Permit No.: ID-002659-0

# United States Environmental Protection Agency Region 10 1200 Sixth Avenue Seattle, Washington 98101

# AUTHORIZATION TO DISCHARGE AND LAND APPLY/LANDFILL SEWAGE SLUDGE (BIOSOLIDS) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "CWA",

Hayden Area Regional Sewer Board 10789 North Atlas Road Rathdrum, Idaho 83858

is authorized to discharge from a wastewater treatment facility located near the City of Hayden, Idaho, at approximately latitude 47E 41' 54" and longitude: 116E 50' 03" to receiving waters named the Spokane River (River Mile 108.7), in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein, and is authorized to land apply/landfill treated biosolids, in accordance with application sites, specific limitations, monitoring requirements, management practices, and other conditions set forth herein. Authorization to land apply biosolids is limited to the area of Kootenai County north of Interstate 90 and west of Interstate 95.

This permit shall become effective November 2, 1999

This permit and the authorization to discharge and land apply/landfill treated biosolids shall expire at midnight, November 2, 2004

Signed this 30th day of Sepember, 1999

/s/ Randy Smith

Director, Office of Water Region 10 U.S. Environmental Protection Agency

# TABLE OF CONTENTS

# Cover Sheet--Issuance and Expiration Dates

I.	EFF	LUENT LIMITATIONS AND MONITORING REQUIREMENTS4				
	A.	Outfall 001 Effluent Limitations and Monitoring Requirements4				
	B.	Method Detection Limits				
	C.	Whole Effluent Toxicity Testing				
II.	SLU	DGE (BIOSOLIDS) MANAGEMENT REQUIREMENTS9-				
III.	MON	NITORING, RECORDING, AND REPORTING REQUIREMENTS13-				
	A.	Quality Assurance Plan13				
	B.	Representative Sampling				
	C.	Monitoring Procedures				
	D.	Reporting of Monitoring Results				
	E.	Additional Monitoring by the Permittee15				
	F.	Records Contents				
	G.	Retention of Records				
	H.	Twenty-four Hour Notice of Noncompliance Reporting15-				
	I.	Other Noncompliance Reporting				
	J.	Notice of New Introduction of Pollutants				
IV.	COM	COMPLIANCE RESPONSIBILITIES				
	A.	Duty to Comply17-				
	B.	Penalties for Violations of Permit Conditions				
	C.	Need to Halt or Reduce Activity not a Defense				
	D.	Duty to Mitigate				
	E.	Operation and Maintenance				
	F.	Removed Substances				
	G.	Bypass of Treatment Facilities20				
	H.	Upset Conditions21				
	I.	Toxic Pollutants21				
	J.	Control of Undesirable Pollutants				
	K.	Requirements for Industrial Users22				
	L.	Planned Changes22				
	M.	Anticipated Noncompliance22				
V.	GENERAL PROVISIONS -23-					
٠.	A.	Permit Actions -23				
	В.	Duty to Reapply23				
	D. C	Duty to Provide Information -23:				

# Page 3 of 31 Permit No. ID-002659-0

	D.	Other Information
	E.	Signatory Requirements
	F.	Availability of Reports
	G.	Inspection and Entry24-
	H.	Oil and Hazardous Substance Liability25-
	I.	Property Rights25-
	J.	Severability25-
	K.	Transfers25-
	L.	State Laws25-
	M.	Reopener Clause25-
VI.	DEFIN	IITIONS26-
APPE	NDIX A	A - 40 CFR 503 LANGUAGE
APPE	NDIX B	- CURRENT LAND APPLICATION SITES B-1
		LIST OF TABLES
		rations and Frequency of Monitoring for Outfall 0014-blids Treatment Requirements10-

# I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

## A. Outfall 001 Effluent Limitations and Monitoring Requirements.

1. During the effective period of this permit, the permittee is authorized to discharge from outfall 001 from October 1 to May 31 and from June 1 to September 30 when the Spokane River flow is greater than 2,000 cfs. The discharge is subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility as disclosed in the permit application, or any pollutants that are not ordinarily present in such waste streams.

