



FACT SHEET

Public Comment Period Start Date: March 22, 2017

Public Comment Expiration Date: April 22, 2017

**The United States Environmental Protection Agency (EPA)
Plans To Reissue A Draft National Pollutant Discharge Elimination System (NPDES)
Permit**

**Sorrento Lactalis, Inc.
4912 Franklin Road
Nampa, ID 83687**

Technical Contact:

John Drabek

Email: drabek.john@epa.gov

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

Permit No. ID0020837

EPA is Reopening for Public Comment a Draft NPDES Permit

The initial public period for this permit opened on August 12, 2016 and closed on September 12, 2016. The EPA has revised the draft permit to include significant changes from the version that was issued for public comment on August 12, 2016. Therefore, the EPA is reopening the public comment period to take comment on the changes that are listed below in the “Public Comment” section.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- the revised proposed effluent limitations and other conditions for the facility
- technical material supporting the changed conditions in the permit

State Certification for Facilities that Discharge to State Water

Section 401 of the federal Clean Water Act requires the EPA to seek State certification before issuing a final permit. On April 19, 2015 the Idaho Department of Environmental Quality (IDEQ) issued a draft Section 401 Water Quality Certification for the reissuance of the Sorrento Lactalis NPDES permit. IDEQ concurs this certification is still valid as no changes are made to the surface water quality based limits.

Public Comment

Pursuant to 40 CFR 124.14(c), at this time, the EPA is only accepting comments on aspects of the draft permit that are different from those in the draft permit that was issued for public comment on August 12, 2016. The changes are as follows:

- BOD₅ and total suspended solids (TSS) mass limit increases for each of the four production based Tiers
- Revisions to the Existing Use Data Collection requirements.
- “Upstream of outfall and *in Mason Creek* upstream of confluence of Purdam Drain and Mason Creek” is added to Table 6, Surface Water Monitoring Requirements, to clarify the monitoring location for alkalinity
- Sampling with a meter is added to grab sampling in Table 6 as an acceptable method of monitoring effluent dissolved oxygen (DO)
- A superscript “¹” is added to the quarterly sampling frequency of DO to reference the footnote of the quarterly monitoring periods.

Persons wishing to comment or request a Public Hearing on the revisions 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 issuance. The EPA will address the comments received on the 2016 draft permit and the revised permit and issue the permit. The permit will become effective no less than 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 NPDES permit and related documents can be reviewed or obtained by visiting or contacting the EPA’s Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday at the address below. The draft permits, fact sheet, and other information can also be found by visiting the Region 10 NPDES website at “<http://EPA.gov/r10earth/waterpermits.htm>.”

United States Environmental Protection Agency
 Region 10
 1200 Sixth Avenue, OWW-190
 Seattle, Washington 98101
 (206) 553-0523 or
 Toll Free 1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The fact sheet and draft permits are available at:

EPA Idaho Operations Office
 950 W Bannock, Suite 900
 Boise, ID 83702
 208-378-5746

Idaho Department of Environmental Quality
 Boise Regional Office
 1445 North Orchard Street
 Boise, ID 83706
 (208) 373-0550

Basis of Reopening Public Comment

Revised BOD₅ and TSS Limits

The draft permit contains technology-based effluent limits (TBELs) for BOD₅ and TSS based on the Effluent Limit Guidelines (ELGs) for the Dairy Products Processing Point Source Category. There are four ELGs that apply to production at the facility. The TBELs are calculated based on projected BOD₅ input. To accommodate the planned expansion of the facility's production, the EPA developed tiered limits for BOD₅ and TSS based on the facility's projected BOD₅ input. In the revised draft permit, the EPA recalculated the TBELs based on the following:

- **BOD₅ Input** - In the 2016 draft permit, the basis for the tiered limits was actual 2013 average daily BOD₅ input. In the revised draft permit, the EPA is using the estimated 2017 average daily BOD₅ instead of the 2013 values which are higher values than the 2013 values.
- **Building Block Approach** - In the 2016 draft permit, the EPA relied on the most stringent ELG to calculate the limits. In calculating the revised limits, the EPA is using a building block approach to combine the applicable ELGs into one ELG for the production at the facility.

