NEW MEXICO
ENVIRONMENT DEPARTMENT

SUSANA MARTINEZ
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JOHN A. SANCHEZ
Lieutenant Governor

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1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
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RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

April 16, 2015

Ms. Adrienne Wilmer, Wastewater Resource Administrator
City of Las Cruces
680 N. Motel Blvd.
Las Cruces, NM 88007

Re: Jacob Hands – Las Cruces Wastewater Treatment Plant; Major; Individual Permit; SIC 4952; Compliance Evaluation Inspection; NPDES Permit NM0023311; March 25, 2015

Dear Mr. Rodriguez:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Sandra Gabaldon at (505) 827-1041 or at sandra.gabaldon@state.nm.us.

Sincerely,

/s/ Sarah Holcomb for Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson (6EN-WC) by e-mail
Tung Tguyen, (6EN-WQ) by email
NMED District II by e-mail

Mark Rodriguez, City of Las Cruces by email (mrodriguez@las-cruces.org)
Joshua Rosenblatt, Regulatory and Environment Analyst by e-mail (jrosenblatt@las-cruces.org)
Luis Guerra, Laboratory Manager by email (lguerra@las-cruces.org)

EPA

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	yr/mo/day	17	Inspec. Type	18	Inspector	19	Fac Type	20
	N	5	NM0023311	12	150325		C		S		1	

Remarks: MAJOR WWTP

67	Inspection Work Days	69	70	Facility Evaluation Rating	71	BI	72	QA	73	Reserved	74	75	Reserved	80
				3		N		N						

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
LAS CRUCES – JACOB HANDS WWTP
I-25 South from Santa Fe, Exit #6 (US-70), Turn right onto N Main St., Turn right onto W Picacho Ave, Left onto N Motel Avenue, Right onto West Amador.
DONA AÑA COUNTY

Entry Time /Date
0920 Hours/ 03-25-2015

Exit Time/Date
1130 Hours/ 03-25-2015

Permit Effective Date
March 1, 2010

Permit Expiration Date
February 28, 2015

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Mark Rodriguez, Acting Plant Manager / (575)528-3599 / (575) 528-3611/ mrodriguezi@las-cruces.org
Joshua Rosenblatt, Regulatory and Environmental Analyst / (575) 528-3704 / (575) 528-3513 / jrosenblatt@las-cruces.org
Luis J. Guerra, Lab Manager / (575)528-3604 / lguerra@las-cruces.org

Other Facility Data

SIC: 4952

GPS @ Outfall 001:
N. 32.29134
W -106.82413

Name, Address of Responsible Official/Title/Phone and Fax Number
Ms. Adrienne L. Wilmer, Wastewater Resource Manager / awilmer@las-cruces.org
City of Las Cruces
680 N. Motel Blvd.
Las Cruces, NM 88007

Contacted
Yes [ ] No [*]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
S	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	S	Compliance Schedules	N	Pretreatment	N	Multimedia
M	Effluent/Receiving Waters	M	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

Please see further explanations as well as the 3560 checklist attached.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Sandra Gabaldón /s/ Sandra Gabaldon	NMED / SWQB / (505) 827-1041 / (505) 827-0160	4/17/2015
Signature of Management QA Reviewer **/s/ Michelle Lemon** **Michelle Lemon, Municipal Team Leader**	**Agency/Office/Phone and Fax Numbers** **NMED / SWQB / (505) 827- 2819 / (505) 827-0160**	**Date** **4/17/2015**

Jacob Hands – Las Cruces WWTP	PERMIT NO. NM0023311

SECTION A – PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS X S ¨ M ¨ U ¨ NA (*FURTHER EXPLANATION ATTACHED NO)*

DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	X Y ¨ N ¨ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	O Y ¨ N X NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	X Y ¨ N ¨ NA
4. ALL DISCHARGES ARE PERMITTED	X Y ¨ N ¨ NA

SECTION B – RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. O S ¨ M ¨ U ¨ NA (*FURTHER EXPLANATION ATTACHED NO)*

DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	X Y ¨ N ¨ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	X S ¨ M ¨ U ¨ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	X Y ¨ N ¨ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	X Y ¨ N ¨ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	X Y ¨ N ¨ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	X Y ¨ N ¨ NA
e) DATES AND TIMES OF ANALYSES.	X Y ¨ N ¨ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	X Y ¨ N ¨ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	X S ¨ M ¨ U ¨ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	X S ¨ M ¨ U ¨ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	X Y ¨ N ¨ NA

