

Response to Comments
NPDES Permit No. ID-002594-1
City of Hagerman, Idaho

On June 6, 2007, EPA issued a notice of proposed reissuance of a National Pollutant Discharge Elimination System (NPDES) permit for a discharge from the City of Hagerman's Wastewater Treatment Plant. The facility treats domestic sewage from local residents and commercial establishments. The wastewater from the facility is discharged to the Snake River. The public review and comment period expired on July 6, 2007.

Written comments regarding the proposed permit for the facility were received from the City of Hagerman, through a letter from Robert J. Petronek, the Mayor. The following summarizes and responds to each comment raised.

1. Comment: The City of Hagerman requests that updates to the Quality Assurance Plan and O&M Plan be submitted 180 days after the effective date of the permit. This will allow time for securing funding and preparing documents.

Response: The City's 1999 permit contains a condition that requires the permittee to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit (see Section III. E.). The City should already have some standard operating procedures in place to ensure that the facility is properly operated. It is important that the facility properly maintain the current facility to ensure that it complies with its effluent limits and the other conditions of the permit. The final permit retains the requirement to develop and implement an Operation and Maintenance Plan within 90 days of the effective date of the permit.

The Quality Assurance Plan is needed to ensure that the monitoring data submitted by the permittee is complete, accurate and representative of the effluent condition (as required by the federal regulation at 40 CFR 122.41(j)). The permittee's monitoring data will be used by EPA to ensure the facility is meeting its effluent limitations, therefore, it is important that the procedures for collecting complete, accurate and representative data are in place as soon as possible. The City should already have a QAP in place for effluent monitoring, as this is a requirement of the City's current permit. The QAP will need to be updated to include procedures for receiving water monitoring. The City does not have to have the QAP procedures for receiving water monitoring in place until the receiving water monitoring starts (i.e., 180 days from the effective date of the permit). Therefore, there should be adequate time for the City to prepare the documents. The final permit retains the requirements for the Quality Assurance Plan.

2. Comment: The City of Hagerman's current permit allows for a year round effluent discharge. The draft permit only allows for discharge from September 1 through June 30. In the past the lagoons have had adequate storage volume and evaporative capacity to not require discharge during July, and August. As populations growth continues, it may be necessary for the City to discharge during July and August, therefore the City requests that the permit allow year round discharge.

Response: The final permit (Part V.A) allows the City to request a modification of their permit if the population increases to a level where the facility needs to discharge year round. At the time of the request the City must provide the supporting documentation showing the need for year round discharge. Because the City may require a year round discharge at some time in the future, the receiving water monitoring requirements have been revised to require year round monitoring. This change is necessary to support the development of effluent limitations necessary for a year round discharge.

3. Comment: The mass loadings for BOD and total residual chlorine are based on a design flow of 0.15 mgd. With the addition of the aerators in 2006, the annual average day design flow was increased to 0.165 mgd. The City requests that the mass loadings for these parameters be modified to reflect the design flow of 0.165 mgd.

Response: The mass loadings for BOD and total residual chlorine are based on the monthly design flow rather than the daily flow. Given that the facility's actual monthly flow is well below the design flow disclosed on their application (0.15 mgd), the facility should be able to meet the loading requirements in the permit. Therefore, the final permit retains the limits in the draft permit.

4. Comment: The draft average monthly and weekly concentrations for BOD and TSS are set at 30 and 45 mg/L, respectively based on secondary treatment technology based effluent limits (TBELs). The fact sheet stated that the City is not eligible for "treatment equivalent to secondary" TBELs because the rock filter is currently not in use. It is the City's understanding that the rock filter is not in use because it typically plugs within 20-30 days of use due to algae and solids clogging pore spaces. The rock filter then needs to be taken off line and allowed to dry for 2 to 3 weeks prior to the next dosing. It is maintenance intensive and does not appear to function well with the lagoon effluent. The City states that the rock filter limits their discharge capabilities and there is no apparent improvement in effluent quality. It will be difficult for the facility to consistently meet the proposed draft limits with the lagoon system. In fact, the EPA acknowledges that the current TSS limits cannot consistently be met with the existing lagoon system (Fact Sheet, section II.C.). The City requests that the average monthly and weekly limits for BOD and TSS be based on "treatment equivalent to secondary" TBELs.

Response: Federal regulations allow “treatment equivalent to secondary” TBELS for BOD₅ and TSS for facilities using trickling filters or waste stabilization ponds provided the requirements established in 40 CFR 133.101(g) and 40 CFR 133.105(d) are met. These requirements are:

- The BOD₅ and TSS effluent concentrations consistently achievable through proper operation and maintenance of the treatment works exceed the minimum level of the effluent quality described for “secondary treatment requirements.”
- A trickling filter or waste stabilization pond is used as the principal treatment process.
- The treatment works provide significant biological treatment of municipal wastewater (i.e., a minimum of 65% reduction of BOD₅ is consistently attained).

