



FACT SHEET

**The United States Environmental Protection Agency (EPA)
Plans to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit
And
Notice of State Certification**

**JEROME CHEESE COMPANY
47 West 100 South
JEROME, IDAHO, 83338**

NPDES Permit Number: ID002760-0

Public Notice Start Date: May 24, 2012
Public Notice Expiration Date: June 25, 2012

Technical Contact:

John Drabek

Email: drabek.john@epa.gov

Phone: 206-553-8257 800-424-4372, ext. 8257

EPA Proposes To Reissue NPDES Permit

The EPA proposes to reissue the NPDES permit to the facility referenced above. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the United States. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged from the facility.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations, and other conditions for the facility
- a map and description of the discharge location
- technical material supporting the conditions in the permit

401 Certification for Facilities that Discharge to State Waters

The EPA is requesting that the Idaho Department of Environmental Quality (IDEQ) certify the NPDES permit for this facility, under section 401 of the Clean Water Act. This Notice also serves as Public Notice of the intent of the State of Idaho to consider certifying that the subject discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and

307 of the Clean Water Act. The NPDES permit will not be issued until the EPA has received a final CWA 401 certification or certification has been denied or waived.

Public Comment

Persons wishing to comment on, or request a Public Hearing for the draft permit for this facility may do so in writing by the expiration date of the Public Comment period. A request for a 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 should be submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

After the Public Notice expires, and all comments have been considered, the EPA's Regional Director for the Office of Water and Watersheds will make a final decision regarding permit reissuance. 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 comments are received, the EPA will address the comments and issue the permit. The permit will become effective 30 days after the issuance date, unless an appeal is submitted to the Environmental Appeals Board within 30 days pursuant to 40 CFR 124.19.

Documents are Available for Review.

The draft permit and fact sheet are posted on the Region 10 website at <http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/DraftPermitsID> Copies may also be requested by writing to the EPA at the Seattle address below, by e-mailing washington.audrey@epa.gov, or by calling Audrey Washington at 206-553-0523 or (800) 424-4372 ext 0523 (within Alaska, Idaho, Oregon, & Washington). Copies may also be inspected and copied at the offices below between 8:30 a.m. and 4:00 P.M., Monday through Friday, except federal holidays. In Seattle, visitors report to the 12th floor Public Information Center.

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900, OWW-130
Seattle, Washington 98101
(206) 553-0523 or
Toll Free 1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

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

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301
(208) 736-2190

TABLE OF CONTENTS

I.	APPLICANT	5
II.	FACILITY INFORMATION	5
III.	RECEIVING WATER	7
A.	Water Quality Standards	7
B.	Water Quality Limited Segment and TMDL	8
IV.	EFFLUENT LIMITATIONS.....	9
A.	Basis for Permit Effluent Limits.....	9
B.	Proposed Effluent Limitations.....	9
C.	Best Management Practices	10
V.	MONITORING REQUIREMENTS	10
A.	Basis for Effluent and Surface Water Monitoring.....	10
B.	Effluent Monitoring.....	10
VI.	SLUDGE (BIOSOLIDS) REQUIREMENTS.....	12
VII.	OTHER PERMIT CONDITIONS	12
A.	Quality Assurance Plan	12
B.	Best Management Practices Plan	12
C.	Electronic Submission of Discharge Monitoring Reports.....	12
D.	Additional Permit Provisions.....	13
VIII.	OTHER LEGAL REQUIREMENTS	13
A.	Endangered Species Act	13
B.	State Certification	14
C.	Permit Expiration	14
IX.	REFERENCES.....	14
	Appendix A – Receiving Water	15
	Appendix B – Basis for Effluent Limitations	16
A.	Technology-Based Effluent Limits	16
B.	Water Quality-Based Effluent Limits	18

ACRONYMS

7Q10	7 day, 10 year low flow
AML	Average Monthly Limit
BAT	Best Available Treatment Technology Economically Achievable
BPT	Best Practicable Control Technology Currently Available
BOD ₅	Biochemical oxygen demand, five-day
BE	Biological evaluation
°C	Degrees Celsius
cfs	Cubic feet per second
CFR	Code of Federal Regulations
CV	Coefficient of Variation
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved oxygen
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
lbs/day	Pounds per day
LTA	Long Term Average
mg/L	Milligrams per liter
ml	Milliliters
ML	Minimum Level
µg/L	Micrograms per liter
mgd	Million gallons per day
MDL	Maximum Daily Limit
N	Nitrogen
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
OW	Office of Water
O&M	Operations and maintenance
POTW	Publicly owned treatment works
QAP	Quality assurance plan
RP	Reasonable Potential
RPM	Reasonable Potential Multiplier
s.u.	Standard Units
TMDL	Total Maximum Daily Load
TSD	Technical Support document (EPA, 1991)
TSS	Total suspended solids
USFWS	U.S. Fish and Wildlife Service
WLA	Wasteload allocation
WQBEL	Water quality-based effluent limit
WWTP	Wastewater treatment plant

I. APPLICANT

This fact sheet provides information on the draft NPDES permit for the following entity:

Jerome Cheese Company
NPDES Permit Number: ID-002760-0

Physical Address:
47 West 100 South
Jerome, Idaho 83338

Mailing Address:
P.O. Box 485
Jerome, Idaho 83338

Facility Contact:
Dave Moore, 208-324-8806

II. FACILITY INFORMATION

Jerome Cheese Company (Jerome Cheese) owns, operates, and has maintenance responsibility for a cheese manufacturing and whey drying facility (Standard Industrial Codes “SIC” 2022) located in Jerome County in south central Idaho.

Treatment Process

Approximately 6,500,000 pounds of raw milk are processed per day as part of cheese manufacturing. Prior to September, 2010 the facility discharged up to 0.756 million gallons per day (mgd) to the Lateral 12 tributary to the N Canal. Currently only reverse osmosis water is discharged to Lateral 12 at a rate of approximately 0.2 mgd with the remaining wastewater discharged to the City of Jerome sewage treatment plant. (Personal communication with Dave Moore, Jerome Cheese Company).

Wastewater Discharges

Milkfat exists as globules of a triglyceride wrapped in a phospholipid-protein membrane. This is the source of phosphorus in the wastewater. The principal by-product of cheese manufacturing is whey. Wastewater comes from two process streams, evaporative condensate wastewater and reverse osmosis wastewater.