Table 1: Limitations and Monitoring Requirements for Outfall 001					
	<b>Effluent Limitations</b>			<b>Monitoring Requirements</b>	
Parameter	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Five-day Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>1</sup> mg/L lbs/day Percent Removal	30 375 85 <sup>2</sup>	45 563 	 	2/week	24 hr composite
Total Suspended Solids (TSS) <sup>1</sup> mg/L lbs/day Percent Removal	30 375 85 <sup>2</sup>	45 563 	  	2/week	24 hr composite
Fecal Coliform <sup>3</sup> , #/100ml May 1-Sept 30 <sup>4</sup> Oct 1-Apr 30 <sup>5</sup>	50	200 200	500 800	3/week	grab
E. coli, #/100ml				3/week <sup>6</sup>	grab
Total Residual Chlorine <sup>7/8</sup> , mg/L	0.5			1/day	grab
рН			See I.A.2	5/week	grab
Temperature, EC				2/week	grab
Total Ammonia (as N) <sup>8</sup> mg/L lbs/day	78.7 985		250 3128	2/week	24 hr composite
Cadmium <sup>8/9</sup> , Fg/L				1/month	24 hr composite

Lead <sup>8/9</sup> Fg/L lbs/day	2.66 0.033	 3.76 0.047	1/month	24 hr composite
Zinc <sup>8/9</sup> Fg/L lbs/day	88.2 1.10	 112.0 1.40	1/month	24 hr composite
Flow, mgd		 	Continuous	Recording
Spokane River Flow, cfs		 	Daily	See Note
Whole Effluent Toxicity, TU <sub>c</sub>		 	Semi- annually for five years	See Part I.C

#### Notes:

- The sample location shall be influent and effluent for these parameters. The permittee shall collect influent and effluent samples over the same 24 hour period.
- This value represents a minimum percent removal.
- Monthly and weekly averages shall be measured as a geometric mean.
- 2 3 4 5 6 No more than 10% of the effluent samples in any 30-day period may exceed 200/100 ml.
- No more than 10% of the effluent samples in any 30-day period may exceed 400/100 ml.
- Monitoring shall begin four years from the effective date of the permit.
- 7 Monitoring and average monthly limit are only required when the facility is discharging to the Spokane River.
- 8 Reporting is required within 24 hours of a maximum daily limit violation. See Part III.H.
- 9 The permittee shall conduct analysis for total recoverable metals.
- Avista Corp. record from Post Falls Dam.
  - 2. The pH range shall be between 6.0 - 9.0 standard units at all times. The permittee shall report the number and duration of excursions during the month with the discharge monitoring report (DMR) for each month.
  - 3. There shall be no discharge of floating, suspended or submerged matter such that it causes a nuisance or objectionable condition or impairs designated beneficial uses.
- В. **Method Detection Limits.** For all monitoring, the permittee shall use methods that can achieve a method detection limit (MDL) equal to 0.1 times the effluent limitation or the most sensitive EPA approved method, whichever is greater. If the analytical result for any sample is below the MDL, the permittee shall report "less than {numeric MDL} on the DMR. For purposes of averaging results, the permittee shall use 0 for all values below the MDL.

#### C. Whole Effluent Toxicity Testing.

The permittee shall conduct semi-annual chronic toxicity tests on 24 hour composite effluent samples from outfall 001 for five years after the effective date of the permit.

Testing and reporting shall be conducted in accordance with subsections 1 through 3 below.

#### 1. Test Species and Methods

- a. The permittee shall conduct short-term tests with the water flea, *Ceriodaphnia dubia* (survival and reproduction test), fathead minnow, and *Pimephales promelas* (larval survival and growth test) for the first year of testing. After this screening, monitoring shall be conducted using the most sensitive species. The most sensitive species shall be defined as the one with the lowest no observed effect concentration (NOEC).
- b. Testing shall be conducted on 24-hour composite samples of effluent. In addition, a split of each sample collected shall be analyzed for the chemical and physical parameters required in Part 1.A above. When the timing of sample collection coincides with that of the sampling required in Part I.A, analysis of the split sample will fulfill the requirements of Part I.A. as well.
- c. The presence of toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Third Edition, EPA/600/4-91/002, July 1994.
- d. Results shall be calculated in chronic toxicity units (TU<sub>c</sub>), where TU<sub>c</sub> = 100/NOEC. If in the calculation of a NOEC, two tested concentrations cause statistically significant effects but an intermediate concentration does not cause statistically significant effects, the permittee must either repeat the test or use the lowest concentration to calculate the NOEC.

#### 2. Quality Assurance

- a. The toxicity testing on each organism shall include a series of five test dilutions and a control. The series shall include one dilution equal to the instream waste concentration (IWC), two dilutions above the IWC, and two dilutions below the IWC. The IWC is 0.57 percent for winter (October 1 through June 30) and 1.8 percent effluent for summer (July 1 through September 30).
- b. All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests shall be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and*

*Receiving Waters to Freshwater Organisms*, Third Edition, EPA/600-4-91-002, July 1994, and individual test protocols.

