

California Regional Water Quality Control Board, Colorado River Basin  
Prosecution Team Evidence  
on the matter of  
Administrative Civil Liability Complaint R7-2014-0041  
Exhibit 24

TO: John Carmona, Senior Water Resources Control Engineer, California Regional Water Quality Control Board, Colorado River Basin

CC: Anna Yen, U.S. Environmental Protection Agency, Region IX  
Russell Norman, California Water Resources Board

FROM: Chuck Durham, Tetra Tech, Inc  
Byron Ross, Monitoring & Management Services, LLC (subcontractor)

DATE: August 1, 2012

SUBJECT: **City of Brawley Pretreatment Program Evaluation - Pretreatment Compliance Inspection Memo**

Order: R7-2010-0022

NPDES #: CA0104523

WDID #: 7A13 0100 011

On behalf of the Colorado River Basin Regional Water Quality Control Board (Water Board), Tetra Tech, Inc., visited and briefly evaluated the City of Brawley (City) pretreatment program on July 19, 2012. The Tetra Tech team met with Ruben Mireles, the City's Public Works Operations Division Manager and discussed the status of the pretreatment program, visited the Brawley Wastewater Treatment Plant (WWTP), and did an onsite visit of National Beef. The City's correspondence with National Beef was the primary focus of the evaluation.

The City is in the process of developing an approved pretreatment program. The City has hired Lee & Ro, Inc. to develop a sampling plan and to collect data for use in calculation of local limits. On April 16, 2012, the City's consultant provided to Mr. Mireles a proposed schedule for program development including development of a sampling plan, data collection, submittal of local limits to the Water Board for approval and submittal of program development documents. (see Attachment A). Lee & Ro, on behalf of the City of Brawley, submitted a proposed sampling plan to the Water Board on July 10, 2012. The Water Board provided comments back to the City on July 19, 2012. Based on activities completed at the time of this inspection, the inspection team recommends the City submit an updated schedule for program development and provide more accurate dates to the Water Board.

The existing sewer use ordinance and enforcement response plan do not meet the minimum requirements for legal authority established in 40 CFR Part 403. Mr. Mireles indicated during the PCI that both documents would be revised once the local limits have been developed. Furthermore, the City does not currently have National Beef permitted. On March 22, 2011 the City and National Beef signed a joint agreement (Attachment B) for fees and capacity reservation. The agreement also references the City's sewer use ordinance language on prohibited discharge. The inspection team emphasized the liability issues associated with contracts of this type and urged the City to get a permit in place as soon as possible. The City plans to issue a wastewater discharge permit to National Beef after the local limits have been calculated and the sewer use ordinance revisions have been made. A timeline for completion of this work was not provided. The inspection team strongly recommends that the City abolish the contract (agreement) and issue a permit with temporary discharge limits or best management practices. Once the technically-based local limits have been approved, the City can revoke and reissue the IU permit to reflect the final discharge standards.

### **WWTP Problems**

The City's WWTP average daily flow is approximately 4.4 million gallons per day (MGD). National Beef's average daily discharge is approximately 1.9 MGD. Thus, National Beef is approximately 43% of the average daily flow to the City's WWTP. The City's new WWTP went online in March 2012. During the construction of the new WWTP, the City started to identify slug loads of total suspended solids at the WWTP influent. Sample results indicated that National Beef's discharge had high concentrations of total suspended solids during this time period. The City met with National Beef which resulted in National Beef making some pretreatment modifications that included addition of a clarifier, belt press and checking on controlling the grease layer in Pond 3 of the pretreatment system.

After the new WWTP was online, the City identified an increase in the dissolved oxygen depletion in the WWTP activated sludge units. With the decrease in dissolve oxygen concentrations, the City noticed increases in the concentration of ammonia (40 to 60 mg/L) and chemical oxygen demand (COD) (800-900 mg/L). Attachment C contains correspondence between the City and National Beef regarding these violations. In addition, the City and National Beef personnel have met three times since June 2012 to discuss these issues. One was an "emergency meeting" where the City met with local National Beef representatives to make them aware of the problems at the WWTP, and the need to prevent high ammonia and COD concentration discharges. Two other meetings with the City and National Beef included National Beef's General Manager, operational staff and environmental personnel. The last meeting occurred on July 17, 2012. The minutes from that meeting are included as Attachment D. During these meetings the City requested that National Beef consider retention of the wastewater if the wastewater does not meet the discharge limits. The Tetra Tech inspection team

visited the City's WWTP to see the treatment system, review data and the WWTP's SCADA system with the WWTP staff.

The City has taken enforcement action for the repeated violations of BOD, TSS, and Ammonia occurring at National Beef. Attachment E documents the penalties assessed by the City of Brawley in 2011 and 2012. From February 2011 through July 2012, the City has assessed \$325,000 in penalties to National Beef. Mr. Mireles could not verify at the time of the PCI exactly how much of this money had actually been collected by the City as it collected by the accounting department. (Note: The City's emphasis in 2012 has been on COD levels, as they are used as an indicator for BOD levels. All penalty assessment has been for BOD as documented in Attachment E.)

