Response to Comments
City of Pocatello Water Pollution Control Facility
NPDES Permit No. ID-0021784

Background

On April 12, 2012, the U.S. Environmental Protection Agency issued a notice of proposed reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for discharges from the City of Pocatello Water Pollution Control Facility (WPCF). The public review and comment period ended on May 14, 2012. Significant comments were received from:

Charles H. Trost, Ph.D.
Justin Hayes, Program Director, Idaho Conservation League
Maureen L. Mitchell, Summit Law Group PLLC
Brian C. Bald, Mayor, City of Pocatello
Lynn Van Every, Idaho Department of Environmental Quality (IDEQ)

The following summarizes the significant comments received and responds to each comment.

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The EPA's Response to Comment Received

Comment from Charles H. Trost, Ph.D.

I would like to request that the waste water treatment plant (WWTP) of Pocatello, Idaho be forced to remove as much phosphorus as possible before discharging its effluent into the Portneuf River. There is already a load of pollutants entering the river from ground water seeping from under the Simplot Don Plant and the old FMC facility, which the EPA is trying to clean up. I believe that American Falls Reservoir is already receiving too much phosphorous and is now becoming eutrophic. I count migrating shorebirds on the mudflats of this reservoir twice a month from July to September, and have noticed algal blooms and emergent vegetation increasing in recent years. Shorebird numbers and diversity have also fallen off in recent years. I am convinced that pollutants from the Portneuf River are responsible for these changes. Before the WWTP obtains a new permit they should be forced to make its effluent as pollutant free as possible.

Response to Charles H. Trost, Ph.D.

As described in the fact sheet, pollutant effluent limits for WWTPs are established based on technology, water quality or sometimes performance. Technology-based limits for secondary treatment have been established for TSS, BOD and bacteria. Most other pollutant effluent limits for WWTPs are established based on water quality, specifically, such that the permitted discharge does not cause or contribute to excursions of Idaho's water quality standards. In this case, the phosphorus effluent limit was established based on water quality as determined by the Portneuf River TMDL.

The IDEQ issued the final version of the Portneuf River TMDL entitled *Portneuf River TMDL Revision and Addendum*[1]. The EPA approved the TMDL on July 29, 2010. The TMDL estimated the maximum level of phosphorus that can be discharged to attain and maintain the narrative and numeric water quality standards with consideration of seasonal variation and a margin of safety. The TMDL took into account critical stream flows and loading, and then allocated a phosphorus load to point source dischargers. The TMDL determined that Pocatello WPCF may discharge up to 25.1 lbs/day of phosphorus on a monthly average basis, and attain and maintain the applicable water quality standards.

As required by the NPDES regulations at 40 CFR 122.44(d)(1)(vii)(B), the phosphorus limits in the permit were developed consistent with assumptions and requirements of the wasteload allocation from the approved TMDL. The EPA does not have a basis to impose more stringent effluent limits.

Comments from Justin Hayes, Program Director, Idaho Conservation League

TSS Effluent Limits Not Consistent with TMDL Waste Load Allocations

The Portneuf River TMDL and the Portneuf River TMDL Revision and Addendum developed by the Idaho Department of Environmental Quality (DEQ) and subsequently approved by the

[1] Portneuf River TMDL Revision and Addendum, Idaho Department of Environmental Quality, Feb. 2010.

EPA, is the approved TMDL for the Portneuf River. This TMDL established Waste Load Allocations (WLAs) for the point sources that discharge into the Portneuf, including this facility.

This TMDL established a Total Suspended Solids (TSS) WLA of 1.5 tons/day (i.e. 3,000 lbs/day) for the City of Pocatello WPCF.

When developing NPDES effluent limits, the Clean Water Act provides that the permitting agency (in this case EPA) needs to ensure that these effluent limits are consistent with the assumptions and requirements of the WLA developed in an EPA approved TMDL, as required by 40 CFR 122.44(d)(1)(vii)(B).

The Draft NPDES permit for the Pocatello WPCF proposes TSS limits as follows:

Average weekly limit is 4,500 lbs/day
Average monthly limit is 3,000 lbs/day

The TMDL WLA is in a "per day" format.

We believe that EPA's proposed effluent for the monthly average, 4,500 lbs/day, is inconsistent with the facility's WLA of 3,000 lbs/day. Thus, the proposed effluent limits for TSS are not consistent with the assumptions and requirements of the TMDL for the receiving water and are in violations of 40 CFR 122.44(d)(1)(vii)(B). As such, the proposed effluent limit is not lawful.

Phosphorus Effluent Limits Not Consistent with TMDL Waste Load Allocations

The Portneuf River TMDL and the Portneuf River TMDL Revision and Addendum developed by the Idaho Department of Environmental Quality (DEQ) and subsequently approved by the EPA, is the approved TMDL for the Portneuf River. This TMDL established Waste Load Allocations (WLAs) for the point sources that discharge into the Portneuf, including this facility.

This TMDL established a Total Phosphorus (TP) WLA of 25.1 lbs/day for the City of Pocatello WPCF.

When developing NPDES effluent limits, the Clean Water Act provides that the permitting agency (in this case EPA) needs to ensure that these effluent limits are consistent with the assumptions and requirements of the WLA developed in an EPA approved TMDL, as required by 40 CFR 122.44(d)(1)(vii)(B).

The Draft NPDES permit for the Pocatello WPCF proposes TP limits as follows:

Average weekly limit is 37.7 lbs/day
Average monthly limit is 25.1 lbs/day

The TMDL WLA is in a "per day" format.

We believe that EPA's proposed effluent for the monthly average, 37.7 lbs/day, is inconsistent with the facility's WLA of 25.1 lbs/day. Thus, the proposed effluent limits for TP are not

consistent with the assumptions and requirements of the TMDL for the receiving water and are in violations of 40 CFR 122.44(d)(1)(vii)(B). As such, the proposed effluent limit is not lawful.

Compliance Schedules for TP, Chlorodibromomethane and Dichlorobromethane
The Fact Sheet for this permit notes that the effluent limits for TP, Chlorodibromomethane and Dichlorobromethane become effective 12/31/2017.

We have two primary concerns with these schedules. 1) There are no interim limits for the period between the date of issuance and the final compliance date. Such interim limits need to be established. 2) This compliance schedule extends beyond the life of the proposed permit. If there is to be a compliance schedule, we believe that the final "effective" date for compliance must be within the life of the permit in question. As such, the compliance schedule should require that the final limits become effective 4 years and 11 months from the effective date of this permit.

Total Ammonia Limit is backsliding and antideg violation
The draft permit proposes significant increases in total ammonia effluent limits. Idaho has determined that the Portneuf River is a tier I water. We do not believe that the language of the Clean Water Act allows EPA to increase discharges of pollutants into tier I waters.

Arsenic
Pages 54, 55, 68 and 70 of the Fact Sheet contain spreadsheets which does not contain the Idaho appropriate Human Health Criteria (both water and organisms and organisms only) for arsenic, 10 ug/l.

Response to Justin Hayes, Program Director, Idaho Conservation League

TSS Effluent Limits Not Consistent with TMDL Waste Load Allocations
The Portneuf River TMDL indicates that the TSS load allocation is 1.5 tons/day on a *monthly* average basis (page 119, Table 5.9) therefore the average *monthly* permit limit of 3,000 lbs/day is consistent with the TMDL as required by 40 CFR § 122.44(d)(1)(vii)(B). This regulatory provision does not preclude the EPA from imposing additional effluent limits to fulfill other regulatory requirements.

In addition to the above regulation, the EPA must comply with other NPDES regulations. 40 CFR § 122.45(d)(2) requires that permit effluent limitations be expressed as both average monthly and weekly average discharge limitations for POTWs. The weekly average limit is in addition to, not in place of, the monthly average limit.

The use of both monthly average and weekly average limits allows the EPA to comply with both federal regulations.

Phosphorus Effluent Limits Not Consistent with TMDL Waste Load Allocations
The Portneuf River TMDL indicates that the phosphorus load allocation is 25.1 lbs/day on a monthly average basis (page 128, Table 5.14) therefore the average monthly permit limit of 25.1 lbs/day is consistent with the TMDL as required by 40 CFR § 122.44(d)(1)(vii)(B). This

regulatory provision does not preclude the EPA from imposing additional effluent limits to fulfill other regulatory requirements.

In addition to the above regulation, the EPA must comply with other NPDES regulations. 40 CFR § 122.45(d)(2) requires that permit effluent limitations be expressed as both average monthly and weekly average discharge limitations for POTWs unless impracticable. The weekly average limit is in addition to, not in place of, the monthly average limit.
The use of both monthly average and weekly average limits allows the EPA to comply with both federal regulations.
Refer to Response to Comment Pocatello regarding the calculation of the weekly average limit.

