method. Also, the availability of other methods which may enable lower practical quantitation limits to be achieved. ( )

02. Method Detection Limit. The magnitude of the difference between the stated practical quantitation limit and the method detection limit. ( )

03. Sampling Procedures. The availability of alternative sampling procedures which may enable lower practical quantitation limits to be achieved. ( )

04. Estimated Risk Levels. The estimated risk levels when site concentrations are assumed to be at the practical quantitation limit. ( )

05. Other. Site specific factors other than those listed above. ( )

501. -- 599. (RESERVED).

600. ACTIVITY AND USE LIMITATIONS.

01. Purpose. The provisions of the Uniform Environmental Covenants Act (UECA), Chapter 30, Title 55, Idaho Code, may be utilized to create restrictions or obligations regarding activity and use to protect the integrity of a cleanup action and assure the continued protection of human health and the environment. Activity and use limitations shall be proposed as elements of a corrective action plan in at least the following circumstances: ( )

a. Where onsite current or proposed land use is not residential and maximum residual site concentrations are greater than screening levels for residential use, or; ( )

b. Where onsite current or proposed land use is not residential and the risk or hazard calculated for residential receptors through an approved risk evaluation is unacceptable or; ( )

c. Where off-site ground water concentrations exceed residential use screening levels or risk based concentrations and remediation to those levels is not technically possible or practicable or; ( )

d. When the Department determines, based upon the proposed corrective action plan, that such activity and use limitations are required to assure the continued protection of human health and the environment or the integrity of the cleanup action. ( )

02. Documentation of Controls. Activity and use limitations, approved by the Department, shall be described in an environmental covenant executed pursuant to the UECA and shall be incorporated into a corrective action plan. ( )

03. Removal of Activity and Use Limitations. Activity and use limitations may be removed from a site in accordance with Sections 55-3009 and 55-3010, Idaho Code, of UECA. ( )

601. -- 699. (RESERVED).

700. DEVELOPMENT OF GUIDANCE MANUAL.
The Department will prepare a petroleum risk evaluation manual (Petroleum REM) which will be used as guidance for implementation of these rules. The Department will, through public notice, invite the Board of Trustees established in Section 41-4904, Idaho Code, and members of the public, including the regulated community, to participate in the process to provide input to the Department in developing this manual. If the Department identifies the need for future substantive revisions of the Petroleum REM, the Department will follow the same public notice process as described above. ( )

701. -- 799. (RESERVED).

800. TABLES.

01. Table 1. Chemicals of Interest for Various Petroleum Products. ( )

CHEMICALS OF INTEREST FOR VARIOUS PETROLEUM PRODUCTS				
Chemical	**Gasoline/ JP-4/ AVGas**	**Diesel/ Fuel Oil No. 2/ Kerosene**	**Fuel Oil No.4**	**Jet Fuels (Jet A, JP-5, JP-8)**
Benzene	X	X		X
Toluene	X	X		X
Ethyl benzene	X	X		X

CHEMICALS OF INTEREST FOR VARIOUS PETROLEUM PRODUCTS				
Chemical	**Gasoline/ JP-4/ AVGas**	**Diesel/ Fuel Oil No. 2/ Kerosene**	**Fuel Oil No.4**	**Jet Fuels (Jet A, JP-5, JP-8)**
Xylenes (mixed)	X	X		X
Ethylene Dibromide (EDB)	X[1]			
1,2 Dichloroethane (EDC)	X[1]			
Methyl Tert-Butyl Ether (MTBE)	X			
Acenaphthene		X	X	X
Anthracene		X	X	X
Benzo(a)pyrene		X	X	X
Benzo(b)fluoranthene		X	X	X
Benzo(k)fluoranthene		X	X	X
Benz(a)anthracene		X	X	X
Chrysene		X	X	X
Fluorene		X	X	X
Fluoranthene		X	X	X
Naphthalene	X	X	X	X
Pyrene		X	X	X
X[1] Leaded Regular Only				

02. **Table 2.** Residential Use Screening Levels. ( )

RESIDENTIAL USE SCREENING LEVELS						
CHEMICALS	**SOIL**			**GROUNDWATER**		
	Screening Level [mg/kg]	**Critical Pathway**	**Critical Receptor**	**Screening Level [mg/L]**	**Critical Pathway**	**Basis for Ingestion Target/ Inhalation Critical Receptor**
Benzene	1.78E-02	GWP[a]	GWP	5.00E-03	Ingestion	MCL[b]
Toluene	4.89E+00	GWP	GWP	1.00E+00	Ingestion	MCL
Ethylbenzene	7.10E-02	Subsurface Soil	Child	1.07E-01	Indoor Inhalation	Age-Adjusted
Total Xylenes	1.68E+00	Subsurface Soil	Child	4.46E+00	Indoor Inhalation	Child