- c. In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures shall be followed:
  - i) To the extent practicable, control and dilution water should be receiving water. If the dilution water used is different from the culture water, a second control, using culture water shall also be used. For purposes of this paragraph, "receiving water" means water collected from the Spokane River upstream from the permittee's discharge. In no case shall water that has not met test acceptability criteria be used as dilution water.
  - ii) If organisms are not cultured in-house, concurrent testing with reference toxicants shall also be conducted. Where organisms are cultured in-house, quarterly reference toxicant testing is sufficient. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (same test duration, etc).
  - iii) If either of the reference toxicant test or the effluent test do not meet all test acceptability criteria as specified in the manual, the permittee must re-sample and re-test as soon as possible.

#### 3. Reporting

- a. The permittee shall submit the full report for each toxicity test with the June and December DMRs.
- b. Test results for chronic tests shall include all relevant information in Section 10, Report Preparation, of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Third Edition, EPA/600-4-91-002, July 1994.
- c. Toxicity test results shall be reported in TU<sub>c</sub>.
- d. The full report shall consist of:
  - i) the chronic toxicity test results
  - ii) the dates of sample collection and initiation of each toxicity test
  - iii) the flow rate at the time of sample collection

- iv) the results of the monitoring in Part I.A.1 of the permit.
- 4. Preparation of Initial Investigation TRE Workplan
  - a. The permittee shall develop and submit to EPA an initial investigation Toxicity Reduction Evaluation (TRE) workplan within 90 days of the effective date of this permit. This plan shall describe the steps the permittee intends to follow if toxicity is detected, and should include, at a minimum:
    - i) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency.
    - ii) A description of the facility's methods of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used at the facility.
    - iii) If a toxicity identification evaluation (TIE) is necessary, who will conduct it (i.e. in-house expertise or contractors).

#### 5. Accelerated Testing

- a. If chronic toxicity is detected above the 24 TU<sub>C</sub>, the permittee shall conduct six more biweekly tests over a twelve-week period. Accelerated testing must be initiated within two weeks of receipt of the test results which indicate an exceedence.
- b. If the Permittee is able to adequately demonstrate through an evaluation of facility operations that the cause of the exceedence(s) is known and corrective actions have been immediately implemented, or in cases where additional test quality assurance/quality control is necessary, only one additional test is necessary. If toxicity is detected in this test, the paragraph 6 shall apply.
- c. If chronic toxicity is detected above the 24 TU<sub>c</sub> during accelerated testing, the permittee must initiate a toxicity reduction evaluation as outlined in paragraph 6, below, within fifteen days of the exceedence.
- d. If none of the six tests indicates toxicity, the permittee may return to the normal testing frequency.
- 6. Toxicity Reduction Evaluation and Toxicity Identification Evaluation
  - a. If chronic toxicity exceeds the 24  $TU_c$  in any of the six biweekly tests, the permittee shall initiate a TRE in accordance with *Toxicity*

Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants (EPA/600/2-88/062).

- b. The permittee will develop a more detailed TRE workplan as expeditiously as possible. At a minimum, the workplan will include:
  - i) further actions to investigate and identify the cause of toxicity;
  - ii) actions the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
  - iii) a schedule for these actions.
- c. The permittee may initiate a TIE as part of the overall TRE process described in the EPA acute and chronic TIE manuals EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).
- d. If a TIE is triggered prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.

#### II. SLUDGE (BIOSOLIDS) MANAGEMENT REQUIREMENTS

- A. The permittee shall comply with all existing federal and state laws and regulations that apply to its biosolids use or disposal practice. Including the requirements of 40 CFR 503 Subparts A, B and D and the biosolids management plan identified in the Definitions section of this permit (refer to Appendix A).
- B. The permittee shall handle and dispose of biosolids so the public health and the environment are protected from any reasonably anticipated adverse effects due to any toxic pollutants that may be present.
- C. The permittee shall ensure pollutants from the biosolids do not reach surface waters of the United States.
- D. When the permittee's biosolids are applied to the land, the permittee is considered the person who applies biosolids for the purposes of determining compliance with the permit and compliance with the 40 CFR 503. The biosolids may be land applied between April 1 and October 15 of each year if it can be demonstrated that the nitrogen will be utilized by a crop or stubble (consistent with the appropriate agronomic rate) within this growing season. The permittee must retain records of actual agronomic loadings and the types of crops grown. Biosolids may be land applied during non-growing seasons if it can be demonstrated to the satisfaction of IDEQ, that the nitrogen is sufficiently immobilized through biosolids remediation

techniques and the application method complies with the State Groundwater Quality Rule and federal 503 regulations.

