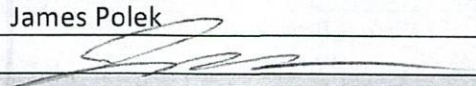




Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105
INSPECTION REPORT

Inspection Date(s):	April 25, 2019		
Time:	Entry: 2:05 pm	Exit: 3:30 pm	
Media:	Water		
Regulatory Program(s)	Clean Water Act Pretreatment – Industrial User Inspection		
Company Name:	Lompoc Artificial Kidney Center		
Facility or Site Name:	Lompoc Artificial Kidney Center		
Facility/Site Physical Location:	127 West Pine Avenue Lompoc, CA 93436		
Geographic Coordinates:	34°39'2.17"N 120°27'31.86"W		
Mailing address:	127 West Pine Avenue Lompoc, CA 93436		
Facility/Site Contact:	Marlene C. Lacambra	Title: Head Nurse	
	Phone: 805-740-0210	Email: mlacambra@lompocakc.com	
Industrial User Permit No:	I-0013		
Publicly Owned Treatment Works (POTW):	City of Lompoc Regional Wastewater Reclamation Plant (WRP)		
POTW Permit Nos:	CA0048127		
Control Authority:	City of Lompoc		
Categorical Part/Subpart:	NA		
Facility/Site Personnel Participating in Inspection:			
	Name	Affiliation	Title
		Email	
	Marlene C. Lacambra	Lompoc Artificial Kidney Center	Head Nurse
			mlacambra@lompocakc.com
Inspector(s):			
	James Polek	U.S. EPA	Environmental Engineer
			polek.jim@epa.gov
	Michael Weiss	U.S. EPA	Environmental Engineer
			weiss.michael@epa.gov

POTW/Federal/State/Tribal/Local Representatives:			
Peter von Langen, Ph.D.	California Central Coast Water Board	Engineering Geologist	Peter.vonlangen@waterboards.ca.gov
Katrina Dorsey	City of Lompoc	Water Resource Protection Technician	k_dorsey@ci.lompoc.ca.us
Stuart Stewart	Fluid Resource Management	Consultant	stuart@frm-ops.com
Inspection Report Author:	James Polek		415-972-3185
			Date: 7/1/19
Supervisor Review:			
	Eric Magnan	ERIC	415-947-4179
		MAGNAN	Date:
		<small>Digitally signed by ERIC MAGNAN Date: 2019.07.02 19:12:12 -07'00'</small>	

SECTION I – INTRODUCTION

I.1 Purpose of the Inspection

The purpose of the inspection was to understand Lompoc Artificial Kidney Center's (Lompoc AKC or facility) industrial processes and the associated wastewater streams, and how these wastewater streams are treated and discharged. The unannounced inspection consisted of a review of the process area and waste generating processes.

On April 25, 2019, a U.S. EPA inspection team (Jim Polek and Michael Weiss) inspected Lompoc AKC in Santa Barbara County, CA. Discharges from the facility flow to the City of Lompoc Regional Wastewater Reclamation Plant (WRP) (NPDES Permit No. CA0048127), a publicly owned treatment works.

Upon arriving at the facility, the inspection team met Marlene C. Lacambra (Head Nurse), referred to as Facility Representative. The inspection team presented credentials, provided business cards, and informed the Facility Representative of the purpose and intent of the inspection. Lompoc Artificial Kidney Center is designated by the City of Lompoc as a significant industrial user for discharging brackish wastewater to the sewer.

The City's designation of the facility as a significant industrial user is partially based on a November 29, 2018 sampling of the facility's wastewater. The wastewater was sampled at the floor drain accepting reverse osmosis reject water and spent dialysate, and had a chloride concentration of 756 mg/l and a sodium concentration of 517 mg/l. The City's local limit for chloride is 250 mg/l and for sodium is 270 mg/l. On May 8, 2019, the City permitted the Lompoc AKC as a significant industrial user.