Evaporative condensate wastewater is water that is evaporated, separated from the cheese and whey using an evaporator system and then condensed. The condensate is used for cooling and cleaning process equipment. When not enough condensate is available for cooling and cleaning, the supply may be augmented by groundwater. Condensate or condensate augmented with groundwater is discharged to an equalization tank, pH adjusted and then discharged to the City of Jerome sewage treatment plant. The second process stream is water that is the output of reverse-osmosis systems, which concentrates whey proteins from the whey. This output water is discharged to Lateral 12.

The NPDES application requested authorization to discharge 0.756 million gallons per day to Lateral 12. Jerome Cheese described the cooling water discharged as “non-contact cooling

water” in the application because once the water is separated from the milk or whey it never again comes into contact with the milk or whey. This “non-contact cooling water” is in fact composed of evaporator condensate that is process water.

Recently the volume of wastewater discharges has been reduced by 60,000 gallons per day by substituting ground water, formerly used for boiler feed water, with evaporative condensate wastewater and by evaporating the condensate wastewater in cooling towers.

Outfall Location

Effluent from the Jerome Cheese facility is discharged from Outfall 001, located at latitude: N 42° 42' 35"; longitude: W 104° 31' 10" to the Lateral 12 leading to the N Canal owned and operated by the North Side Canal Company of Jerome, Idaho. See Appendix A for a location map and a map of the discharge to the N Canal. The N Canal flows in a southerly direction, diverging into the N23, N30 and N33 canals. According to information provided by the North Side Canal Company, approximately 80% of the flow in the N Canal enters N30 and the remaining flow enters N23 and N33 (15 and 5%, respectively). The N23 and N30 Canals flow directly into the segment of the Snake River between the Milner-Gooding Canal and Box Canyon Creek and the N33 Canal enters this segment via the K Canal.

Permit History

The previous NPDES permit for this facility became effective on October 1, 2001 and expired on October 2, 2006. Jerome Cheese submitted a timely permit application package on May 11, 2006. Thus, pursuant to 40 CFR 122.6, the permit was administratively extended. An updated application was submitted on February 27, 2009.

The EPA last inspected the facility on February 26, 2009 and on April 2, 2009.

The previous permit included the following effluent limits and monitoring requirements:

Table 1: Effluent Limitations and Monitoring Requirements from the Previous Permit					
Parameter	Units	Monthly Avg.	Daily Max	Sample Frequency	Sample Type
Flow – MGD		---	---	Daily	Recording
Biochemical Oxygen Demand (BOD ₅)	mg/l	30	45	weekly	Grab
	lbs/day	124	187		
Total Suspended Solids (TSS) ¹	mg/l	0	0	weekly	Grab
	lbs/day	0	0		
Fecal Coliform Bacteria ²	# /100ml	0	0	weekly	Grab
Temperature	°C	---	---	daily	Grab
Dissolved Oxygen	mg/l	---	---	daily	Grab
Total Ammonia as Nitrogen (April 1- October 31)	mg/l	8.2	20.5	monthly	Grab
	lbs/day	33.9	84.8		
Total Phosphorus as P ³	mg/l	0	0	monthly	Grab
	lbs/day	0	0		
Nitrate as Nitrogen	mg/l	---	---	quarterly	Grab
Nitrite as Nitrogen (November 1- March 31)	mg/l	2.9	10.0	monthly	Grab
	lbs/day	12.2	41.5		
Total Kjeldahl Nitrogen mg/L	mg/l	---	---	quarterly	Grab

Parameter	Units	Monthly Avg.	Daily Max	Sample Frequency	Sample Type
Orthophosphate as P mg/L	mg/l	---	---	monthly	Grab
Turbidity	NTU	---	---	monthly	Grab
pH	s.u.	6 - 9		daily	Grab
1 Minimum level is 4 mg/L for total suspended solids.					
2 Minimum level is < 1 organism per 100 ml for fecal coliform bacteria.					
3 Method detection limit is 0.010 mg/L total phosphorus as P.					

Compliance History

Monitoring data from March 2006 through November, 2008 were reviewed to determine the facility's compliance with the previous effluent limits.

The total nitrogen ammonia limitation was violated in July, 2006 with discharges of 9.3 mg/L.

From September 30, 2006 to April 30, 2009 Jerome Cheese violated the concentration and mass based zero pounds of phosphorus per day monthly average and daily maximum effluent limitations for phosphorus each month of each year except for April, 2007. The phosphorus discharges ranged from 0.033 to 6.71 pounds per day and from 0.05 to 2.18 mg/l. Since all but the reverse osmosis water is now discharged to the City of Jerome sewage treatment plant there have been no violations of the phosphorus limits from September, 2010 to present.

III. RECEIVING WATER

A. Water Quality Standards

Section 301(b)(1)(c) of the CWA requires the development of limitations in permits necessary to meet water quality standards. Federal regulations in 40 CFR 122.4(d) prohibits the issuance of an NPDES permit which does not ensure compliance with the water quality standards of all affected States.

Idaho Water Quality Standards (WQS) summarize the surface water use designations for the State of Idaho: that all waters of the State of Idaho are protected for the uses of industrial and agricultural water supply (IDAPA 58.01.02.100.03.b and c), wildlife habitats (IDAPA 58.01.02.100.04) and aesthetics (IDAPA 58.01.02.100.05). The WQS in Sections 252.02, 252.03, and 253 require that industrial and agricultural water supply uses are to be protected by narrative criteria in IDAPA 58.01.02.200. These narrative criteria require that all surface waters of the State shall be free from hazardous materials, toxic substances, deleterious materials, radioactive materials; floating, suspended or submerged matter; excess nutrients; oxygen-demanding materials; and sediment concentrations which would impair beneficial uses. The permit contains a narrative limitation prohibiting the discharge of floating solids or visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

The discharge is to the Lateral 12 tributary which is a tributary to the N Canal. The N Canal flows into the Snake River. A State's water quality standards are composed of use classifications, numeric and narrative water quality criteria, and an anti-degradation policy. The use classification system designates the beneficial uses (such as cold water biota, contact

recreation, etc.) that each water body is expected to achieve. The numeric and narrative water quality criteria are the criteria deemed necessary, by the State, to support the beneficial uses as well as to maintain and protect various levels of water quality and uses.