Compliance Schedules for TP, Chlorodibromomethane and Dichlorobromethane
Refer to response to City of Pocatello, the limits for Chlorodibromomethane and Dichlorobromethane were removed based on the use of the Organism only water quality criteria.

The Hanlon memo[2] provides guidance to the EPA on establishing compliance schedules in NPDES permits. The compliance schedule for phosphorus was established consistent with the guidance and referenced regulatory provisions. Provisions discussed in the memo are as follows:

> *40 C.F.R. § 122.47(a)(1) "When appropriate," NPDES permits may include "a schedule of compliance leading to compliance with CWA and regulations . . . as soon as possible, but not later than the applicable statutory deadline under the CWA."*
>
> *40 C.F.R. § 122.47(a)(3) Compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement.*
>
> *40 C.F.R. § 122.2 Any compliance schedule contained in an NPDES permit must be an "enforceable sequence of actions or operations leading to compliance with a [water quality-based] effluent limitation ["WQBEL"]"*
>
> *CWA sections 301(b)(1)(C); 502(17) Any compliance schedule contained in an NPDES permit must include an enforceable final effluent limitation and a date for its achievement that is within the timeframe allowed by the applicable State or federal law provision authorizing compliance schedules.*
>
> *CWA section 502(17) and 40 C.F.R. § 122.2 Any compliance schedule that extends past the expiration date of a permit must include the final effluent limitations in the permit in order to ensure enforceability of the compliance schedule as required by (definition of schedule of compliance).*

[2] Hanlon, James A., Memo, Compliance Schedules for Water Quality-Based Effluent Limitations in NPDES Permits, May 10, 2007.
(http://www.epa.gov/npdes/pubs/memo_complianceschedules_may07.pdf

CWA sections 301(b)(1)(C) and 502(17) of the CWA. See also 40 C.F.R. §§ 122.2, 122.44(d)(1)(vii)(A) The permitting authority has to make a reasonable finding, adequately supported by the administrative record, that the compliance schedule "will lead[ ] to compliance with an effluent limitation . . . " "to meet water quality standards" by the end of the compliance schedule.

40 C.F.R. § 124.8 See 40 C.F.R. §§ 122.47(a), 122.47(a)(1) The permitting authority has to make a reasonable finding, adequately supported by the administrative record and described in the fact sheet, that a compliance schedule is "appropriate" and that compliance with the final WQBEL is required "as soon as possible."

40 C.F.R. §§ 122.47, 122.47(a)(1) The permitting authority has to make a reasonable finding, adequately supported by the administrative record, that the discharger cannot immediately comply with the WQBEL upon the effective date of the permit.

In response to the first concern regarding the lack of interim effluent limitations, the permit includes an enforceable sequence of actions and annual progress reporting. These actions ensure that the permittee will make continuous progress toward completing the necessary facility upgrades needed to meet the final effluent limits. Federal regulations require an enforceable sequence of actions, but not interim limits. It is not necessary to establish interim limits in cases where a facility upgrade is needed to achieve a measurable reduction toward meeting the final effluent limits.

In response to the second concern, the EPA believes that the proposed compliance schedule is consistent with the guidance, including the requirement to achieve compliance "as soon as possible". The guidance allows for compliance schedules longer than the permit cycle based on reasonable findings. The sequence of actions required in the permit are based on the reasonable time required to plan, design, fund and construct a facility upgrade of the magnitude required to achieve the required phosphorus reductions.

The permit requires the completion of construction of the upgrade to meet the phosphorus limits before the end of the 5-year permit cycle, December 31, 2016. The additional year provides time for the facility to optimize process performance during both a summer and winter season before the final limits are effective. The plant should reliably achieve the final effluent limit upon the completion of construction before the end of the permit cycle.

Total Ammonia Limit is backsliding and antideg violation

Section 402(o) of the Clean Water Act and federal regulations at 40 CFR §122.44 (l) generally prohibit the renewal, reissuance or modification of an existing NPDES permit that contains effluent limits, permit conditions or standards that are less stringent than those established in the previous permit (i.e., anti-backsliding) but provides limited exceptions. Section 402(o)(1) of the CWA states that a permit may not be reissued with less-stringent limits established based on Sections 301(b)(1)(C), 303(d) or 303(e) (i.e. water quality-based limits or limits established in accordance with State treatment standards) except in compliance with Section 303(d)(4). Section 402(o)(1) also prohibits backsliding on technology-based effluent limits established

using best professional judgment (i.e. based on Section 402(a)(1)(B)), but in this case, the effluent limits being revised are water quality-based effluent limits (WQBELs).
Section 303(d)(4) of the CWA states that, for water bodies where the water quality meets or exceeds the level necessary to support the water body's designated uses, WQBELs may be revised as long as the revision is consistent with the State's antidegradation policy. Additionally, Section 402(o)(2) contains exceptions to the general prohibition on backsliding in 402(o)(1). According to the EPA NPDES Permit Writers' Manual (EPA-833-K-10-001) the 402(o)(2) exceptions are applicable to WQBELs (except for 402(o)(2)(B)(ii) and 402(o)(2)(D)) and are independent of the requirements of 303(d)(4). Therefore, WQBELs may be relaxed as long as either the 402(o)(2) exceptions or the requirements of 303(d)(4) are satisfied.

The Portneuf River is not impaired for ammonia, therefore, the antibacksliding analysis is conducted under Section 303(d)(4)(B). Less stringent water quality based effluent limits are allowed for ammonia if the revised limits are consistent with the State's antidegradation analysis. The EPA must ensure that the State has completed an antidegradation analysis. In addition, the EPA must review a State's CWA § 401 certification to ensure that state water quality standards, including the State's antidegradation policy, are being met pursuant to Section 301(b)(1)(C). The EPA received the final CWA § 401 certification from IDEQ on July 12, 2012. The EPA reviewed that final CWA § 401 certification and concludes that state water quality standards were being met including the State's antidegradation policy.

Idaho's antidegradation regulations for Tier 1 waters requires that existing uses are maintained . In its CWA § 401 certification the State certifies that the change in total ammonia discharge is consistent with its antidegration policy. The EPA reviewed the states certification and antidegration analysis which concluded that existing uses are protected.

Arsenic

The EPA acknowledges the State Water Quality Standards include a 10 µg/L human health criteria for inorganic arsenic. However, the facility was not required to test for inorganic arsenic during the permit cycle but rather tested for total recoverable arsenic. The reasonable potential for the discharge to cause or contribute to excursions of the human health criteria for inorganic arsenic was not evaluated since effluent data for the pollutant was not available.

The facility was required to test for total recoverable arsenic. The highest reported result for total recoverable arsenic was 2.3 µg/L. The analysis for total recoverable arsenic captures and measures the amount of all species of arsenic present. Therefore, the fraction of inorganic arsenic in the effluent would be less than the value of total recoverable arsenic.

In response to this comment, the EPA completed a reasonable potential analysis for inorganic arsenic using the data available for total recoverable arsenic value. The reasonable potential worksheet has been modified as provided in Appendix A: Revised Reasonable Potential Analysis to address this analysis. There is no reasonable potential for the discharge to contribute to an excursion above the human health criteria for inorganic arsenic based on the available effluent data for total recoverable arsenic.

Comment from Maureen L. Mitchell, Summit Law Group PLLC representing FMC Corporation and FMC Idaho LLC (collectively "FMC")

May 14, 2012

FMC has reviewed the above-referenced draft NPDES Permit and the draft Section 401 Certification issued by the Idaho Department of Environmental Quality and fully supports the proposed NPDES permit. Please lodge this comment in the formal Record for the reissuance of the City's NPDES Permit.

Response to Maureen L. Mitchell, Summit Law Group PLLC

Thank you for your support of the draft NPDES Permit and the draft CWA § 401 certification issued by the Idaho Department of Environmental Quality.

Comment from Brian C. Bald, Mayor, City of Pocatello

Comments on the Draft NPDES permit #ID0021784

COMMENT

The City of Pocatello would respectfully ask the EPA to consider removing the weekly limit for phosphorus.

> Phosphorus limits have been expressed in the Fact Sheet and Draft Permit as both monthly and weekly. The Draft Permit and the Fact Sheet accurately reflect the Total Phosphorus wasteload allocation of 25.1 lbs/day as determined in the 2010 TMDL. This number is the State's best estimate for a phosphorus wasteload allocation and was based on monthly averages and expressed in lbs/day in Table 5.14 of the Portneuf TMDL and even though the City of Pocatello expressed desire for the allocation and limit be seasonal the final TMDL kept the allocation the same for every month of the year. Low and high flows in the river were used to determine phosphorus loads in the TMDL. The weekly limit in the draft permit was determined using the default multiplier of one and a half.
>
> The City of Pocatello was an active participant in the Watershed Advisory Group (WAG) and helped review and input on the development of the TMDL. Part of the reason for the same monthly limit was the nature and extent of the existing phosphorus loads in that segment of the river. This segment of the river has been the subject of study and investigation and analysis for many years as a result in part of the designation of the Eastern Michaud Flats (EMF) superfund site.
>
> Between the years of 2003 and 2009 EMF groundwater influences ranged between 2000 and 2600 lbs/day phosphorus (as compared to the current Pocatello POTW discharge of around 53 lbs/day). The voluntary consent order issued by EPA to Simplot has set target reduction goals for phosphorus to be measured at Siphon Road and with compliance measured on the annual median of monthly values, not unlike the allocations for the POTW listed in Table 5.14 of the TMDL.
>
> Phosphorus is not toxic by definition whereas toxic constituents would certainly need more restrictive monitoring and compliance, such as a weekly limit. In the case of the Simplot consent order and as discussed in the Portneuf TMDL, phosphorus reductions are certainly necessary, but based more on annual allocation and reduction goals throughout

the watershed. The American Falls TMDL has also allocated an annual load of phosphorus to the Portneuf River. The fact that the phosphorus allocation is the same every month in the TMDL is an indication of the intent of measuring and comparing reductions on an annual basis. Likewise, if seasonality were determined in the TMDL then weekly limits might also be applicable.

Phosphorus is a nutrient that according to the Nutrient Technical Guidance Manual, Rivers and Streams "In flowing systems, nutrients may be rapidly transported downstream and the effects of nutrient inputs may be uncoupled from the nutrient source" (page 3). Algal growth in streams, especially nuisance algal growth, requires sustained concentrations of nutrients in amounts above growth limitation (among other factors such as light and temperature) for sustained periods of time, such as a season, to impair water quality. Compliance in this reach of the river for phosphorus is designated downstream of both point sources and the EMF groundwater influence at Siphon Road. Annual (and monthly) mass loads are then measured and in the case of the VCO used to determine compliance. The EPA and the DEQ have set long range goals (Year 2020) for the aggressive reductions in total phosphorus at this point in the river.

The City of Pocatello understands and knows why and how the requirements for the monthly limits for phosphorus were determined. We have been involved in the process of wasteload allocations for many years. Weekly or seasonal limits on the other hand, were not contemplated in the TMDL for the reasons stated above. In addition there wasn't a discussion of a reasonable multiplier, if weekly limits were assigned. As the city prepares for the reduction of phosphorus over the next several years a more conservative approach will be required to meet weekly limits for phosphorus ultimately increasing cost for construction, operation and maintenance. Whereas, we believe the additional costs and weekly limits are not necessary to achieve the reduction goals for phosphorus in the river and improve water quality.

Other comments from the City of Pocatello as summarized in the response table below.

Response to Brian C. Bald, Mayor, City of Pocatello

The EPA has reviewed the request to remove the weekly limits for phosphorus based on the justification provided in the comment.

The EPA must comply with the NPDES regulations, 40 CFR § 122.45(d)(2), that requires that permit effluent limitations be expressed as both average monthly and weekly average discharge limitations for POTWs.

The EPA reviewed phosphorus data provided by the City of Pocatello to determine the actual process variability with regard to the treatment and removal of phosphorus. The data shows that the variability is greater than the multiplier of 1.5 used to calculate the average weekly limits in the draft permit. The EPA's Technical Support Documents methodology was used to calculate an appropriate weekly average effluent limitation that is reflective of the true process variability as shown in Table 1. The resulting weekly average effluent limitation for phosphorus will be

58.7 lbs/day. This limit will ensure that the facility will meet the required monthly average limit based on historic process variability.

Table 1. Calculation of Weekly Average Phosphorus Effluent Limitation

Using data from Pocatello	Statistics	units		Phophorus	Weekly Average
Jan. 2010-Oct. 2011	Average	mg/L		35.4	36.1
	Minimum	mg/L		7.2	7.7
	Maximum	mg/L		504.1	315.0
	Count	mg/L		472.0	95.0
	Std Dev	mg/L		51.2	
	CV	**mg/L**		**1.4**	
	95th Percentile	mg/L		145.1	122.5
	5th Percentile	mg/L		9.2	9.8
Technical Support Document					
reference page 106	**samples per week**	**n=**		**3.0**	
	samples per month	**n=**		**12.0**	
	LTA Multiplier-AWL		0.99	4.2	formula modified to use weekly number of samples.
	LTA Multiplier-AML		0.95	1.8	
	Factor = AWL/AML			**2.34**	
Average Monthly Limit	AML	lb/day		**25.1**	TMDL mass based limit
Average Weekly Limit	AWL=AML x Factor	lb/day		**58.7**	Applied on a weekly average basis for POTW per 40 CFR § 122.45(d)(2)

Response to Comments on the Draft permit ID-0021784

Changes to the final permit were made as follows:

Location	Request for change or correction	EPA Comment
Page 2 Schedule of submissions Item 2	Whole effluent toxicity testing due date indicates it is 2 times per year when it is only once per year.	Corrected to read "The WET test results must be submitted once per year with either the May and December DMR depending upon in which month the testing was done."
Page 2 Schedule of submissions Item 4	Surface water monitoring report Permit reference should read I.D.3 instead of I.D.10.	Correction made.
Page 2 Schedule of submissions Item 9	Compliance schedule permit reference should read II.D instead of II.E.	Correction made.
Page 3 Schedule of submissions Item 12	Emergency notification permit reference should read II.F instead of II.E.	Correction made.
Page 5 Tables	Table 7 Chlorodibomomethane and Dichlorobromomethane should not be included in this Table	Table of Contents updated accordingly.
Page 6 Table 1	E. coli bacteria Maximum Daily reads 576 in the Fact sheet the Maximum Daily reads 573 on pages 16, 17, and 20.	The correct number is 576 as in the permit. The typographical error will be corrected in the draft fact sheet for clarification.
Page 6 Table 1	E. Coli Bacteria-This is a request to have the NPDES permit for the City of Pocatello allow use of Colilert Quanti-Tray 2000, EPA 40 CFR 136.3 Table 1A #5, Final Rule April 17, 2012, reportable as MPN, be used for E.coli analyses. It is our lab's experience the Quanti-Tray is simpler and provides a more accurate bacteria count. Colonies on the membrane filter are not always easily identifiable. During our State Certification inspection for our lab I spoke with the state certification official, Sandra Radwin, regarding the use of colilert vs. membrane filter for E.coli testing. She offered to contact EPA Region X's microbiologist Dr. Stephanie Harris to discuss the matter on our lab's behalf. Today I received a call back from Sandra Radwin (State) regarding the request. She stated the information she received back from Dr. Harris was that Ms. Burgess was agreeable to changing the permit to allow the use of the Colilert Quanti-Tray 2000.	The units have been changed to indicate #/100 ml or MPN to allow for the Colilert Quanti-Tray 2000 method.

Location	Request for change or correction	EPA Comment
Page 7 Table 1	Chlorodibomomethane and Dichlorobromomethane should not be included in this Table due to the use of column C1 instead of using the column C2 to apply for the brominated THMs in the vicinity of the Pocatello WWTP. Page 141 of the WQS says to use column C2 for recreational designed use. There is no reasonable potential based on the column C2 criteria (organism only).	IDAPA 58.01.02.150.10 does not specific domestic water suppy as a designed use. Therefore, reasonable potential only applies for the organism only criteria. The limits were removed from the final permit.
Page 7 Table 1	Sample Types are referred to as "24-hour composite". Analyses for pH, temperature, residual chlorine, oil and grease, E. coli, cyanide and organics are grab samples and are not taken from the 24 hour composite sample. (40CFR Part 122.21.j. Effluent monitoring for specific parameters) – Fact sheet requirements are stated the same as in the permit.	The permit allows for either grab or measurement for pH, temperature, residual chlorine so that on-line monitoring can be accommodated in the future. Oil and grease, E. coli and cyanide are indicated as grab samples. A footnote has been added to the table to indicate. *Priority pollutant metals (except mercury), acid extractable compounds, base-neutral compounds use 24-hour composite sample.* *Priority pollutants mercury, total phenolic compounds and volatile organic compounds use grab sample.*
Page 7 Table 1	Oil and grease The City of Pocatello doesn't understand this item being listed for monthly testing and reporting to EPA. The WPCF effluent in the last annual sampling event has never shown a result greater than 4 mg/l. This is an onerous and expensive test and request its removal.	Application Form 2A, part B.6. requires *"At a minimum effluent testing data must be based on at least three pollutant scans and must be no more than four and on-half years old."* The EPA reviewed at data provided by the Pocatello and determined annual analysis for oil and grease is sufficient to characterize the pollutant in the discharge. Monitoring reduced to annually.
Page 8 Table 1	Expanded effluent testing should this refer to I.B.9 instead of I.B.10?	Correction made.
Page 8 Table 1.2	Reporting for purposes of averaging, should we report 0 if the sample is under 10 ug/l?	The language was removed since section I.B.8 of the permit addresses how to express less than MDL values for the purpose of averaging, zero should be used.
Page 8 Table 1.3	Should refer to I.B.10 instead of I.B.11.	Correction made.
Page 9 Part I.B.6	What about parameters without effluent limits and not included in Table 2? Can the language "For any parameter with no effluent limit and no ML specified in Table 2 any EPA approved method may be used for analysis be added.	Added "Any EPA-approved method may be used for parameters with no effluent limit and no ML specified in Table 2."

