Fact Sheet

NPDES Permit Number: ID-002495-3
Date:
Public Notice Expiration Date:
Contact: Kelly Huynh (206)553-8414 or
1-800-424-4372 (within Region 10 only)
huynh.kelly@epa.gov

The U.S. Environmental Protection Agency (EPA) Plans to Reissue a Wastewater Discharge Permit for:

Darigold Incorporated
520 Albany Street
Caldwell, Idaho 83606

and

The State of Idaho Proposes to Certify the Permit

EPA Proposes NPDES Permit Issuance.
EPA proposes to reissue a National Pollutant Discharge Elimination System (NPDES) permit for Darigold Incorporated. The draft permit sets conditions on the discharge--or release--of pollutants from the facility to the Boise River.

This fact sheet includes:
- information on public comment, public hearing, and appeal procedures
- a description of the current discharge
- a listing of proposed effluent limitations and other conditions
- a map and description of the discharge location
- detailed background information supporting the conditions in the permit

The State of Idaho Proposes Certification.
The Idaho Division of Environmental Quality (IDEQ) proposes to certify the NPDES permit for Darigold Incorporated, under section 401 of the Clean Water Act. The State provided preliminary comments prior to the public notice which are incorporated into the draft permit.

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EPA Invites Comments on the Draft Permit.

Persons wishing to comment on or request a public hearing for the draft permit may do so in writing by the expiration date of the public notice. A request for public hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for public hearings must be in writing and submitted to EPA as described in the public comments section of the attached public notice.

Persons wishing to comment on State certification should submit written comments by the public notice expiration date to the State of Idaho Division of Environmental Quality, 1445 North Orchard, Boise, Idaho 83706-2239.

If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If substantive comments are received before the expiration of the public notice, EPA will address the comments and EPA's regional Office of Water Director will make a final decision regarding permit issuance along with a response to comments. If comments are received, the permit will become effective 30 days after the issuance date, unless a request for an evidentiary hearing is submitted within 30 days.

Documents are Available for Review.

The draft NPDES permit and related documents can be reviewed at EPA's regional office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday. To request copies and other information, contact the NPDES Permits Unit at:

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101
(206) 553-8414 or
1 (800) 424-4372 (within Region 10 only)

The fact sheet and draft permit are also available at:

EPA Idaho Operations Office
1435 North Orchard Street
Boise, Idaho 83706
(208) 378-5746

Idaho Division of Environmental Quality
1445 North Orchard
Boise, Idaho 83706-2239
(208) 373-0550

The draft permit and fact sheet can also be found by visiting the Region 10 web site at www.epa.gov/r10earth/offices/water/npdes.htm.

For technical questions regarding the permit or fact sheet, contact Kelly Huynh at the phone numbers or e-mail address at the top of this fact sheet. Those with impaired hearing or speech may contact a TDD operator at 1-800-833-6384 (ask to be connected to Kelly Huynh). Additional services can be made available to persons with disabilities by contacting Kelly Huynh.

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LIST OF ACRONYMS

BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BPT - best practicable control technology currently available
CFR - Code of Federal Regulations
cfs - cubic feet per second
CWA - Clean Water Act
DMRs - Discharge Monitoring Reports
EPA - Environmental Protection Agency
IDEQ - Idaho Division of Environmental Quality
MDL - maximum daily limit
mgd - million gallons per day
NMFS - National Marine Fisheries Service
NPDES - National Pollutant Discharge Elimination System
TSD - EPA's *Technical Support Document for Water Quality-based Toxics Control*
USFWS - United States Fish and Wildlife Service
USGS - United States Geological Survey
WLA - wasteload allocation

BACKGROUND INFORMATION

I. APPLICANT

Darigold Incorporated
NPDES Permit No: ID-002495-3

Facility Location:
520 Albany Street
Caldwell, Idaho 83606

Contact: Joseph Muller, Director of Regulatory Compliance
PO Box 79007
Seattle, Washington 98119