The following ELGs apply to current production at this facility:

- Subpart E (Cottage Cheese and Cultured Cream Cheese Subcategory), 40 CFR 405.55- Standards of performance for new sources
- Subpart F (Natural and Processed Cheese Subcategory), 40 CFR 405.65 - Standards of performance for new sources
- Subpart L (Dry Whey Subcategory), 40 CFR 405.125 - Standards of performance for new sources

In 2017, production at the facility will also include:

- Subpart D (Butter Subcategory), 40 CFR 405.45, Standards of performance for new sources

The facility is considered a new source in accordance with 40 CFR § 122.2, which defines a new source as “a building, structure, facility, or installation that discharges pollutants or could discharge pollutants and for which construction began after promulgation of the applicable effluent guidelines or after proposal of the applicable effluent guidelines....” Here, the applicable ELGs were promulgated in 1974. All current production lines at Sorrento started after 1974; therefore, the facility is a “new source.”

The new source performance standards (NSPS) at 40 CFR 405.45, 405.55, 405.65, and 405.125 are generally expressed in terms of an allowable mass of the regulated pollutant per hundred pounds of raw material processed. Therefore, effluent limits are determined by multiplying the standards provided in the ELG by a reasonable measure of the facility's actual input of raw material (in this case BOD₅).

Tables C-1 through C-4 present the applicable ELGs for the Sorrento facility.

Table C-1: Technology-Based Effluent Limitations Guideline (40 CFR 405.55) Cottage Cheese and Cultured Cream Cheese Standards of performance for New Sources		
Parameter	Maximum Daily Limit	Average Monthly Limit
	lb/100 lb of BOD ₅ input	
BOD ₅	0.148	0.074
TSS	0.185	0.093
pH	6.0 to 9.0 s.u.	

Table C-2: Technology-Based Effluent Limitations Guideline (40 CFR 405.65) Natural and Processed Cheese Standards for New Sources		
Parameter	Maximum Daily Limit	Average Monthly Limit
	lb/100 lb of BOD ₅ input	
BOD ₅	0.016	0.008
TSS	0.020	0.010
pH	6.0 to 9.0 s.u.	

Table C-3: Technology-Based Effluent Limitations Guideline (40 CFR 125) Dry Whey Standards of Performance for New Sources		
Parameter	Maximum Daily Limit	Average Monthly Limit
	lb/100 lb of BOD ₅ input	
BOD ₅	0.022	0.011
TSS	0.023	0.014
pH	6.0 to 9.0 s.u.	

Table C-4: Technology-Based Effluent Limitations Guideline (40 CFR 405.45) Butter Standards of performance for New Sources		
Parameter	Maximum Daily Limit	Average Monthly Limit
	lb/100 lb of BOD ₅ input	
BOD ₅	0.016	0.008
TSS	0.020	0.010
pH	6.0 to 9.0 s.u.	

To accommodate the planned expansion of the facility's production, EPA developed tiered limits for BOD₅ and TSS based on the facility's projected BOD₅ input. The first tier applies where the facility's production range is greater than or equal to 90% and less than or equal to 110% of the current input, tier 2 applying where production ranges greater than or equal to 110% and less than or equal to 130% of the current level, tier 3 applying where production is greater than or equal to

130% and less than or equal to 150% of the current level, and tier 4 applying where production is greater than or equal to 150% and less than or equal to 170% of the current level. These ranges were selected based on the process for tiering limits to allow for facility expansion as described in EPA's Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastestream Formula (September 1985).

Revised BOD5 Input

In the 2016 draft permit, EPA used the 2013 average daily BOD₅ input as the "current input" for the first effluent limit tier. In the revised draft permit the EPA is using the estimated 2017 average daily BOD₅ input as the input for the first tier instead of the 2013 production rates. The NPDES regulations require that effluent limits are based on a reasonable measure of the actual production of the facility (*See* 40 CFR 122.45(b)(2)(i)). EPA is revising the draft limits because the estimated 2017 values are more representative of current values and include butter production which will begin in 2017.

BOD₅ Input using 2017 production:

Milk Composition (same as used for the 2016 draft permit)

3.5 percent fat (butterfat)

3.2 percent protein

4.75 percent lactose (carbohydrates)

Milk Weight Input to Plant is now based on 2017 production as provided in the application:

6,030,000 pounds per day (2016 Draft Permit was based on 4,500,000 lbs/day)

BOD₅ input calculation:

6,030,000 lbs/day x 0.035 = 211,000 lbs of fat

6,030,000 lbs/day x 0.032 = 193,000 lbs of protein

6,030,000 lbs/day x 0.048 = 289,000 lbs of carbohydrates

The BOD₅ input is then calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively:

211,000 lbs fat x 0.890 = 188,000 BOD₅

193,000,000 lbs protein x 1.031 = 199,000 BOD₅

289,000 lbs carbohydrates x 0.691 = 200,000 BOD₅

Revised Total BOD₅ Input = 587,000 lbs BOD₅

(The Total BOD₅ input in the 2016 draft permit was 437,000 lbs/day)

Building Block Approach

In the 2016 draft permit, EPA applied the most stringent of the applicable subparts of the ELG (40 CFR 405.65, which contains the same NSPS as 40 CFR 405.45) in calculating the tiered

limits. In applying the most stringent subpart, EPA noted in the 2016 Fact Sheet it was infeasible to account for the facility’s planned growth while also accounting for all of the possible ratios of production among the various products over time with any certainty.

