

**U.S. Environmental Protection Agency
Region 10**

**Response to Comments
Glanbia Foods Gooding Facility (ID-002712-0)**

Background

On October 20, 2003, EPA proposed to issue a National Pollutant Discharge Elimination System (NPDES) permit for the Glanbia Foods Gooding Facility non-contact cooling water discharge. The Public Notice of the draft permit initiated a 30-day public comment period which expired on November 24, 2003. The EPA received comments on the draft permit from Rickie Del Warren, Environmental Director for Glanbia Foods. No other comments were received.

This document summarizes the comments received on the draft permit, and EPA's responses to the comments. The document provides a record of the basis for changes to the draft permit to produce 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

The company commented that the draft permit identifies an average monthly limit of 126 E. coli per 100/ml. The non-contact cooling water goes through a cooling pond which is exposed and susceptible to contamination via blowing dust, birds, etc., as is the river. The monitoring point for this parameter should be at the inlet of the cooling pond rather than at the river outfall.

Response

EPA regulations (40 CFR 122.43(a) and 122.44) require that monitoring take place after all treatment processes in order to determine the quality of effluent actually going to the receiving stream. Municipalities with lagoon systems have the same issues with respect to E. coli, but are required to monitor after their lagoons. While compliance monitoring is required at the point of discharge to the receiving stream, the company has the option to sample (perhaps on a periodic basis) at the point of discharge into the storage lagoon for comparative purposes with the discharge from the lagoon.

Final Permit Revision: None

Comment

The company commented that the non-contact cooling water comes from a commercial well.

Monitoring of that well and 12 other wells in the immediate area over the past 8 months shows that this well and all except one of the other wells have had phosphorus concentrations greater than the 0.1 mg/l in the draft permit. Well values over the past 8 months have ranged from 0.05 to 0.1 or greater. Based on 98 samples, Glanbia would be prohibited from discharging non-contact cooling water 23% of the time. As drafted, the permit would require Glanbia to install expensive phosphorus removal equipment in order to remove the phosphorus from a drinking water quality discharge to which Glanbia had not, in the non-contact cooling water use, contributed a phosphorus loading. Glanbia requests that the phosphorus limit be based on not increasing the phosphorus concentration above incoming water by more than 0.1 mg/l.

Response

The phosphorus limitation in the draft permit (0.1 mg/l, 0.5 lbs/day) was included based on preliminary comments from IDEQ. The final state 401 certification includes an interim limit of 0.5 lbs/day for phosphorus. Once sufficient data are collected final phosphorus limits will be developed for the Glanbia discharge to ensure compliance with state water quality standards as well as any TMDL that is completed for the Little Wood River.

Final Permit Revision: Interim phosphorus loading has been revised to 0.5 lbs/day. Concentrations have been removed from the permit.

Comment

The phosphorus lbs/day is calculated based on concentration and flow. As stated in comment 2, the concentration is quite variable. Glanbia requests that the daily maximum phosphorus lbs/day limit of 0.5 lbs/day be based on the increase over incoming rather than on outfall water values only.

Response

The final state 401 certification clarified that the Little Wood River is water quality limited for excess nutrients, and the Subbasin Assessment has defined total phosphorus as the limiting nutrient. In order to ensure protection of the Little Wood River and to ensure consistency with the phosphorus limits set for the Snake River, Glanbia must comply with an interim limit of 0.5 lbs/day maximum daily limit for total phosphorus.

Final Permit Revision: None

Comment

pH Monitoring - Glanbia has typically monitored the pH of the outfall weekly when discharging. A review of the most recent 3 years of data show 69 pH readings with a pH range of 6.7 to 8.7.

There are no applications in which non-contact cooling water is used to cool ammonia compressors or compressed ammonia heat exchangers from which a failure of the system could contaminate the non-contact cooling water with ammonia and increase the pH. Glanbia requests that the pH monitoring frequency be reduced from daily to once per week and that pH monitoring be required only during periods when there is a discharge to the river. Glanbia also requests that the pH monitoring be required on a 5-day week rather than daily.

Response

All effluent monitoring in the draft permit is applicable only when Glanbia is discharging to the river. While the data cited are within the required pH range, they are also very close to both of the extremes (i.e., 6.5 and 9.0). EPA believes that pH monitoring 5 days out of 7 is appropriate.

Final Permit Revision: Monitoring frequency for pH is changed to 05/07.

Comment

Daily Dissolved Oxygen Monitoring - The non-contact cooling water is used for irrigation water during part of the year and is not discharged to the river. Please clarify that monitoring is not required when there is no discharge. Glanbia requests that the DO monitoring be required on a 5-day week basis rather than daily.

Response

All effluent monitoring in the draft permit is applicable only when Glanbia is discharging to the river. Monitoring 5 days out of 7 is the intent in the draft permit.

Final Permit Revision: Monitoring frequency for DO is changed to 05/07.