Contact: Wayne Eskew, Plant Manager
PO Box 578
Caldwell, Idaho 83606

II. FACILITY ACTIVITY

Darigold Incorporated (hereafter "Darigold") is a milk processing plant that receives and processes fluid milk and manufactures cheese, butter, and powdered skim milk and whey (standard industrial classification code 5243). Darigold discharges evaporative ("cow water") and non-contact cooling (city) water. The evaporative water is extracted from the raw milk in the ammonia condensers and evaporative condensors. The non-contact cooling water is used in the ammonia compressors, cream silo jackets, and cooling towers and does not contain any waste product (other than heat). See Appendix A for a map of the facility, outfall location, and schematic of the wastewater flow.

III. RECEIVING WATER

Darigold discharges through outfall 001 (latitude 43° 40' 40", and longitude 116° 41' 51") to the Boise River. This portion of the Boise River is protected by the State of Idaho (IDAPA 16.01.02.140.01.x) for the following uses: agricultural water supply, cold water biota, primary contact recreation and secondary contact recreation. The Boise River has been listed under Section 303(d) of the Clean Water Act as not attaining or not expected to meet the state water quality standards for sediment, nutrients, fecals, and temperature. Where the receiving water quality does not meet water quality standards after the imposition of technology-based effluent limitations, Section 303(d) of the Clean Water Act requires the state to develop a Total Maximum Daily Load (TMDL) plan to ensure that these waters will come into compliance. A TMDL is a determination of the amount of pollutant or property of a pollutant, from point, nonpoint, and natural background

sources, including a margin of safety, that may be discharged to a water body without causing the water body to exceed the water quality criterion for that pollutant.

IV. BACKGROUND

Darigold was originally issued a NPDES permit on May 28, 1978. This permit was administratively extended past the May 22, 1983 expiration date. The 1978 permit placed effluent limitations on flow, pH and temperature. An application for a new permit was submitted on January 6, 1983 and January 13, 1988. Previous Discharge Monitoring Reports indicate that the facility has complied with its limits for pH and flow and has generally complied with its limits for temperature.

V. EFFLUENT LIMITATIONS

A. Background

EPA followed the Clean Water Act, State and federal regulations, and EPA's 1991 *Technical Support Document for Water Quality-Based Toxics Control* to develop the draft effluent limits. In general, the Clean Water Act requires that the effluent limit for a particular pollutant be the more stringent of either the technology-based or water quality-based limit.

EPA sets technology-based limits based on the effluent quality that is achievable using readily available technology. EPA develops these limits based either on federally-promulgated effluent guidelines or, where such guidelines have not been promulgated for an industry, based on best professional judgement.

The Agency evaluates the technology-based limits to determine whether they are adequate to ensure that water quality standards are met in the receiving water. If the limits are not adequate, EPA must develop additional water quality-based limits. These limits are designed to prevent exceedences of the Idaho water quality standards in the Boise River.

The draft permit limitations are based on Idaho's water quality standards and best professional judgement because effluent guidelines have not been established for non-contact cooling water facilities or evaporative discharge. Appendix B provides the basis for the development of the following effluent limits.

B. Effluent Limits

1. The permittee shall comply with a maximum daily flow limit of 1.7 million gallons per day (mgd).

2. Five years from the effective date of the permit, the permittee shall comply with an instantaneous maximum limit of 22°C (72°F) and a maximum daily average limit of 19°C (66°F).

3. The pH of the effluent shall be within the range of 6.5 standard units to 9.5 standard units.

4. Surface waters shall be free from toxic substances in concentrations that impair designated beneficial uses.

5. The permittee shall comply with an average monthly limit of 30 mg/L for five day biochemical oxygen demand (BOD_5) and total suspended solids (TSS).

VI. MONITORING REQUIREMENTS

A. Effluent Monitoring

Section 308 of the Clean Water Act and the federal regulations at 40 CFR 122.44(i) require that permits include monitoring to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. Darigold is responsible for conducting the monitoring and for reporting the results to EPA on quarterly Discharge Monitoring Reports (DMRs).