Lateral 12 and the N. Canal are not designated in the Idaho Water Quality Standards Sections 110 through 160. Therefore, in accordance with IDAPA 58.01.02.101.01, as an undesignated surface water, the beneficial uses are cold water aquatic life and primary contact recreation.

In addition, the Idaho Water Quality Standards state that all waters of the State of Idaho are protected for industrial and agricultural water supply (Section 100.03.b and c.), wildlife habitats (100.04) and aesthetics (100.05). In addition, pursuant to CWA Section 101(a)(2), all waters must be assigned a designation consistent with the fishable and swimmable goal of the CWA unless that use is removed as a result of a use attainability analysis. A use attainability analysis has not been performed for the N Canal or Lateral 12 therefore the following beneficial use classifications apply to the N Canal and Lateral 12: cold water biota, primary contact recreation, domestic water supply, wildlife habitat and aesthetics.

The WQS in Section 252.02 state that the criteria in Water Quality Criteria 1972, also referred to as the “Blue Book” (EPA R3-73-033) can be used to determine numeric criteria for the protection of water supply. Specifically, the WQS states the following:

“Agricultural. Water quality criteria for agricultural water supplies will generally be satisfied by the water quality criteria set forth in Section 200. Should specificity be desirable or necessary to protect a specific use, ‘Water Quality Criteria 1972’ (Blue Book), Section V, Agricultural Uses of Water, EPA, March, 1973 will be used for determining criteria.”

Antidegradation

The EPA is required under Section 301(b)(1)(C) of the Clean Water Act (CWA) and implementing regulations (40 CFR 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. IDEQ has provided the EPA with an antidegradation analysis in the State’s 401 certification that complies with the State’s antidegradation implementation procedures.

B. Water Quality Limited Segment and TMDL

In accordance with section 303(d) of the Clean Water Act, States must identify waters not achieving water quality standards in spite of application of technology-based controls in NPDES permits for point sources. Such waterbodies are known as water quality limited segments (WQLSs), and the list of such waterbodies is called the “303(d) list.” Once a water body is identified as a WQLS, the States are required under the Clean Water Act to develop a total maximum daily load (TMDL). Any waterbody for which the water quality does not meet, applicable water quality standards is defined as a “water quality limited segment.”

The TMDL documents the amount of a pollutant a water body can assimilate without violating a state’s water quality standards and allocates that load to known point sources and nonpoint sources.

The segment of the Snake River to which the N Canal discharges was identified on the State of Idaho 303(d) list because it did not attain the state water quality standards for sediment (TSS), nutrients, dissolved oxygen, temperature and bacteria.

The State of Idaho developed The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan), The Upper Snake Rock Subbasin Assessment and The Upper Snake Rock Total Maximum Daily Load, December 20, 1999 (Upper Snake Rock TMDL) which was approved by the EPA in 2000. The TMDL established allocations for total phosphorus, TSS and bacteria. Jerome Cheese was assigned a total phosphorus WLA of 0 lbs/day, a TSS WLA of 0 lbs/day and a fecal coliform WLA of 0 counts per 100 milliliters.

IV. EFFLUENT LIMITATIONS

A. Basis for Permit Effluent Limits

In general, the CWA requires that the limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality based effluent limit is designed to ensure that the water quality standards of a waterbody are being met and they may be more stringent than technology-based effluent limits. The basis for the proposed effluent limits in the draft permit are provided in Appendix B.

B. Proposed Effluent Limitations

Table 2 presents the proposed average monthly and maximum daily effluent limitations for Outfall 001.

Parameter	Units	Monthly Avg.	Daily Max	Instantaneous Maximum	Sample Frequency	Sample Type
Flow	MGD	---	---	---	Daily	Recording
Biochemical Oxygen Demand BOD ₅	mg/l	14	16	---	weekly	Grab
	lbs/day	51	101	---	weekly	calculated
Total Suspended Solids (TSS) ¹	mg/l	0	0	---	weekly	Grab
	lbs/day	0	0	---	weekly	calculated
E. coli ²	#/100ml	0	0	---	weekly	Grab
Total Phosphorus as P ³	mg/l	0	0	---	monthly	Grab
	lbs/day	0	0	---	monthly	calculated
Nitrite as N (November 1- March 31)	mg/l	2.94	10	---	monthly	Grab
	lbs/day	12.2	41.5	---	monthly	calculated
Total Ammonia as N	mg/l	0.53	2.33	---	monthly	Grab
	lbs/day	3.34	13.8	---	monthly	calculated
Temperature	°C	---	19	22	Continuous	Recording
pH	s.u.	6.5 - 9.0		---	daily	Grab
1 Minimum level is 4 mg/L for total suspended solids.						
2 Minimum level is < 1 organism per 100 ml for <i>E. coli</i> .						
3 Method detection limit is 0.010 mg/L total phosphorus as P.						

C. Best Management Practices

In accordance with NPDES regulations at 40 CFR 122.44 (k), best management practices (BMPs) can be used to control or abate the discharge of pollutants in several circumstances, including, when numeric effluent limitations are infeasible. BMPs are defined at 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. The inclusion of BMPs as requirements in discharge permits is authorized by CWA Section 304 (e).

V. MONITORING REQUIREMENTS

Section II.B. of the permit requires the permittee, within 90 days of the effective date of the permit, to develop and implement a BMP Plan to minimize the generation and the potential for the release of pollutants from the facility to the waters of the United States through normal and ancillary activities.

A. Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality. The permittee is responsible for conducting the monitoring and for reporting results on the discharge monitoring reports (DMRs) to the EPA.

B. Effluent Monitoring

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples can be used for averaging if they are conducted using the EPA approved test methods (generally found in 40 CFR 136) and if the Method Detection Limits (MDLs) are less than the effluent limits. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

BOD₅, TSS, *E. coli*, Flow, Total Phosphorus, pH, Ammonia, Temperature and Nitrite

The permit requires monitoring BOD₅, TSS, *E. coli*, fecal coliform, flow, total phosphorus, pH, ammonia, temperature and nitrite to determine compliance with the effluent limits.

Nitrate-Nitrite Nitrogen

Nitrate-nitrite nitrogen does not have a reasonable potential to violate the 100 ppm standard for the N Canal therefore, an effluent limit was not established for nitrate-nitrite nitrogen. As such, the EPA is not requiring monitoring for nitrate-nitrite nitrogen in this permit. See Appendix B.

