



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

May 1, 2013

Re: Pretreatment
Pearl Valley Cheese Co.
Village of West Lafayette
Compliance Inspection
IDP No. 0DP00058*AP

Mr. Chuck Ellis, President
Pearl Valley Cheese Company
54760 Township Road 90
Fresno, Ohio 43824

Dear Mr. Ellis:

On April 12, 2013, I inspected Pearl Valley Cheese Company. The inspection was conducted to evaluate the facility's compliance with federal and state pretreatment regulations and its Indirect Discharge Permit (IDP). You and Randy Leitz, Operator, represented Pearl Valley Cheese during the inspection.

General Facility Description

Pearl Valley Cheese Company produces varieties of Swiss, Colby, and Muenster cheeses from milk. Wastewaters are generated from whey concentration, cleanup of cheese making tanks and piping, milk delivery trucks and milk storage tanks. Average daily flows were roughly 30,300 gpd with a maximum daily flow of 44,200 gallons during the past year. Permeate from whey concentration accounts for roughly 22,000 gpd of the total flow. Water is supplied by two on-site wells. The water is treated by ion exchange softening and disinfection using chlorine or ultraviolet light.

All process wastewater is normally discharged to the Village of West Lafayette POTW. The facility may land apply wastewater if needed. Pearl Valley has an Ohio EPA Land Application Management Plan Permit, OMP00004, which authorizes land application of both wastewater and sludge. Sanitary wastewater from Pearl Valley Cheese is treated in an on-site septic system.

Pearl Valley Cheese holds an effective Ohio EPA Indirect Discharge Permit (IDP). The company is regulated by Ohio EPA as a noncategorical significant industrial user.

Pretreatment System

The pretreatment system consists of equalization using 3 tanks totaling 55,000 gallons, a 364,000 gallon low rate anaerobic contact process reactor, dissolved air floatation clarifier, a moving bed bioreactor (MBBR) for further BOD and ammonia reduction, and a second dissolved air floatation clarifier to remove sludge produced in the MBBR. The reactor now

requires the addition of only caustic and micronutrients to maintain a balanced environment. A heat exchanger is provided to maintain the reactor temperature during colder months. A 19,000 gallon sludge holding tank is available to store sludge prior to disposal by land application. A 24,500 cubic foot membrane biogas storage unit is provided to store methane prior to consumption in the reactor's heat exchanger and plant boilers. A gas compressor and 3000 gallon propane tank are provided to enable additional biogas storage and to raise the pressure. A 65 kw gas electric turbine was installed in February, 2013, to enable some of the gas to be used to offset electric costs.

Comments

1. Pearl Valley Cheese reported the following effluent limit violations between January, 2012 and December 2012:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00530	Total Suspended Solids	7D Qty	31.3	142.428	4/22/2012
001	00530	Total Suspended Solids	1D Qty	43.5	154.345	4/23/2012
001	00530	Total Suspended Solids	1D Qty	43.5	130.511	4/25/2012
001	00530	Total Suspended Solids	7D Qty	31.3	223.657	4/29/2012
001	00530	Total Suspended Solids	1D Qty	43.5	223.657	5/2/2012
001	00530	Total Suspended Solids	7D Qty	31.3	134.560	5/6/2012
001	00530	Total Suspended Solids	1D Qty	43.5	134.560	5/10/2012
001	00530	Total Suspended Solids	7D Qty	31.3	80.5410	5/13/2012
001	00530	Total Suspended Solids	1D Qty	43.5	80.5410	5/17/2012
001	00530	Total Suspended Solids	7D Qty	31.3	80.5410	5/20/2012
001	00530	Total Suspended Solids	1D Qty	43.5	80.5410	5/24/2012
001	00530	Total Suspended Solids	7D Qty	31.3	297.537	5/27/2012
001	00056	Flow Rate	7D Conc	36000	37471.4	5/27/2012
001	00530	Total Suspended Solids	1D Qty	43.5	297.537	5/30/2012
001	00056	Flow Rate	7D Conc	36000	36757.1	6/3/2012
001	00530	Total Suspended Solids	7D Qty	31.3	153.172	6/10/2012
001	00056	Flow Rate	7D Conc	36000	38014.2	6/10/2012
001	00530	Total Suspended Solids	1D Qty	43.5	153.172	6/11/2012
001	00530	Total Suspended Solids	7D Qty	31.3	455.006	6/17/2012
001	00530	Total Suspended Solids	1D Qty	43.5	455.006	6/19/2012
001	00056	Flow Rate	7D Conc	36000	37557.1	6/24/2012
001	00530	Total Suspended Solids	7D Qty	31.3	316.384	7/1/2012
001	00056	Flow Rate	7D Conc	36000	36028.5	7/1/2012
001	00530	Total Suspended Solids	1D Qty	43.5	316.384	7/2/2012
001	00530	Total Suspended Solids	7D Qty	31.3	341.509	7/8/2012
001	00056	Flow Rate	7D Conc	36000	37314.2	7/8/2012
001	00530	Total Suspended Solids	1D Qty	43.5	341.509	7/9/2012