SECTION II – FACILITY / SITE DESCRIPTION

II.1 Facility Description

Lompoc AKC has been in business at this location for 20 years and is located in one building. The facility operates Monday through Saturday 6:00 am to 9:00 pm and has 30 employees.

Lompoc AKC provides dialysis services to 131 patients. Patients of the facility have failed kidney function and they come to the Lompoc AKC to have their blood cleaned of urea and certain salts on a regular basis. The blood cleaning process is done in machines that are attached to reclining chairs for patients to relax in during the process. The facility has 18 dialysis machine/chairs.

The blood cleaning process must utilize ultra-pure water, so the facility first softens City water with sodium chloride to replace magnesium and calcium ions. The softened water is then passed

through four granulated activated carbon canisters in series to remove free chlorine, free chloramines, and organic compounds. The water is then sent through a reverse osmosis system. Water from the reverse osmosis system is used in the dialysis machine/chairs.

Reverse osmosis water is mixed with potassium and sodium bicarbonate to make dialysate, which is placed in one compartment of the dialysis machine/chair. The patient's blood is circulated through semi-porous tubing through the dialysate, so urea and certain salts migrate through the tubing into the dialysate. Red and white blood cells are too large to pass through the tubing. The cleaned blood is returned to the patient and the spent dialysate, containing urea and certain salts, is discharged to the sewer.

II.2 Wastewater Sources

Lompoc AKC's wastewater streams include spent dialysate, reverse osmosis reject water, water softener backwash, and equipment disinfection wastewater, which are discharged to the sanitary sewer.

Spent dialysate is discharged to the sewer during operating hours when the spent dialysate is removed from the dialysis machine/chairs.

Reverse osmosis reject water is continuously generated and discharged when the system is operating. The facility has two reverse osmosis units. One unit is run on Mondays, Wednesdays, and Fridays, and the other unit is run on Tuesdays, Thursdays, and Saturdays. Backwashing is conducted about once per week.

The water softener is backwashed every operating day. Backwashing is usually conducted at midnight.

Equipment disinfection is conducted regularly. The dialysis machine/chairs are disinfected daily with a water and vinegar mixture. The dialysis machine/chairs also receive a weekly disinfection with bleach and reverse osmosis water. The reverse osmosis system is disinfected with bleach and water once per month.

No wastewater is generated from maintaining the granular activated carbon canisters. The canisters are replaced about every three years.

II.3 Wastewater Treatment

No treatment of the wastewater is conducted prior to it being discharged to the sanitary sewer.

SECTION III – OBSERVATIONS

The following observations were made during a walk-through of the facility.

- The water softener, granular activated carbon canisters, and reverse osmosis equipment were well labeled with instructions on their purpose and operating instructions (Photograph 1)
- The reverse osmosis reject water was discharging water to a floor drain (See drain pipe in forefront of Photograph 2).
- The sampling point used by the City on November 29, 2018 was the drain that receives reverse osmosis reject water and spent dialysate (Photograph 2).