During the public notice period, EPA received a comment from Givens Pursley that EPA should have used a “building block approach” to calculate TBELs for the facility instead of basing the TBEL solely on the most stringent ELG. EPA agrees with the comment. A building block approach to calculating a combined ELG is reasonable given the operation of multiple processes at the same time. A building block approach is discussed in EPA’s NPDES Permit Writers Manual, page 5-35:

“More commonly, wastewater streams regulated by effluent guidelines are combined during or before treatment. In such a case, the permit writer combines the allowable pollutant loadings from each set of requirements or from each set of effluent guidelines to arrive at a single TBEL for the facility using a *building block* approach.”

As stated above Sorrento has four categories each with its own ELG. Through the building block approach, EPA combined the loadings from each set of ELGs to arrive at a single TBEL for each tier. Production of each of the categories with different TBELs is shown in Table C-5 (Application, June 19, 2013, Table 1 *Sorrento Lactalis Nampa WWTP, Production Values from 2012 to 2023* shown at the end of this fact sheet).

Table C-5 Production Values		
	lbs/year	Percent
Cottage and Cream Cheese	7,000,000	1.68
Natural and Processed Cheese	268,500,000	64.52
Dry Whey	105,480,000	25.4
Butter	35,000,000	8.4
Total Site	415,980,000 lbs/year	100

Example calculation for maximum daily limit (MDL) for BOD₅ (tier 1):

Best practicable control technology currently available (BPT) for Cottage Cheese

- a) BOD₅ Input from Cottage Cheese and Cultured Cream Cheese for BOD₅ 40 CFR 405.55

$$587,000 \times 0.0168 = 9,860 \text{ lbs BOD}_5 \text{ from cottage cheese}$$

$$9,860 \text{ lbs BOD}_5 \text{ input} \times 0.148 \text{ lbs}/100 \text{ lbs BOD}_5 \text{ input} = 14.6 \text{ lbs/day MDL BOD}_5$$

- b) BOD₅ Input from Natural and Processed Cheese 40 CFR 405.65:

$$587,000 \times 0.6452 = 378,615 \text{ BOD}_5 \text{ lbs/day from Natural and Processed Cheese}$$

$$378,700 \text{ lbs BOD}_5 \times 0.016 \text{ lbs}/100 \text{ lbs BOD}_5 \text{ input} = 62 \text{ lbs/day MDL BOD}_5$$

c) BOD₅ Input from Dry Whey CFR 405.125:

$$587,000 \times 0.254 = 149,000 \text{ lbs/day BOD}_5 \text{ lbs/day from Dry Whey}$$

$$149,000 \text{ lbs BOD}_5 \text{ input} \times 0.022 \text{ lbs/100 lbs BOD}_5 \text{ input} = 32 \text{ lbs/day MDL BOD}_5$$

d) BOD₅ Input from Butter CFR 405.45:

$$587,000 \times 0.084 = 49,308 \text{ BOD}_5 \text{ lbs/day from Butter}$$

$$49,308 \text{ lbs BOD}_5 \times 0.016 \text{ lbs/100 lbs BOD}_5 \text{ input} = 7.9 \text{ lbs/day MDL BOD}_5$$

$$\text{Total allowable discharge} = 14.6 + 62 + 32 + 7.9 = 116 \text{ lbs/day}$$

The BOD₅ MDL is increased from 70 lbs/day to 116 lbs/day using the building block method. BOD₅ and TSS limits for the average monthly mass limits (AMLs) for Tier 1 and the MDLs and AMLs for Tiers 2, 3 and 4 are also increased.

This results in increased Tier 1 limits and increased BOD₅ input ranges as shown below. The limits are also increased because the production values are higher.