Location	Request for change or correction	EPA Comment
Page 9-10 Part I.B.10	We would like to have the times the sampling event are conducted to 2nd Quarter (April-June) and 4th (October-December) instead of during the months of June and December. This will then match the requirement on Page 19 Part II.A.8.b.	Sampling requirements for the following sections standardized as follows: 1st (Jan-Mar) and 3rd (July-Aug) Qtr sampling for I.B.10, I.C.4 (annually, alternating between seasons) and II.A.8.b. Reporting due the May and Feb DMRs to give the permittee sufficient time to get the lab results back. The purpose is to perform sampling during both low flow and high flow periods.
Page 9-10 Part I.B.10	The current NPDES permit has the Influent and Effluent sampling requirements only under the Pretreatment section, not in this section and page 19 II.A.8. This could be confusing and be read as needing to be sampled each separately.	No change made to permit. The reporting requirement is duplicated, but the same data can be used for both reporting requirements, DMR and pretreatment.
Page 10 Part C.1	Whole Effluent Toxicity testing refers to Part 1.B, should be Part I.B	Correction made.
Page 11 Part C.3.a	Receiving Water Concentrations changed from current permit 30% to 52% RWC. Why the change?	RWC is based dilution at critical river flow. The current permit assumed a 7Q10 of 175 cfs. The proposed permit assumes a 7Q10 of 68 cfs. Refer to the draft fact sheet, page 65, for the formula for calculating the RCW.
Page 12 Part C.4.a	Reporting of the Toxicity tests is confusing. Test taken from April to October are required to be reported in the December DMR and the results from November to March are to be reported in the May DMR. Yet we are required to test for the Toxicity in July to September (Low flow) and January to March (high flow). Please clarify!	Wording changed to clarify as follows: C.2.a. For outfall 001, chronic tests must be conducted once per year. The permittee should alternate testing between the 1st quarter (January through March) and the 3rd quarter (July through September) to evaluate toxicity during both the summer and winter seasons. C.4.a. The permittee must submit the results of the toxicity tests with the discharge monitoring reports (DMR). Toxicity tests taken during the 1st quarter must be reported on the May DMR. Toxicity tests taken during the 3rd quarter must be report on the November DMR.
Page 12 Part C.5	Toxic Reduction Evaluation states that when Chronic Toxicity is detected above 1.9 TU in Jul-Sept and 2.5 TU in Jan-Mar… In the Current permit the chronic trigger is 3.3 TU. This is a significant change and we could find no explanation of why it has changed. Why the change?	The change is due the change in estimated critical river flows. Reference page 48 of the draft fact sheet for 7Q10 river flows for low and high flow periods, 68 cfs and 109 cfs, respectively. Reference page 64 of the draft fact sheet for the formula used to calculate toxicity units (TU) for both the low and high flow periods.

Location	Request for change or correction	EPA Comment
Page 12 Part C.5	**Toxic Reduction Evaluation** must be submitted before initiation of the toxicity testing required by the permit. We have been sampling, testing, and reporting WET test since the current permit was authorized in September 7th of 1999. Why is this required in this permit, we aren't just starting the WET testing program, we have a 12 year history of compliance with this requirement. Our current permit states that we develop a TRE after failing any of the 6 tests required by accelerated testing. We believe this should remain as in the current permit.	Requirement change as follows: **Changed to I.C.6.** If toxicity is present above 1.9 TU_c July through October or 2.5 TU_c November through June through accelerated testing then the permittee must proceed with a Toxicity Reduction Evaluation.
Page 12 I.C.6.b	**Accelerated WET testing** states that it shall be initiated 10 days after the receipt of test results. We are finding that our lab could have conflicts with this, we would like to use the language in our current permit which says…within two weeks of receipt of the sample results..	Changed as follows: **Changed to I.C.5.a** If chronic toxicity is detected above 1.9 TU_c during 3rd quarter testing (July through September) or March), the permittee must comply with the following: a) The permittee must conduct six more bi-weekly (every two weeks) chronic toxicity tests, over a 12-week period. This accelerated testing shall be initiated within 15 calendar days of receipt of the test results indicating the initial exceedance.
Page 12 1.C.6.c	Accelerated WET testing states that we need to notify EPA in writing within 5 calendar days of the exceedance. This is not a permit limit and we believe we should not have to report within 5 days. We will follow the protocol and report the chronic toxicity on the next DMR as in the I.C.4.a.	The 5-day reporting during accelerated testing will remain in the permit. If it should be necessary to perform accelerated testing due to presence of toxicity during routine screening, it is important to respond to toxicity is quickly as possible in the event is cause of toxicity is intermittent.
Page 13 Part I.C	WET testing sections C.5, C.6 mentioning the chronic threshold of 1.9 TU from July –September and 2.5 TU from January-March. What is the chronic threshold the rest of the year? In sections C.6.d and C.7.a the schedule is different with 1.9 TU from July-October and 2.5 TU from November-June. This is very confusing!	Both referenced have been changed to - 1.9 TU_c July through October or 2.5 TU_c November through June – to coorespond to the low and high river flow seasons.
Page 14 Part D	Surface Water monitoring on the Portnuef River has been ongoing for many years including sondes above and below the discharge point of the WPCF so it would be continuing, not starting.	Wording changed to indicate the monitoring must be performed in accordance with the permit, as follows: The permittee must conduct surface water monitoring as indicated in Table 4 below. Surface water monitoring must be performed in accordance with the permit within 90 days after the effective date of the permit.

Location	Request for change or correction	EPA Comment
Page 14 Part D.2.b.	Surface water monitoring. Instead of three grab samples, one on each side and one in the middle, we would like it to read that the sampling will be depth and spatially integrated sampling or per the QAP. Also Dissolved oxygen, PH, turbidity, and conductivity are monitored continuously. E. Coli is a grab sample and we feel that sampling and analyzing three samples would be very onerous. We would like to only analyze one E. Coli sample at each site like the QAP instructs.	Change as follows: Upstream and downstream composite sampling must conducted per the QAP. The samples must be depth and spatially integrated. When weather conditions prevent collecting samples from the middle of the river, the permittee may composite samples from only each bank. Dissolved oxygen, pH, conductivity and turbidity must be monitored continuously. E. coli must be a grab sample per the QAP.
Page 15 Table 4	River flow and temperature sample locations should be upstream of the point of discharge as described in I.D.1.a and as approved by DEQ.	Changed to **Upstream** of the point of discharge as described in I.D.1.a. and as approved by IDEQ
Page 15 Table 4	Total ammonia and Hardness are not in Table 2 but TKN Total Kjeldahl Nitrogen is in Table 2.	Correction made.
Page 15 Table 4	Total and dissolved metals monitoring are being required both upstream and downstream on an annual basis. Why are these required since the metals are not present in the WWTF effluent? The City of Pocatello has records of 40 samples of WWTF effluent for the total metals that there are non-detectable or low results. This is an added cost to the City of Pocatello and a burden to the staff sampling the river.	It is sufficient to have background upstream data for metals only to perform reasonable potential analysis in the next permit cycle. The permit has been changes as follows: **Upstream** of the point of discharge as described in I.D.1.a. and as approved by IDEQ
Page 18 II.A.5	Special Conditions, in the Pretreatment requirements section the Local Limits evaluation is requiring the addition of total ammonia, BOD, TSS, molybdenum, and selenium. Adding additional pollutants to the local limits that must be enforced by the pretreatment program is a burden to not only the City of Pocatello but to the local businesses and industries. We feel that we are addressing the issue of BOD, TSS, and total ammonia by charging the industrial users for their wastewater discharges in abnormal strength. We have years of data for the City of Pocatello's Biosolids program that shows that molybdenum and selenium are not an issue.	In consultation with Michael Le, EPA Region 10 Pretreatment Coordinator, the biosolids data is sufficient to remove molybdenum and selenium. Mr. Le states, "Regarding BOD, TSS, and Ammonia, they are new [Pollutants of Concern] POCs that [the EPA] HQ want all POTW to evaluate for. See Chapter 3-4 of the Local Limits Development Guidance. Also, please note that the federal regulations at 40 CFR 403.8(f)(4) and 122.44(j)(2)(ii) require POTWs to evaluate the need for local limits and, if necessary, to implement, and enforce specific limits as part of the program activities."
Page 18 II.A.8.c	The word "Table" needs added after .. described in.. and before 5.	Correction made.
Page 18 II.A.8.d	There is an extra period in the first sentence that ends with (ML).	Correction made.