Ortho-Phosphorus, Kjeldahl Nitrogen, Nitrate - Nitrite (as N),

IDEQ and the EPA agree that since total phosphorus is the primary limiting nutrient and the downstream Upper Snake Rock TMDL includes a WLA for total phosphorus, continued ortho-phosphorus, kjeldahl nitrogen and nitrate – nitrite monitoring will provide no

additional useful information. Moreover, since issuance of the existing permit which requires monitoring of these parameters, IDEQ has required only the control of total phosphorus to meet nutrient targets in state receiving waters. Therefore, monitoring for these parameters has been discontinued in this reissued permit.

E. coli

Waters of the State of Idaho that are designated for recreation are not to contain *E. coli* bacteria in concentrations exceeding 126 organisms per 100 mL as a geometric mean based on a minimum of five samples taken every three to seven days over a thirty day period (IDAPA 58.01.02.251.01.a). However due to the prohibition on backsliding and the assigned waste load allocation the effluent limitation is zero. See Appendix B.

Dissolved Oxygen

As previously explained, Idaho water quality standards require the use of Blue Book criteria for waters designated agricultural water supply. The Blue Book does not list a criteria for dissolved oxygen (DO) that is applicable to Lateral 12 or the N Canal. The Snake River is listed as impaired for DO on the State of Idaho's 303(d) list. The Snake River is six miles downstream from the discharge point.

According to IDEQ, the control of DO is not required to protect the Snake River in the vicinity of the N Canal discharge. Instead, IDEQ requires the control of total phosphorus. Moreover, the stretch of the Snake River that is listed as impaired for DO is from Milner Dam to Twin Falls Reservoir (Milner Dam to Murtaugh; Murtaugh to Twin Falls Reservoir). The N Canal does not discharge into these sections of the Snake River. Further, IDEQ has stated that "...the 2000 Upper Snake Rock TMDL did not consider DO as a pollutant, because no evidence was found (based on water quality monitoring of the Snake River) that DO was a problem. Consequently, DEQ doesn't consider this a relevant issue for the Snake River." (E-mail Buhidar Balthasar IDEQ to John Drabek, April 1, 2009).

Nutrient concentrations are closely linked with dissolved oxygen and organic matter concentrations. Elevated concentrations of nutrients can lead to increased growth of algae and associated organic matter when other conditions such as water flow, depth, clarity, sunlight penetration and temperature are conducive to enhanced growth. Algae and aquatic plants in turn consume oxygen from the water column during periods when respiration is the dominant process and in the aerobic decomposition of the dead algae and other detritus (non-living organic material). According to the Upper Snake Rock TMDL the imposed total phosphorus reductions for the Upper Snake will cause plant biomass to decrease between 20 to 60 percent, thus leading to levels below those considered to be a "nuisance" and will likely restore beneficial uses. It also states that for all industries, including Jerome Cheese, DO is linked to the total phosphorus WLAs, such that decreases in total phosphorus will result in increases in the DO and decreases in aquatic macrophyte growth in the Middle Snake River and its tributaries. Therefore, IDEQ did not propose a TMDL for DO on the Middle Snake River or its tributaries. Further, according to the 2010 Integrated Report: Section 5 (§303(d)) page 77, HUC 17040212 Upper Snake-Rock, low DO is due to suspected organic enrichment.

For these reasons dissolved oxygen monitoring will be discontinued in the reissued permit.

Turbidity

As previously explained, the beneficial use classification for the N Canal and Lateral 12 is cold water biota. The parameter used to determine sediment impacts is TSS, which has an effluent limitation in the permit of zero based on the WLA in the Upper Snake River TMDL. Turbidity correlates closely to levels of suspended sediment according to the Upper Snake Rock TMDL (Page 119). Since the TSS effluent limitation is zero, there is no reasonable potential to violate the water quality standard of fifty nephelometric turbidity units over background for cold water biota. Turbidity monitoring is discontinued.

VI. SLUDGE (BIOSOLIDS) REQUIREMENTS

The EPA separates wastewater and sludge permitting. Under the CWA, the EPA has the authority to issue separate sludge-only permits for the purposes of regulating biosolids. The EPA may issue a sludge-only permit to the facility at a later date, as appropriate.

Until future issuance of a sludge-only permit, sludge management and disposal activities at the facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503 and any requirements of the State's biosolids program. The Part 503 regulations are self-implementing, which means that permittees must comply with them whether or not a permit has been issued.

VII. OTHER PERMIT CONDITIONS

A. Quality Assurance Plan

The federal regulation at 40 CFR 122.41(e) requires the permittee to develop procedures to ensure that the monitoring data submitted is accurate and to explain data anomalies if they occur. The permittee is required to develop and implement a Quality Assurance Plan within 90 days of the effective date of the final permit. The Quality Assurance Plan shall consist of standard operating procedures the permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis and data reporting. The plan shall be retained on site and made available to the EPA upon request.

B. Best Management Practices Plan

The permit requires the permittee to properly operate and maintain all facilities and systems of treatment and control. Proper operation and maintenance is essential to meeting discharge limits, monitoring requirements, and all other permit requirements at all times. The permittee is required to develop and implement a Best Management Practices Plan for the facility within 90 days of the effective date of the final permit. The plan shall be retained on site and made available to the EPA upon request.

C. Electronic Submission of Discharge Monitoring Reports

The draft permit includes new provisions to allow the permittee the option to submit Discharge Monitoring Report (DMR) data electronically using NetDMR. NetDMR is a national web-based tool that allows DMR data to be submitted electronically via a secure Internet application. NetDMR allows participants to discontinue mailing in paper forms under 40 CFR § 122.41 and § 403.12. The permittee may use NetDMR after requesting and receiving permission from EPA Region 10.

Under NetDMR, all reports required under the permit are submitted to EPA as an electronic

attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it is no longer required to submit paper copies of DMRs or other reports to EPA and IDEQ.

EPA encourages permittees to sign up for NetDMR, and currently conducts free training on the use of NetDMR. Further information about NetDMR, including upcoming trainings and contacts, is provided on the following website: <http://www.epa.gov/netdmr>.

D. Additional Permit Provisions

Sections III, IV and V of the draft permit contain standard regulatory language that must be included in all NPDES permits. Because they are regulations, they cannot be challenged in the context of an NPDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

VIII. OTHER LEGAL REQUIREMENTS

A. Endangered Species Act

The Endangered Species Act requires federal agencies to consult with National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) and the U.S. Fish and Wildlife Service (FWS) if their actions could adversely affect any threatened or endangered species. The EPA has determined that there are no listed species in the vicinity of the discharge; therefore, the issuance of this proposed permit will have no effect on listed species.

