U.S. Environmental Protection Agency
Region 10

Response to Comments
City of Deary
Permit No. ID-002078-8

Background

On September 18, 2003, EPA proposed to reissue the National Pollutant Discharge Elimination System (NPDES) Permit for the City of Deary wastewater treatment facility. The Public Notice of the draft permit initiated a public comment period which expired on October 27, 2003. The EPA received comments on the draft permit from the City of Deary. No other comments were received.

This document summarizes the comments received on the draft permit, and EPA's response to the comments. The document provides a record of the basis for changes made from the draft permit to the final permit. The Fact Sheet that accompanied the draft permit was not revised because it is already a final document that provides a basis for the draft permit.

Comment 1

The 5-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) discharge limits of 30/45 mg/L (average monthly/average weekly) and 85% removal criteria are too restrictive for Deary's waste stabilization treatment pond. A review of the past 60 months of discharge data supports this position. The data show that BOD_5 exceeded the proposed monthly limit 19 times, exceeded the proposed mass monthly limit one time and exceeded the proposed percent removal limit 25 times. The data also show that actual effluent TSS concentration exceeded the proposed monthly permit limit 12 times with three excursions in 2002. The proposed mass limit has been exceeded twice with the most recent in April 2002. The actual TSS also exceeded the proposed weekly limit three times with the most recent in October 2002.

The City requests that the permit be revised to include an average monthly effluent limit of 45 mg/L for BOD_5 and 70 mg/L for TSS which would be consistent with the Idaho Water Quality Standards (IDAPA 58.01.02).

Response 1

The requirement found in the Idaho Water Quality Standards (IDAPA 58.01.02.420) for lagoons (i.e., average monthly limit of 70 mg/L for TSS) has not been approved by EPA and therefore is not available to be used in an NPDES permit. The Idaho Department of Environmental Quality

is currently in the process of developing TSS requirements for wastewater treatment facilities that use lagoons. Once these requirements are developed and EPA approves them, they will be available for use in NPDES permits.

An average monthly limit up to 45 mg/L for both BOD_5 and TSS is possible for facilities that qualify for Treatment Equivalent to Secondary limitations. To qualify, all of the following requirements must be met:

- The BOD_5 and TSS effluent concentrations consistently achievable through proper operation and maintenance of the treatment works exceed Secondary Treatment Effluent Limits (i.e., the 95th percentile of the effluent data exceeds the 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 BOD_5 is consistently attained).

EPA reviewed the last five years of BOD_5 data for the City of Deary wastewater treatment plant. The data review showed that there was a significant reduction of effluent BOD_5 concentration since March 2000. A review of the average monthly BOD_5 effluent data from March 2000 through November 2003 show that the facility has been able to comply with the concentration and mass-based limits for BOD_5 that were in the draft permit. Based on this information, the facility does not qualify for "Treatment Equivalent to Secondary" limitations, and the BOD_5 limits from the draft permit will be retained in the final permit.

A review of the last five years of TSS data for the facility shows that the 95th percentile of the average monthly data is approximately 44 mg/L. Based on this information, the final permit has been revised to include an average monthly TSS limit of 44 mg/L, an average weekly limit of 66 mg/L (i.e. 44 mg/L X 1.5), and 65% removal requirement.

Final Permit Revision: Section I.A of the final permit has been revised to include the following TSS limits: 44 mg/L (average monthly), 66 mg/L (average weekly) and 65% removal.

Comment 2

The sampling frequency for E. coli is five times per month which is a financial burden on the City. The City requests that E. coli monitoring be reduced to once per week which will provide 52 annual samples which is equivalent to 60 samples for statistical analyses of the effluent characteristics.

Additionally, EPA allowed the City of Cottonwood to monitor once per week. At the least, the permit should provide a re-opener clause to address this issue if the Idaho Department of Environmental Quality revises its water quality standard for E. coli.

Response 2

The requirement to sample 5 times per month is a stipulation of the Idaho Water Quality Standards (IDAPA 58.01.02.251). The Water Quality Standards require that waters designated for primary contact recreation not contain E. coli bacteria in concentrations exceeding "a geometric mean of 126/100 ml based on a minimum of five samples taken every 3-5 days over a 30 day period." The monitoring frequency of 5 samples per month was incorporated directly into the permit.