- E. The permittee shall collect and analyze samples of biosolids that are applied to the land as follows:
  - 1. The samples shall be representative of the variability in biosolids quality considering location, season, processing, and handling;
  - 2. At a minimum, the biosolids shall be sampled in accordance with 40 CFR 503.16, but often enough to represent biosolids quality;
  - 3. Sampling protocol shall follow procedures outlined in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, 2nd Edition (1982) with Updates I (April 1984) and II (April 1985) and 3rd Edition (November 1986) with Revision I (December 1987); and
  - 4. Analytical protocols shall be in accordance with 40 CFR 503.8.
- F. Class B biosolids applied to the land shall meet the following biosolids treatment requirements in Table 2:

Table 2: Biosolids Treatment Requirements for Land Application			
Disposal Method	Product	Requirements	
Land Application	Class B biosolids only	Pollutants:  Monthly average concentrations, 40 CFR 503.13(a)(2)(ii) <sup>1</sup> Ceiling concentrations, 40 CFR 503.13(a)(1)  Pathogens: Aerobic Digestion 40 CFR 503.32(b)(2) <sup>2</sup> Vector Control: Volatile solids reduction 40 CFR 503.33(b)(1) <sup>2</sup> Soil Reclamation: The Permittee must obtain EPA approval before land application for soil reclamation (above agronomic rates).	

#### Notes:

- The EPA may separately approve by letter, the method controlling the accumulation of metals per 40 CFR 503.13(a)(2)(i).
- EPA may separately approve by letter: Pathogen Treatment available in 40 CFR 503.32(a) for Class A and 40 CFR 503.32(b)(3) Appendix B (A.1,2,4 or 5) for Class B and Vector Control available in 40 CFR 503.33(b)(3-6). If the permittee intends to use one of these additional alternatives, the EPA and IDEQ must be notified at least 30 days prior to its use. Notification shall include a demonstration of the facility's ability to measure compliance with the alternative option. The permittee may begin using the new alternative 30 days after submittal of a complete process description unless notified otherwise by EPA.

- G. Biosolids may be distributed to the specific land application areas identified northwest of the Spokane International Railway Company in Appendix B. Additional land application sites may be developed within Kootenai County north of Interstate 90 and west of Highway 95 provided the following conditions are met:
  - a. An individual site plan shall be submitted to EPA 90 days prior to land applying biosolids to the new site. The site plan shall provide information on the site conditions and on the intended disposal practices at the site. The site plan shall be prepared in accordance with the this permit and the Biosolids Management Plan (See section VI for definitions).
  - b. The permittee shall evaluate each new site for potential endangered species habitat(s), and report the findings in the individual site plan. The review shall consider the species currently listed by the US Government for the geographical area approved in this permit. The permittee shall notify EPA immediately if any potential habitat is found. Biosolids shall not be applied to land with potential endangered species habitat without written approval from EPA.
  - c. Prior to land applying biosolids at a new site, the permittee shall notify interested parties by notice and letter. The notice shall include a site map, directions on how to obtain the site management plan from the permittee or its representative, and directions on how to comment on the site or plan. Comment to EPA on the site or plan shall be addressed to:

U.S. Environmental Protection Agency ATTN: Sludge Management Coordinator 1200 Sixth Avenue, OW-130 Seattle, WA 98101

The interested parties shall include: 1) surrounding community within 300 feet; 2) the local United States Department of Agriculture Natural Resource Conservation Service (NRCS); 3) the State Agricultural Extension Service; 4) the local Soil Conservation District; and 5) the Idaho Division of Environmental Quality.

- H. Distribution of Class B biosolids to areas outside of the Kootenai County authorized site is not authorized by this permit (except for crop trials under J below). To expand the authorized land application sites, the permittee shall submit a revised permit application to EPA (40 CFR 122.41(l)(1)(iii)).
- I. As a contingency measure, biosolids from the Hayden Wastewater Treatment Plant (WWTP) may be transferred to the Kootenai County Municipal Solid Waste Landfill

(MSWLF), a compost facility, or other treatment plant. In addition the biosolids may also be stored. Other MSWLFs may be approved by letter, including landfills in adjacent counties upon evidence of compliance with 40 CFR 503.4. The biosolids sent to a MSWLF shall be non-hazardous, and not contain "free liquids" as defined by EPA test method 9095 in Test Methods for *Evaluating Solid Wastes Physical/Chemical Methods* (EPA Publication # SW-846).