In an e-mail dated January 21, 2009, NOAA Fisheries stated that there are no threatened or endangered species under NOAA's jurisdiction in the Snake River drainage upstream of the Hells Canyon Dam, which is located at river mile 247.5. Jerome Cheese is more than 100 miles upstream from the Hells Canyon Dam and the nearest ESA-listed threatened or endangered species under NOAA's jurisdiction. Therefore, the reissuance of this permit will have no effect on any listed threatened or endangered species under NOAA's jurisdiction.

The U.S. Fish and Wildlife Service identified the Snake River physa snail (*Physa natricina*) as endangered and the bliss rapids snail (*Taylorconcha serpenticola*) as threatened in the mainstem of the Snake River.

Based on the following considerations, the EPA concludes that this permit has no effect on endangered or threatened species under the jurisdiction of the U.S. Fish and Wildlife Service.

There are no listed species in the vicinity of the outfall into Lateral 12 or in the N Canals. Six miles separate the outfall from the mainstem of the Snake River listed on the U.S. Fish and Wildlife Species Profile as the distribution area for the Snake River physa snail and the bliss rapids snail.

Infiltration of all the waste water during winter eliminates discharges to the mainstem of the Snake River identified as the distribution area for the Snake River physa snail and the bliss rapids snail.

Distribution of treated wastewater for "livestock enterprise and irrigation water" during the summer results in low flows reaching the mainstem of the Snake River identified as the distribution area for the Snake River physa snail and the bliss rapids snail.

Therefore, EPA finds that this permit has no effect on ESA-listed threatened or endangered species and/or critical habitat.

B. State Certification

The EPA is requesting that IDEQ certify the NPDES permit for this facility, under section 401 of the Clean Water Act. This Notice also serves as Public Notice of the intent of the State of Idaho to consider certifying that the subject discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act. The NPDES permit will not be issued until the EPA has received a final CWA 401 certification or certification has been denied or waived. As a result of the certification, the State may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with water quality standards.

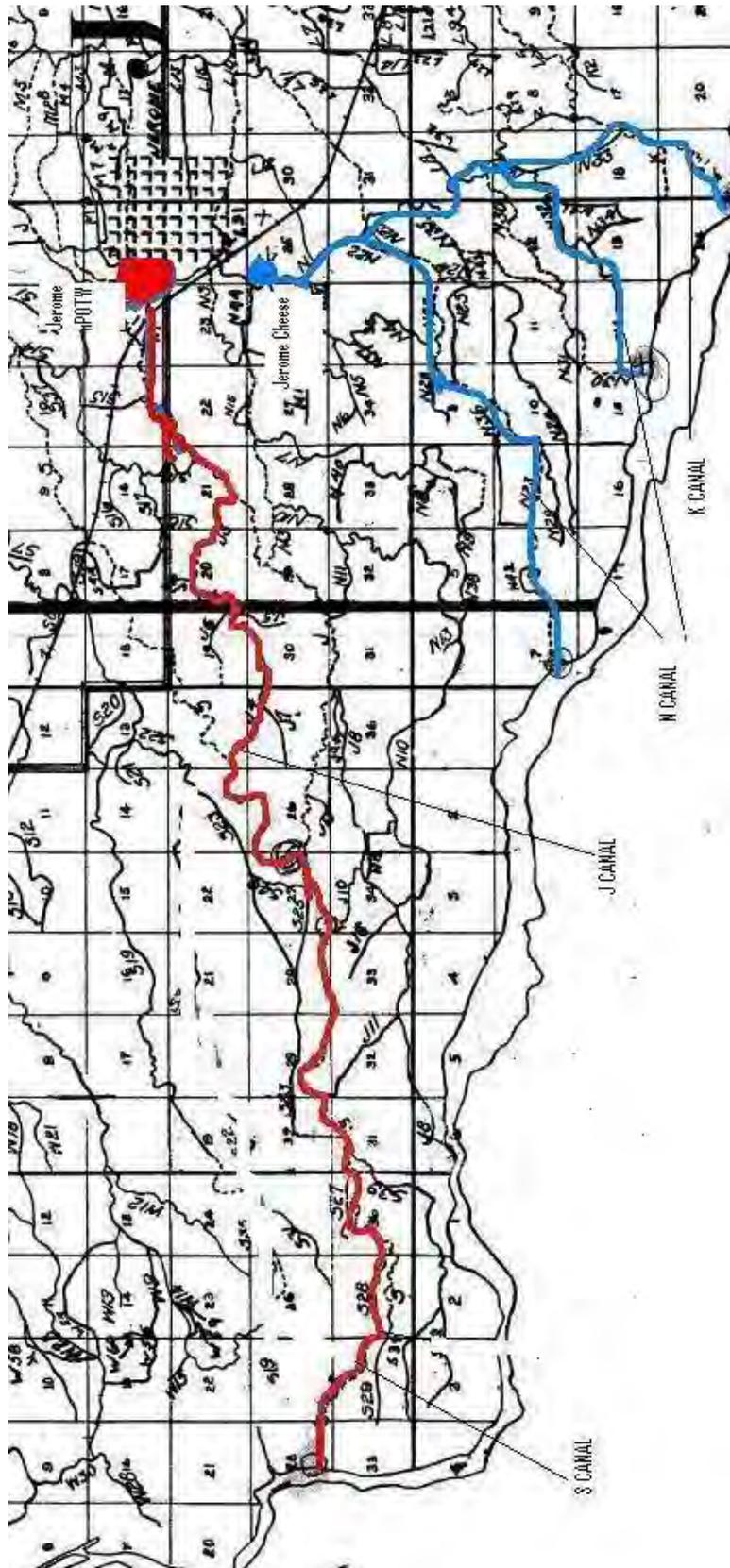
C. Permit Expiration

The permit will expire five years from the effective date of the permit.