SECTION C – OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ¨ S X M ¨ U ¨ NA *(FURTHER EXPLANATION ATTACHED YES)*

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	X S ¨ M O U ¨ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	¨ S X M OU ¨ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED .	X S ¨ M O U ¨ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	X S ¨ M O U ¨ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE	X S ¨ M O U ¨ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	X S ¨ M OU ¨ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	X S ¨ M ¨ U ¨ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	X Y ¨ N ¨ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	X Y O N ¨ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	X Y ¨ N ¨ NA

Jacob Hands – Las Cruces WWTP	PERMIT NO. NM0023311

SECTION C – OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	X Y O N ¨ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	X Y ¨ N O NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	X Y O N ¨ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	¨ Y X N ¨ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	¨ Y ¨ N X NA

SECTION D – SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. X S ¨ M ¨ U ¨ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	X Y ¨ N ¨ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	X Y ¨ N ¨ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	X Y ¨ N ¨ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	X Y ¨ N ¨ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	X Y ¨ N ¨ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	X Y ¨ N ¨ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	X Y ¨ N ¨ NA
b) PROPER PRESERVATION TECHNIQUES USED.	X Y ¨ N ¨ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	X Y ¨ N ¨ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	X Y ¨ N ¨ NA

SECTION E – FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. X S ¨ M ¨ U ¨ NA *(FURTHER EXPLANATION ATTACHED NO)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE 24-inch Parshall Flume	X Y ¨ N ¨ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	X Y ¨ N ¨ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	X Y ¨ N ¨ NA
4. CALIBRATION FREQUENCY ADEQUATE.	X Y ¨ N ¨ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	X Y ¨ N ¨ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	X Y ¨ N ¨ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	X Y ¨ N ¨ NA
6. HEAD MEASURED AT PROPER LOCATION.	X Y ¨ N ¨ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	X Y ¨ N ¨ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. O S X M ¨ U ¨ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	X Y ¨ N ¨ NA

Jacob Hands – Las Cruces WWTP	PERMIT NO. NM0023311

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ¨ Y ¨ N X NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. X S O M ¨ U ¨ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. O S X M ¨ U ¨ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 100 % OF THE TIME. X Y ¨ N ¨ NA

6. SPIKED SAMPLES ARE ANALYZED. __ % OF THE TIME. ¨ Y ¨ N X NA

7. COMMERCIAL LABORATORY USED. ¨ Y ¨ N ¨ NA

LAB NAME Environ International Corporation

LAB ADDRESS Nashville, Tennessee

PARAMETERS PERFORMED Biomonitoring (WET)

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ¨ S X M O U ¨ NA *(FURTHER EXPLANATION ATTACHED YES).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	None	None	None	None	None	Clear	

RECEIVING WATER OBSERVATIONS: Effluent is clear with no visible oil, grease, turbidity, foam or floatables. Please see further explanation, Section G for effluent exceedances.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. X S ¨ M ¨ U ¨ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. X S ¨ M ¨ U ¨ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. X S ¨ M ¨ U ¨ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: N/A (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED ___).*

1. SAMPLES OBTAINED THIS INSPECTION. ¨ Y ¨ N X NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ¨ Y ¨ N ¨ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ¨ Y ¨ N ¨ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ¨ Y ¨ N ¨ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ¨ Y ¨ N ¨ NA

7. SAMPLE SPLIT WITH PERMITTEE. ¨ Y ¨ N ¨ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ¨ Y ¨ N ¨ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ¨ Y ¨ N ¨ NA

City of Las Cruces – Jacob Hands Wastewater Treatment Plant
NPDES Permit No. NM0023311
Compliance Evaluation Inspection
March 25, 2015

Further Explanations

Introduction:

A Compliance Evaluation Inspection (CEI) was conducted at the City of Las Cruces – Jacob Hands Wastewater Treatment Plant (WWTP) on March 25, 2015 by Sandra Gabaldón, State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). This facility is classified as a major discharger under the federal Clean Water Act (CWA), Section 402 National Pollutant Discharge Elimination System (NPDES) permit program, and is assigned NPDES permit number NM0023311. The facility design flow is 13.5 million gallons per day (MGD), according to the permit.