- J. The permittee may distribute Class B biosolids in crop trials of two acres or less. Crop trials may occur outside the land application sites listed in Appendix B. Notification of planned crop trials shall be sent to (1) the EPA, Idaho Operations Office (2) the applicable regional office of the IDEQ if so required by the state, and (3) to the office of the NRCS of the United States Department of Agriculture closest to the crop trial site. Crop trial need not comply with section F above. Crop trials shall comply with all other requirements of the federal standards at 40 CFR 503 and the other requirements of this permit.
- K. The permittee shall submit a report to EPA on February 19th of each year that includes the following information:
  - 1. a report of any times that the biosolids were stockpiled (no use or disposal), disposed in a MSWLF unit, or disposed of in a manner other than that in the permittee's sludge application;
  - 2. the location(s) biosolids were used or disposed (if applicable);
  - 3. if the permittee land applied biosolids, provide the following information required at 40 CFR 503.18(a)(4):
    - the dry weight concentration (including units) of each pollutant listed in 40 CFR 503.13 in the biosolids;
    - a description of how one of the vector attraction requirements in 40 CFR 503.33(b)(1) through (b)(8) were met;
    - a description of how the Class B pathogen requirements in 40 CFR 503.32(b) were met;
    - the following certification statement by the person who prepares the bulk biosolids:

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in [insert one of the vector attraction reduction requirements in 503.33(b)(1) through (b)(8) if one of those requirements was met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather

and evaluate the information used to determine that the pathogen requirements [and vector attraction reduction requirements if applicable] have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";

- 4. A statement that appliers certifications under 40 CFR 503.17 were completed for all sites;
- 5. Types of crops grown on the sites where sludge was applied; and
- 6. Number of excursions during the monitoring period.
- L. The permittee shall maintain all information required under paragraph II.K for a period of 5 years. This period may be extended by request of the Director or IDEQ.

## III. MONITORING, RECORDING, AND REPORTING REQUIREMENTS

#### A. Quality Assurance Plan.

- 1. The permittee shall develop a Quality Assurance Plan (QAP) for all monitoring requirements identified in the permit. The plan shall be completed and implemented within 120 days of the effective date of the permit.
- 2. At a minimum, the plan shall include the following:
  - C Protocols for sampling techniques (field blanks, replicates, duplicates, control samples, etc.),
  - C Sample preservation methods,
  - C Sample shipment procedures,
  - Instrument calibration procedures and preventive maintenance (frequency, standard, spare parts),
  - C Qualification and training of personnel, and
  - C Analytical test methods that achieve the method detection limits in Section II.D including quality control checks, quantification/detection levels).
- 3. Throughout all sample collection and analysis activities, the permittee shall use the EPA approved quality assurance, quality control, and chain-of-custody procedures described in: *Requirements for Quality Assurance Project Plans*, EPA QA/R-5 and Guidance on *Quality Assurance Project Plans*, EPA QA/G-5.

- 4. The permittee shall amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.
- 5. Copies of the QAP shall be kept on site and made available to EPA and/or Idaho Division of Environmental Quality (IDEQ) upon request.
- **B.** Representative Sampling. The permittee shall collect all effluent samples from the effluent stream after the last treatment unit and prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee shall collect additional samples whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee shall analyze the additional samples for those parameters limited in Part I.A. of this permit that are likely to be affected by the discharge.

The permittee shall collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples shall be analyzed in accordance with paragraph III.C ("Monitoring Procedures"). The permittee shall report all additional monitoring in accordance with paragraph III.E ("Additional Monitoring by Permittee").

- **C. Monitoring Procedures**. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit.
- **D. Reporting of Monitoring Results**. Monitoring results shall be summarized each month on the DMR form (EPA No. 3320-1). The reports shall be submitted monthly and are to be postmarked by the 10th day of the following month. Legible copies of these, and all other reports, shall be signed and certified in accordance with the requirements of Part V.J. Signatory Requirements, and submitted to the Director, Office of Water and the State agency at the following addresses:

original to: United States Environmental Protection Agency Region 10

1200 Sixth Avenue, OW-133 Seattle, Washington 98101

copy to: Idaho Division of Environmental Quality

2110 Ironwood Pkwy

Coeur d'Alene, Idaho 83814

**E.** Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated and an explanation of why such additional monitoring was performed.