IX. REFERENCES

1. Jerome Cheese Company, NPDES permit, effective October 1, 2001 to October 2, 2006.
2. The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan), The Upper Snake Rock Subbasin Assessment & The Upper Snake Rock Total Maximum Daily Load, December 20, 1999
3. EPA. 1991. Technical Support Document for Water Quality-based Toxics Control. US Environmental Protection Agency, Office of Water, EPA/505/2-90-001.
4. EPA, 1996. U.S. EPA NPDES Permit Writer's Manual, US Environmental Protection Agency, Office of Water, EPA-833-B-96-003.
5. Water Quality Criteria 1972' (Blue Book), Section V, Agricultural Uses of Water, EPA, March, 1973

Appendix A – Receiving Water



Appendix B – Basis for Effluent Limitations

The following discussion explains in more detail the statutory and regulatory basis for the technology and water quality-based effluent limits in the draft permit. Part A discusses technology-based effluent limits, Part B discusses water quality-based effluent limits in general and Part C discusses facility specific water quality-based effluent limits.

A. Technology-Based Effluent Limits

Jerome Cheese Company is subject to the federal technology-based requirements for biochemical oxygen demand (BOD₅), total suspended solids (TSS) and pH (40 CFR §405.65 and 405.66) which specify daily and monthly average limits for BOD₅ and TSS based on BOD₅ input of the materials entering into the process.

BOD₅

Loading limits based on the current processing capacity of 6.5 million pounds of raw milk per day are calculated by multiplying the pounds of BOD₅ input per day by the limits specified in 40 CFR §405.65.

Calculation of BOD₅ input to the plant.

From Davisco Foods International, Jon Davis, letter dated January 6, 2000. This milk composition was confirmed as current by Jerome Cheese in 2010.

Milk Composition

3.5 percent fat (butterfat)

3.2 percent protein

4.75 percent lactose (carbohydrates)

Milk Weight Input to Plant

6,500,000 pounds per day

BOD₅ input calculation:

6,500,000 lbs/day x 0.035 = 228,000 lbs of fat

6,500,000 lbs/day x 0.032 = 208,000 lbs of protein

6,500,000 lbs/day x 0.048 = 312,000 lbs of carbohydrates

Standards of performance for the Natural and Processed Cheese Subcategory 40CFR 405.65

The standards of performance for new sources are:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
BOD ₅	0.016	0.008
TSS	0.020	0.010
pH	(¹)	(¹)

¹Within the range 6.0 to 9.0.

BOD₅ input can be calculated by multiplying the fats, proteins and carbohydrates input materials by factors of 0.890, 1.031 and 0.691 respectively.

$$228,000 \text{ lbs fat} \times 0.890 = 202,000 \text{ BOD}_5$$

$$208,000 \text{ lbs protein} \times 1.031 = 214,000 \text{ BOD}_5$$

$$312,000 \text{ lbs carbohydrates} \times 0.691 = \underline{216,000 \text{ BOD}_5}$$

$$\text{Total BOD}_5 \text{ Input} = 632,000 \text{ lbs BOD}_5$$

$$\text{Monthly Average Loading} = (632,000 \text{ lbs BOD}_5 \text{ input /day})(0.008 \text{ lbs/100 lbs BOD}_5 \text{ input}) = 50.6 \text{ lbs/day}$$

$$\text{Maximum Daily Loading} = (632,000 \text{ lbs BOD}_5 \text{ input /day})(0.016 \text{ lbs/100 lbs BOD}_5 \text{ input}) = 101 \text{ lbs/day.}$$

Categorical limitations in the existing permit were derived using the wrong categorical standards of performance. The categorical standards were for condensed milk. These were 0.038 lbs/100 lbs BOD₅ monthly average loading and 0.076 lbs/100 lbs BOD₅ maximum daily. This resulted in mass loadings of 124 lbs/day average monthly and 187 lbs/day maximum daily as effluent limitations.

The limitations based on the correct standards of performance in 40 CFR §405.65 and 405.66 are more stringent than the existing limitations.

Comparison of Existing and New Technology-based Limits for BOD ₅		
Parameter	Average Monthly Limit	Daily Maximum Limit
Existing Permit	124 lbs/day	187 lbs/day
Reissued Permit	51 lbs/day	101 lbs/day
Most stringent	51 lbs/day	101 lbs/day

The concentration-based limitation is calculated using the flow rate and a conversion factor.

Average Monthly Limit = concentration (mg/L) × flow (mgd) × 8.34 = Mass loading lbs/day

$$\frac{\text{Average Monthly Mass loading (lbs/day)}}{\text{Flow (mgd) x 8.34}} = \text{concentration (mg/L)}$$

The monthly concentration limit is based on the long term flow rate. The long term flow rate reported in Form 2C, Section II.C. for Outfall 001 is 0.45 mgd.

$$\frac{51 \text{ lbs/day}}{0.45 \text{ mgd} \times 8.34} = 14 \text{ mg/L}$$

The maximum daily concentration limit is based on the maximum daily flow rate. The maximum daily flow rate is 0.756 mgd.

$$\frac{101 \text{ lbs/day}}{0.756 \text{ mgd} \times 8.34} = 16.0 \text{ mg/L}$$

TSS

The surface water quality based limit is 0.0 mg/L and 0.0 lbs/day based on the waste load allocation in the Upper Snake Rock TMDL. These are more stringent than the technology based limitations in 40 CFR §405.65 and 405.66 which establishes a monthly TSS limit of 6,300 lbs/day and a daily limit of 12,600 lbs/day.

B. Water Quality-Based Effluent Limits

The following discussion is divided into four sections. Section 1 discusses the statutory basis for including water quality based effluent limits in NPDES permits, Section 2 discusses the procedures used to determine if water quality based effluent limits are needed in an NPDES permit, Section 3 discusses the procedures used to develop water quality based effluent limits, and Section 4 discusses the specific water quality based limits.

1. Statutory Basis for Water Quality-Based Limits

Section 301(b)(1)(C) of the CWA requires the development of limitations in permits necessary to meet water quality standards by July 1, 1977. Discharges to state/tribal waters must also comply with limitations imposed by the state/tribe as part of its certification of NPDES permits under section 401 of the CWA.

The NPDES regulation (40 CFR 122.44(d)(1)) implementing section 301 (b)(1)(C) of the CWA requires that 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/tribal water quality standard, including state/tribal narrative criteria for water quality.

The regulations require that this evaluation be made using procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant in the effluent, species sensitivity (for toxicity), and where appropriate, dilution in the receiving water. The limits

must be stringent enough to ensure that water quality standards are met, and must be consistent with any available wasteload allocation.