### **National Beef On-Site Visit**

City personnel and the Tetra Tech inspection team conducted an on-site visit of National Beef located at 57 East Shank Road, Brawley, CA 92227. The on-site visit included an opening interview, a tour of the pretreatment system, and a closing interview. The National Beef representatives were David Kalscheur and Donnie Shaw, and their contact information is:

David Kalscheur  
Vice President of Engineering  
P.O. Box 539  
Dodge City, KS 67801  
Ph: 620-338-4359  
Email: [david.kalscheur@nationalbeef.com](mailto:david.kalscheur@nationalbeef.com)

Donnie Shaw  
Maintenance Supervisor  
P.O. Box 1211  
Brawley, CA 92227  
Ph: 760-351-2726  
Email: [Donnie.Shaw@nationalbeef.com](mailto:Donnie.Shaw@nationalbeef.com)

David Kalscheur discussed the pretreatment system and the main components include: screening, dissolved air flotation (DAF) units, anaerobic digestion (Pond 1), activated sludge (Pond 2), polishing pond/clarification (Pond 3), polymer addition, skimming, and belt filter press for sludge dewatering. National Beef is investigating Pond 1 for treatment efficiency issues. The investigation includes checking the sludge levels at ten (10) locations in Pond 1, and further sampling for Total Kjeldahl Nitrogen (TKN) is planned. The concern is that there is possible short-circuiting of the wastewater flow through Pond 1. Mr. Kalscheur stated that if the test results indicate short-circuiting is occurring then the location of the inlet to Pond 1 could be changed. The DAF units are approximately 12 years old and no polymer is added at the DAF units. Pond 2 has experienced problems due to the surface aerators not operating at full capacity due to an electrical issue. Mr. Kalscheur stated that the electric breakers are going to be repaired so the aerators can work properly. Pond 3 was a large facultative polishing pond at one time, but now they have a portion that has been separated to use as a holding pond. There is a heavy grease layer on the top of Pond 3. From Pond 3 the wastewater is pumped to a clarifier tank with

polymer addition and a skimmer to remove the sludge prior to discharge. The sludge is dewatered with a large belt filter press.

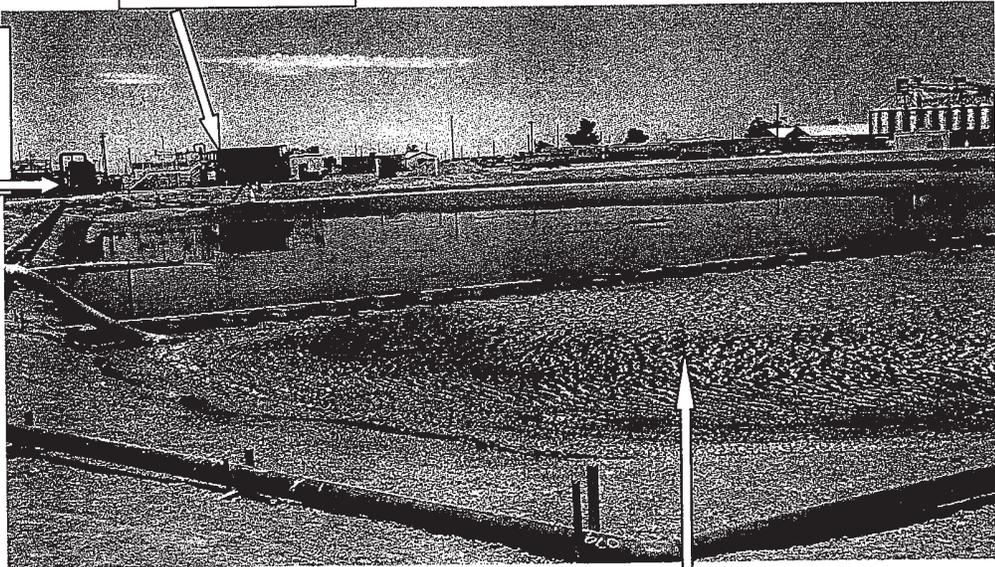


Pond 1  
(covered  
anaerobic  
digester)

Pond 2  
(activated sludge with surface aerators)

Belt Filter Press

Clarifier tank with  
polymer addition,  
skimmer, discharge  
to sewer



Pond 3 with separated portion for  
holding activated sludge

National Beef has added a new 250,000 gallon water storage unit and plans for more water reuse.

The Tetra Tech inspection team recommended to the National Beef representatives that they consider use of a 24-bottle, discrete sampler base with their automatic sampler to identify specific times of the day when the TKN and COD loading may be the greatest, and to identify any removal efficiency variation in Pond 1 or other treatment units.

When the City's local limits for ammonia, TKN, COD and other pollutants are completed, this will provide a technical basis for pollutant limits in the planned National Beef wastewater discharge permit. The inspection team recommends that the City consider not only a daily maximum limit (24-hour flow proportional composite sample) for the National Beef permit, but also include limits in the permit that prevent slug loading impacts to the City's WWTP.