Location	Request for change or correction	EPA Comment
Page 18 II.A.8	The current NPDES permit has the Influent and Effluent sampling requirements only under the Pretreatment section, not in this section and page 19 II.A.8. This could be confusing and be read as needing to be sampled each separately.	Clarification made.
Page 19 Part II.A.8.a	Clarification to the reference to Table 1 is needed for the twice per year sampling in this section. Refers to "Sample parameters as identified in Table 1 of the DRAFT Permit". Table 1 includes multiple sections with different sampling frequencies for different parameters. There are continuous, weekly, monthly, annual, and 3 per permit cycle frequency requirements. Reference could state - All parameters listed under "Report Metals" in Table I.	Clarification added. Sample parameters as identified under "Report Metals" in Table 1.
Page 19 Part II.D.8.d	Surface water monitoring. We would like to add that any approved EPA method may be used for analysis.	Clarification made.
Page 22 II.B	Operations and maintenance plan, the City of Pocatello has an O&M plan in place and have made no significant changes to the plant since its last update.	Noted. This is standard permit language. The permittee is expected to provide the letter as required by the permit indicating that the current O&M manual is up-to-date and implemented as required.
Page 23 II.D	The City of Pocatello feels that all references to both Chlorodibomomethane and Dichlorobromomethane should be removed from this section.	As there is no reasonable potential to cause or contribute to excursions of the organism only human health criteria, both the effluent limits and compliance schedule for these pollutants has been eliminated.
Page 23 II.D.1	References Table 1 Part I.A.1 but it should be I.B.1.	Correction made.
Page 23 II.D.4.b	References Table 7 but should be Table 6.	Correction made.
Page 24 Table 6	The City of Pocatello feels that all references to both Chlorodibomomethane and Dichlorobromomethane should be removed from this Table.	As there is no reasonable potential to cause or contribute to excursions of the organism only human health criteria, both the effluent limits and compliance schedule for these pollutants has been eliminated.
Page 24 Table 6	Task number 5 in the date there should be a comma not a period.	Correction made.
Page 25 II.E	References Table 8 but it should be Table 7.	Correction made.
Page 25 II.F.1.c	Ensure immediate notification to the public, health agencies, and other affected public entities… we cannot find the requirement of who to notify in CFR 122.41 as mention in the Fact Sheet. In our current permit the language spells out the process in 122.41 that we believe should be in this permit and we feel that this should be removed from this permit. We have a CMOM plan for our collection system that EPA approved during our last audit and feel this meets the letter of the law. We feel we meet III.G	This is a standard permit condition that must remain in the permit. The condition hold the permittee accountable for notifying downstream drinking water utilities of a plant upset or disinfection failure that may impact water quality downstream.

Location	Request for change or correction	EPA Comment
Page 28 III.G.c	There are two subsection c in this section.	Correction made.
Page 29 III.I	Same language as II.F.1.c emergency response. We feel we meet III.G.	This is a standard permit condition that must remain in the permit.
Page 30 IV.B	Subsection reads B.1 then goes to B.8 and should be B.2.	Correction made.
Page 34 IV.K	Reopener –The City of Pocatello believes that the 503 Biosolids regulations are self implementing and make this section K not applicable.	This is a standard permit condition that must remain in the permit.

Response to Comments on the Fact sheet for Draft permit ID-0021784

The EPA does not make change to the draft fact sheet, rather the correction are acknowledged in the response to comment document as follows:

Location	Request for change or correction	EPA Comment
Page 10 III Receiving water	The Portneuf River is northwest of the WPCF not north of.	Correction made.
Page 14 III.B Table 2 left column	The last sentence .. pollutants have been present in at detectable levels.. the word “in” should be removed. Also in this section we feel that there might have been single isolated results on some of the toxic pollutants but we have seen no detectable results on Cyanide, Lead, Mercury, and Silver.	Correction made and comment noted.
Page 14 III.B Table 2 right column	The City of Pocatello feels that all references to both Chlorodibomomethane and Dichlorobromomethane should be removed from this Table.	Left reference in table, but added clarification, as follows: Chlorodibromomethane and Dichlorobromomethane showed a reasonable potential to contribute to violations of the human health criteria (for organism and water).
Page 16 III.B Table 2 left column	E. Coli has 573 organisms per 100 ml should read 576 organisms per 100 ml.	Typographical error corrected.
Page 18 IV.B. Table 3 Numeric effluent limits	WQ based limits for Chlorodibomomethane and Dichlorobromomethane should be removed from this Table.	Correction made.
Page 19 IV.B TMDL based limits	Paragraph that starts For Phosphorus… sentence that starts Federal regulation… expressed in as an average.. an extra “in” is in the sentence.	Correction made.
Page 19 IV.C. (last sentence of page)	states for E.coli “the monitoring frequency remains at 5 times per week. Permit states 3 times per week.	Correction made.

Location	Request for change or correction	EPA Comment
Page 23 V.B Table 6	The City of Pocatello feels that all references to both Chlorodibomomethane and Dichlorobromomethane should be removed from this Compliance Schedule.	Correction made.
Page 25 VI. B Table 7	Parameter-Cyanide, Sample type refers to I.B.11 should be I.B.10.	Correction made.
Page 26 IV.B. table 7	Note 3 needs corrected and notes 5 and 7 need removed to match the permit Table 1.	Correction made.
Page 38 Table 12	The City of Pocatello questions values used in this table. Ie: maximum of 6.0 for cyanide, maximum of 1.4 for lead, and maximum of 1.1 for mercury. These numbers weren't in the data supplied with the permit application.	Table 12 in fact sheet has been updated and all metals data provided below Table 3 and 4.
Page 39 Appendix B	In paragraph above Table 13 the C in City of Pocatello needs capitalized.	Correction made.
Page 40 Appendix B supplemental data	change highlighted red numbers	Correction made.
Page 49 Appendix C.C narrative for Table 21	Again the C in City needs capitalized. The City of Pocatello would like the narrative expanded to include explanation of why the nutrient concentrations are higher downstream the point of discharge than upstream due to the influence of the springs and associated nonpoint load of nutrients.	Correction made and comment noted.
Page 60 Appendix D.F	In the last two paragraphs please remove all references to Chlorodibomomethane and Dichlorobromomethane.	Correction made.
Page 69 and 71 Appendix D reasonable potential	Please correct Tables 33 and 34 to show that there is no reasonable potential for Chlorodibomomethane and Dichlorobromomethane.	Response to Comment to correctly indicate no reasonable potential based on Organism Only human health criterion.

Comment from IDEQ on Proposed Final Permit

Comment from Lynn Van Every, IDEQ

IDEQ requested clarification on the following: On page 14, D.1.a) ii and iii – these two conditions contradict each other. In (ii) it reads "below the facility's discharge, at a point where the effluent and Portneuf River are completely mixed, but above the influence of any other point source discharge". (iii) reads – "for purposes of receiving water monitoring, stations at Batiste Road and Siphon Road as identified in the QAPP for the Portneuf River Project may be used".

These two conditions are contradictory, IDEQ would prefer (iii) be used as it is consistent with the last 10 plus years of monitoring and the statement in (ii) puts us up the river from Siphon Road at a point that is not readily accessible. Remember that Batiste Trout Farm (a point source)

comes in below the STP but above Siphon Road but has little if any measureable impact on the river.

Response to Lynn Van Every

IDEQ requests that the existing surface water monitoring program is retained for continued monitoring and to make comparison of long-term trends. The EPA agrees that the existing surface monitoring program provides the data needed to evaluate the discharge's impacts to the receiving water. The intent of the surface water monitoring requirement was to maintain the existing program. The following language was stricken from the permit. The intent was to allow ongoing monitoring at Siphon Road as described under iii.

Permit page 14.

1. Monitoring Locations
    a) Monitoring stations must be established in the Portnuef River at locations approved by the IDEQ. The monitoring locations must be:
        (i) Above the influence of the facility's discharge, and
        (ii) Below the facility's discharge, at a point where the effluent and Portneuf River are completely mixed~~, but above the influence of any other point source discharge~~.
        (iii) For the purposes of receiving water monitoring, stations at Batiste Road and Siphon Road as identified in the *Quality Assurance Project Plan for the Portneuf River Monitoring Project* may be used.

Table 2. Metals data provide with permit application

POCATELLO'S POTW METAL ANALYSES HISTORY
2006 TO 2011
k = less than the detection limit of value preceding
NT = No Test, due to lab error.