2. Reasonable Potential Analysis

When evaluating the effluent to determine if water quality-based effluent limits are needed based on chemical specific numeric criteria, a projection of the receiving water concentration (downstream of where the effluent enters the receiving water) for each pollutant of concern is made. The chemical specific concentration of the effluent and receiving water and, if appropriate, the dilution available from the receiving water are factors used to project the receiving water concentration. If the projected concentration of the receiving water exceeds the numeric criterion for a specific chemical, then there is a reasonable potential that the discharge may cause or contribute to an excursion above the applicable water quality standard, and a water quality-based effluent limit is required.

Sometimes it is appropriate to allow a small area of receiving water to provide dilution of the effluent, these areas are called mixing zones. Mixing zone allowances will increase the mass loadings of the pollutant to the water body, and decrease treatment requirements. Mixing zones can be used only when there is adequate receiving water flow volume and the receiving water is below the chemical specific numeric criterion necessary to protect the designated uses of the water body. Mixing zones must be authorized by IDEQ.

3. Procedure for Deriving Water Quality-Based Effluent Limits

The first step in developing a water quality based permit limit is to develop a wasteload allocation (WLA) for the pollutant. A wasteload allocation is the concentration or loading of a pollutant that the permittee may discharge without causing or contributing to an exceedance of water quality standards in the receiving water.

4. Specific Water Quality-Based Effluent Limits

Nitrate-Nitrite as N

As previously explained, Idaho water quality standards require the use of Blue Book criteria for waters designated as agricultural water supply. The Blue Book standard for nitrate-nitrite nitrogen in drinking water for livestock and poultry is 100 ppm. Based on information provided by the North Side Canal Company, there is no flow expected in the N Canal upstream from the location of the discharge during the non-irrigation season (November 1 to March 31). Therefore no mixing zone can be granted and the dilution ratio is one. Even without a mixing zone no reasonable potential exists for nitrate-nitrite discharges to violate the standard at the point of discharge.

Reasonable Potential Calculation for Livestock Enterprise

		State Water Quality Standard	Max concentration at edge of...	Calculations								
	Ambient Concentration	Chronic	Chronic Mixing Zone	LIMIT REQ'D?	Effluent percentile value		Max effluent conc. measured	Coeff Variation		# of samples	Multiplier	Chronic Dil'n Factor
Parameter	mg/L	mg/L	mg/L			Pn	mg/L	CV	s	n		
Nitrate + Nitrite	16.6	100	30.7	NO	0.99	0.87	14.4	2.70	1.4	33	2.13	1
Nitrite	2.95	10	6.2	NO	0.99	0.87	5.6	0.21	0.21	22	1.11	1

Effluent and Ambient Nitrogen Monitoring Data

Effluent mg/L			
Nitrate	Nitrite	Date	Nitrate + Nitrite
	0.02	3/13/2006	0.02
	0.02	4/13/2006	0.02
0.17		5/15/2006	0.17
		6/12/2006	0.00
		7/14/2006	0.00
0.43		8/14/2006	0.43
		9/11/2006	0.00
		10/12/2006	0.00
0.05		11/15/2006	0.05
		12/14/2006	0.00
	0.02	1/12/2007	0.02
0.31	0.02	2/12/2007	0.33
		3/12/2007	0.00
0.20		4/13/2007	0.20
0.00		5/14/2007	0.00
0.40	0.00	6/15/2007	0.40
1.00	0.02	7/13/2007	1.02
0.33	0.02	8/15/2007	0.35
0.30	0.03	9/14/2007	0.33
0.30	0.20	10/15/2007	0.50
13.90	0.50	11/13/2007	14.40
0.30	5.60	12/18/2007	5.90
0.70	0.20	1/17/2008	0.90
0.50	0.20	2/11/2008	0.70
0.30	0.02	3/17/2008	0.32
0.30	1.00	4/14/2008	1.30
0.90	0.02	5/15/2008	0.92
0.30	0.13	6/11/2008	0.43
0.20	0.20	7/14/2008	0.40
0.50	0.20	8/14/2008	0.70
1.00	0.20	9/12/2008	1.20
0.35	0.20	10/14/2008	0.55
0.33	0.20	11/17/2008	0.53
		Maximum	14.4
		std dev	2.62
		mean	0.97
		CV	2.70

Ambient mg/L			
Nitrate	Nitrite	Date	Nitrate + Nitrite
<0.03	<0.03	5/15/2006	<0.06
<0.03	<0.03	6/12/2006	<0.06
<0.03	<0.03	7/14/2006	<0.06
0.68	0.68	8/14/2006	1.36
<0.03	<0.03	9/11/2006	<0.06
<0.03	<0.03	10/12/2006	0.05
0.14	<0.03	<0.03	0.17
0.14	<0.03	<0.03	0.17
0.21	0.21	5/14/2007	0.42
0.27	0.27	6/15/2007	0.53
0.12	0.12	7/13/2007	0.24
14.40	0.33	8/15/2007	14.7
2.95	2.95	9/14/2007	5.90
0.54	<0.03	10/15/2007	0.57
1.30	1.30	11/13/2007	2.60
1.16	1.16	5/15/2008	2.32
0.31	0.31	6/11/2008	0.62
<0.03	<0.03	<0.03	<0.06
<0.03	<0.03	8/14/2008	<0.06
<0.03	<0.03	9/12/2008	<0.06
<0.03	<0.03	10/16/2008	<0.06
<0.03	<0.03	11/17/2008	<0.06
	2.95	Maximum	14.7

Nitrite as N

As previously explained, Idaho water quality standards require the use of Blue Book criteria for waters designated agricultural water supply. The Blue Book standard for nitrite nitrogen in drinking water for livestock and poultry is 10 ppm. Based on information provided by the North Side Canal Company, there is no flow expected in the N Canal upstream from the location of the discharge during the non-irrigation season (November 1 to March 31). Even without a mixing zone, no reasonable potential exists for nitrite discharges to violate the standard at the end of pipe.

However, Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits, therefore, the effluent limits in the existing permit remain in the reissued permit. The concentration effluent limits are a monthly average of 2.9 mg/L and daily maximum 10.0 mg/L. The mass based effluent limits are a monthly average of 12.2 pounds per day and a daily maximum of 41.5 pounds per day. These limits apply during the period November 1 to March 31.