#### ATTACHMENTS

Attachment A	Proposed Schedule for Program Development
Attachment B	City and National Beef Agreement
Attachment C	NOV Correspondence between City and National Beef
Attachment D	Minutes from 7-17-2012 Meeting with National Beef
Attachment E	Summary of Penalty Assessment for National Beef

## IU SITE VISIT DATA SHEET

<b>INSTRUCTIONS:</b> Record observations made during the IU site visit. Provide as much detail as possible.					
Name of industry: National Beef					
Address of industry: 57 East Shank Road, Brawley, CA 92227					
Date of visit: April 7, 2011			Time of visit: 9:37am		
Name of inspectors: Chuck Durham, Tetra Tech, Inc. David Arvizu, City of Brawley Reuben Mireles, City of Brawley					
Provide the name(s) and title(s) of industry representative(s)					
<b>Name</b>			<b>Title</b>		
Gary Hoerr			Plant Engineer		
IU Permit Number: Not Permitted		Exp. Date: NA		IU Classification: noncategorical SIU	
Inspection Type/Purpose	<input checked="" type="checkbox"/>	Scheduled		Unscheduled	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	PCI		New Company	<input type="checkbox"/>
				PCA	<input type="checkbox"/>
				Complaint	<input type="checkbox"/>
<b>Please provide the following documentation:</b>					
1. Nature of operation: The discharger is a beef processing facility. Approximately, 2,400 head of cattle are processed daily. The majority of products are packaged individually, then stored in bulk shipping containers and shipped to a distribution center. From there, products are shipped to a variety of grocery stores.					
2. Number of employees:	1,300	Number of shifts:	1 (10-hr kill/process) 3 (rendering) 1 (night clean-up crew)	Hours of operation:	6 days per week
3. Water source: City of Brawley					
4. Wastestream flow(s) discharged to the POTW: Wastewater is generated in the kill room, process area washdown, and rendering.					
Sanitary:	(gpd)	Process:	~800,000-1,200,000 (gpd)	Combined:	(gpd)
5. Describe any significant changes in process or flow:  Facility installing additional treatment technology at time of site visit, including clarifiers and a belt press. This new system will provide the IU with options for discharge of the belt press effluent. It can be discharged to the City, returned to the lagoon system, or returned to the clarifier.					
6. Type of pretreatment system (Describe): Treatment consists of dissolved air floatation (DAF) for solids removal. Solids are skimmed off the top into a hopper. Approximately 2 hoppers per day are generated from each of two DAF units. The solids are disposed of in the municipal landfill. The decanted effluent from the DAFs unit then flows into a 3-cell sequential lagoon system. The first cell is an anaerobic digestion unit. Methane gas is pulled off this cell and used in the plant. The second is aerobic (oxidation) cell, and the third is a settling pond. Detention time through the lagoon system is approximately 7 days. The IU did not previously have a solids handling process but was wrapping up installation of clarifiers and a belt press at the time of the site visit. Anticipated startup for the new system was reported as April 11, 2011.					
<input checked="" type="checkbox"/>	Continuous flow		Batch		<input type="checkbox"/>
7. Condition/operation of pretreatment system:			Good	<input checked="" type="checkbox"/>	Fair
					Poor

8. Process area description (identify raw materials and processes used):

A conveyor system is used to move the cattle through the kill floor processing area. After the kill, the hide is removed (all in one piece), the internal organs are removed, and the carcass split in half using a ban saw. The carcasses are treated with a microbial chemical for pathogen reduction. Any blood on the floor is squeegeed down to holding tank (blood tank) prior to floor wash down. From the blood tank it is pumped to rendering where it is dried to a powder and sold. All water drains lead to two rotor screens underneath the process floor (tunnel). Blood drains on the carving tables are pumped to the blood tank and then to rendering.

Water from the rotor screens goes directly o the DAF unit. All water on the tunnel floor goes through the rotor screens.

9. Condition/operation of process area:		Good	<input checked="" type="checkbox"/>	Fair		Poor
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General housekeeping:		Good	<input checked="" type="checkbox"/>	Fair		Poor
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10. Chemical storage area (identify the chemicals that are maintained on site and how they are stored):  
Did not view storage area.

Any floor drains?	ND	Any spill control measures?	ND
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11. Are hazardous waste drummed and labeled? Did not view

12. Does the IU have hazardous waste manifests? NA

Any problems associated with hazardous waste: NA

13. Solid waste production: Everything is processed in rendering

Solid waste disposal method(s): Solids from the DAF unit is disposed of in municipal landfill. All other solids are sold as byproduct.

14. Description of sample location: NA

Sampling method/technique: NA

15. Evaluation of self-monitoring data:		Yes		No	<input checked="" type="checkbox"/>	N/A
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If yes, was self-monitoring adequate:

16. Who performs the self-monitoring analysis? ATS Laboratories, Brawley, CA

Notes: