Response to Comments on the Draft NPDES Permit for the City of Burley Industrial Wastewater Treatment Plant (IWTP)

EPA Region 10
March 2009
NPDES Permit #ID-000066-3

Background

The previous NPDES permit for the Burley Industrial Wastewater Treatment Plant was issued on March 28, 2000, became effective on May 1, 2000, and expired on May 1, 2005. The permittee applied for a reissuance of the permit in a timely manner, therefore, the permit was administratively continued pursuant to 40 CFR 122.6 (*see* 2006 fact sheet at Page 7). On March 15, 2006, EPA issued a draft permit for public review and comment. After the close of the public comment period on April 14, 2006, new information became available. EPA revised the draft permit and reopened the public comment period on August 12, 2008 to take comments on changes that had been made to the draft permit since it was first issued for public comment in 2006. The public comment period was scheduled to close on September 11, 2008, but was extended until November 10th 2008, upon request from the City of Burley (City).

This document provides responses to all of the comments received on the draft permits during both public comment periods. Any revisions to the permit identified in this document are revisions that were made to the most recent (August 2008) draft permit that was made available for public comment. Any changes reflected in the 2008 draft permit, relative to the 2006 draft permit, were explained in the 2008 fact sheet.

Comment #1

The City stated that the Burley Industrial Wastewater Treatment Plant (IWTP) should not be considered a publicly owned treatment works (POTW) for the purposes of developing a National Pollutant Discharge Elimination System (NPDES) permit for the facility. The City notes that the facility was not considered a POTW in previous permits. The City stated that there are significant and onerous requirements proposed by EPA in the draft permit, which are largely a result of the Agency's designation of the IWTP as a POTW.

Response #1

As stated in both the 2006 and 2008 fact sheets, the Burley IWTP is a publicly owned treatment works (POTW). *See* both fact sheets at Pages 7-8. The facility was not a POTW at the time the last permit for this facility was issued, because it was not owned by a municipality; rather, it was owned by a private company (the J.R. Simplot Company). As stated in the fact sheets (see the 2006 fact sheet at Pages 17 and A-1 and the 2008 fact sheet at Pages 14 and A-1), the IWTP is treating exclusively industrial waste. In this respect, this facility is unlike most other POTWs, which generally treat primarily domestic wastewater. However, this does not mean that this facility is not a POTW, as defined under the Clean Water Act (CWA).

40 CFR 122.2 states that POTWs "are defined at 40 CFR 403.3." 40 CFR 403.3(o) defines POTW as "a treatment works as defined by section 212 of the [CWA] which is owned by a state

or municipality." Thus, to meet this definition, a facility needs to be (1) a treatment works that is (2) owned by a state or municipality. Under the definition set forth in the CWA and its implementing regulations, a facility does not have to treat domestic wastewater to be considered a POTW. CWA Section 212, Title 33 United States Code Section 1292, states that "treatment works" means "any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage *or industrial wastes* of a liquid nature…." (emphasis added). The IWTP meets the definition of "treatment works," and the ITWP is owned by the City which is a municipality as defined in 40 CFR 122.2. Therefore, the IWTP is a POTW.

Furthermore, the secondary treatment rules (40 CFR 133) do not result in more stringent effluent limits than those that would be required if the facility were not a POTW. The secondary treatment rules establish generally-applicable technology-based effluent limits for BOD_5 and TSS for POTWs (40 CFR 133.102), but these limits may be adjusted upward if the technology-based effluent limits that would apply to industries discharging to the POTW are less stringent than the secondary treatment limits (40 CFR 133.103(b)).

In this case, EPA has adjusted the secondary-treatment limits upward in consideration of the industrial discharges, as provided for in 40 CFR 133.103(b) and as explained in Appendix C to the 2008 fact sheet and the response to Comment #2. EPA has also deleted the percent removal requirement for BOD_5 and TSS at low effluent flow rates as provided for in 40 CFR 133.103(d) and as explained in the response to Comment #7.

The permit also contains water quality-based effluent limits for phosphorus and ammonia. Water quality-based effluent limits are required for all types of NPDES permits by Section 301(b)(1)(C) of the Clean Water Act, 40 CFR 122.4(d), and 40 CFR 122.44(d). These water quality-based effluent limits do not in any way result from the fact that the facility is a POTW.

Revisions to the Revised Draft Permit

None.

Comment #2

The City objected to the five-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) effluent limits in the draft permit. The City stated that the BOD_5 and TSS limits are based on the 7Q10 river flow. The City stated that the concentration limits for BOD_5 and TSS will result in the City being able to discharge very small mass loadings of BOD_5 and TSS at low flow rates. The City states that if the effluent flow rate was 0.3 mgd, the City would only be able to discharge 75 lb/day of BOD_5 and TSS.

Response #2

The BOD_5 and TSS effluent limits in the permit are not based on the 7Q10 river flow rate or any other characteristic of the receiving water. As explained in Appendix C to the 2008 fact sheet, the BOD_5 and TSS effluent limits are technology-based effluent limits. Technology-based effluent limits are independent of receiving water characteristics and represent the minimum level of control that must be imposed in an NPDES permit (40 CFR 125.3(a)). For POTWs, the applicable technology-based standards are the secondary treatment standards required by Section 301(b)(1)(B) of the Clean Water Act and codified in 40 CFR Part 133. In this case, the generally-applicable secondary treatment effluent limits for BOD_5 and TSS (40 CFR 133.102)

have been adjusted upward because of the industries that discharge to the IWTP, as provided for in 40 CFR 133.103(b) and as explained in Appendix C to the 2008 fact sheet and in this response to comments.

As explained on Page C-5 of the 2008 fact sheet, the concentration limits (30 mg/L average monthly and 45 mg/L average weekly, 40 CFR 133.102) do not apply at low effluent flow rates. In the draft permit, the BOD_5 concentration limits did not apply at effluent flow rates less than 0.40 mgd, and TSS concentration limits did not apply at effluent flow rates less than 0.51 mgd. This is because, at flow rates less than the above values, the technology-based effluent limits that would be applicable to the individual dairy products (cheese, butter, and dry milk) facilities discharging to the IWTP would be less stringent than the secondary treatment requirements of 40 CFR 133.102. Therefore, the limits were adjusted upward based on 40 CFR 133.103(b).

EPA has re-evaluated the BOD_5 and TSS effluent limits in the draft permit. The BOD_5 and TSS effluent limits in the final permit are somewhat less stringent than those in the draft permit. As explained in Appendix C to the 2008 fact sheet, the technology-based effluent limits for the dairy facilities discharging to the IWTP are based on the level of production. In the final permit, EPA has dropped the 2008 production figures from the calculation of the average level of production. Because the levels of production are expected to increase over time, dropping the 2008 production figures has increased the average production levels, and, in turn, the effluent limits. The revised "low flow" limits for BOD_5 and TSS, are shown in Table 1, below. See Appendix A for a detailed recalculation of the "low flow" effluent limitations for BOD_5 and TSS.