The permit contains a provision which states that the permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5. (See Part IV.A. of the permit). If the Idaho Department of Environmental Quality revises its water quality standard for E. coli, and EPA approves the water quality standard revision, then the permittee may submit a request for permit modification.

Final Permit Revision: None

Comment 3

The Fact Sheet states that the City uses dechlorination, however, there are no dechlorination equipment at the facility. The draft permit requires dechlorination below detectable limits using standard available equipment. The City requests that the permit be revised to reflect standard available portable chlorine test equipment with a detection limit of 0.1 mg/L with a maximum daily limit of 0.2 mg/L.

Response 3

The NPDES permit contains an average monthly effluent limit of 0.01 mg/L and a maximum daily limit of 0.02 mg/L. These limits are necessary to protect aquatic life in the stream. However, these water quality based effluent limits are below the level at which they can be accurately quantified using EPA analytical methods. The inability to measure the effluent limit is addressed by establishing the minimum level (ML) as the compliance evaluation level for use in reporting data to EPA. The ML is the concentration at which a pollutant can be quantified. Effluent levels at or below the ML would be considered in compliance with the water quality based effluent limit. The ML for chlorine is 0.1 mg/L. The permit contains a chlorine compliance evaluation level of 0.1 mg/L (0.19 lbs/day) for both the average monthly limit and maximum daily limit (see footnote 3 in Table 1 of the permit). These requirements have been retained in the final permit.

Final Permit Revision: None

Comment 4

The proposed pH limit of 6.5-9.0 standard units has been exceeded twice in the last five years. The pH of a lagoon system can vary naturally over a day when algae are present and values in excess of 9.0 are possible. The City requests an upper limit of 9.5 which is allowed by the Idaho State water quality standards.

Response 4

Exceeding the pH limit twice out of approximately 66 sampling events is not adequate evidence that the pH of the lagoon system is variable, nor is it an adequate justification to change a pH limit in a permit. The draft pH effluent limit has been retained in the final permit.

Final Permit Revision: None

Comment 5

The City's budget has been established for fiscal year 2004 and expenses necessary for effluent dechlorination, sampling/testing equipment, new sampling requirements, development of an Operations and Maintenance Plan, and a Quality Assurance Plan have not been funded. The City does not have the in-house expertise to address these items and will need to procure engineering services. Therefore, the City requests that compliance period for sampling revisions, dechlorination, development of an Operations and Maintenance Plan, and a Quality Assurance Plan be extended to January 2005.

Response 5

To allow the City additional time to fund and develop the Operation and Maintenance Plan and Quality Assurance Plan, the final permit has been revised to require these documents to be developed and implemented within 18 months of the effective date of the permit.

In their 401 Certification, Idaho Department of Environmental Quality provided a three-year compliance schedule for the final chlorine limitations to allow adequate time for any necessary treatment plant modifications to meet the limits. In the interim, a technology-based average monthly chlorine limitation of 0.5 mg/L is established in the permit. The derivation of this technology-based limit was provided in the Fact Sheet.

The final permit requires surface water sampling to begin in January 2005. This will allow the permittee additional time to prepare for the monitoring.

Final Permit Revision: Sections I.D. (Operation and Maintenance Plan) and I.E. (Quality Assurance Requirements) of the permit are modified to require that the documents be developed and implemented within 18 months of the effective date of the permit. Section I.B *Chlorine Schedule of Compliance* is added. Section II.J *Compliance Schedules* is added. Table 1 *Effluent Limitations and Monitoring Requirements* is modified to include Note 4 regarding the chlorine compliance schedule.

Final Permit Revision: Sections I.D. (Operation and Maintenance Plan) and I.E. (Quality Assurance Requirements) of the permit are modified to require that the documents be developed and implemented within 18 months of the effective date of the permit. Section I.B *Chlorine Schedule of Compliance* is added. Section II.J *Compliance Schedules* is added. Section I.C (Surface Water Monitoring Requirements) is revised to require surface water monitoring to begin in January 2005.