Upon request by the Director, the permittee shall submit results of any other sampling, regardless of the test method used.

- **F. Records Contents.** Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The individual(s) who performed the sampling or measurements;
  - 3. The date(s) analyses were performed;
  - 4. The individual(s) who performed the analyses;
  - 5. The analytical techniques or methods used; and
  - 6. The results of such analyses.
- **G. Retention of Records**. Except as specified in paragraph II.L., the permittee shall retain records of all monitoring information, including but not limited to all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Director or IDEQ at any time. A copy of the NPDES permit must be maintained on-site for the duration of activity at the permitted location.

#### H. Twenty-four Hour Notice of Noncompliance Reporting.

- 1. The following occurrences of noncompliance shall be reported by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
  - a. Any unanticipated bypass which exceeds any effluent limitation in the permit (See <u>Part IV.G, Bypass of Treatment Facilities</u>);
  - b. Any upset which exceeds any effluent limitation in the permit (See Part IV.H, Upset Conditions); or

- c. Violation of a maximum daily discharge limitation for any of the pollutants in Table 1 of Section I.A of the permit requiring 24-hour reporting.
- 2. The following occurrences of noncompliance with biosolids requirements shall be reported by telephone by the first workday (8:00am 4:30pm PST) following the day the permittee became aware of the circumstances:
  - a. violation of any limits of 40 CFR 503.13, Table 1 (maximum individual sample) or Table 3 (monthly average);
  - b. violation of the pathogen limits;
  - c. violation of the vector attraction reduction limits; or
  - d. violation of the management practices for biosolids that have been land applied.
- 3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times;
  - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
  - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- 4. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Unit in Seattle, Washington, by phone, (206) 553-1846.
- 5. Reports shall be submitted to the addresses in <u>Part III.D Reporting of Monitoring Results.</u>
- I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for <u>Part III.D Reporting of Monitoring Results</u> are submitted. The reports shall contain the information listed in Part III.F.

- **J. Notice of New Introduction of Pollutants**. The permittee shall provide adequate notice to the Director, Office of Water of:
  - 1. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants; and
  - 2. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.
  - 3. For the purposes of this section, adequate notice shall include information on:
    - a. The quality and quantity of effluent to be introduced into such treatment works; and
    - b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from such publicly owned treatment works.

#### IV. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- **B.** Penalties for Violations of Permit Conditions. Except as provided in permit conditions in <u>Part IV.G Bypass of Treatment Facilities</u> and <u>Part IV.H Upset Conditions</u>, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
  - 1. Civil and Administrative Penalties. Any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA shall be subject to a civil or administrative penalty, not to exceed the maximum amounts authorized by Sections 309(d) and 309(g) of the CWA and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note).

#### 2. Criminal Penalties:

- a. Negligent Violations. Any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(1) of the CWA.
- b. Knowing Violations. Any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(2) of the CWA.
- c. Knowing Endangerment. Any person who knowingly violates a permit condition implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine and/or imprisonment as specified in Section 309(c)(3) of the CWA.
- d. False Statements. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this CWA or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this CWA, shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(4) of the CWA.
- **C. Need to Halt or Reduce Activity not a Defense**. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- **D. Duty to Mitigate**. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

#### **E.** Operation and Maintenance.

1. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed, or used, by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This

- provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- 2. Within 180 days of the effective date of the permit, the permittee shall review its operation and maintenance plan and ensure that it includes appropriate best management practices (BMPs). The O&M plan shall include measures which prevent or minimize the potential for the release of pollutants to the Spokane River. The Plan shall be retained on site and made available to EPA and IDEQ upon request.
- 3. The permittee shall develop a description of pollution prevention measures and controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in the Plan shall reflect identified potential sources of pollutants at the facility. The description of BMPs shall address, to the extent practicable, the following minimum components:
  - a. Spill prevention and control
  - b. Optimization of chlorine and other chemical use
  - c. Research, development and implementation of a public information and education program to control the introduction of household hazardous materials to the sewer system
  - d. Water conservation
- 4. The design criterion for the permitted facility is an annual average flow of 1.5 mgd. Each month, the permittee shall compute an annual average value for flow entering the facility based on the previous twelve months data. If the average annual value exceeds 85% of the design criterion value, the permittee shall develop a facility plan and schedule within one year from the date of the first exceedence. The plan must include the permittees' strategy for continuing to maintain compliance with effluent limits and will be made available to the Director or authorized representative upon request.
- **F. Removed Substances**. Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

# **G.** Bypass of Treatment Facilities.

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this section.