RESIDENTIAL USE SCREENING LEVELS						
CHEMICALS	**SOIL**			**GROUNDWATER**		
	Screening Level [mg/kg]	**Critical Pathway**	**Critical Receptor**	**Screening Level [mg/L]**	**Critical Pathway**	**Basis for Ingestion Target/ Inhalation Critical Receptor**
Naphthalene	1.15E+00	Subsurface Soil	Child	2.09E-01	Ingestion	Risk-Based
MTBE[c]	6.70E-02	GWP	GWP	3.10E-02	Ingestion	Risk-Based
Ethylene dibromide(EDB)	1.43E-04	GWP	GWP	5.00E-05	Ingestion	MCL
1,2-Dichloroethane	7.71E-03	Subsurface Soil	Child	5.00E-03	Ingestion	MCL
Acenaphthene	5.23E+01	GWP	GWP	6.26E-01	Ingestion	Risk-Based
Anthracene	1.04E+03	GWP	GWP	3.13E+00	Ingestion	Risk-Based
Benz(a)anthracene	4.22E-01	Surficial Soil	Age-Adjusted	7.65E-05	Ingestion	Risk-Based
Benzo(a)pyrene	4.22E-02	Surficial Soil	Age-Adjusted	2.00E-04	Ingestion	MCL
Benzo(b)fluoranthene	4.22E-01	Surficial Soil	Age-Adjusted	7.65E-05	Ingestion	Risk-Based
Benzo(k)fluoranthene	4.22E+00	Surficial Soil	Age-Adjusted	7.65E-04	Ingestion	Risk-Based
Chrysene	3.34E+01	GWP	GWP	7.65E-03	Ingestion	Risk-Based
Fluoranthene	3.64E+02	GWP	GWP	4.17E-01	Ingestion	Risk-Based
Fluorene	5.48E+01	GWP	GWP	4.17E-01	Ingestion	Risk-Based
Pyrene	3.59E+02	GWP	GWP	3.13E-01	Ingestion	Risk-Based
a. Ground Water Protection Via Petroleum Contaminants in Soil Leaching to Ground Water						
b. Maximum contaminant level						
c. Methyl tert-butyl ether						
d. For the ingestion pathway the source of the target level is indicated (MCL or a risk-based calculation); for the inhalation pathway the critical receptor is indicated (child or age-adjusted individual).						

03. Table 3. Default Toxicity Values for Risk Evaluation. ( )

DEFAULT TOXICITY VALUES FOR RISK EVALUATION											
CHEMICALS	**CAS Number[a]**	**Slope Factor**				**Reference Dose**				**Oral RA[b] Factor**	**Dermal RA Factor**
		Oral (SFo)		**Inhalation (SFi)**		**Oral (RfDo)**		**Inhalation (RfDi)**			
		(kg-day/mg)	**Source**	**(kg-day/mg)**	**Source**	**(mg/kg-day)**	**Source**	**(mg/kg-day)**	**Source**	**(RAFo)**	**(RAFd)**
Benzene	71-43-2	0.055	I	0.027	I	0.004	I	0.0086	I	1	0.0005
Toluene	108-88-3	NA		NA		0.08	I	1.43	I	1	0.03
Ethylbenzene	100-41-4	0.011	c	0.009	c	0.1	I	0.29	I	1	0.03
Total Xylenes	1330-20-7	NA		NA		0.2	I	0.029	I	1	0.03
Naphthalene	91-20-3	NA		NA		0.02	I	0.00086	I	1	0.13
MTBE[c]	1634-04-4	0.0018	c	0.00091	c	NA		0.86	I	1	0.0005
1,2-Dichloroethane	107-06-2	0.091	I	0.091	I	NA		0.69	ATSDR	1	0.03
Ethylene Dibromide	106-93-4	2	I	2.1	I	0.009	I	0.0026	I	1	0.03
Acenaphthene	83-32-9	NA		NA		0.06	I	NA		1	0.13
Anthracene	120-12-7	NA		NA		0.3	I	NA		1	0.13
Benz(a) anthracene	56-55-3	0.73	n	0.39	c	NA		NA		1	0.13
Benzo(a)pyrene	50-32-8	7.3	I	3.9	c	NA		NA		1	0.13
Benzo(b) fluoranthene	205-99-2	0.73	n	0.39	c	NA		NA		1	0.13
Benzo(k) fluoranthene	207-08-9	0.073	n	0.39	c	NA		NA		1	0.13
Chrysene	218-01-9	0.0073	n	0.039	c	NA		NA		1	0.13
Fluoranthene	206-44-0	NA		NA		0.04	I	NA		1	0.13
Fluorene	86-73-7	NA		NA		0.04	I	NA		1	0.13
Pyrene	129-00-0	NA		NA		0.03	I	NA		1	0.13
Notes:			**Sources of Information:**								
a Chemical Abstract Service			**c:** Derived by CAL-EPA								

DEFAULT TOXICITY VALUES FOR RISK EVALUATION											
CHEMICALS	**CAS Number[a]**	**Slope Factor**				**Reference Dose**				**Oral RA[b] Factor**	**Dermal RA Factor**
		Oral (SFo)		**Inhalation (SFi)**		**Oral (RfDo)**		**Inhalation (RfDi)**			
		(kg-day/mg)	**Source**	**(kg-day/mg)**	**Source**	**(mg/kg-day)**	**Source**	**(mg/kg-day)**	**Source**	**(RAFo)**	**(RAFd)**
b Relative Absorption			**l:** IRIS								
c Methyl tert-butyl ether			**n:** NCEA: USEPA (1993). Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons. Office of Research and Development. EPA/600/R-93/089. July 1993								
NA: No data available			**ATSDR:** Agency for Toxic Substances and Disease Registry								

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