Ammonia

The Idaho water quality standards contain criteria for the protection of aquatic life from the toxic effects of ammonia (IDAPA 58.01.02.250.01.d.). The water quality standards apply the criteria for early life stages to water bodies (IDAPA 58.01.02.250.01.d.(3)). The criteria are dependent on pH and temperature, because the fraction of ammonia present as the toxic, un-ionized form increases with increasing pH and temperature. Therefore, the criteria become more stringent as pH and temperature increase. Fresh water ammonia criteria are calculated according to the equations in the following table.

Water Quality Criteria for Ammonia	
Acute Criterion	Chronic Criterion
$\frac{0.275}{1+10^{7.204-pH}} + \frac{39}{1+10^{pH-7.204}}$	$\left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}} \right) \times \text{MIN}(2.85, 1.45 \times 10^{0.028 \times (25-T)})$

Ambient ammonia, temperature and pH data are from the surface water monitoring required during the last permit cycle. The 95th percentile of pH and temperature data are used to derive the acute and chronic criteria.

95 th Percentile Ambient pH	8.5
95 th Percentile Ambient Temperature °C	25.6
Highest Background Ammonia mg/L	31
Highest Discharge Ammonia mg/L	9.3

The ammonia criteria are 2.14 mg/L acute and 0.53 mg/L chronic.

As previously explained, the beneficial use classification for the N Canal is cold water biota. The worst case background concentration in the N Canal measured by Jerome Cheese is 31 mg/L is shown below.

Nitrogen, ammonia total (as N) mg/L	Date
0.23	8/14/2006
0.32	10/12/2006
0.37	5/15/2006
0.39	6/12/2006
0.49	7/14/2006
0.5	8/14/2008
0.59	9/11/2006
0.9	10/16/2008
1.67	5/15/2008
2.14	7/14/2008
2.39	10/15/2007
3.39	6/11/2008
3.5	7/13/2007
3.52	11/15/2006
3.52	12/14/2006
7.98	8/15/2007
8.45	11/13/2007
9.02	9/14/2007
13.285	6/15/2007
24.4	5/14/2007
28.7	9/12/2008
31	11/17/2008

Since the background concentration is higher than the water quality standard no mixing zone can be granted. Jerome Cheese must meet the ammonia water quality standards at the point of discharge. Effluent limitations are established at 2.19 mg/L acute, 0.53 mg/L chronic. The mass loading limits are established as follows:

Mass-based limit (lbs/day) = concentration limit (mg/L) × flow (as reported on application Form 2C, Section II.C dated Feb. 27, 2009) (mgd) × 8.34

Mass-based limit acute (lbs/day) = 2.14 mg/L x 0.756 mgd x 8.34 = 13.8 lbs/day

Mass-based limit chronic (lbs/day) = 0.53 mg/L x 0.756 mgd x 8.34 = 3.34 lbs/day

Temperature

As previously explained, the beneficial use classification for Lateral 12 and the N Canal is cold water biota. The water quality standards for temperature are 22°C instantaneous and 19°C maximum daily. Ambient monitoring by Jerome Cheese demonstrates temperatures in Lateral 12 exceed this standard during the summer. The background temperature is higher than the water quality standard. With evaporative condensate effluent temperatures as high as 60 °C, the facility has reasonable potential to exceed temperature criteria. Jerome Cheese must meet the temperature water quality standards at the point of discharge. Effluent limitations are established at 22°C instantaneous and 19°C daily maximum.

TSS

The Upper Snake Rock TMDL contains a WLA of zero for TSS for this facility. This WLA is more stringent than the technology-based effluent limits specified in the ELGs. Therefore, the EPA is required to implement the water quality based effluent limits in the permit. As such, the draft permit retains the monthly average and maximum daily concentration based limits of 0 mg/L and corresponding mass-based limits of 0 lbs/day. Current approved analytical methods specify that concentrations of total suspended solids > 4 mg/L can be reliably detected. Therefore, as in the existing permit, effluent concentrations below this minimum level will be considered in compliance with the 0 mg/L limit.

Escherichia coli (*E. coli*) Bacteria and Fecal Coliform

The N Canal at the point of discharge to the Snake River is designated for primary contact recreation. Waters of the State of Idaho that are designated for recreation are not to contain *E. coli* bacteria in concentrations exceeding 126 organisms per 100 mL as a geometric mean based on a minimum of five samples taken every three to seven days over a thirty day period (IDAPA 58.01.02.251.01.a).

The draft permit includes “criteria end-of-pipe” effluent limits for bacteria, in order to protect contact recreation beneficial uses in the receiving water. In 1986, the EPA updated its criteria to protect recreational use of water recommending an *E. coli* criterion as a better indicator of bacteria levels that may cause gastro-intestinal distress in swimmers than fecal coliform. IDEQ subsequently changed its bacteria criterion from fecal coliform to *E. coli*. The EPA is using *E. coli* as the indicator of bacteria for primary contact recreation that is the indicator organism currently specified in the Idaho water quality standards for contact recreation.

The existing permit limits total fecal coliform to 0 counts per 100 ml. A component of fecal coliform is *E. coli* which is therefore also limited to 0 counts per 100 ml. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit. Therefore the effective existing limit for *E. coli* of 0 counts per 100 ml limitation in the existing permit remains unchanged but is established as *E. coli*, the current IDEQ water quality standard. The proposed permit requires weekly compliance monitoring.

Total Phosphorus

The Upper Snake Rock TMDL contains a total phosphorus WLA of zero mg/L for Jerome Cheese. Pursuant to 40 C.F.R. § 122.44(d)(1)(vii)(B), NPDES permit conditions must be consistent with the assumptions and requirements of available waste load allocations. Further, Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit. The existing phosphorus effluent limitation is zero. Therefore, the existing effluent limit of 0 mg/l is included in the permit.

pH

The federal technology-based requirements for pH (40 CFR §405.65) specify daily and monthly average pH limits of 6.0 to 9.0 standard units. The Idaho water quality standards for aquatic life specify pH limits of 6.5 to 9.5 standard units (IDAPA16.01.02.250.01.a.). The more stringent pH range applies, therefore the draft permit proposes a pH limit of 6.5 to 9.0.

The proposed monitoring frequency is daily in order to determine compliance with federal regulations 40 CFR §405.65.

Visible Sheen and Foam

As previously explained, Idaho water quality standards require the use of Blue Book criteria for waters designated agricultural water supply. The Blue Book requires that irrigation water be free of substances that impart color or odor. Therefore, the permit prohibits the discharge of any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.