#### 2. Notice.

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under <u>Part III.L Twenty-four Hour Notice of Noncompliance Reporting.</u>

#### 3. Prohibition of bypass.

- a. Bypass is prohibited and the Director may take enforcement action against a permittee for a bypass, unless:
  - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - (3) The permittee submitted notices as required under paragraph 2 of this section.
- b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determine that it will meet the three conditions listed above in paragraph 3.a. of this section.

#### H. Upset Conditions.

- 1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- 2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
  - b. The permitted facility was at the time being properly operated;
  - c. The permittee submitted notice of the upset as required under <u>Part III.L Twenty-four Hour Notice of Noncompliance Reporting</u>; and
  - d. The permittee complied with any remedial measures required under Part IV.D Duty to Mitigate.
- 3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- **I. Toxic Pollutants**. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- **J. Control of Undesirable Pollutants**. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:
  - 1. Pollutants which create a fire or explosion hazard in the treatment works;
  - 2. Pollutants which will cause corrosive structural damage to the treatment works, but in no case, wastes with a pH lower than 5.0, unless the works is designed to accommodate such wastes;

- 3. Solid or viscous pollutants in amounts which will cause obstructions to the flow in the treatment works, or interference with the proper operation of the treatment works;
- 4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge of such volume or concentration as to cause interference in the treatment works;
- 5. Heat in amounts which inhibit biological activity in the treatment works resulting in interference;
- 6. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
- 7. Pollutants which result in the presences of toxic gases, vapors, or fumes within the treatment works in quantity that may cause acute worker health and safety problems; and
- 8. Any trucked or hauled pollutants, except at discharge points designated by the treatment works.
- **K. Requirements for Industrial Users**. The permittee shall require any industrial user of these treatment works to comply with any applicable requirements of Sections 204(b), 307, and 308 of the CWA, including any requirements established under 40 CFR Part 403.
- **L. Planned Changes**. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - 1. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged (This notification applies to pollutants which are not subject to effluent limitations in the permit or notification requirements under 122.42(a)(1)); or
  - 2. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to the land application plan approved in this permit.
- **M. Anticipated Noncompliance**. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

#### V. GENERAL PROVISIONS

- **A. Permit Actions**. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- **B. Duty to Reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit unless the Administrator grants permission to submit the application at a later date.
- C. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- **D. Other Information**. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.
- **E. Signatory Requirements**. All applications, reports or information submitted to the Director shall be signed and certified.
  - 1. All permit applications shall be signed by either a principal executive officer or ranking elected official.
  - 2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - a. The authorization is made in writing by a person described above and submitted to the Director, and
    - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized

representative may thus be either a named individual or any individual occupying a named position.)

- 3. Changes to authorization. If an authorization under paragraph V.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph V.J.2. must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- 4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- F. Availability of Reports. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the CWA, permit applications, permits and effluent data shall not be considered confidential.
- **G. Inspection and Entry**. The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:
  - 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

- 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.
- **H. Oil and Hazardous Substance Liability**. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the CWA.
- I. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws for regulations.
- **J. Severability**. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- **K. Transfers**. This permit may be automatically transferred to a new permittee if:
  - 1. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date;
  - 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - 3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- **L. State Laws**. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the CWA.
- M. Reopener Clause. This permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the permittee) or upon EPA initiative. However, permits may only be modified, revoked or reissued, or terminated for the reasons specified in 40 CFR 122.62 or 122.64, and 40 CFR 124.5. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the

time of issuance, including but not limited to future monitoring results. All requests for permit modification must be addressed to EPA in writing and shall contain facts or reasons supporting the request.

#### VI. DEFINITIONS

- 1. "Administrator" means the Administrator of the EPA, or an authorized representative.
- 2. "Agronomic rate" is the whole sludge (biosolids) application rate (dry weight basis) designed: 1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and 2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone in the crop or vegetation grown on the land to the ground water. Agronomic rate shall consider other sources of nitrogen, reasonable estimate of crop yields, and other practices appropriate to the site and crop.
- 3. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month. For pollutants other than fecal coliform bacteria, the average monthly discharge shall be calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. For fecal coliform bacteria, the average monthly discharge shall be calculated as a geometric mean.
- 4. "Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week. For pollutant other than fecal coliform bacteria, the average weekly discharge shall be calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. For fecal coliform bacteria, the average weekly discharge shall be calculated as a geometric mean.
- 5. "Biosolids" means any sewage sludge or material derived from sewage sludge.
- 6. A "Biosolids Management Plan", for the purposes of this permit, means the amended sludge permit application submitted by the Hayden Area Regional Sewer Board, received by EPA in January 1998 including a June 10, 1999 letter.
- 7. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- 8. "Chronic toxic unit" ("TU<sub>c</sub>") is a measure of chronic toxicity. The number of chronic toxic units in the effluent is calculated as 100/NOEC, where the NOEC is measured in percent effluent.