Table 1: Revised Low Flow Limits for BOD_5 and TSS

Parameter	Average Monthly Limit (lb/day)	Average Weekly Limit (lb/day)
BOD_5	110	165
TSS	138	207

Because the secondary treatment effluent limits are concentration-based, the building block effluent limits based on the dairy products processing new source performance standards effluent limit guidelines may or may not be less stringent than the secondary treatment effluent limits of 40 CFR 133.102, depending on the effluent flow rate. 40 CFR 133.103(b) allows the secondary treatment limits to be adjusted upwards to the extent that the above limits are less stringent than secondary treatment.

The BOD_5 limits are only less stringent than the generally applicable "secondary treatment" limits for effluent flows less than 0.44 mgd. Therefore, at flows below 0.44 mgd, the "building block" BOD_5 limits, which are expressed solely in terms of mass, apply to the facility. At flows above 0.44 mgd, the "secondary treatment" BOD_5 limits apply. The TSS limits are only less stringent than the "secondary treatment" limits for effluent flows less than 0.55 mgd. Therefore, at flows below 0.55 mgd, the "building block" TSS limits, which are expressed solely in terms of mass, apply to the facility. At flows above 0.55 mgd, the "secondary treatment" TSS limits apply.

At effluent flow rates greater than these values, the permittee could discharge a greater mass loading of BOD_5 and TSS than the figures in Table 1, above, as long as it maintains compliance

with the 30 mg/L effluent limit from the secondary treatment requirements, as well as the mass limits based on the secondary treatment limits (600 lb/day monthly average).

If the effluent flow rate were 0.3 mgd, the permit would not require the average monthly effluent concentration of BOD_5 and TSS to be less than or equal to 30 mg/L (which would be equivalent to a mass discharge of 75 lb/day) as the City claims. At a flow rate of 0.3 mgd, the applicable BOD_5 and TSS average monthly effluent limitations are expressed exclusively in terms of mass, and are equal to 110 lb/day of BOD_5 and 138 lb/day of TSS. At a flow rate of 0.3 mgd, those mass-based effluent limitations would be equivalent to concentrations of 44 mg/L of BOD_5 and 55 mg/L TSS, not 30 mg/L.

Revisions to the Revised Draft Permit

The BOD_5 and TSS limits, for low effluent flow rates, are less stringent than those in the draft permit, as explained above.

Comment #3

The City requested that EPA delete the average weekly effluent limitations for BOD_5, TSS, and total phosphorus in the draft permit. The City stated that the average weekly limits represent an unnecessary operations and reporting burden that provides little or no additional benefit to protecting receiving water quality.

Response #3

As stated in the fact sheets (*see* the 2006 fact sheet at Pages 11, 13 and C-3 and the 2008 fact sheet at Page 9) effluent limitations for POTWs must be expressed as average weekly limits and average monthly limits, unless impracticable (40 CFR 122.45(d)(2)). Furthermore, the secondary treatment rules specifically require that 7-day average effluent concentrations of BOD_5 and TSS not exceed 45 mg/L (40 CFR 133.102(a)(2), 133.102(b)(2)). When these generally applicable effluent limits are adjusted based on industrial wastes, 40 CFR 133.103(b) requires that the average weekly effluent limits be adjusted proportionately, as explained on Page C-5 of the 2008 fact sheet. The permit's average weekly limits for BOD_5, TSS, and phosphorus are required by federal regulations and there is no basis to delete them from the permit.

Even if the facility wasn't a POTW, federal regulations would require maximum daily limits in lieu of average weekly limits (40 CFR 122.45(d)(1)). EPA believes that the "operations and reporting burden" associated with an average weekly limit is no greater than that associated with a maximum daily limit.

Revisions to the Revised Draft Permit

None.

Comment #4

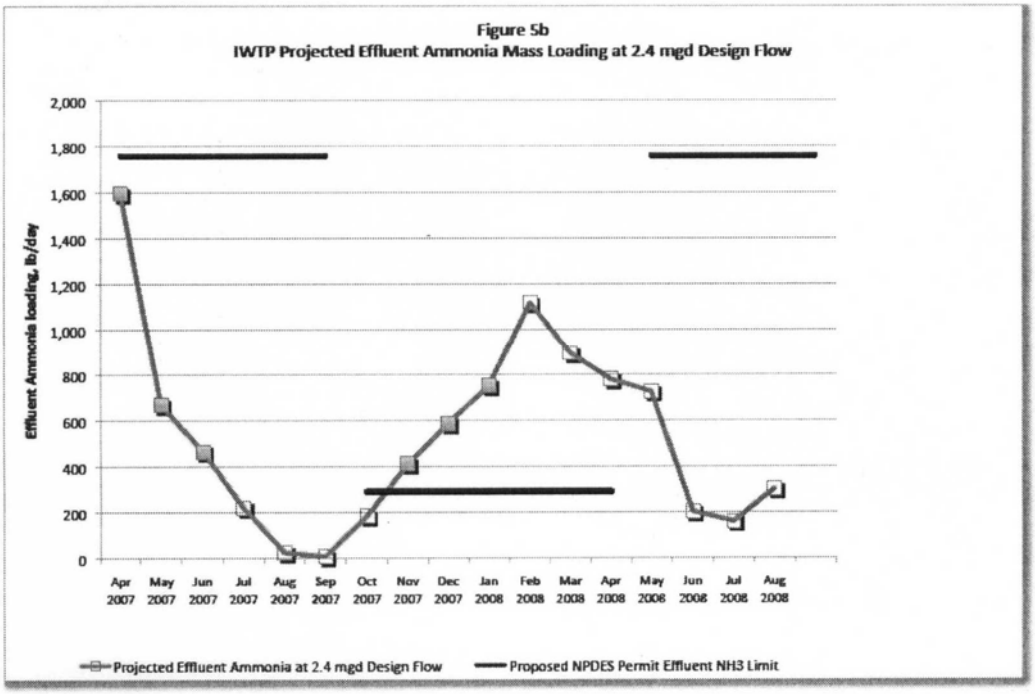
The City stated that the ammonia limits in the draft permit represent a significant and severe reduction relative to the effluent limits in the City's administratively extended permit and will place the City in consistent non-compliance from the date the proposed permit becomes effective. The City stated that warm water species are known to be less susceptible to ammonia

than cold water species. The City stated in its comments that it would like to understand the rationale for (the) more stringent ammonia limit between October and April.

