

GW - 16

**PERMITS,
RENEWALS,
& MODS**

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Governor
Joanna Prukop
Cabinet Secretary
Vacant
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



October 26, 2009

Ms. Diane Kocis
DCP Midstream L.P.
370 17th Street, Suite 2500
Denver, Colorado 80202

Re: Renewal Discharge Permit, GW-016
Eunice Gas Plant
SE/4 SE/4 of Section 5, Township 21 South, Range 36 East, NMPM,
Lea County, New Mexico

Dear Ms. Kocis:

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby approves the **DCP Midstream L.P.**, discharge permit for the above referenced site contingent upon the conditions specified in the enclosed **Attachment to the Discharge Permit**. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter including permit fees.**

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, please contact Leonard Lowe of my staff at (505-476-3492) or E-mail leonard.lowe@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

A handwritten signature in black ink that reads "Glenn von Gonten".

Glenn von Gonten
Acting Environmental Bureau Chief

Attachments-1
xc: OCD District Office



ATTACHMENT
DISCHARGE PERMIT
APPROVAL CONDITIONS

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of \$100.00, plus a flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required \$100.00 filing fee. The flat fee for a Gas Plant is \$4000.00. Please submit this amount with a signed copy of the permit and return to the OCD within 30 days. Checks should be made out to the New Mexico Water Quality Management Fund.
2. **Permit Expiration, Renewal Conditions and Penalties:** Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on April 25, 2014** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. *Expired permits are a violation of the Water Quality Act {Chapter 74, Article 6, NMSA 1978} and civil penalties may be assessed accordingly.*
3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38.
4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its December 2008 discharge plan application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.
5. **Modifications:** WQCC Regulation 20.6.2.3107.C and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.
6. **Waste Disposal and Storage:** The owner/operator shall dispose of all wastes at an OCD-approved facility. Only oil field RCRA-exempt wastes may be disposed of by injection in a Class

II well. RCRA non-hazardous, non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.

A. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35.8 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

7. Drum Storage: The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. Above Ground Tanks: The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. Labeling: The owner/operator shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. The owner/operator may use a tank code numbering system, which is incorporated into their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

A. All below-grade tanks and sumps must be approved by the OCD prior to installation and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in

secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by the OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. Class V Wells: The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking

water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).

14. Housekeeping: The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.6.2.1203 NMAC and OCD Part 29 (19.15.29 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. OCD Inspections: The OCD performed an inspection of this facility on August 25, 2009. Mr. Johnny Bradford and Ms. Diane Kocis witnessed the inspection. All photographs referenced below are located in the attachment of this permit. As a result of this inspection OCD concluded the following:

1. **Photo 1 - 3:** There were several areas with visual stained soils within the facility's yard. Owner/Operator shall follow best management practices to prevent such future discharges. If such discharges occur owner/operator shall address them accordingly. See Conditions 14, 15 and 18 for details.
2. **Photo 4 - 9:** Several containers and barrels were located directly on the ground. Owner/operator shall locate all containers (empty, full or partially full) on an impermeable pad with curbing. See Conditions 7, 8, and 9 for details.
3. **Photo 10 - 11:** Contaminated soil is being staged within the containment area of an old cooling tower. Owner/Operator shall ensure that this staging area is within an impermeable containment.
4. **Photo 12 - 13:** A small pond was identified near the old pump house. These fluids serve no function for the operating facility. Owner/Operator shall immediately prevent any more fluids from entering the containment area and shall test the fluid for TPH, Chlorides and constituents specified at 20.6.2.3103A NMAC, **Except** for Uranium (U) and Radioactivity (combined Radium - 226 and Radium - 228) and submit the results to OCD for review. Owner/Operator shall submit a work plan to close this containment. Disposal of water will be determined on the results of the fluid analysis.
5. **Photo 14 - 16:** Owner/Operator shall monitor the integrity of their compressor skids. There are indications of integrity loss and seepage of the cement foundation. Owner/Operator shall submit a plan detailing how this will be monitored.
6. **Photo 17 - 20:** There were eight below-grade tanks identified onsite, seven of which were single wall tanks. (Photo 20) One below-grade tank located on the far west side of the facility had been recently installed. It is unclear if the newest tank is double walled with a leak detection system. Owner/Operator will submit a work plan to bring its BGT in accordance to Condition 11. Work plan shall include procedures to close the BGT if appropriate.