Comment

Receiving Water Monitoring Requirements: Flow - The draft permit requires continuous upstream and downstream flow monitoring. Water is diverted to and from the Little Wood River during the irrigation season by the Big Wood Canal Company. The flow of the river is monitored by the Big Wood Canal Company during irrigation season by taking a daily staff reading. Wouldn't a daily staff reading of the river flow be adequate monitoring for this permit. Additionally, what is the value of monitoring the flow upstream and downstream of Glanbia's discharge? The non-contact cooling water is discharged into a non-contact cooling water pond which has an overflow to the river. The non-contact cooling water pond also buffers the surges/peaks of water flow to the river. Wouldn't adding the discharge volume to the upstream flow accurately characterize the downstream flow. Is Glanbia required to monitor the river for flow during months when Glanbia has no discharge to the river?

If Glanbia is required to install flow monitoring equipment that requires a permit from IDWR and/or the Corps of Engineers to do construction, and if the construction is hampered by waiting for a permit and winter weather, monitoring the flow within 60 days of permit issuance may not be realistic. Could a provision be put into the permit to allow additional time for these conditions.

Response

According to information received from Glanbia, IDEQ, and the Canal company, flows in the Little Wood can change from hour to hour; given this variability, EPA and DEQ believe that continuous flow monitoring upstream of the Glanbia discharge is appropriate. EPA agrees that adding Glanbia's flow to the upstream flow will be adequate for this permit. Receiving water monitoring requirements are only applicable when Glanbia is discharging to the river.

Final Permit Revision: Continuous downstream monitoring for flow is deleted. Downstream flow to be reported is the upstream flow plus Glanbia's discharge using minimum upstream flow and maximum Glanbia flow for the day.

Comment

Receiving Water Monitoring Requirements: pH, DO, Total Ammonia as N, Total Phosphorus as P, and Temperature - Is Glanbia required to monitor the river for these constituents during months when there is no discharge to the river?

DO Detection Limit of 0.050 mg/l - This detection limit is very low and appears to be unreasonable for this application. An MDL of 0.50 mg/L seems more appropriate. Is the 0.050 mg/L MDL a typographical error?

Total Ammonia as N MDL - The draft permit requires an MDL of 0.01 mg/L. Why is this level of detection required for the discharge? A detection level of 0.05 is typically used for well water testing. Is an MDL of 0.05 mg/L adequate for discharge to the river?

Total Phosphorus as P MDL - The draft permit requires an MDL of 0.01 mg/L. Why is this level of detection required for the discharge? A detection level of 0.05 is typically used for well water testing. Is an MDL of 0.05 mg/L adequate for discharge to the river?

Response

Receiving water monitoring requirements are only applicable when Glanbia is discharging to the river.

DO - In the “US EPA Approved Methods & Levels for the NPDES Program,” the approved method number for DO is 360.1, with an interim ML of 1.0 and an MDL of 300 µg/L. Method detection limit (MDL) is based on precision cited in the MCAWW method 360.1. The method precision of 0.1 mg/L is multiplied by a factor of 2.681 to obtain the MDL (0.3 mg/L).

Final Permit Revision: The MDL for D.O. has been changed to 0.3 mg/L

Ammonia - Toxicity issues with ammonia at very low levels in the receiving water are well documented. The EPA Water Program has determined that the low detection level is necessary to determine any potential ammonia toxicity issues in the receiving water that could be magnified by the proposed discharge.

Final Permit Revision: None

Phosphorus - Standards Methods for phosphorus (365.1-4) show an ML of 0.01 mg/L; typically our EPA laboratories expect a detection level of 1/5 to 1/10 below the ML, in this case in the 0.008-0.009 mg/L range. Current testing techniques can readily attain this level.

Final Permit Revision: None

Comment

Receiving Water Monitoring Requirements: Temperature, Continuous Upstream and Downstream - The effluent limitation is based on temperature criteria of an instantaneous maximum of 22°C and a daily maximum of 19°C. With these permit limitations, what is the purpose of upstream and downstream temperature monitoring? If Glanbia is required to monitor upstream and downstream temperatures, can the permit be issued such that, if the river flow rate is adequate to provide temperature buffering, a $\pm 1^\circ\text{C}$ temperature downstream vs temperature upstream limit can supercede the 19/22 degree discharge limit.

Glanbia has purchased a “HOBO” Water Temp Pro water temperature monitor. This unit records temperature information according to programmable time intervals. Are temperature recordings at 15 minute intervals adequate to qualify for “continuous” criteria? If not, is there a time interval that is adequate for the continuous criteria or must Glanbia invest in a different temperature monitoring system?

Response

The purpose of receiving water monitoring is to determine water quality conditions as part of the effort to evaluate the reasonable potential for the discharge to cause the receiving waters to not

meet state water quality criteria. Due to the extreme flow variability in the Little Wood River at the point of Glanbia's discharge, the permit includes the criteria that are protective of cold water biota (19/22 °C).

IDEQ stated that temperature recordings at 15 to 30 minute intervals are adequate for the continuous criteria stated in the permit.

Final Permit Revision: None