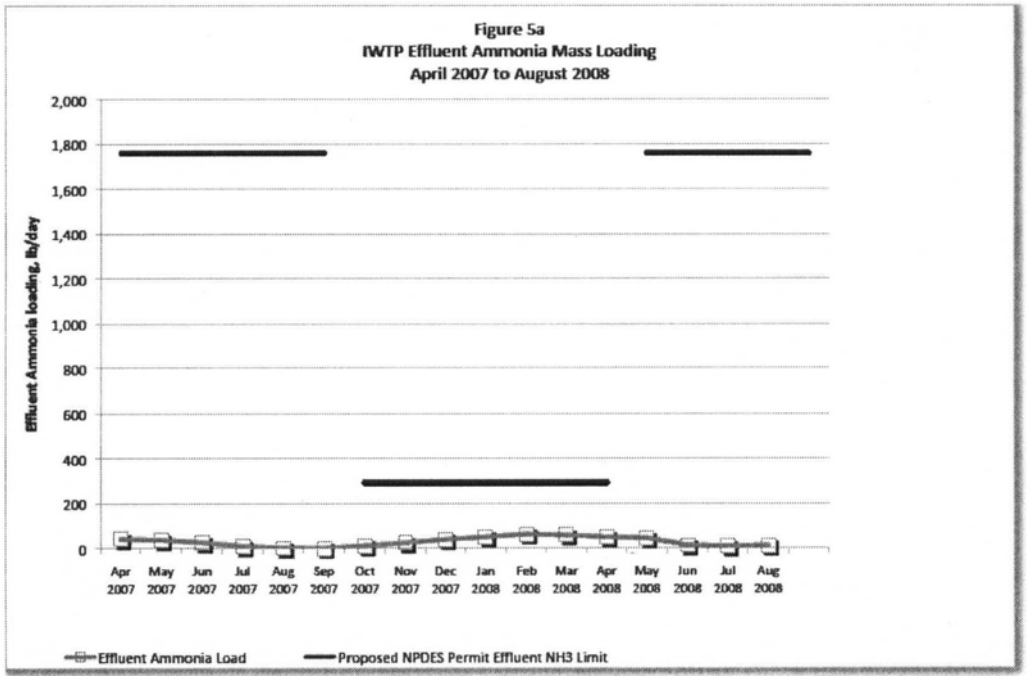
Response #4

The basis for the ammonia effluent limits in the permit is explained in detail in Appendix D to the 2008 fact sheet. The effluent limits are more stringent from October through April than they are from May through September because river flows tend to be much lower during the season of October though April than they are during the balance of the year, as shown in Table 1 of the 2008 fact sheet (Page 9). The calculation of ammonia effluent limits uses Idaho's ammonia criteria for waters designated for warm water aquatic life (IDAPA 58.01.02.250.04.d). These criteria are less stringent than the ammonia criteria applicable to waters designated for cold water aquatic life. Therefore, the derivation of the effluent limits considers the fact that warm water species are less sensitive to ammonia.

The City's statement that the revised ammonia limits will place the City in consistent non-compliance appears to be based on Figure 5b in its comment letter, which is reproduced below.



This figure extrapolates what the effluent ammonia loads would be, *if* the observed effluent concentrations were maintained and the effluent flow rate was increased to the design capacity of 2.4 mgd. If that were the case, the effluent ammonia loading would be much greater than that allowed by the October through April effluent limits. Figure 5a, on the other hand, shows the *actual* ammonia loads, which are consistently much less than all of the ammonia effluent limits (see below). As the City has noted elsewhere in its comments, current effluent flows are roughly 0.3 mgd, which partially explains why the effluent ammonia loads have been consistently below the proposed effluent limits.



In order to establish a schedule of compliance in a permit for a given effluent limit, the permitting authority must make a reasonable finding, supported by the administrative record, that the permittee cannot immediately comply with the effluent limit on the effective date of the final permit (*see* memorandum from James Hanlon, EPA Office of Wastewater Management to Alexis Strauss, EPA Region 9, May 10, 2007). If the permittee can immediately comply with an effluent limit on the effective date of the final permit, then no compliance schedule can require compliance "as soon as possible" (40 CFR 122.47(a)(1)). Based on Figure 5a in the City's comment letter, the permittee can, in fact, comply with the ammonia effluent limits immediately on the effective date of the final permit. Therefore, no compliance schedule may be allowed for the ammonia effluent limits.

Revisions to the Revised Draft Permit

None.

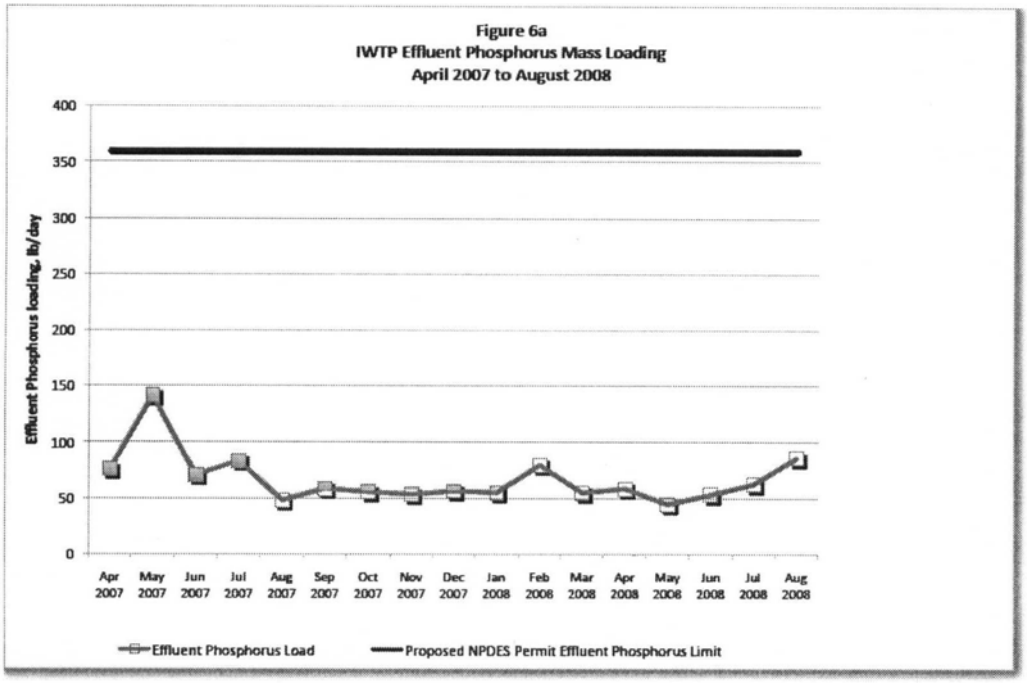
Comment #5

The City stated that the phosphorus limits in the draft permit represent more than a 20% reduction relative to the effluent limits in the City's administratively extended permit. The City stated that, once effluent flow rates reach the design capacity of 2.4 mgd, the City will not be able to comply with the phosphorus effluent limits in the draft permit.

Response #5

The basis for the phosphorus effluent limits in the draft permit is explained in detail in the 2006 fact sheet (*see* pages 10-11, C-3 and D-3). This facility has a wasteload allocation for phosphorus in the approved Lake Walcott TMDL, and NPDES permits must contain effluent limits that are consistent with wasteload allocations in approved TMDLs (40 CFR 122.44(d)(1)(vii)(B)).

Similar to ammonia (*see* the response to Comment #4), EPA cannot establish a compliance schedule for phosphorus, because, based on Figure 6a in the permittee's comment letter (below), the permittee can comply with the phosphorus effluent limits immediately on the effective date of the final permit.



Therefore, no compliance schedule may be allowed for the phosphorus effluent limits (*see* memorandum from James Hanlon, EPA Office of Wastewater Management to Alexis Strauss, EPA Region 9, May 10, 2007 and 40 CFR 122.47(a)(1)). Even if EPA could establish a compliance schedule for phosphorus, the interim effluent limits, which would apply during the term of the compliance schedule, could not be less stringent than the corresponding limits in the previous permit (40 CFR 122.44(l)(1)). Furthermore, the Lake Walcott TMDL, which contains the wasteload allocation which requires a reduction in the phosphorus effluent limit relative to the previous permit and which is identical to the phosphorus average monthly limit in the permit, was approved by EPA in June of 2000. In the time since the Lake Walcott TMDL was approved, the City could have taken steps to attain compliance with the phosphorus wasteload allocation.