FINAL EFFLUENT (micrograms per liter)

Date	Code:	As	Cd	Cr	Cu	CN	Pb	Hg	Ni	Ag	Zn	Se	Mo
2-Jan-06	F				11								
5-Feb-06	F				8								
6-Mar-06	F				12								
9-Apr-06	F				9								
3-Apr-06	F	1.0	0.05 K	1.4	10	5 K	0.7 K	0.2 K	2.4	0.5 K	46.3		
4-Apr-06	F	1.1	0.05 K	1.4	9	5 K	0.7 K	0.2 K	2.5	0.5 K	45.1		
5-Apr-06	F	1.5	0.05 K	3.0	11	5 K	0.7 K	0.2 K	3.2	0.5 K	45.6		
5-Apr-06	F				12								
1-May-06	F				12								
4-Jun-06	F				54								
2-Jul-06	F				10								
13-Aug-06	F				11								
6-Sep-06	F				12								
9-Oct-06	F	1.3	0.05 K	0.8	14	5 K	0.7 K	0.2 K	2.5	0.5 K	39.9		
10-Oct-06	F	1.4	0.05 K	0.8	12	5 K	0.7 K	0.2 K	2.2	0.5 K	36.8		
11-Oct-06	F	1.4	0.05 K	0.9	12	5 K	0.7 K	0.2 K	2.4	0.5 K	38.1		
8-Nov-06	F				9								
4-Dec-06	F				16								
2-Jan-07	F				14								
6-Feb-07	F				10								
3-Mar-07	F				8								
12-Mar-07	F					5 K						1.1	5.2
13-Mar-07	F	2.0	0.05 K	0.9	8	5 K	0.7 K	0.2 K	1.9	0.5 K	42.6	0.9	4.8
14-Mar-07	F	2.1	0.05 K	1.0	16	5 K	0.7	0.2 k	2.2	0.5 k	47.6	0.9	4.4
15-Mar-07	F	2.0	0.1	10.0 K	10		1.0 k	1.0 k	2.0	0.5 k	60	0.9	4.5
A)16-Mar-07	F											0.8	3.9
B)16-Mar-07	F											0.8	3.4
17-Mar-07	F											0.9	3.5
18-Mar-07	F											0.9	3.2
19-Mar-07	F											0.8	3.4
21-Mar-07	F											1	4.5
22-Mar-07	F											1	4.7
23-Mar-07	F											1	4.2
24-Mar-07	F											0.9	3.9
24-Mar-07	F											0.9	4.3
8-Apr-07	F				8								
7-May-07	F				8								
5-Jun-07	F				13								
5-Jul-07	F				5 K								
9-Sep-07	F				10								
17-Sep-07	F	1.7	0.07	0.6	11	5 K	0.7 K	0.2 K	1.5	0.5 K	40	10 K	100 K
18-Sep-07	F	2.3	0.05 K	1.4	11	5 K	0.7 K	0.2 K	1.5	0.5 K	48	10 K	100 K
22-Jul-08	F	2.3	0.05 k	0.7	8	5 k	0.7 k	0.2 k	1.1	0.5 k	48	10 k	100 k
23-Jul-09	F	2.1	0.06	0.6	8	5 k	0.7 k.	0.2 k	1.1	0.5 k	55	10 k	100 k
24-Jul-09	F	2.0	0.10	0.6	8	5 k	0.7 k	0.2 k	1.3	0.5 k	41	10 k	100 k
3-Nov-08	F	1.4	0.06	0.9	11	5 K	0.7 K	0.2 K	4.4	0.5 K	37	10 K	100 K
4-Nov-08	F	1.7	0.08	0.8	10	5 K	0.7 K	0.2 K	1.1	0.5 K	41	10 K	100 K
5-Nov-08	F	1.6	0.06	0.8	12	5 K	0.7 K	0.2 K	1.1	0.5 K	39	10 K	100 K
23-Mar-09	F	2.3	0.08	0.9	7	5 k	0.7 k	0.2 k	1.6	0.5 k	50	10 k	100 k
24-Mar-09	F	2.2	0.07	0.8	7	5 k	0.7 k	0.2 k	1.5	0.5 k	48	10 k	100 k
25-Mar-09	F	2.1	0.05 k	0.8	6	5 k	0.7 k	0.2 k	1.5	0.5 k	47	10 k	100 k
14-Sep-09	F	1.6	0.09	1.4	10	5 k	0.7 k	0.2 k	2.4	0.5 k	51	10 k	100 k
15-Sep-09	F	1.7	0.01	0.8	12	5 k	0.7 k	0.2 k	3.1	0.5 k	45	10 k	100 k
16-Sep-09	F	1.7	0.07	0.8	13	5 k	0.7 k	0.2 k	3.2	0.5 k	52	10 k	100 k
7-Jan-10	F				10								
2-Feb-10	F				10								
23-Feb-10	F	1.9	0.08	1.0	11	5 k	0.7 k	0.2 k	1.1	0.5 k	53	1 k	100 k
24-Feb-10	F	1.8	0.14	0.9	11	5 k	0.7 k	0.2 k	1.1	0.5 k	52.5	1 k	100 k
25-Feb-10	F	1.7	0.05	0.9	11	5 k	0.7 k	0.2 k	1.0	0.5 k	52.6	1 k	100 k
2-Mar-10	F				11								
6-Apr-10	F				10								
3-May-10	F				14								
1-Jun-10	F				15								
5-Jul-10	F				7								
2-Aug-10	F				13								
6-Sep-10	F				6								
4-Oct-10	F				10								
28-Sep-10	F	1.6	0.07	0.5	8	5 k	0.7 k	0.2 k	0.6 k	0.5 k	37	1 k	2
29-Sep-10	F	1.7	0.05 k	0.5	7	5 k	0.7 k	0.2 k	0.6 k	0.5 k	35.6	1 k	2
30-Sep-10	F	1.0	0.09	2.0 k	7	5 k	0.7 k	0.2 k	4.4	0.5 k	38.5	1 k	3
9-Aug-11	F	1.7	0.06	0.6	10	5 k	0.7 k	0.2 k	1.4	0.5 k	44.1	1 k	5
10-Aug-11	F	1.7	0.08	0.6	9	5 k	0.7 k	0.2 k	5.0	0.5 k	49.9	1 k	5
11-Aug-11	F	1.5	0.07	0.6	9	5 k	0.7 k	0.2 k	1.2	0.5 k	39.2	1 k	5 k