The Jacob Hands Wastewater Treatment Plant discharges into the Rio Grande Basin in Segment 20.6.4.101 *(NMAC State of New Mexico Standards for Interstate and Intrastate Surface Waters).* Designated uses of segment 20.6.4.101 are irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

The inspector arrived at the Jacob Hands WWTP at 0920 hours and conducted an entrance interview with Mr. Mark Rodriguez, Acting Plant Manager, Mr. Joshua Rosenblatt, Regulatory and Environmental Analyst, and Mr. Luis Guerra, Lab Manager. The inspector made introductions, presented her credentials and discussed the purpose of the inspection with the gentleman mentioned above. An exit conference was conducted with Mr. Rodriguez and Mr. Guerra at the WWTP. Another visit was made to the municipal offices to meet with Mr. Rosenblatt to discuss the exit interview as well as documents that were not in the files of NMED.

The NMED performs a specific number of CEI's annually for the United States Environmental Protection Agency (USEPA). The purpose of this inspection is to provide the USEPA with information to evaluate the permittee's compliance with their NPDES permit. The enclosed inspection report is based on verbal information supplied by the permittee's representatives, observations made by Ms. Gabaldón, and a review of records maintained by the permittee, commercial laboratory, and/or NMED. Findings of the inspection are detailed in the attached EPA form 3560-3 and in the narrative further explanations section of the report.

Treatment Scheme:

Raw influent arrives at the plant from 20-30 lift stations around the city, with three submersible pumps in the primary lift station. Influent enters mechanical bar screens where large debris is removed. It then flows to the grit washer and the aerated grit remover where further debris is

removed from the influent. It then flows to the equalization basin and then enters the primary clarifiers. There are two primary clarifiers available at this plant and as such, one clarifier is on line continuously. The clarifiers are rotated every six months. From the primary clarifiers flow enters the roughing filters. There are two aeration basins after the rouging filters, the east and west basins. Final clarifiers are used prior to chlorination and dechlorination. Effluent is then released through a 24" Parshall flume to an unnamed ditch, thence the Rio Grande.

Sludge:

Waste Activated Sludge (WAS) is removed to the gravity thickener then to the centrifuge thickener, to the primary and secondary digesters. Digester gas is produced and sent to the CoGen System. Sludge is composted after the belt press to be used in public parks.

City of Las Cruces – Jacob Hands WWTP
Compliance Evaluation Inspection
NPDES Permit No. NM0023311
Date of Inspection: March 25, 2015

Further Explanations:

Note: The sections are arranged according to the format of the enclosed EPA inspection checklist (Form 3560-3), rather than being ranked in order of importance.

Section C – Operation and Maintenance – Overall Rating "Marginal"

Permit requires in Part III, Section B.3 Proper Operation and Maintenance:

> *a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

Findings for Operation and Maintenance:

During this inspection, the secondary clarifiers were short circuiting. Wastewater should be evenly dispersed across the entire cross section of the tank and should flow at the same velocity in all areas toward the discharge end. The high velocity area may decrease the detention time in that area, and particles may be held in suspension and pass through the discharge end of the clarifier because they do not settle out. In this case, it was noted that some particles were discharged from the secondary clarifier.
The secondary clarifier also appeared in need of some cleaning. The cleaning is done on a weekly basis. However, because of the rise in temperature, it may be necessary to clean more often than the once weekly scheduled maintenance cleaning.

The City of Las Cruces experienced a Sanitary Sewer Overflow (SSO), in September 2014. It was reported to EPA and NMED as required. Estimated volume of 97,200 gallons of contaminated stormwater was removed from the constructions site where the SSO occurred. Because of the storm event that occurred, and construction work being done on the wastewater

collection components, it is unclear how much raw sewage may have been released and exactly how much stormwater was comingled with the sewage. The staff for both the construction company and the wastewater treatment plant acted swiftly and addressed this immediately once notified.

Section F – Laboratory – Overall Rating of "Marginal"

Permit requirements in Part III, Section C.5. Monitoring Procedures:

a. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other tests procedures have been specified in this permit or approved by the Regional Administrator.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

c. An adequate analytical quality control program, including the analysis of sufficient standards, spikes and duplicate samples to insure the accuracy of all requirements and analytical results shall be maintained by the permittee or designated commercial laboratory.