Revisions to the Revised Draft Permit

None.

Comment #6

The City requested a schedule of compliance for the effluent limitations based on secondary treatment requirements and new source performance standards. The City stated that the IWTP was never designed to operate as a POTW, and that the city never assumed that it would be classified as a POTW.

Response #6

The BOD_5 and TSS effluent limitations in the draft permit are based on secondary treatment, a performance level which is required by Section 301(b)(1)(B) of the Act and codified in 40 CFR Part 133. As stated on the 23rd page of the City's comment letter, 40 CFR 122.47 prohibits any compliance schedule which extends beyond any statutory deadline in the Clean Water Act. The statutory deadline for compliance with secondary treatment standards was July 1st, 1977 (CWA Section 301(b)(1)(B)), although under some circumstances, Section 301(i) of the Act allowed the compliance deadline to be extended until as late as July 1st, 1988. Because the deadlines for compliance with secondary treatment requirements in Sections 301(b)(1)(B) and 301(i) of the Act have passed, no compliance schedule may be authorized for any of the effluent limitations based on the secondary treatment requirements.

The comment letter also requests a schedule of compliance for effluent limits based upon new source performance standards (CWA Section 306). There are no effluent limits in the permit that are based directly on new source performance standards. However, the BOD_5 and TSS average monthly limits that apply at low effluent flow rates are identical to those which would be required under CWA Section 306 and 40 CFR Part 405 if the individual dairy products processing facilities discharging to the IWTP were to discharge directly to waters of the United States. These limits have been applied here under a provision of the secondary treatment rule, which allows the generally applicable secondary treatment limits to be adjusted upward, to the extent that the effluent limits that would apply to industrial dischargers discharging to a POTW are less stringent than secondary treatment (40 CFR 133.103(b)). Thus, the applicable statutory deadlines for compliance with the technology-based BOD_5 and TSS effluent limits are the secondary treatment compliance deadlines in Sections 301(b)(1)(B) and 301(i) of the Act.

Even if the new source performance standards for dairy facilities were directly applicable in this case, no compliance schedule could be granted for effluent limits based on new source performance standards. As stated on the 23rd page of the City's comment letter, the deadline for compliance with new source performance standards is the date that the standards were promulgated. The new source performance standards for the dairy products facilities discharging to the IWTP were promulgated in 1974, thus, the statutory deadline for compliance with new source performance standards for dairy products facilities has passed as well.

A draft permit for the IWTP was offered for public comment in March of 2006. Similar to the 2008 draft permit and the final permit, the 2006 draft permit contained secondary treatment effluent limits based on 40 CFR Part 133 and pretreatment requirements based on 40 CFR Part 403. Therefore, the City of Burley should have been aware at least as early as March of 2006 that the facility would be "classified" as a POTW. In the time since the 2006 draft permit was issued for public comment, the City could have taken steps to attain compliance with the secondary treatment effluent limits and the pretreatment requirements of 40 CFR Part 403.

Revisions to the Revised Draft Permit

None.

Comment #7

The City requested that the 85% removal limits for BOD_5 and TSS be deleted from the permit.

Response #7

The 85% removal limits for BOD_5 and TSS in the draft permit are based on the secondary treatment rule, specifically 40 CFR 133.102(a)(3) and 133.102(b)(3). However, as pointed out on the 6th page of the City's comment letter, there is a provision in the secondary treatment rule to relax or delete the generally-applicable percent removal limits in 40 CFR 133.102 in some cases (40 CFR 133.103(d)). One of the requirements that a POTW must meet in order to relax or delete the percent removal limit is that, in order to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards, meaning limitations that are at least 5 mg/L more stringent (40 CFR 133.101(m)).

In this case, the concentration-based effluent limits for BOD_5 and TSS have been adjusted upward pursuant to 40 CFR 133.103(b). The adjusted limits apply only at low effluent flow rates. EPA has considered both the adjusted limits (low effluent flow tier), and the generally-applicable secondary treatment limits (high effluent flow tier), to determine if the percent removal limits require the facility to achieve significantly more stringent limitations than would otherwise be required.

At low effluent flow rates, the effluent limits for BOD_5 and TSS are expressed exclusively in terms of mass. Therefore, if the effluent flow rate is low, the permit allows relatively high effluent concentrations of BOD_5 and TSS. For example, if the monthly average effluent flow rate were 0.1 mgd, the monthly average effluent BOD_5 concentration could be as high as 132 mg/L, and the monthly average TSS concentration could be as high as 165 mg/L.

"Significantly more stringent limitation(s)" means at least 5 mg/L more stringent, so, in order for the percent removal limit to require "significantly more stringent limitation(s)," the percent removal requirement would need to require concentrations of 127 mg/L or less for BOD_5 and 160 mg/L or less for TSS. If the effluent concentrations of BOD_5 and TSS were equal to these values, the influent concentrations would need to be 847 mg/L of BOD_5 ($127 \div 0.15 = 847$) and 1067 mg/L of TSS ($160 \div 0.15 = 1067$) in order for the facility to maintain 85% removal. Data provided by the City shows that influent concentrations of BOD_5 and TSS are frequently less than these values. Therefore, for the low effluent flow tiers, the percent removal requirement would require the treatment works to achieve significantly more stringent limitations than would otherwise be required.

At higher effluent flow rates, the effluent limits for BOD_5 and TSS are expressed in terms of both concentration and mass. The monthly average concentration limits for BOD_5 (at monthly average flow rates greater than or equal to 0.44 mgd) and TSS (at monthly average flow rates greater than or equal to 0.55 mgd) are equal to 30 mg/L (40 CFR 133.102(a)(1), 133.102(b)(1)). In order for the percent removal limit to require "significantly more stringent limitations," meaning concentrations 5 mg/L more stringent than would otherwise be required (monthly averages of 25 mg/L or less) the influent concentrations of BOD_5 and TSS would need to be 167 mg/L or less ($25 \div 0.15 = 167$). Data provided by the City shows that the influent concentrations of BOD_5 and TSS are generally greater than 167 mg/L. Therefore, at higher effluent flow rates, the percent removal limit does not require significantly more stringent limitations than would otherwise be required and the percent removal requirement must be retained.

Revisions to the Revised Draft Permit

Pursuant to 40 CFR 133.103(d), effluent limits for BOD_5 and TSS percent removal no longer apply for BOD_5 at monthly average effluent flow rates less than 0.44 mgd, or for TSS at monthly average effluent flow rates less than 0.55 mgd. Percent removal limits are retained for both BOD_5 and TSS, at flow rates greater than or equal to 0.44 mgd and 0.55 mgd, respectively.

Comment #8

The City requested that EPA explain the rationale for the nitrate+nitrite, total nitrate, and total Kjeldahl nitrogen monitoring requirements in the permit, and asked whether these monitoring requirements are related to the facility being designated as a POTW.