Table 1: Effluent Limitations for Tier 1 (BOD₅ input = 528,000 to 646,000 lbs/day)				
Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Maximum
Biochemical Oxygen Demand (BOD ₅)	mg/L	10	20	-
	lbs/day	35-58	70-116	-
Total Suspended Solids (TSS)	mg/L	13	25	-
	lbs/day	44-73	87-138	-
<i>E. Coli</i> Bacteria	#/100ml	126	-	406
pH	s.u.	6.1 to 9.0 at all times		-
Total Phosphorus as P May 1- September 30	lbs/day	1.3	2.69	
Total Phosphorus as P October 1 – April 30	lbs/day	4.4	9.10	
Floating, Suspended, or Submerged Matter	Narrative Limitation			-
Oil and Grease	No Visible Sheen			-
<p>1. The term BOD₅ input shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.</p>				

The changes in the BOD₅ and TSS limits for all Tiers are shown below.

Parameter	Tier	2016 Draft Permit	Revised Draft Permit
BOD₅	Tier 1	AML = 35 lbs/day MDL = 58 lbs/day	AML = 58 lbs/day MDL = 116 lbs/day
	Tier 2	AML = 42 MDL = 84	AML = 70 MDL = 139
	Tier 3	AML = 49 MDL = 98	AML = 81 MDL = 166
	Tier 4	AML = 56 MDL = 112	AML = 93 MDL = 190
TSS	Tier 1	AML = 44 MDL = 87	AML = 73 MDL = 138
	Tier 2	AML = 52 MDL = 104	AML = 87 MDL = 166
	Tier 3	AML = 62 MDL = 122	AML = 102 MDL = 193
	Tier 4	AML = 70 MDL = 139	AML = 116 MDL = 221

Less stringent limits than the previous permit (Backsliding) is justified for the same reasons as stated in the 2016 Fact Sheet shown below:

BOD₅ and TSS ELG

Mass-based limits for BOD₅ and TSS in the draft permit are higher than in the previous permit for the Sorrento Lactalis facility. These mass-based limits are based on a technology-based ELG that establishes a mass discharge allowance calculated from the facility’s raw material utilization rate. For the draft Sorrento Lactalis permit, the applicable ELG performance standard is unchanged from the previous permit and the BOD₅ and TSS mass limits have increased solely due to an increase in the raw material utilization rate at the facility.

The antibacksliding provisions in Section 402(o)(1) of the CWA only apply to water quality-based effluent limitations and technology-based effluent limits developed using best professional judgment; thus, Section 402(o) is not applicable to the revised ELG-based limit for BOD₅ and TSS in the Sorrento Lactalis permit. The provisions of 40 CFR 122.44(l)(1) prohibit less stringent limits or other permit conditions unless “the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under 122.62.” The facility’s expansion of operations is a material and substantial change and would constitute “cause” under 122.62, therefore, the revised limit is permissible under 122.44(l)(1).

Existing Use Data Collection

Condition II.C.3. of draft permit, *Existing Use Data Collection*, requires the Permittee to collect additional information to determine the appropriate existing uses for Purdam Drain. The 2016 permit requires gathering historical information and water body uses and management of any activities that may affect aquatic life, wildlife, and recreation/human contact uses. The 2016 permit also requires the permittee to collect necessary physical and biological data as identified in Appendix B, *Existing Use Information* and shown below:

- 1) Waterbody Origin and Historical Information
 - a) Dates and types of uses (before and on/after Nov. 28, 1975)
 - b) Available historical information concerning when and how constructed, points of access, and facilities to support particular uses.
- 2) Water Body Uses and Management
 - a) Description of any management activities
 - b) Description of activities that may affect aquatic life, wildlife, and recreation/human contact uses. GIS layer of where the management activities occur along the water body.
 - i) Time/Frequency
 - ii) Type of activity
 - iii) Location and length of water body that these activities occur.
 - c) Description of both past and present activities if they have changed over time, including dates of activities if known
- 3) Physical Data
 - a) Flow characterization.
 - i) Sources of flow.
 - ii) Water rights information.
 - iii) Velocity
 - b) Habitat
 - c) Land uses characterization
 - d) Description of any barriers and/or impediments to passage of aquatic life or recreation/human contact uses.
 - e) Evidence of existing uses.
- 4) Biological Data
 - a) Fish survey
 - b) Macroinvertebrate survey
 - c) Description of wildlife in or around the waterbody

Based on the comments received on the draft permit, EPA is deleting Sections 1) and 2) above, and retaining Sections 3) and 4) related to collection of physical and biological data.