Findings for Laboratory:

The permittee is using *Standard Methods, Biochemical Oxygen Demand 5210, 2001*, methodology. In paragraph 5. Testing Procedures, d. Addition of the seed suspension states, "The DO uptake attributable to the seed added to each bottle generally should be between 0.6 and 1.0 mg/L…" During the month of November, 2014, the facility did not meet these recommendations. Although this does not cause an invalid test, the permittee should strive to meet this condition of the method.

There was also an instance where the permittee's BOD blanks did not meet the less than 0.20 mg/L. And, on several samples, the BOD blanks were very close to reaching the 0.20 mg/L. This may indicate that the glassware is not cleaned properly or there may be an issue with their dilution water source.

Section G – Effluent/Receiving Waters Observations – Overall Rating of "Marginal"

Permit requires in Part I, Section A. Limitations and Monitoring Requirements:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
		lbs/day, unless		mg/l, unless noted				
POLLUTANT	STORET CODE	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASURE-MENT FREQUE	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	N/A	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	00310	3378	5067	30	45	N/A	Daily	24-Hr Composite
Total Suspended Solids	00530	3378	5067	30	45	N/A	Daily	24-Hr Composite
E. Coli Bacteria	51040	42.5 Bcfu (*1)	N/A	N/A	N/A	126	Daily	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	0.019	Daily	Grab

Findings for Effluent/Receiving Waters Observations:

The permittee had the following exceedances reported on the DMRs as follows:

02/15/2013	E. Coli	133.4 CFU
02/15/2014	E. Coli	648.8 CFU
11/15/2014	E. Coli	248.9 CFU
03/15/2014	E. coli	2419.5 CFU
03/15/2014	pH	6.3 (minimum)
04/15/2014	E. coli	214.2 CFU
04/15/2014	pH	6.2 (minimum)
05/15/2014	E. coli	178.5 CFU
05/15/2014	TRC	0.11 ug/L
06/15/2014	TRC	0.176 ug/L
02/15/2015	E. coli	219.3 CFU
03/15/2015	E. coli	193.4 CFU

The permittee is currently submitting their Discharge Monitoring reports through NET DMR. This automated program helps permittees submit paperless reports directly to EPA for their review.

PEMITEE RESPONSE:

City of Las Cruces®

May 11, 2015

Ms. Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place 1445 Ross Avenue
Dallas, Texas 75202-2733

RE: Jacob Hands – Las Cruces Wastewater Treatment Plant; Major Individual Permit; SIC 4952; Compliance Evaluation Inspection; NPDES Permit NM0023311; March 25, 2015

Dear Ms. Douglas:

Please use this letter as a response from Las Cruces Utilities (LCU) regarding the above referenced compliance inspection. LCU appreciates being informed of the inspection results and specifically the details of the problems noted during the inspection. The reputation of LCU as a compliant NPDES permit holder is one of our most important publicly owned treatment works assets. Consequently, LCU intends to modify appropriate operational procedures.

Included, as attachments, are the operational modifications to be advanced in response to the Compliance Inspection. A separate attachment is provided for issues related to the LCU Water Quality Laboratory and for issues noted within the treatment plant itself.

Feel free to contact me at 575.528.3514 if clarification or further information may be needed.

Sincerely,

Adrienne L. Widmer, P.E.
Water Resources, Administrator
Las Cruces Utilities

Attachment(s): As Noted

cc: Jorge A. Garcia, Ph.D., P.E. Director of Utilities
Bruce Yurdin, NMED, Surface Water Quality Bureau

Section C- Operation and Maintenance – Overall Rating "Marginal"

Findings for Operation and Maintenance:

During this inspection, the secondary clarifiers were short circuiting. Wastewater should be evenly dispersed across the entire cross section of the tank and should flow at the same velocity in all areas toward the discharge end. The high velocity area may decrease the detention time in that area, and particles may be held in suspension and pass through the discharge end of the clarifier because they do not settle out. In this case it was noted that some particles were discharged from the secondary clarifier.

LCU intends to adjust the height of the weir plates in question because this would then allow for ensuring proper hydraulic loading across the entire secondary clarifier. This adjustment is occurring now.

The secondary clarifier also appeared in need of some cleaning. The cleaning is done on a weekly basis. However, because of the rise in temperature, it may be necessary to clean more often than the once weekly scheduled maintenance cleaning.