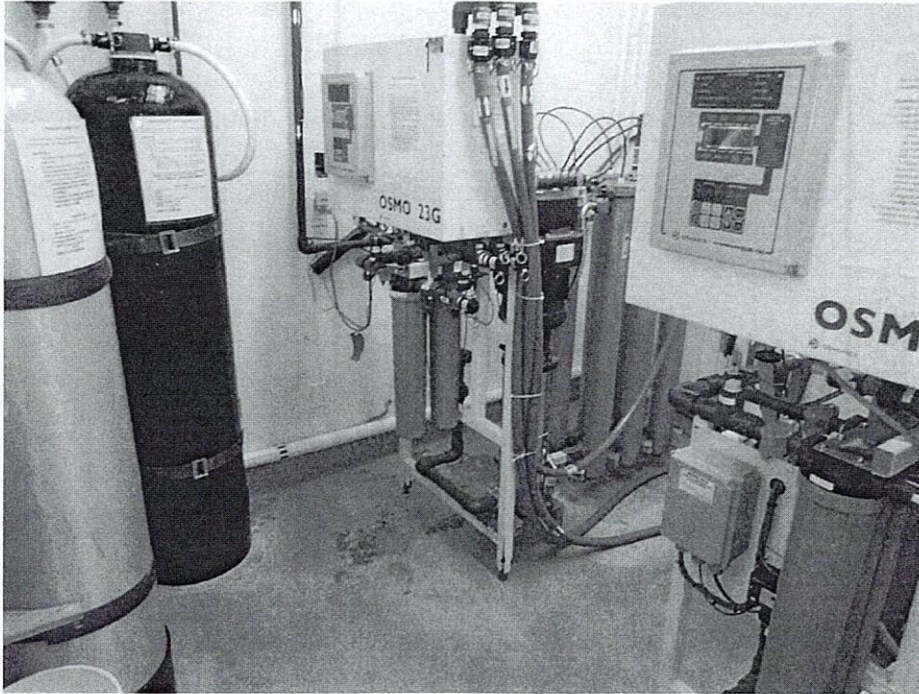
SECTION IV – AREA OF CONCERN

The presentation of areas of concern does not constitute a formal compliance determination.

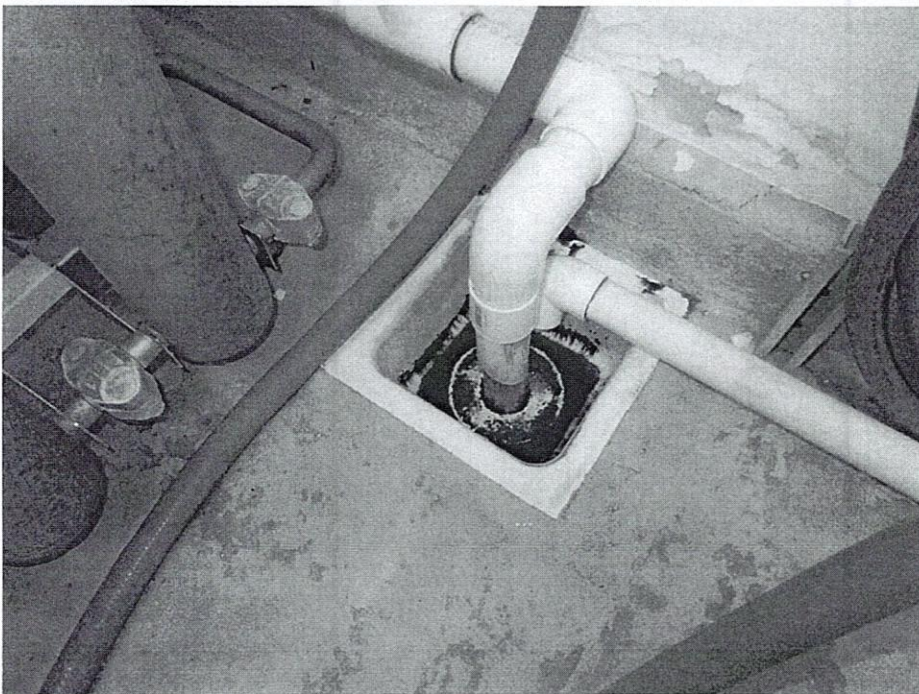
- Wastewater samples for self-monitoring and compliance monitoring must be collected at a location that is representative of all the facility's wastewater streams described in Section II.2 above. The sampling should be representative of normal work cycles and expected discharges to the Lompoc Regional WRP
- The facility has been designated and permitted as a significant industrial user and must comply with all the requirements of its wastewater discharge permit.
- The initial sampling of the facility wastewater had a chloride concentration more than three times the allowable limit and a sodium concentration almost twice the allowable limit.

Appendix 1 – Photograph Log

The photographs were taken during the inspection by Michael Weiss using an Olympus Tough TG-5 digital camera. Original copies of the photos are maintained by EPA Region 9.



Photograph 1 – Water Treatment Equipment Labeled with Operating Instructions



Photograph 2 – Drain Receiving Reverse Osmosis Reject and Spent Dialysate