- 9. "Crop trial" means applying biosolids as a soil amendment on an area of land two (2) acres or less for the purpose of developing appropriate agriculture practices.
- 10. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
- 11. "Director" means the Director of the Office of Water, EPA, or an authorized representative.
- 12. "DMR" means discharge monitoring report.
- 13. "EPA" means the United States Environmental Protection Agency.
- 14. Farm Customer/Site Plans: The specific plans referenced and covered by this permit are for the HARSB land application site at 14398 N. Huetler Road, Rathdrum, ID.
- 15. A "Farm Grade" Biosolids (Soil Products Made From Sewage Sludge) is a Class B biosolid sludge product that is used as a fertilizer or soil improvement product. These products usually have a fair nitrogen fertilizer value but with some amounts of pathogen (disease) organisms still present. This type of sludge must be used according to regulated plans and short term site restrictions. The biosolids must also meet the federal limits for control of potentially toxic pollutants (mainly metals), and for preventing spread of pathogens by "vectors" (e.g., flies).
- 16. "Grab" sample is a single sample or measurement taken at a specific time or over as short a period of time as is feasible.
- 17. "Land application" is the spraying or spreading of biosolids onto the land surface; the injection of biosolids below the land surface; or the incorporation of biosolids into the land so that the biosolids can either condition the soil or fertilize crops or vegetation grown in the soil. Land application includes distribution and marketing (i.e., the selling or giving away of the biosolids).
- 18. "Maximum daily discharge limitation" means the highest allowable "daily discharge."
- 19. "Method Detection Limit (MDL)" means the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero as determined by a specific laboratory method.

- 20. "Minimum Level (ML)" means the concentration at which the entire analytical system gives recognizable signals and an acceptable calibration point.
- 21. "No observed effect concentration (NOEC)" is the highest tested concentration of an effluent at which adverse effects are observed on the test organisms at the specific time of observation.
- 22. "Pathogen" means an organism that is capable of producing an infection or disease in a susceptible host.
- 23. "Regional Administrator" means the EPA Region 10 Regional Administrator, or an authorized representative.
- 24. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- 25. A "24-hour composite" sample shall mean a flow proportioned mixture of not less than 8 discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and stored in accordance with procedures prescribed in the most recent edition of <u>Standard Methods for the Examination of Water and Wastewater</u>.
- 26. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- 27. "Vector attraction" means the characteristic of biosolids that attracts rodents, flies, mosquitos or other organisms capable of transporting infectious agents.
- 28. "Waste stream" means any non-de minimis stream of pollutants within the permittee's facility that enters any permitted outfall or navigable waters. This includes spills and other unintentional, non-routine or unanticipated discharges.

## APPENDIX A - 40 CFR 503 LANGUAGE

503.1	Purpose and	l appl	ical	oili	ty
503.2	Compliance	perio	od		

- 503.3 Permits and direct enforceability
- 503.4 Relationship to other regulations
- 503.5 Additional or more stringent requirements
- 503.6 Exclusions
- 503.7 Requirement for a person who prepares sewage sludge
- 503.8 Sampling and analysis
- 503.9 General Definitions

# 2. <u>Subpart B - Land Application</u>

503.10	Applicability
503.11	Special definitions
503.12	General requirements (specifically paragraphs a, b, d, e, f, g, h, i, and j)
503.13	Pollutant limits (specifically paragraph b(1, 2, 3, and 4))
503.14	Management practices (specifically paragraphs a, b, c, d, and e)
503.15	Operational standards- pathogens and vector attraction reduction (specifically
	paragraph a)
503.16	Frequency of monitoring (specifically paragraph a)
503.17	Recordkeeping (specifically paragraph a(1, 2, 3, 4, 5, and 6))
503.18	Reporting

# 3. Subpart D - Pathogens and Vector Attraction Reduction

503.30	Scope
503.31	Special definitions
503.32	Pathogens (specifically paragraph b)
503.33	Vector attraction reduction (specifically paragraph b)

# APPENDIX B - CURRENT LAND APPLICATION SITES