Response #8

The permit requires monitoring of nitrate+nitrite, total nitrate, and total Kjeldahl nitrogen in order to determine if the discharge has the reasonable potential to cause or contribute to excursions above Idaho's water quality standards for nutrients (IDAPA 58.01.02.200.06) due to discharges of nitrogen species other than ammonia. These monitoring requirements in no way result from fact that the permitted facility is a POTW.

Revisions to the Revised Draft Permit

None.

Comment #9

EPA has proposed that the City monitor its effluent twice weekly throughout the year for ammonia. The 2006 draft permit specified a single monthly sample for ammonia during summer. The City asked why additional ammonia sampling is being required during the summer months.

Response #9

The 2006 draft permit did not propose any effluent limits for ammonia for the "summer" season of May through October. The 2008 draft permit and the final permit include effluent limits for ammonia that apply year-round. Therefore, the sampling frequency has been changed to twice weekly, year round. This monitoring frequency is identical to the sampling frequency that had been proposed in the 2006 draft permit for the season when effluent limits for ammonia were proposed (November – April) and to the sampling frequency that had been in place, year round, under the previous final permit issued to the J.R. Simplot Company.

Revisions to the Revised Draft Permit

None.

Comment #10

The City suggested that EPA require 24-hour composite samples in lieu of 8-hour composite samples. The City stated that a daytime 8-hour composite sample may not capture non-routine discharges.

Response #10

EPA agrees that 24-hour composite samples would provide a better characterization of the effluent than 8-hour composite samples.

Revisions to the Revised Draft Permit

EPA has changed the monitoring requirements accordingly. EPA has also included a definition of the term "24-hour composite" in the permit and has deleted the definition of "8-hour composite."

Comment #11

The City uses a continuous flow recording device. Measuring and reporting flow five days per week would represent unnecessary work. The City suggested that EPA require continuous flow monitoring.

Response #11

EPA agrees that continuous flow monitoring would adequately characterize the flow rate of the discharge.

Revisions to the Revised Draft Permit

For the "effluent gross value" monitoring location, EPA has changed the monitoring frequency for flow rate from five times per week to continuous, and has changed the sample type from "grab" to "recording." For the "secondary or biological process complete" monitoring location, the permit allows a sample type of either measured or recording, and requires a sampling frequency of at least five times per week (which includes continuous monitoring). This enables the permittee to comply with the permit without having to install a continuous flow monitoring device at the "secondary or biological process complete" location. See the final permit at Part I.B.4.

Comment #12

The City stated that the fact sheets do not suggest that water quality will be improved because of the more-stringent effluent limits in the permit.

Response #12

EPA does not agree that water quality will not be improved because of the more-stringent effluent limits in the permit. While it is true that the technology-based effluent limits for BOD_5, TSS, and pH, like all technology-based effluent limits, are independent of water quality concerns, a reduction in loading of BOD_5 and TSS to the Snake River can only improve water quality. The pH effluent limitations are identical to those in the previous final permit.

The effluent limits for phosphorus and ammonia are water quality-based effluent limits. This means that they calculated to ensure a level of water quality that derives from and complies with all applicable water quality standards (40 CFR 122.44(d)(1)(vii)(A)). The calculation of the ammonia limits is shown in detail in Appendix D to the 2008 fact sheet. The less-stringent

ammonia limits in the previous permit would not ensure compliance with Idaho's water quality standards for ammonia in the receiving water. *See also* the response to Comment #4.

The effluent limits for phosphorus are based on the Lake Walcott TMDL. A TMDL is a "pollution budget" that assigns pollutant load allocations to all known point and non-point sources within a defined study area or watershed, and which includes a margin of safety. In the Lake Walcott TMDL, the State of Idaho concluded that phosphorus loading from the IWTP needed to be reduced to 359 lb/day in order to ensure compliance with state water quality standards. Therefore, the phosphorus limits are necessary to ensure compliance with water quality standards in the Snake River.

Revisions to the Revised Draft Permit

None.

Comment #13

The City questioned why the draft permit requires two weekly samples for BOD_5, but only one weekly sample for TSS.

Response #13

The sampling frequency of once per week for TSS in the draft permit was an error. EPA had intended to propose a sampling frequency of twice per week for both BOD_5 and TSS, as shown in the 2008 fact sheet (Page 13, Table 3). EPA regrets any confusion this error may have caused.

The previous final permit for this facility required twice weekly sampling of BOD_5 and TSS. There is no basis to reduce the monitoring frequency in the reissued permit. Therefore, the twice weekly sampling frequency for BOD_5 and TSS from the previous permit will be retained in the reissued permit.

Revisions to the Revised Draft Permit

The sampling frequency for TSS has been changed to twice per week, consistent with the 2008 fact sheet.

Comment #14

The City stated that the permit should not contain pretreatment requirements. The City gave several reasons for this statement, including:

- The local limits evaluation required by the permit could cost $50,000 - $100,000, which the City stated could be put to more productive use for engineering evaluations and capital construction projects.
- A pretreatment program would reduce organic loadings to the IWTP by removing them at the generators' sites. However, in order to function as designed, the bulk volume fermenter (BVF), which is the primary unit process at the IWTP, requires high organic loadings. Reducing organic loadings to the BVF will result in further reduction in treatment efficiency, and effluent quality will also suffer.

- A permit issued by the Washington State Department of Ecology to the City of Quincy, Washington for an industrial wastewater treatment plant (NPDES permit number WA0021067), contains no pretreatment requirements.

Response #14

As explained in the response to Comment #1, the Burley IWTP is a POTW. Since the IWTP accepts wastewater from sources subject to National Pretreatment Standards, the requirements of 40 CFR Part 403 are applicable (see 40 CFR 403.1(b)(2)). In general, 40 CFR 403.8 requires POTWs or combinations of POTWs operated by the same authority to develop pretreatment programs with design flows greater than 5 mgd and receiving pollutants from industrial users which are subject to pretreatment standards to develop a pretreatment program. The total design flow of the City of Burley's two POTWs is 4.9 mgd, however, the City of Burley has an approved pretreatment program. Even if the City did not have an approved pretreatment program, EPA may require POTWs with design flows of 5 mgd or less to develop pretreatment programs if it "finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent Interference with the POTW or Pass Through." EPA believes that, because the City is likely to have difficulty complying with the BOD_5 and TSS effluent limits in the permit due to the industrial discharges it receives, and because the IWTP treats exclusively industrial waste, a pretreatment program is necessary for the Burley IWTP in order to prevent Interference or Pass Through. As such, the City is required to complete a local limits evaluation pursuant to 40 CFR 403.5(c).

A pretreatment program would not necessarily reduce organic loadings to the IWTP. At the time the revised fact sheet was prepared, it was EPA's understanding that the industrial users discharging to the IWTP would be dairy processing (cheese, butter, and dry milk), poultry processing, and ethanol-for-fuel facilities. None of these industries are subject to categorical pretreatments standards that would reduce the organic loadings to the IWTP, because the pretreatment standards for new sources, for these industries, are either nonexistent or simply require the industrial users to comply with 40 CFR Part 403 (*see* 40 CFR 405.46, 405.66, 405.106, 432.116, and 432.126). In the absence of categorical pretreatment standards that apply to the industrial users, if reductions in organic loadings were required, such a requirement would be a result of local limits. While the City is required to perform a local limits evaluation, that evaluation could potentially demonstrate that local limits are not necessary (40 CFR 403.8(f)(4)). Even if the City determined that local limits were necessary for some constituents, the City would not necessarily have to establish local limits for organic loading (e.g. BOD_5). Therefore, while the City must perform a local limits evaluation, that evaluation would not necessarily result in reduced organic loadings to the IWTP, if such reductions are shown to be unnecessary or counterproductive.