Surface Water Monitoring

Alkalinity Monitoring

“Upstream of outfall and in Mason Creek upstream of confluence of Purdam Drain and Mason Creek” is added to Table 6, Surface Water Monitoring Requirements, to clarify the monitoring location for alkalinity

Dissolved Oxygen

Sampling with a meter is added to grab sampling in Table 6 as an acceptable method of monitoring effluent dissolved oxygen (DO)

A superscript “¹” is added to the quarterly sampling frequency of DO to reference the footnote of the quarterly monitoring periods.

Sorrento Lactalis Nampa WWTP
Table 1. Production Values from 2010 to 2023 (In 1000 lbs)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	Real	Real	Real	forecast										
Cheese Only	170,203	175,946	188,024	205,714	231,582	251,282	264,200	275,500	285,000	291,000	297,000	298,000	300,000	315,000
Butter only								35,000	36,207	36,869	37,731	37,858	38,113	40,018
Whey only	14,693	69,745	79,665	83,524	91,435	96,427	101,256	105,480	109,031	111,274	113,516	113,850	114,638	120,245
Total site	184,896	245,691	267,689	289,238	323,017	347,709	365,456	415,980	430,238	439,243	448,248	449,749	452,760	475,263
Total Site w/out down days (lbs/day)	520,805	691,975	754,616	814,755	909,906	979,462	1,029,453	1,171,774	1,211,937	1,237,303	1,262,670	1,266,897	1,275,353	1,338,768
TOTAL Mozzarella	100,817	101,576	110,000	114,000	126,851	126,851	130,000	135,000	137,000	139,000	140,000	140,000	141,000	148,000
FRESH MOZZARELLA	9,942	6,608	7,000	14,000	22,809	36,000	39,000	40,000	40,000	40,000	43,000	44,000	45,000	45,000
TOTAL String	30,282	28,261	29,520	30,470	30,331	30,331	34,000	37,000	40,000	40,000	42,000	42,000	42,000	42,000
TOTAL Cut & Wrap	4,941	5,360	5,236	5,966	6,000	6,190	6,200	6,500	7,000	7,000	7,000	7,000	7,000	7,000
TOTAL Shred	27,678	32,531	34,988	39,478	41,000	44,800	48,000	50,000	52,000	56,000	56,000	56,000	56,000	56,000
TOTAL Mascarpone + cream cheese	1,442	1,521	1,360	1,860	4,800	6,000	7,000	7,000	9,000	9,000	9,000	9,000	9,000	17,000
TOTAL BUTTER								35,000	36,207	36,869	37,731	37,858	38,113	40,018
TOTAL Whey	14,683	69,745	79,665	83,524	91,435	96,427	101,256	105,480	109,031	111,274	113,516	113,850	114,638	120,245
WPC50	0.527	0.944	2.550	6.037	9.659	10.298	10.827	11.200	11.078	11.025	12.171	12.212	12.204	12.909
Powder Protein	2.015	60.316	60.020	72.197	79.266	83.630	87.923	91.690	94.051	96.846	99.845	99.170	99.844	104.836
SNF	3.241	403	2.389	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
Milk supply to the plant (lbs)	1,371,161	1,428,318	1,464,533	1,600,544	1,845,797	1,971,397	2,050,305	2,141,200	2,191,790	2,211,900	2,272,500	2,282,000	2,302,600	2,373,600
Milk supply to the plant w/out down days (lbs/day)	3,862,426	4,017,797	4,125,446	4,508,576	5,114,921	5,353,863	5,775,693	6,031,549	6,173,803	6,230,704	6,401,408	6,429,859	6,486,761	6,685,915
Milk supply to the plant w/out down days (gpd)	449,119	467,195	479,703	524,253	594,758	645,708	671,569	701,343	717,884	724,500	744,350	747,658	754,374	777,432
Influent flow 1090 G	249,000	253,000	279,000	308,676	352,351	387,227	410,060	450,829	469,650	481,878	500,491	508,150	520,871	538,889
Influent flow per day w/out down days (gpd)	701,408	712,676	785,915	869,511	992,539	1,090,780	1,155,099	1,292,475	1,322,958	1,357,403	1,409,834	1,431,409	1,467,243	1,520,250
Influent flow per day w/out down days (MGD)	0.70	0.71	0.79	0.87	0.99	1.09	1.16	1.29	1.32	1.36	1.41	1.43	1.47	1.52
ratio lbs influent/lbs of milk	1.53	1.49	1.60	1.63	1.63	1.65	1.68	1.80	1.83	1.85	1.87	1.87	1.90	1.91

butler operations starts in 2017

Notes:

- Standard Milk to Gallons = 8.6 lbs per gallon
- Influent flow is anticipated to match effluent flows from Outfall 001