During the spring and early summer of 2012, conditions that developed at the POTW prevented proper settling in the clarifiers and resulted in TSS violations. An investigation identified the polymer and coagulant combination Pearl Valley was using

as contributing to the settling problem. Nearly all of the above violations resulted from Pearl Valley's efforts, in full cooperation with Ohio EPA and the Village of West Lafayette, to identify the cause of the problem and locate a polymer that was compatible with West Lafayette's WWTP. After multiple trials Pearl Valley was successful in identifying a polymer and feed rate that enables solids removal at Pearl Valley without hindering settling at the POTW. Thank you for your cooperation and efforts to rectify this problem. No further actions are needed at this time.

2. Sludge production is roughly 1100 gpd. Pearl Valley Cheese has 19,000 gallons, or roughly 17 days of sludge storage capacity. At typical sludge production rates, a minimum of one good weather day every two weeks enables land application of all sludge. Solids can also be stored in the reactor during periods when inclement weather persists for longer than two weeks. Pearl Valley was able to land apply all sludge during the past year. It may be advantageous for Pearl Valley to investigate dewatering technologies for the sludge. Dry sludge would enable additional storage, and may reduce handling effort in addition to providing greater benefits to crops.
3. Reliable and consistent polymer feed is critical to the treatment system's performance. Pearl Valley should consider installation of an automated system to detect and notify staff quickly in the event of a polymer system failure. If a system is feasible, it would enable the operators to correct any polymer feed problems before high solids build up in the treatment system or the discharge.
4. Please ensure that Pearl Valley Cheese fully complies with all notification requirements in the IDP. Part III Paragraph 3.H of Pearl Valley's IDP requires that any time Pearl Valley experiences an exceedance of a daily maximum discharge limit the company is required to notify Ohio EPA Southeast District Office and provide a noncompliance report as described in the IDP. A similar report should be made to the Village of West Lafayette in accordance with Part II, Paragraph 4. Part II, Paragraph 3 requires Pearl Valley to report any slug loading (any upset of the treatment system) to the Village of West Lafayette and the Ohio EPA within one hour of discovery.

You may contact me at (740) 380-5423 with any questions.

Sincerely,



Fred J. Snell
Pretreatment Coordinator
Division of Surface Water

FJS/dh

Enclosure

- c: Dave Kadri, Village Administrator, Village of West Lafayette
- c: Brian Simmons, Utilities Director, Coshocton County Water and Sewer District
- c: Pretreatment Unit, DSW, CO



State of Ohio Environmental Protection Agency
Southeast District Office

Pretreatment Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES #	Month/Day/Year	Inspection Type	Inspector	Facility Type
ODP000058*AP	OHP000247	April 12, 2013	6	S	2

Section B: Facility Data			
Name and Location of Facility Inspected		Entry Time	Permit Effective Date
Pearl Valley Cheese Company 54760 TR 90 Fresno, Ohio 43824		10:00 a.m.	December 1, 2010
		Exit Time	Permit Expiration Date
		2:00 p.m.	November 30, 2015
Name(s) and Title(s) of On-Site Representative(s)		Phone Number(s)	
Randy Leitz, Plant Operator		(740) 545-6002	
Name, Address, and Title of Responsible Official		Phone Number	
Chuck Ellis, President		(740) 545-6002	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory; M = Marginal; U = Unsatisfactory; N = Not Evaluated; N/A = Not Applicable)					
S	Permit	S	Flow Measurement	S	Pretreatment
S	Records/Reports	S	Laboratory	N/A	Compliance Schedules
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal		Other
S	Collection System				

Section D: Summary of Findings (attach additional sheets if necessary)			
See attached letter.			
Inspector		Reviewer	
<i>Fred J. Snell</i>		<i>Jennifer M. Witte</i>	
Date		Date	
5/1/13		5/1/13	
Fred J. Snell Division of Surface Water Southeast District Office		Jennifer M. Witte Compliance & Enforcement Supervisor Division of Surface Water Southeast District Office	