With respect to the Quincy Industrial Treatment Plant permit (WA0021067), it is true that the City of Quincy's permit does not contain pretreatment requirements. However, the State of Washington has issued State waste discharge permits to the industrial dischargers to the Quincy industrial wastewater treatment plants (permit number ST 5206 for ConAgra and ST 8035 for Quincy Foods), which name the City of Quincy Industrial Treatment Plant as the "publicly owned treatment works (POTW) receiving (the) discharge" (*see* State permits at Page 1). The State waste discharge permits limit the flow rate and pH of the industrial discharges to the

Industrial Treatment Plant, and include requirements for monitoring, reporting, recordkeeping, operation and maintenance, prohibition of dilution as a substitute for treatment, solid waste disposal and other requirements. The State waste discharge permits require compliance with the prohibited discharge requirements of 40 CFR 403.5 (*see* ConAgra and Quincy Foods permits at Pages 11 and 12). The permits also contain compliance schedules for meeting pretreatment standards in the event that the facilities are unable to meet pretreatment standards set by the City of Quincy (see ConAgra permit at Page 13 and the Quincy Foods permit at Page 14). Pretreatment standards set by the City of Quincy would be considered local limits. The fact sheets for these State waste discharge permits state that the State of Washington considers the pretreatment requirements of 40 CFR Part 403 (and any categorical pretreatment standards) to be applicable to these discharges (see the ConAgra and Quincy Foods fact sheets at Page 4). As such, these State waste discharge permits are "individual permits" as required by 40 CFR 403.8(f)(1)(iii). In the City of Quincy's case, these permits were issued by the State of Washington. In the City of Burley's case, the City's NPDES permit requires the City to issue such permits to the industrial users. The State of Idaho lacks the authority to issue State waste discharge permits similar to those issued by the State of Washington to ConAgra and Quincy Foods. The absence of pretreatment requirements in the NPDES permit for the City of Quincy, Washington's industrial treatment plant is not a basis to delete the pretreatment requirements from the City of Burley's permit.

Revisions to the Revised Draft Permit

None.

Comment #15

The City requested a reduction in monitoring frequency for Bis(2-Ethylhexyl) phthalate, chloroform, methlyene chloride, and 1,1,2-trichloroethane, cyanide and metals to once during the life of the permit with the existing industries and again with the addition of any new industry. The City stated that it did not anticipate any discharges from ethanol facilities to the IWTP. However, in an e-mail dated November 10, 2008, John Moeller of Forsgren Associates, a consultant for the City of Burley, stated that if the Renova Ethanol facility is completed and begins production, it will send its effluent to the ITWP.

Response #15

The draft permit proposed twice per year monitoring of the effluent for all pollutants listed in Tables 3-20, 3-21 and 3-23 of the *Multimedia Technical Support Document for the Ethanol-for-Fuel Industry* (EPA 440/1-86-093) as having been measured in treated effluent from ethanol-for-fuel or beverage alcohol facilities at concentrations above Idaho's water quality criteria for those pollutants. However, it is not clear whether the IWTP will receive and treat process wastewater from an ethanol-for-fuel facility. Therefore, EPA has made the monitoring requirements for these parameters conditional. If these effluent data show that the Burley IWTP has the reasonable potential to cause or contribute to excursions above water quality standards for any of these pollutants, EPA will establish water quality-based effluent limits for these pollutants when the permit is reissued. *See* the 2008 Fact Sheet at Page 12.

Even if EPA did not require monitoring for these pollutants, the City would be required to sample at least three times for these pollutants in order to provide a complete application for renewal of this permit (*see* EPA Form 3150-2A at Pages 10 – 14 and the permit at Table 1).

Revisions to the Revised Draft Permit

The general twice-per-year monitoring requirements for Bis(2-Ethylhexyl) phthalate, chloroform, methlyene chloride, and 1,1,2-trichloroethane, cyanide and metals have been replaced with conditional monitoring requirements, which apply at times when the facility receives process wastewater from an ethanol-for-fuel or beverage alcohol facility, which appear in Part I.B.14 and in Table 2 of the final permit.

Comment #16

The City stated that the draft permit does not define the receiving water concentration for WET testing. The City stated that, in its experience, permits typically establish a five-dilution series and identify the "critical concentration," and that the dilutions are based on the mixing zone of the discharge in the receiving stream. The City asked whether there was a reason that EPA did not establish the five-dilution series and asked why EPA chose not to define the critical dilution.

Response #16

The draft permit does, in fact, define the "critical" receiving water concentration and it establishes a five-dilution series. In part I.C.3.a of the draft permit, on Page 9, the draft permit states, "[t]he toxicity testing on each organism must include *a series of five test dilutions* and a control. The dilution series must include the *receiving water concentration of 4.1% effluent*; two dilutions above the RWC, and two dilutions below the RWC" (emphasis added).

The 4.1% effluent value is specifically identified as the "receiving water concentration" in the revised draft permit and the final permit, and that value is equal to the effluent concentration at the edge of the chronic mixing zone. The permit also explicitly requires a five-dilution series, where one dilution is the receiving water concentration of 4.1% effluent, two dilutions are above the receiving water concentration, and two dilutions are below the receiving water concentration.

Revisions to the Revised Draft Permit

None.

Comment #17

The City stated that it believes that the proposed accelerated WET testing requirements are excessive in light of the volume of treated effluent being discharged from the treatment plant relative to the volume of the receiving stream. The City asked EPA to explain the rationale for the re-testing requirements.

Response #17

The accelerated WET testing regime is less rigorous than that recommended by the EPA *Regions 9 and 10 Guidance Document for Implementing Whole Effluent Toxicity Testing Programs* (1996). That guidance document recommends that accelerated testing consist of 6 tests (in addition to routine tests) occurring over a 12-week period (see the WET Guidance Document at

Page 4-3). Furthermore, the previous permit for this facility, issued to the J.R. Simplot Company, required six bi-weekly tests for accelerated WET testing (*see* the Simplot permit at Page 6).

The City of Burley's permit only requires four bi-weekly tests over an 8-week period. This reduction in accelerated testing relative to that which is recommended by guidance and that which was required in the previous permit is justified given the fact that the volume of effluent discharged is small relative to the volume of the receiving stream.

Revisions to the Revised Draft Permit

None.

Comment #18

The City stated that the City of Quincy's NPDES permit (WA0021067) incorporates flexibility into the permit to account and compensate for the issue of WET tests showing toxicity due to elevated salt or total dissolved solids (TDS) concentrations in the effluent. The City noted that the conductivity of the IWTP effluent has been as high as 2,000 µmhos/cm.

Response #18

Based on a review of the fact sheet for the Quincy permit (WA0021067), it appears that the "flexibility" that was written into the Quincy permit, with respect to total dissolved solids and whole effluent toxicity, consist of the following provisions (*see* the Quincy fact sheet at Page 16 and the Quincy permit at Pages 21 and 25):

- Analysis of cations and anions in the WET test sample by the laboratory.
- The option of using the receiving water as the dilution water for the WET test.
- Pending Washington State Department of Ecology approval, effluent samples may be modified to account for ion imbalance.
- The recommendation for the use of a full dilution series in the toxicity tests.

The Burley draft and final permits include two of these four provisions, specifically, the option of using receiving water as dilution water (Part I.C.3.c.iii) and the requirement for the use of a full dilution series (Part I.C.3.a).

EPA believes that the other two provisions (a requirement that the WET lab analyze the cations and anions in the sample, and the ability to modify the effluent samples for ion imbalance) are not necessary in this case. The critical receiving water concentrations associated with the WET testing in the Quincy permit (which range from 48% effluent for chronic testing during the summer to 99% effluent for acute testing during the winter) are much higher than the receiving water concentration for the WET testing in the Burley permit (4.1% effluent). In other words, there is much less dilution available at the edges of Quincy's acute and chronic mixing zones than there is at the edge of Burley's chronic mixing zone (Burley's acute mixing zone is irrelevant to the question of WET testing because the permit does not require acute WET testing). Ion imbalance is less likely to be a factor in cases of large dilution factors or low receiving water concentration.

Revisions to the Revised Draft Permit

None.

Comment #19

The City requested that EPA change the surface water monitoring requirements to require twice per year monitoring both upstream and downstream of the discharge, as opposed to the draft permit's sampling frequency of four times per year for upstream sampling and twice per year for downstream sampling. The City also stated that "the Snake River is exceptionally hazardous in this reach, especially during winter conditions" and requested that the requirement that receiving water sampling begin within 90 days be changed to require that sampling begin as soon as it is safe, but no later than 5 months following "issuance of the final permit."

Response #19

EPA believes that twice-yearly sampling both upstream and downstream of the outfall will adequately characterize the effect of the discharge upon the receiving water. EPA also agrees that is acceptable to allow receiving water sampling to begin no more than 5 months after the effective date of the final permit, in order to ensure the safety of the workers performing the sampling.

Revisions to the Revised Draft Permit

The final permit now requires a sampling frequency of twice per year for all receiving water monitoring, and allows sampling to begin no more than five months after the effective date of the final permit.

Comment #20

The City made the following comments on the revised fact sheet:

- The facility background section in Appendix A to the revised fact sheet states that the City "…will retrofit the IWTP to treat industrial wastewater from cheese and ethanol producers." Because the plant also treats wastewater from High Desert Milk, a dry milk producer, this statement could be construed to mean that the City does not intend to meet the conditions of its new permit. In addition, it is possible that the facility will soon treat wastewater from other milk-related industries and various animal slaughter operations.
- The description of the existing treatment train and the treatment train at full build-out in Appendix A are inaccurate.
- The revised fact sheet is not only misleading, but it is also too prescriptive, thereby allowing the City little or no latitude in marketing and operating this facility.

The city requested that the fact sheet be updated to reflect the realities of existing and likely future processes at the Burley Heyburn Industrial Park.

Response #20

The fact sheets are final documents, the sole purpose of which is to explain the conditions in the draft permits, and they will not be updated. Any changes to the permit made in response to

comments received during the public comment period are explained in this response to comments document.

As stated by the City in its comments, some of the information in the fact sheets was taken from the City's most recent facility planning study (Forsgren Associates, 2005). Because this was the most recent facility planning study at the time the fact sheets were prepared, EPA was not aware of certain changes that the City planned to make to the treatment train.

Although Appendix A to the fact sheet does make a reference to "cheese and ethanol producers," Appendix C to the revised fact sheet discusses High Desert Milk and its production of dry milk and butter, as well as possible poultry processing and ethanol facilities.

EPA does not agree that the fact sheet is "too prescriptive." Fact sheets serve only to explain the conditions in a permit; fact sheets do not contain any enforceable requirements.

Revisions to the Revised Draft Permit

None.

Comment #21

The City commented on the requirement that the City monitor for certain pollutant parameters, and attain compliance with certain effluent limits, at a location upstream of the "polishing ponds" in the treatment train, at monitoring location code "E," which means "secondary or biological process complete." The City stated that the "polishing ponds" have not been used since April, 2007. The City requested that EPA include a requirement in the permit that the City submit a report that provides a review of options to reduce the negative impacts of the "polishing ponds" and that, upon satisfactory implementation of the accompanying recommendations, EPA no longer require the City to monitor location E. The City also questioned the necessity of requiring monitoring for flow at location E.

Response #21

As stated in the City's comment letter, the reason why the draft permit requires monitoring and compliance with certain effluent limits at a point prior to discharge to the polishing ponds (when the biological treatment processes are complete) is that EPA and IDEQ were concerned about the potential for pollutants to reach the Snake River through seepage from the polishing ponds. *See also* the 2006 fact sheet at pages 7 and 15 and the 2008 fact sheet at pages 7 and 12.

EPA understands that the City may choose not to use the polishing ponds in the future, in which case there would be no reason to sample at a location upstream of the polishing ponds in the treatment train. Therefore, the final permit has been changed to require monitoring of effluent parameters and compliance with effluent limits at the "secondary or biological process complete" location *only if* the City directs wastewater to the polishing ponds. If the City does not direct wastewater to the polishing ponds, the City need only monitor the effluent at a point immediately prior to discharge to the Snake River through outfall 003 (effluent gross value).

EPA has not included a requirement that the City complete a report providing a review of options to reduce the negative impacts of the ponds. If the City plans to make improvements to the polishing ponds such that they can be an effective part of the treatment train, the City should

notify EPA in compliance with the "planned changes" requirement of the permit (Part IV.I). At that time, EPA will consider whether a permit modification under 40 CFR 122.62 is warranted.

The effluent limits for BOD_5, ammonia, and phosphorus are expressed in terms of mass (or, in the case of BOD_5, both mass and concentration). To determine the effluent mass loading, it is necessary to measure both the effluent concentration and the flow rate at the point where the effluent limits apply. Therefore, the final permit continues to require monitoring for flow rate at the "secondary or biological process complete" location at times when the permittee directs wastewater to the polishing ponds.

Revisions to the Revised Draft Permit

The final permit contains revised language in Part I.B.2-6 regarding sampling locations and the calculation of minimum, average, and maximum loadings and concentrations for reporting on DMRs. Sampling at the "secondary or biological process complete" location is required only if the permittee directs wastewater to the polishing ponds.

Other Revisions to the Revised Draft Permit

On December 11, 2008, EPA issued its final Civil Monetary Penalty Inflation Adjustment Rule, as mandated by the Debt Collection Improvement Act of 1996 (73 FR 75340). The maximum amounts for civil and administrative penalties in Part IV.B.1 and IV.B.2 of the final permit have been revised consistent with the revised final rule.

References

Ecology. 2006. *Fact Sheet for NPDES Permit WA-002106-7 City of Quincy Industrial Wastewater Treatment Plant.* State of Washington Department of Ecology. Olympia, Washington. October 3, 2006.