As stated in the Fact Sheet, historical data for the facility indicates that the facility can, in fact, comply with the BOD₅ limits established for secondary treatment, therefore the facility is not eligible for “treatment equivalent to secondary” TBELS for BOD₅. The average monthly limit of 30 mg/L and the average weekly limit of 45 mg/L for BOD₅ will be retained in the final permit.

Rock filters are often used to remove algae from lagoon systems. Well designed systems can usually produce a final effluent with BOD₅ and TSS concentrations of less than 30 mg/L. Their low cost and simple operation make them attractive for small communities that are not subject to ammonia limits. The City hasn’t presented information to show that they have properly operated and maintained their rock filter. Therefore, the average monthly limit of 30 mg/L and the average weekly limit of 45 mg/L will be retained in the final permit. However, it should be noted that the mass-based limits are based on the total suspended solid WLA in the *Upper Snake Rock Watershed Management Plan*. In order to comply with the mass-based limits, the effluent will likely need to have a concentration well below the technology based limits 30 mg/L average monthly and 45 mg/L average weekly.

Finally, EPA would like to clarify that Section II. C of the Fact Sheet states:

“A review of the DMRs from 2006 shows that the facility is well below its permit limits for BOD₅, and in fact, the City can easily comply with the secondary BOD₅ requirement (average monthly limit of 30 mg/L and average weekly limit of 45 mg/L), the City has violated its TSS limits on occasion, but frequently has very low TSS concentrations.”

EPA simply summarized the facilities compliance history. This was not an acknowledgement that a properly operated and maintained lagoon system could not consistently meet the effluent limits in the current permit or in the proposed permit. In fact, there are numerous lagoon systems throughout Idaho that are properly operated and maintained and are able to consistently meet the secondary

treatment requirements of 30 mg/L average monthly and 45 mg/L average weekly limits.

5. Comment: The 2000 *Upper Snake Rock Watershed Management Plan* recommended a total suspended solids waste load allocation (WLA) of 28.8 tons per year. The City understands that this WLA was based on the loading at the facility in 1999. IDEQ subsequently modified the total suspended solids WLAs for aquaculture facilities and WWTPs. The City of Hagerman WLA increased to 18.6 tons per year. The City understands that these new WLAs still meet the water quality standards for the Snake River and its tributaries. The City requests that the permit reflect the revised WLAs included in the *Upper Snake Rock TMDL Modification* (2005) as IDEQ is considering holding public hearings regarding the modified TSS WLAs contained in the TMDL.

Response: As stated in the fact sheet, federal regulations (40 CFR 122.44(d)(1)(vii)) require effluent limits in NPDES permits to be consistent with a TMDL that has been prepared by the State when it is based on the State's water quality standards and *approved* by EPA. Since the WLAs for WWTPs contained in the *Upper Snake Rock TMDL Modification* (2005) have not been approved by EPA, they cannot be incorporated into the final permit.

In a March 13, 2007 letter to IDEQ, EPA asked IDEQ to advise us as to whether they intend to submit the WLAs contained in the *Upper Snake Rock TMDL Modification* (2005) to EPA for review and approval. The letter also stated that if IDEQ intends to adopt the revised WLAs they must provide EPA with additional explanation as to the rationale and justification for the revisions, as well as confirmation that the public notice process occurred. To date IDEQ has not responded to EPA.

Federal regulations at 40 CFR 122.62 allow a permit to be modified for cause, and this is included in the permit in Section V.A (Permit Actions). Cause for modification includes, among other things, new information. Therefore, if the EPA approves the revised TMDL for WWTPs, the permittee may request that their permit be modified to include the conditions in the revised TMDL.

6. Comment: It may be necessary to the City to implement dechlorination facilities to meet the total residual chlorine limits. The City requests that a compliance schedule of one year be incorporated into the final permit so that the City can secure funding, design and construct the dechlorination unit. The City would like interim limits of 0.5 mg/L average monthly and 1.0 mg/L average weekly.

Response: In order to grant a compliance schedule, the permitting authority has to make a reasonable finding, adequately supported by the administrative record, that the discharger cannot immediately comply with the water quality based effluent limit upon the effective date of the permit (40 CFR 122.47, 40 CFR 122.47(a)(1), see also EPA's Memorandum on *Compliance Schedules for Water*

Quality Based Effluent Limits in NPDES Permits from James A. Hanlon, Director Office of Wastewater Management, May 10, 2007). A review of the facility's discharge monitoring reports shows that the facility can consistently comply with these limits. Therefore, a compliance schedule is not necessary.

7. Comment: The City requests that temperature monitoring of the influent be removed from the permit. This data may be collected but is not necessary to determine heat loads to the receiving water.

Response: This condition was incorporated into the draft permit because it was a condition of IDEQ's draft 401 certification of the NPDES permit. IDEQ's final 401 certification has retained this requirement as a condition of their certification, therefore, it has been retained in the final permit.

8. Comment: The City would like to request that the temperature monitoring in Table 1 be reduced to hourly data points. From a data management perspective, it will become cumbersome to compile, summarize and manage data point taken over a 15 minute intervals for a 5 year period. Additionally, data points at 1 hour intervals will most likely capture temperature variations.

Response: This condition was incorporated into the draft permit because it was a condition of IDEQ's draft 401 certification of the NPDES permit. In its final 401 certification, IDEQ revised this requirement to allow 1 hour intervals. The final permit has been changed to require temperature monitoring at 1 hour intervals, 24 hours per day for 5 years.

9. Comment: The draft permit specifies a 24-hour composite sample for most major parameters. The City would like to know if a grab- composite is acceptable.

Response: The City's 1999 permit allows 8-hour grab-composite samples, therefore, the final permit has been revised to allow 8-hour grab-composite samples.

10. Comment: The City requests that the compliance date for TSS be changed to January 1, 2011 to allow the City time to plan, secure funding, pass a bond election, design and construct any necessary improvements.

Response: The final permit has been revised to allow a final compliance date of January 1, 2011.

11. Comment: The existing lagoon system cannot consistently meet the TSS limits outlined in the permit. The City requests that the interim TSS limits be 70 mg/L average monthly and 105 mg/L average weekly.

Response: The interim TSS limits contained in the draft permit are the maximum technology-based effluent limitations allowable under the NPDES regulations (see appendix A of the Fact Sheet), therefore they are retained in the final permit.

12. Comment: The City believes that 90 days is not adequate time to install surface water monitoring stations. The City requests 180 days to install surface water monitoring stations to allow for evaluating appropriate monitoring locations, obtaining approval from IDEQ, and installing the monitoring stations.

Response: The final permit has been revised to allow 180 days before surface water monitoring is required.

13. Comment: The City requests that temperature monitoring be reduced to hourly data points. From a data management perspective, it will become cumbersome to compile, summarize and manage data points taken over a 15 minute interval for a 5 year period. Additionally, data points at 1 hour increments will most likely capture temperature variations.

Response: This condition was incorporated into the draft permit because it was a condition of the IDEQ's draft 401 certification of the NPDES permit. In its final 401 certification, IDEQ revised this requirement to allow 1 hour intervals. The final permit has been changed to require temperature monitoring at 1 hour intervals, 24 hours per day for 5 years.

14. Comment: The City asks if it should be responsible for collecting flow and quality data for the receiving streams, or does their responsibility terminate at the end of the effluent discharge point? Are the regulatory agencies responsible for the receiving waters? It is the City's understanding that this data is being collected to help establish TMDLs and to verify modeling efforts on the receiving stream. However, public health and safety issues associated with this data appear minimal. Perhaps this data should be collected but not subject to the penalties outlined in the permit.

Response: As stated previously, Section 308 of the CWA provides EPA with broad authority to gather effluent and surface water data to determine if additional effluent limitations are required in the future, and/or to monitor effluent impacts on receiving water quality. The receiving water monitoring requirements for flow, pH, ammonia, and temperature have been incorporated into the permit so that EPA can evaluate whether the discharge is impacting aquatic life, and to determine if ammonia limits are required to ensure that the effluent discharge does not adversely impact aquatic life. This evaluation will be done during the next permitting cycle. Additionally, IDEQ is in the process of developing a temperature TMDL and has requested continuous temperature monitoring be conducted for the TMDL development.

The samples collected from the receiving water are not required to meet any "limitations." The penalties outlined in the permit would be applied if the facility

did not collect the required samples, follow its established Quality Assurance Plan, or knowingly provided false information.

15. Comment: Biosolids are currently stored in the bottom of the lagoons. The City does not plan on removing the biosolids during the term of the permit. The City requests that this section of the permit be changed to read "...is on file with EPA prior to removal and disposal of biosolids."

Response: There is certain information EPA needs from wastewater treatment plants that use their lagoons for long-term storage of sludge. EPA obtains this information through the application process. The final permit retains the language that was in the draft permit.

16. Comment: The second paragraph in Part III. A. contains the phrase "...the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample" may suggest that continuous monitoring is required to capture any possible discharge event that could result in violation. As discussed above, it is reasonable to expect that the effluent from the current lagoon system could exceed the draft TSS limits. However, the City does not know or have control over when these exceedances will occur. The City requests that this phrase be changed to read "...the permittee should collect additional samples at the appropriate outfall when a known discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample."

Response: The federal regulation at 40 CFR 122.41(j) requires that samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The specific language cited by the City in their comment is intended to ensure that any spills, bypasses, treatment plant upsets, or other non-routine events are monitored and will not result in violation of the effluent limits. This language will be retained in the final permit. Additionally, it is the City's responsibility to ensure they are operating their facility such that all limitations and conditions are met.

17. Comment: IDEQ has indicated that they are considering revisiting the total suspended solids WLA and potentially holding public hearings on the WLA values contained in the 2005 *Upper Snake Rock TMDL Modification*. If the result of these efforts impacts the City's permit limits, the City would like to request that the permit be reopened and modified appropriately.

Response: If the revised TMDL is approved by EPA the City must submit, to EPA, a request to modify their permit.