Table VI-1 presents the proposed monitoring requirements based on the minimum sampling necessary to adequately monitor the facilities performance. Monitoring shall occur prior to discharge to the Boise River.

Table VI-1: Darigold Monitoring Requirements

Parameter	Monitoring Frequency	Method
Flow, mgd	Continuous	Recorder
pH, standard units	5/week	Grab
Temperature, °C	Continuous	Recorder
Total Ammonia (as N), mg/L	1/week	24 hour composite
BOD_5, mg/L	1/week	24 hour composite
TSS, mg/L	1/week	24 hour composite

B. Quality Assurance Plan

It is important that data collected to evaluate compliance with the permit limits or to evaluate the effects of the discharge on the receiving water be accurate. To ensure accuracy, the draft permit requires Darigold to develop and implement a Quality Assurance Plan within 120 days of the effective date of the permit. The Quality Assurance Plan consists of standard operating procedures permittees must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting.

VII. OTHER PERMIT CONDITIONS

A. Additional Permit Provisions

In addition to facility-specific requirements, sections II, III, and IV of the draft permit contains "boilerplate" requirements. Boilerplate is standard regulatory language that applies to all permittees and must be included in NPDES permits. Because boilerplate requirements are based on regulations, they cannot be challenged in the context of an NPDES permit action. The boilerplate covers requirements such as monitoring, recording, and reporting requirements, compliance responsibilities, and general requirements.

B. New Treatment Processes

Section III.J of the draft permit requires that the permittee give the Director and IDEQ notice of any planned alterations or additions to the permitted facility. Notice would therefore be required for the addition of a cooling tower or other treatment device for temperature. Section IV.M of the draft permit explains that the permit is subject to modification, revocation, or reissuance at the request of any interested party, or upon EPA initiative, if new information becomes available that justifies different permit conditions. New information would include an increase in pollutants identified in the permit application or additional pollutants that were not present in the waste stream when the latest permit application was submitted.

VIII. OTHER LEGAL REQUIREMENTS

A. Endangered Species Act

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered species.

EPA requested lists of threatened and endangered species from the NMFS and the USFWS in letters dated February 17, 1999. In a letter dated March 3, 1999, the USFWS indicated that Darigold's discharge is unlikely to adversely impact any species listed under the Endangered Species Act of 1973, as amended. In a letter dated March 10, 1999, the NMFS stated that there are currently no threatened or endangered species under its jurisdiction in the Boise River.

B. State Certification

Section 401 of the Clean Water Act requires EPA to seek certification from the State that the permit is adequate to meet State water quality standards before issuing a final permit. The regulations allow for the State to stipulate more stringent conditions in the permit, if the certification cites the Clean Water Act or State law references upon which that condition is based. In addition, the regulations require a certification to include statements of the extent to which each condition of the permit can be made less stringent without violating the requirements of State law. The draft permit has been sent to the State to begin the final certification process.