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Ecology. 2007. *Fact Sheet for State Waste Discharge Permit No. ST-5206.* State of Washington Department of Ecology. Eastern Regional Office. June 6, 2007.

Ecology. 2007. *Fact Sheet for State Waste Discharge Permit No. ST-8035.* State of Washington Department of Ecology. Eastern Regional Office. June 6, 2007.

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EPA. 1986. *Multimedia Technical Support Document for the Ethanol-for-Fuel Industry.* EPA 440/1-86/093. Office of Water. April, 1986.

EPA. 1996. *Regions 9 and 10 Guidance Document for Implementing Whole Effluent Toxicity Testing Programs.*

Forsgren Associates. 2005. *Industrial Wastewater Treatment Plant, Burley, Idaho: Facilities Planning Report.* August, 2005. Project No. 02-04-0151.

Appendix A: Re-Calculation of Building Block New Source Performance Standards Effluent Limitations for Dairy

Overview

The Burley IWTP is a POTW, but it treats industrial wastes. The regulations implementing the "secondary treatment" technology-based limits for POTWs allow the generally-applicable limits (40 CFR 133.102) to be adjusted upward for POTWs treating industrial wastes, to the extent that the effluent limit guidelines that would be applicable to the industrial categories if they were to discharge directly to waters of the United States are less stringent than the "secondary treatment" requirements (40 CFR 133.103(b)).

For industrial facilities where multiple industrial categories are operating, "building block" technology-based limits are calculated by summing the technology-based limits for BOD_5 and TSS for each individual industrial category, as described in the *U.S. EPA NPDES Permit Writers' Manual* (EPA 833-B-96-003). EPA calculated building block effluent limits for BOD_5 and TSS for the industries discharging to the IWTP. To the extent that the building block limits are less stringent than the secondary treatment limits, EPA has used the building block limits in the permit in lieu of the secondary treatment limits, pursuant to 40 CFR 133.103(b).

When calculating technology-based effluent limits for the industries discharging to the IWTP in order to implement 40 CFR 133.103(b), EPA has in all cases used the applicable "new source performance standards" effluent limit guidelines for the industries discharging to the ITWP. While the Burley IWTP itself is not a "new source," as that term is defined in 40 CFR 122.2, the individual facilities discharging to the IWTP would be "new sources" if they were to discharge directly to waters of the United States.

Production Rates

Effluent limit guidelines for dairy products processing are production-based. The level of production is measured as the BOD_5 input, meaning the biochemical oxygen demand of the materials entered into the process of manufacturing various dairy products (e.g. fluid milk, cheese, butter, etc.). The materials entered into the process may include milk, cream, and any non-dairy products entered into the process (e.g. sugar and fruit for ice cream or yogurt). The production rates of the various industries contributing wastewater to the IWTP are expected to vary over the term of the permit. EPA has calculated production-based limits, using the average production rate projected over the term of the permit. EPA believes this is a reasonable measure of the actual or projected production.

In the 2008 fact sheet, production figures for 2008 were included. In this re-calculation, the 2008 production figures have been dropped.

New Source Performance Standards Limits for Natural and Processed Cheese

Effluent limit guidelines for cheese processors have been promulgated by EPA in 40 CFR 405, Subpart F. The new-source performance standards effluent limit guidelines appear in 40 CFR 405.65. There are two cheese processors that are expected to discharge wastewater to the IWTP over the term of this permit, one operated by Gossner Cheese, and another operated by High Desert Milk.

Gossner Cheese

According to information provided by the permittee, the expected average production of the Gossner Cheese facility, from 2009 – 2012, is 619,600 lb/day of BOD_5 input. Therefore, the technology-based average monthly effluent limits for the cheese processing facility are as follows:

BOD_5:

619,600 lb/day BOD_5 input × 0.008 lb BOD_5/100 lb BOD_5 input = 50 lb/day BOD_5

TSS:

619,600 lb/day BOD_5 input × 0.010 lb TSS /100 lb BOD_5 input = 62 lb/day TSS

High Desert Milk

According to information provided by the permittee, the expected average cheese production of the High Desert Milk facility, from 2009 – 2012, is 162,000 lb/day of BOD_5 input. Therefore, the technology-based average monthly effluent limits for the cheese processing facility are as follows:

BOD_5:

162,000 lb/day BOD_5 input × 0.008 lb BOD_5/100 lb BOD_5 input = 13 lb/day BOD_5

TSS:

162,000 lb/day BOD_5 input × 0.010 lb TSS /100 lb BOD_5 input = 16 lb/day TSS

New Source Performance Standards for Dry Milk

Effluent limit guidelines for dry milk manufacturers have been promulgated by EPA in 40 CFR 405, Subpart J. The new-source performance standards effluent limit guidelines appear in 40 CFR 405.105. High Desert Milk intends to produce dry milk and discharge the associated wastewater to the IWTP for treatment. According to information provided by the permittee, the average expected production of dry milk, from 2009 – 2012, is 239,000 lb/day of BOD_5 input. Therefore, the technology-based average monthly effluent limits for the dry milk manufacturing operation are as follows:

BOD_5:

239,000 lb/day BOD_5 input × 0.018 lb BOD_5/100 lb BOD_5 input = 43 lb/day BOD_5

TSS:

239,000 lb/day BOD_5 input × 0.023 lb TSS/100 lb BOD_5 input = 55 lb/day TSS

New Source Performance Standards for Butter

Effluent limit guidelines for butter manufacturers have been promulgated by EPA in 40 CFR 405, Subpart D. The new-source performance standards effluent limit guidelines appear in 40 CFR 405.45. High Desert Milk intends to produce butter and discharge the associated wastewater to the IWTP for treatment. According to information provided by the permittee, the average expected production of butter, from 2009 – 2012, is 52,400 lb/day of BOD_5 input.

Therefore, the technology-based average monthly effluent limits for the dry milk manufacturing operation are as follows:

BOD_5:

52,400 lb/day BOD_5 input × 0.008 lb/100 lb BOD_5 input = 4 lb/day

TSS:

52,400 lb/day BOD_5 input × 0.010 lb/100 lb BOD_5 input = 5 lb/day

Building Block Limits

The building block average monthly limits for this facility (the sum of the average monthly BOD_5 and TSS limits applicable to the dairy processing facilities) are as follows:

BOD_5 Average Monthly Limit

50 lb/day (cheese, Gossner)
\+ 13 lb/day (cheese, High Desert Milk)
\+ 43 lb/day (dry milk)
\+ 4 lb/day (butter)
= 110 lb/day

TSS Average Monthly Limit

62 lb/day (cheese, Gossner)
\+ 16 lb/day (cheese, High Desert Milk)
\+ 55 lb/day (dry milk)
\+ 5 lb/day (butter)
= 138 lb/day

Average Weekly Limits

The regulation at 40 CFR 133.103(b) states that the average weekly limits should be adjusted proportionately when the average monthly limits are adjusted. This means that the 1.5:1 ratio of the average weekly limit to the average monthly limit in the secondary treatment rule must be maintained. Therefore, the average weekly limits are as follows:

BOD_5

110 lb/day × 1.5 = 165 lb/day

TSS

138 lb/day × 1.5 = 207 lb/day