The previous discharge permit, March 9, 2004, was never signed and returned to the OCD. This is a violation of the discharge permit and Water Quality Control Commission. Failure to comply with WQCC may result in Civil and Criminal penalties.

Owner/operator shall resolve OCD's concerns and submit a report by **December 31, 2009**. The report shall be submitted to the OCD with photographs and shall identify the resolutions to the OCD's concerns.

17. Storm Water: The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. Unauthorized Discharges: The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. *An unauthorized discharge is a violation of this permit.*

19. Vadose Zone and Water Pollution: The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions: N/A

21. Transfer of Discharge Permit (WQCC 20.6.2.3111) Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the transferor shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee.

Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

22. Closure Plan and Financial Assurance: Pursuant to 20.6.2.3107 NMAC an owner/operator shall notify the OCD when any operations of the facility are to be discontinued for a period in excess of six months. Prior to closure, or as a condition of this permit, or request from the OCD, the operator will submit an approved closure plan, modified plan, and/or provide adequate financial assurance.

23. Certification: (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

Company Name-print name above

Company Representative- print name

Company Representative- Signature

Title _____

Date: _____

OCD Inspection: DCP Midstream Eunice GP, GW - 016

Inspector(s): Leonard Lowe

Company Rep: Diane Kocis and Johnny Bradford

Date: 08.25.09

Time: 10:00 – 12:00

Page 1

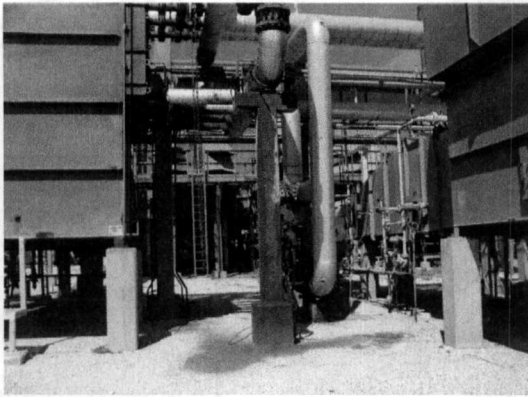


Photo 1: Soil staining.



Photo 2: Leaking valve and stained soil.



Photo 3: Stained soil near oil filter drainage area.



Photo 4: Barrels.



Photo 5: Placement of barrels.

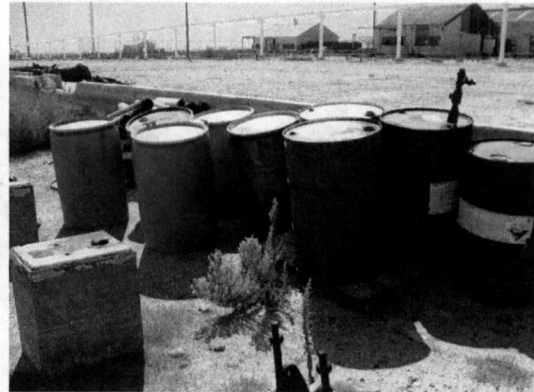


Photo 6: Barrels.

OCD Inspection: DCP Midstream Eunice GP, GW - 016

Inspector(s): Leonard Lowe

Company Rep: Diane Kocis and Johnny Bradford

Date: 08.25.09

Time: 10:00 – 12:00

Page 2



Photo 7: Empty containers.

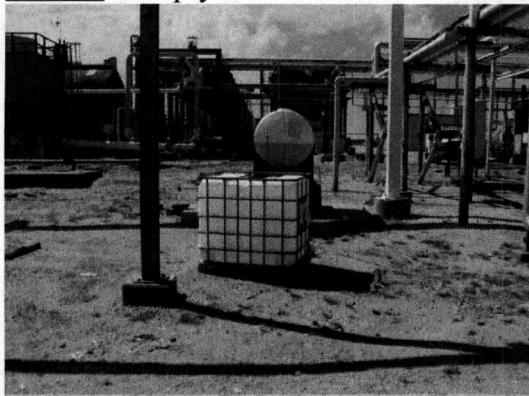


Photo 8: Container on ground.