Table 3. Supplemental Application Metals Data

ATTACHMENT 1 - METALS DATA TABLE

DATE PREPARED: SEPTEMBER 23, 2011

PREPARED BY: CHRISTI ROWE

Date	Pollutant	RESULTS		Maximum	Average			Analytical Method	MDL
Date	Pollutant	Conc.	Units	Conc.	Conc.	Units	Number of Samples	Analytical Method	MDL
METALS (Total recoverable), cyanide,phenols, and hardness									
	Antimony	No sampling data							
9/28/10	**Arsenic**	0.0016	mg/L				1	E200.8	0.0005
9/29/10	**Arsenic**	0.0017	mg/L				1	E200.8	0.0005
9/30/10	**Arsenic**	0.0010	mg/L				1	E200.8	0.0005
3/15/11	**Arsenic**	0.0016	mg/L				1	E200.8	0.0005
3/16/11	**Arsenic**	0.0016	mg/L				1	E200.8	0.0005
3/17/11	**Arsenic**	0.0017	mg/L				1	E200.8	0.0005
8/9/11	**Arsenic**	0.0017	mg/L				1	E200.8	0.0005
8/10/11	**Arsenic**	0.0017	mg/L				1	E200.8	0.0005
8/11/11	**Arsenic**	0.0015	mg/L				1	E200.8	0.0005
				0.0017	**0.0016**	**mg/L**	**9**	**E200.8**	**0.0005**
	Beryllum	No sampling data							
9/28/10	**Cadmium**	0.00007	mg/L				1	E200.8	0.00005
9/29/10	**Cadmium**	<0.00005	mg/L				1	E200.8	0.00005
9/30/10	**Cadmium**	<0.00009	mg/L				1	E200.8	0.00009
3/15/11	**Cadmium**	<0.00005	mg/L				1	E200.8	0.00005
3/16/11	**Cadmium**	0.00027	mg/L				1	E200.8	0.00005
3/17/11	**Cadmium**	0.00011	mg/L				1	E200.8	0.00005
8/9/11	**Cadmium**	0.00006	mg/L				1	E200.8	0.00005
8/10/11	**Cadmium**	0.00008	mg/L				1	E200.8	0.00005
8/11/11	**Cadmium**	0.00007	mg/L				1	E200.8	0.00005
				0.00027	**0.00011**	**mg/L**	**9**	**E200.8**	**.00009/.00005**
9/28/10	**Chromium**	0.0005	mg/L				1	E200.8	0.0001
9/29/10	**Chromium**	0.0005	mg/L				1	E200.8	0.0001
9/30/10	**Chromium**	<0.002	mg/L				1	E200.8	0.002
3/15/11	**Chromium**	0.0009	mg/L				1	E200.8	0.0001
3/16/11	**Chromium**	0.0022	mg/L				1	E200.8	0.0001
3/17/11	**Chromium**	0.0022	mg/L				1	E200.8	0.0001
8/9/11	**Chromium**	0.0006	mg/L				1	E200.8	0.0001
8/10/11	**Chromium**	0.0006	mg/L				1	E200.8	0.0001
8/11/11	**Chromium**	0.0006	mg/L				1	E200.8	0.0001
				0.0022	**0.0010**	**mg/L**	**9**	**E200.8**	**.002/.0001**
9/28/10	**Copper**	0.008	mg/L				1	E200.8	0.005
9/29/10	**Copper**	0.007	mg/L				1	E200.8	0.005
9/30/10	**Copper**	0.007	mg/L				1	E200.8	0.005
3/15/11	**Copper**	0.009	mg/L				1	E200.8	0.005
3/16/11	**Copper**	0.010	mg/L				1	E200.8	0.005
3/17/11	**Copper**	0.010	mg/L				1	E200.8	0.005
8/9/11	**Copper**	0.010	mg/L				1	E200.8	0.005
8/10/11	**Copper**	0.009	mg/L				1	E200.8	0.005
8/11/11	**Copper**	0.009	mg/L				1	E200.8	0.005
				0.01	**0.009**	**mg/L**	**9**	**E200.8**	**0.005**
9/28/10	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
9/29/10	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
9/30/10	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
3/15/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
3/16/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
3/17/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
8/9/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
8/10/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
8/11/11	**Lead**	<0.0007	mg/L				1	E200.8	0.0007
				<.0007	**<.0007**	**mg/L**	**9**	**E200.8**	**0.0007**
9/28/10	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
9/29/10	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
9/30/10	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
3/15/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
3/16/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
3/17/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
8/9/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
8/10/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
8/11/11	**Mercury**	<0.0002	mg/L				1	E245.1	0.0002
				<.0002	**<.0002**	**mg/l**	**9**	**E245.1**	**0.0002**
9/28/10	**Nickel**	<0.0006	mg/L				1	E200.8	0.0006
9/29/10	**Nickel**	<0.0006	mg/L				1	E200.8	0.0006
9/30/10	**Nickel**	0.0044	mg/L				1	E200.8	0.0006
3/15/11	**Nickel**	0.0011	mg/L				1	E200.8	0.0006
3/16/11	**Nickel**	0.0015	mg/L				1	E200.8	0.0006
3/17/11	**Nickel**	0.0015	mg/L				1	E200.8	0.0006
8/9/11	**Nickel**	0.0014	mg/L				1	E200.8	0.0006
8/10/11	**Nickel**	0.0013	mg/L				1	E200.8	0.0006
8/11/11	**Nickel**	0.0012	mg/L				1	E200.8	0.0006
				0.0044	**0.0018**	**mg/L**	**9**	**E200.8**	**0.0006**

9/28/10	**Selenium**	<0.001	mg/L				1	E200.8	0.001
9/29/10	**Selenium**	<0.001	mg/L				1	E200.8	0.001
9/30/10	**Selenium**	<0.001	mg/L				1	E200.8	0.001
3/15/11	**Selenium**	0.001	mg/L				1	E200.8	0.001
3/16/11	**Selenium**	0.001	mg/L				1	E200.8	0.001
3/17/11	**Selenium**	0.001	mg/L				1	E200.8	0.001
8/9/11	**Selenium**	<0.001	mg/L				1	E200.8	0.001
8/10/11	**Selenium**	<0.001	mg/L				1	E200.8	0.001
8/11/11	**Selenium**	<0.001	mg/L				1	E200.8	0.001
				0.001	**0.001**	**mg/L**	**9**	**E200.8**	**0.001**
9/28/10	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
9/29/10	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
9/30/10	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
3/15/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
3/16/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
3/17/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
8/9/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
8/10/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
8/11/11	**Silver**	<0.0005	mg/L				1	E200.8	0.0005
				<.0005	**<.0005**	**mg/L**	**9**	**E200.8**	**0.0005**
	Thallium	No sampling data							
9/28/10	**Zinc**	0.037	mg/L				1	E200.8	0.0001
9/29/10	**Zinc**	0.0356	mg/L				1	E200.8	0.0001
9/30/10	**Zinc**	0.0385	mg/L				1	E200.8	0.0001
3/15/11	**Zinc**	0.0462	mg/L				1	E200.8	0.0001
3/16/11	**Zinc**	0.0417	mg/L				1	E200.8	0.0001
3/17/11	**Zinc**	0.0389	mg/L				1	E200.8	0.0001
8/9/11	**Zinc**	0.0441	mg/L				1	E200.8	0.0001
8/10/11	**Zinc**	0.0499	mg/L				1	E200.8	0.0001
8/11/11	**Zinc**	0.0392	mg/L				1	E200.8	0.0001
				0.0499	**0.0412**	**mg/L**	**9**	**E200.8**	**0.0001**
9/28/10	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
9/29/10	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
9/30/10	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
3/15/11	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
3/16/11	**Cyanide**	0.006	mg/L				1	Kelada mod	0.005
3/17/11	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
8/9/11	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
8/10/11	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
8/11/11	**Cyanide**	<0.005	mg/L				1	Kelada mod	0.005
				0.006	**0.006**	**mg/L**	**9**	**Kelada mod**	**0.005**
	Total Phenolic Compounds	No sampling data							
	Hardness	No sampling data							
9/30/10	**Alkalinity**	272	mg/L				1	SM2320B	20
3/15/11	**Alkalinity**	250	mg/L				1	SM2320B	20
3/16/11	**Alkalinity**	258	mg/L				1	SM2320B	20
3/17/11	**Alkalinity**	258	mg/L				1	SM2320B	20
8/9/11	**Alkalinity**	253	mg/L				1	SM2320B	20
8/10/11	**Alkalinity**	279	mg/L				1	SM2320B	20
8/11/11	**Alkalinity**	280	mg/L				1	SM2320B	20
				280	**264.3**	**mg/L**	**7**	**SM2320B**	**20**

Appendix A: Revised Reasonable Potential Analysis

The Reasonable Potential Analysis (RPA) based on critical river conditions during the low flow period were revised for Chlorodibromomethanea and Dichlorobromomethane based on human health criteria for organism only. The RPA was revised for inorganic arsenic based using the 10 µg/L human health criteria. The total recoverable arsenic effluent data was used to evaluate the reasonable potential for inorganic arsenic.

Table 4. Reasonable Potential Analysis

Reasonable Potential Calculation **Low Flow (July-Oct.)** Nov-June (high)

Facility:	City of Pocatello WWTP
Water Body Type	Freshwater

Water Designation	Dilution Factors	Basis (IDAPA 58.01.02 03. b)	
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)	**1.7**	1Q10	16.04
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)	**1.9**	7Q10 or 4B3	7.84
Ammonia	**2.1**	30B3	
Human Health - Non-Carcinogen	**2.3**	30Q5	
Humn Health - carcinogen	**3.6**	Harmonic Mean Flow	

Receiving Water Hardness = 185 mg/L

Uing total recoverable effluent data

Pollutant			AMMONIA, Criteria as Total NH3	CHLORINE (Total Residual)	ARSENIC (dissolved)	ARSENIC (inorganic)	CADMIUM	CHROMIUM(TRI)	COPPER	CYANIDE	LEAD
Effluent Data	# of Samples (n)		1366	1856	35	35	35	35	66	35	35
	Coeff of Variation (Cv)		0.6	0.6	0.2	0.2	0.77	0.77	0.57	0.23	0.48
	Effluent Concentration, µg/L (Max. or 95th Percentile)		23,570	80	2.3	2.3	0.119	2.44	14.75	2.5	0.745
	Calculated 50th percentile Effluent Conc. (when n>10)										
Mizing Zone Used	Aquatic Life - Acute		1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	Aquatice Life - Chronic			1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	Ammonia		2.1								
	Human Health - Non-Carcinogen			2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	Humn Health - carcinogen			3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Receiving Water Data	90th Percentile Conc., µg/L		60.0		4.4	4.4			0		0
	Geo Mean, µg/L										
Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	10,660	19	340	0	2.845	1,318	45	22	193
		Chronic	2,603	11	150	0	1.006	166	26	5	7
	Human Health Water and Organism, µg/L		-	-	-	10	Narrative	Narrative	-	140	Narrative
	Human Health, Organism Only, µg/L		-	-	-	10	Narrative	Narrative	-	140	Narrative
	Metal Criteria Translator, decimal	Acute	-	-	1	-	0.901169	0.316	0.96	-	0.6418281
		Chronic	-	-	1	-	0.866169	0.86	0.96	-	0.6418281
	Carcinogen?		N	N	Y	Y	N	N	N	N	N