LCU has initiated an increase in the cleaning frequency as recommended. The cleaning of the secondary clarifiers at a minimum of two cleanings per week is believed to better control algae growth during the warmer temperatures.

Regarding comments to Sanitary Sewer Overflows, **please note that the LCU storm water and sewer collection systems are separate from one another and, as such, flow from these two separate configurations normally would not impact each other. The occurrence from September 2014 was construction related to a sewer plug failure during a rain event.**

Section G – Effluent/Receiving Waters Observations – Overall Rating of "Marginal"

The findings for Effluent/Receiving Water Observations were:
Eight E. Coli, two pH and two TRC for a total of 12 exceedances were reported between 02/15/2013 through 03/15/2015.

LCU realized the exceedance values in a manner that a "Think Tank" group was formed from recognized experts in the wastewater treatment field. The end result was to initiate a process based on chemistry to eliminate the numerous exceedances of the stated parameters. Because this process is now ongoing, LCU looks forward to DMR submittals that illustrate the extent of success from this initiated process.

Section F – Laboratory – Overall Rating of "Marginal"

Permit requirements in Part III, Section C.5. Monitoring Procedures:

a. *Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other tests procedures have been specified in this permit or approved by the Regional Administrator.*
b. *The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.*
c. *An adequate analytical quality control program, including the analysis of sufficient standards, spikes and duplicate samples to insure the accuracy of all requirements and analytical results shall be maintained by the permittee or designated commercial laboratory.*

Findings for Laboratory:

The permittee is using *Standard Methods, Biochemical Oxygen Demand 5210, 2001*, methodology. In paragraph 5. Testing Procedures, d. Addition of the seed suspension states, "The DO uptake attributable to the seed added to each bottle generally should be between 0.6 and 1.0 mg/L..." During the month of November, 2014, the facility did not meet these recommendations. Although this does not cause an invalid test, the permittee should strive to meet this condition of the method.

There was also an instance where the permittee's BOD blanks did not meet the less than 0.20 mg/L. And, on several samples, the BOD blanks were very close to reaching the 0.20 mg/L. This may indicate that the glassware is not cleaned properly or there may be an issue with their dilution water source.

Water Quality Laboratory Corrective Action Response:

In response to the findings for the Water Quality Laboratory (WQL) it was noted that the DO uptake attributed by the seed added to the Biochemical Oxygen Demand, 5-Day, (BOD5) analysis in November 2014 ranged from 2.44 to 0.96 mg/L. This variance can be contributed to using the influent wastewater as the source for seed and its' inconsistent BOD5 concentration. As stated above, this factor does not cause or indicate an invalid test, but will be addressed by increasing the Jacob Hands Wastewater Treatment Facility Final Effluent sample volume with a 300ml dilution and using 2.5mls for the seed dilution to try and meet recommended ranges. Changes will be implemented immediately. This calculation and dilution sequence is an ongoing WQL Technician observation that must be evaluated constantly and corrected through seasonal and operational changes.

In reference to the BOD5 blank concerns of less than 0.20 mg/L after the 5-day incubation period, it is to be noted that duplicate blanks are analyzed with each analysis that have results meeting acceptable criteria. The duplicate blank was incorporated into each analysis run for the WQL BOD5 to account for the variability which may occur through process. Duplication of outlying data or concentrations can negate reportable data, but in no instance in the month of November 2014 was there duplication of blanks exceeding the 0.20 mg/L criteria.

Addressing the probable issue of BOD5 blank results, glassware and dilution water source, the WQL uses disposable 300ml BOD bottles to avoid cross contamination during each analysis. The method also has dedicated instrumentation for Final Effluent Analysis to avoid carry over from samples that may be more concentrated. Dilution water is also monitored using State Accredited (NM9415) Drinking Water Standards to exclude any unwanted constituents. Constant effort and experienced observation from all WQL Technicians is put toward this analysis to avoid problems. Variances and concentrations are one of the greatest challenges for the BOD5 method which the WQL meet on a day to day to produce valid results.

The Water Quality Laboratory main objective is to produce technically defensible test results that accurately describe the sample for the purpose of reporting to the client by achieving the highest quality of work and assuring all regulatory requirements are met.