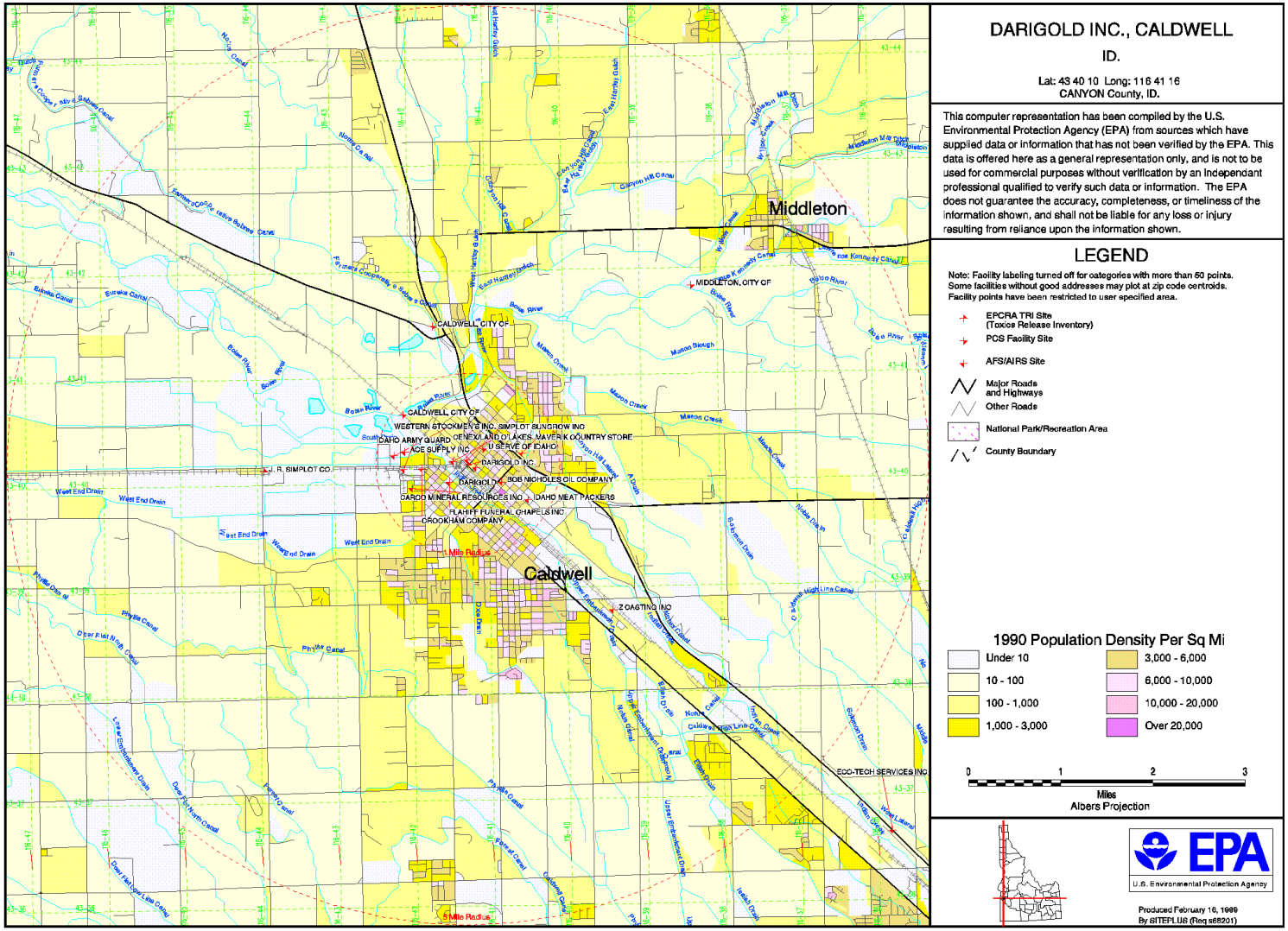
C. Permit Expiration

This permit will expire five years from the effective date.

REFERENCES

EPA 1991. Technical Support Document for Water Quality-based Toxics Control. Office of Water Enforcement and Permits, Office of Water Regulations and Standards. Washington, D.C., March 1991. EPA/505/2-90-001.

APPENDIX A - DARIGOLD INC. FACILITY MAP



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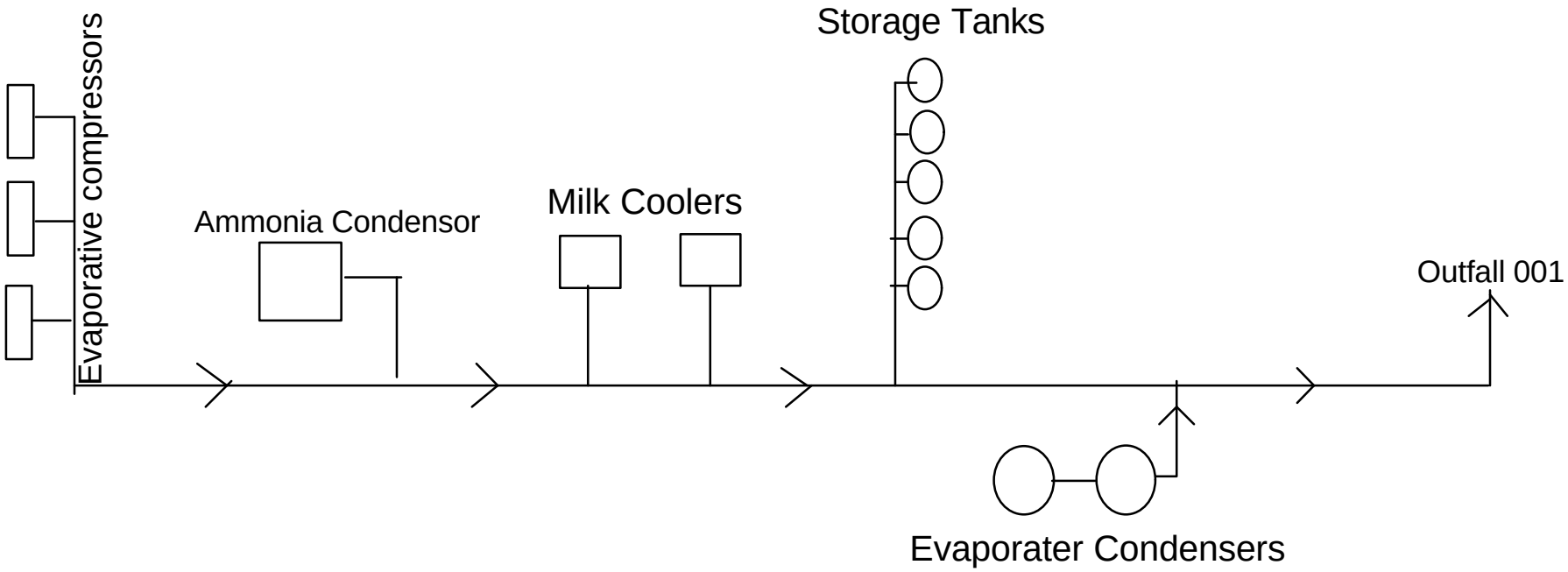
Darigold Process Diagram



APPENDIX B - BASIS FOR EFFLUENT LIMITATIONS

I. Statutory and Regulatory Basis for Limits

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the Clean Water Act (CWA) provide the basis for the effluent limitations and other conditions in the draft permit. The EPA evaluates the discharge(s) with respect to these sections of the CWA and the relevant NPDES regulations to determine which conditions to include in the draft permit.

In general, EPA first determines which technology-based limits must be incorporated into the permit. EPA then evaluates the effluent quality expected to result from these controls, to see if it could result in any exceedences of the water quality standards in the receiving water. If exceedences could occur, EPA must include water quality-based limits in the permit. The draft permit limits reflect whichever requirements (technology-based or water quality-based) are more stringent. The technology-based and water quality-based evaluations are described below.

II. Technology-based Evaluation

Section 301(b)(2) of the CWA requires technology-based controls on effluents. This section of the CWA requires that, by March 31, 1989, all permits contain effluent limitations which: (1) control toxic pollutants and nonconventional pollutants through the use of "best available technology economically achievable" (BAT), and (2) represent "best conventional pollutant control technology" (BCT) for conventional pollutants. In no case may BCT or BAT be less stringent than "best practicable control technology currently available" (BPT), which is a minimum level of control required by section 301(b)(1)(A) the CWA. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3). Effluent guidelines for technology-based limitations are not available for non-contact cooling water discharges.

III. Water Quality-based Evaluation

EPA evaluated the discharge to determine compliance with Section 301(b)(1)(C) of the CWA. This section requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977.

The regulations at 40 CFR 122.44(d) implement section 301(b)(1)(C) of the CWA. These regulations require that NPDES permits include limits for all pollutants or parameters which "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The limits must be stringent enough to ensure that water quality standards are met, and must be consistent with any available wasteload

allocation. The draft permit includes water quality-based limits and conditions for temperature, pH, BOD, TSS, and toxic substances.

In determining whether water quality-based limits are needed and developing those limits when necessary, EPA generally uses the approach outlined below:

1. Determine the appropriate water quality criterion
2. Determine whether there is "reasonable potential" to exceed the criterion
3. If there is "reasonable potential", develop a wasteload allocation
4. Develop effluent limitation(s) based on WLA

The following sections provide a detailed discussion of each step.

A. Water Quality Criteria

The first step in developing water quality-based limits is to determine the applicable water quality criteria. The state of Idaho's water quality standards are found at IDAPA 16 Title 1, Chapter 2.

The applicable criteria are determined based on the beneficial uses of the receiving water. The beneficial uses for Lower Boise River in Idaho are: agricultural water supply, cold water biota, primary contact recreation and secondary contact recreation.

For any given pollutant, different uses may have different criteria. To protect all beneficial uses, the permit limits are based on the most stringent of the water quality criteria applicable to those uses.

1. Temperature

   The most stringent of Idaho's temperature criteria applicable to the Lower Boise River is for protection of cold water biota (found at IDAPA 16.01.02.250.02.c). The cold water biota regulation limits water temperature to 22ºC (72°F) at any time, with a maximum daily average of 19ºC (66°F). Available information indicates that the discharge temperature is greater than the State's water quality criteria therefore, a reasonable potential analysis is not necessary and limits are required in the permit. Darigold is unable to meet the new draft temperature limits therefore, the draft permit includes a five-year compliance schedule.

2. pH

The most stringent Idaho standard applicable to this portion of the Lower Boise River is for protection of aquatic life (found at IDAPA 16.01.02.250.02.a) This standard requires that effluent pH be within the range of 6.5 to 9.5 pH units.

3. Toxic substances

Idaho water quality regulation IDAPA 16.01.02.200.02 requires that surface waters of the state be free from toxic substances in concentrations that impair designated beneficial uses. The substances do not include suspended sediment produced as a result of nonpoint source activities. This narrative requirement has been included in the draft permit.

4. BOD and TSS

Both BOD and organic TSS are directly related to the amount of dissolved oxygen (DO) in the receiving water. The Idaho Water Quality Standards contain dissolved oxygen criteria that are protective of cold water biota and salmonid spawning. The State has certified monthly average limits for BOD and TSS of 30 mg/L in order to protect the water quality standards for DO. These limits are also consistent with the technology-based limits for secondary treatment found in 40 CFR 133.102.

B. Wasteload Allocation and Effluent Limit Development

Once the need for a permit limit is established, the first step in developing the limit is developing a wasteload allocation (WLA) for the pollutant. A WLA is the concentration (or loading) of a pollutant that a facility may discharge without causing or contributing to an exceedence of water quality standards in the receiving water. The WLAs for pH and temperature were established "end of pipe."

1. "End of Pipe" WLA

End of pipe limits are established when dilution is unavailable, either because the receiving water exceeds the criteria or because the State has decided not to authorize a mixing zone for a particular pollutant. When there is no dilution, the criterion becomes the WLA.

C. Antidegradation

In addition to water quality-based limitations for pollutants that could cause or contribute to exceedences of standards, EPA must consider the State's antidegradation policy (found at IDAPA 16.01.02.051). The antidegradation policy

represents a three tiered approach to maintain and protect various levels of water quality and uses. Tier 1 protects the existing uses of the water body when existing quality just meets the standard, Tier 2 protects waters that whose existing quality is better than that required to meet the standard and prevents water quality from being degraded below the standard, and Tier 3 applies to Outstanding National Resource Waters where the ordinary use classifications and supporting criteria may not be sufficient or appropriate. The draft permit for discharge to the Lower Boise River (Tier 1) is consistent with the State's antidegradation policy.