Aquatic Life Reasonable Potential

σ	σ2=ln(CV²+1)		0.555	0.555	0.198		0.682	0.682	0.530	0.227	0.455
Pn	=(1-confidence level)^1/n	99%	0.997	0.998	0.877		0.877	0.877	0.933	0.877	0.877
Multiplier	=exp(2.3262σ-0.5σ²)/exp(invnorm(Pn)σ-0.5σ²)	99%	1.0	1.0	1.3		2.2	2.2	1.6	1.3	1.7
Max. conc.(ug/L) at		Acute	13,778	46.681	3.524		0.139	0.998	12.836	1.901	0.475
		Chronic	11,377	41.759	3.616		0.119	2.429	11.483	1.701	0.425
Reasonable Potential? Limit Required?			**YES**	**YES**	**NO**		**NO**	**NO**	**NO**	**NO**	**NO**

Aquatic Life Limit Calculation

# of Compliance Samples Expected per month			30	20						
LTA Coeff. Var. (CV),	default = 0.6 or calculate from data		0.6	0.6						
Permit Limit Coeff. Var. (CV), decimal			0.6	0.6						
Waste Load Allocations,	$C_n=(C_x MZ_a)-C_{ca} x(MZ_a-1)$	Acute	18225.519	32.56						
	$C_n=(C_x MZ_c)-C_{cc}*(MZ_c-1)$	Chronic	5341.79	21.07						
Long Term Averages, ug	WLAc x exp(0.5σ²-2.326σ)	Acute	5851.91	10.45						
	WLAa x exp(0.5σ²-2.326σ) n=30	Chronic	4168.20	11.11						
Limiting LTA, ug/L	used as basis for limits calculation		4168.20	10.45						
Metal Translator or 1?			1.00	1.00						
Average Monthly Limit (AML), ug/L (n=30 ammonia)		**95%**	**4958**	**12**						
Maximum Daily Limit (MDL), ug/L		**99%**	**12984**	**32**						
Average Monthly Limit (AML), mg/L			**4.96**	**0.01**						
Maximum Daily Limit (MDL), mgL			**12.98**	**0.03**						
Average Monthly Limit (AML), lb/day			496	1.2	21	0	0	23.2	2	0
Maximum Daily Limit (MDL), lb/day			1299	3.2	52	1	0	60.9	8	0

Human Health Reasonable Potential

σ	σ2=ln(CV²+1)				0.198				0.227	
Pn	=(1-confidence level)^1/n	95%			0.918	0.918	0.918	0.918	0.918	0.918
Multiplier		50%			0.76				0.73	
Dilution Factor					3.6	2.3	2.3	2.3	2.3	2.3
Max Conc. at edge of Chronic Zone, ug/L					0.485				0.800	
~~**Reasonable Potential to exceed HH Water & Organism**~~					~~**NO**~~	NO	NO	NO	~~**NO**~~	NO
Reasonable Potential to exceed HH Organism only					**NO**	NO	NO	NO	**NO**	NO

The water

Human Health Limit Calculation

# of Compliance Samples Expected per month		
Average Monthly Effluent Limit, ug/L		
Maximum Daily Effluent Limit, ug/L		

Comments/Notes:

References: IDAPA 58.01.02

Technical Support Document for Water Quality-based Toxics Control, US EPA, March 1991, EPA/505/2-90-001, pages 56/99

Reasonable Potential Calculation

Facility:	City of Pocatello WWTP
Water Body Type	Freshwater

Low Flow (Ju July - Oct (low)
20.46 temperature - 95th Percentile
7.64 pH - 95th Percentile

IDEQ supplemental Data at T2B

Water Designation
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)
Ammonia
Human Health - Non-Carcinogen
Humn Health - carcinogen

Receiving Water Hardness = 185 mg/L

Pollutant			MERCURY	NICKEL	SELENIUM - criteria expressed as total recoverable	SILVER	ZINC	CARBON TETRACHLORIDE	CHLORODIBROMOMETHANE	CHLOROFORM	DICHLOROBROMOMETHANE	METHYLENE CHLORIDE	TOLUENE
Effluent Data	# of Samples (n)		35	35	45	35	35	4	10	10	10	4	4
	Coeff of Variation (Cv)		1.27	0.57	0.7	0.64	0.14	0.6	0.6	0.6	0.6	0.6	0.6
	Effluent Concentration, µg/L (Max. or 95th Percentile)		0.53	4.4	1	0.4	53.6	0.522	4.4	17.8	11	0.45	0.81
	Calculated 50th percentile Effluent Conc. (when n>10)								2.9	10.5	8.17		
Mizing Zone Used	Aquatic Life - Acute		1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	Aquatice Life - Chronic		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	Ammonia												
	Human Health - Non-Carcinogen		2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	Humn Health - carcinogen		3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Receiving Water Data	90th Percentile Conc., µg/L						14.3						
	Geo Mean, µg/L												
Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	Narrative	1,113	20	20	279	0	0	0	0	0	0
		Chronic	Narrative	120	5		273	0	0	0	0	0	0
	Human Health Water and Organism, µg/L		-	610	170	-	7400	0.23	0.4	5.7	0.55	4.6	1300
	Human Health, Organism Only, µg/L		-	-	-	-	26000	1.6	13	470	17	590	15000
	Metal Criteria Translator, decimal	Acute	-	0.998	-	0.85	0.978	-	-	-	-	-	-
		Chronic	-	0.997	-		0.986	-	-	-	-	-	-
	Carcinogen?		N	N	N	N	N	Y	Y	Y	Y	Y	N

Aquatic Life Reasonable Potential

σ	$\sigma 2=\ln(CV^2+1)$		0.980	0.530	0.631	0.586	0.139						
Pn	$=(1\text{-confidence level})^{1/n}$	99%	0.877	0.877	0.903	0.877	0.877						
Multiplier	$=\exp(2.3262\sigma-0.5\sigma^2)/\exp(\text{invnorm}(P_n)\sigma-0.5\sigma^2)$	99%	3.1	1.9	1.9	2.0	1.2						
Max. conc.(ug/L) at		Acute	0.971	4.759	1.117	0.393	41.946						
		Chronic	0.868	4.253	1.000	0.414	39.294						
Reasonable Potential? Limit Required?			**NO**	**NO**	**NO**	**NO**	**NO**						

Aquatic Life Limit Calculation

# of Compliance Samples Expected per month													
LTA Coeff. Var. (CV),	default = 0.6 or calculate from data												
Permit Limit Coeff. Var. (CV), decimal													
Waste Load Allocations,	$C_{ei}=(C_i x MZ_a)-C_{sa} x (MZ_a-1)$	Acute											
	$C_{ei}=(C_i x MZ_c)-C_{sc} * (MZ_c-1)$	Chronic											
Long Term Averages, ug	WLAc x $\exp(0.5\sigma^2-2.326\sigma)$	Acute											
	WLAa x $\exp(0.5\sigma^2-2.326\sigma)$ n=30	Chronic											
Limiting LTA, ug/L	used as basis for limits calculation												
Metal Translator or 1?													
Average Monthly Limit (AML), ug/L (n=30 ammonia)		**95%**											
Maximum Daily Limit (MDL), ug/L		**99%**											
Average Monthly Limit (AML), mg/L													
Maximum Daily Limit (MDL), mgL													
Average Monthly Limit (AML), lb/day			0	0	0	0	0	0	0	0	0	0	0
Maximum Daily Limit (MDL), lb/day			0	0	0	0	0	0	0	0	0	0	0

Human Health Reasonable Potential

σ	$\sigma 2=\ln(CV^2+1)$		0.530	0.631	0.139	0.555	0.555	0.555	0.555	0.555	0.555
Pn	$=(1\text{-confidence level})^{1/n}$	95%	0.918	0.936	0.918	0.473	0.741	0.741	0.741	0.473	0.473
Multiplier		50%	0.48	0.38	0.82	1.04	0.70	0.70	0.70	1.04	1.04
Dilution Factor			2.3	2.3	2.3	3.6	3.6	3.6	3.6	3.6	2.3
Max Conc. at edge of Chronic Zone, ug/L			0.923	0.168	19.371	0.151	0.806	2.917	2.270	0.130	0.369
~~**Reasonable Potential to exceed HH Water & Organism**~~			~~**NO**~~	~~**NO**~~	~~**NO**~~	~~**NO**~~	~~**YES**~~	~~**NO**~~	~~**YES**~~	~~**NO**~~	~~**NO**~~
Reasonable Potential to exceed HH Organism only			**n/a**	**n/a**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

The water is not designated for drinking water supply, therefore, the organism only criteria apply.

Human Health Limit Calculation

# of Compliance Samples Expected per month							1		1			
Average Monthly Effluent Limit, ug/L							**1.4**		**2.0**			
Maximum Daily Effluent Limit, ug/L							**2.1**		**2.9**			

Comments/Notes:

References: IDAPA 58.01.02
Technical Support Document for Water Quality-based Toxics Control, US EPA, March 1991, EPA/505/2-90-001, pages 56/99