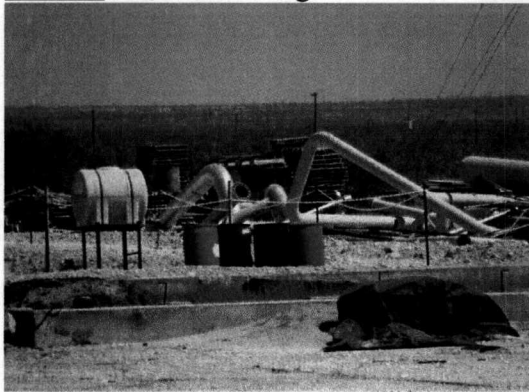


Photo 9: Barrels.



Photo 10: Staging of contaminated soil in previous cooling tower location.



Photo 11: Placement of contaminated soil.

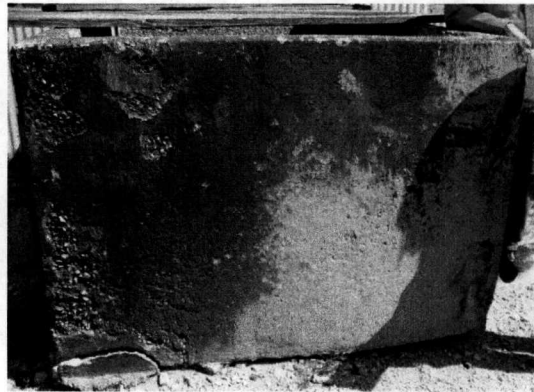


Photo 12: above ground containment near old pump house.

OCD Inspection: DCP Midstream Eunice GP, GW - 016

Inspector(s): Leonard Lowe

Company Rep: Diane Kocis and Johnny Bradford

Date: 08.25.09

Time: 10:00 – 12:00

Page 3

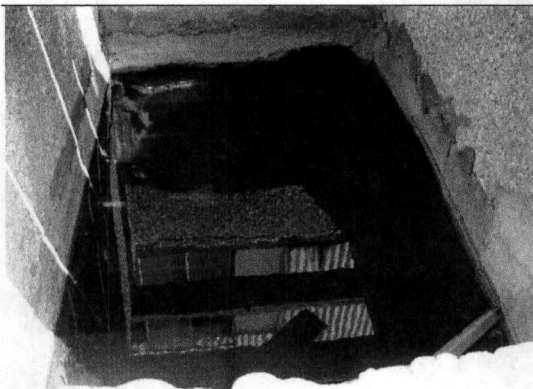


Photo 13: Fluids held in containment of Photo 12.



Photo 16: Integrity of compressor skid with cracks.

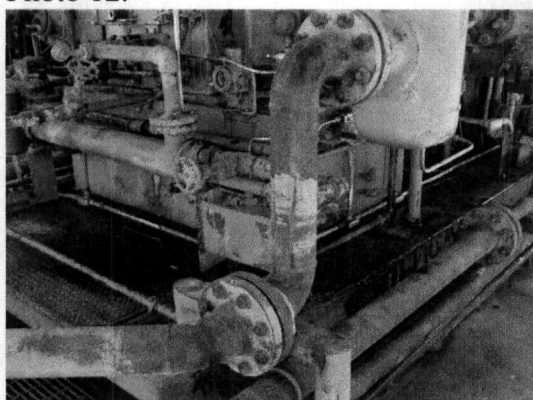


Photo 14: Compressor pad.



Photo 17: 1 of 8 below grade tanks on site.

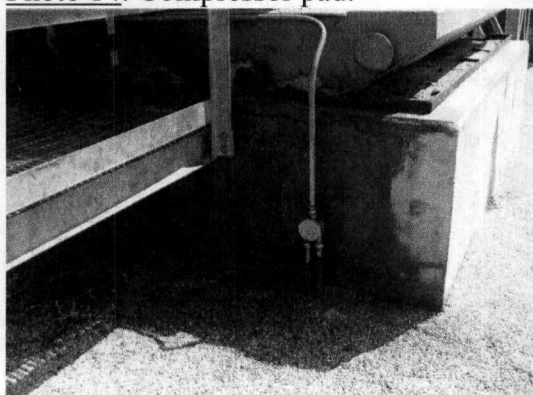


Photo 15: leaching of hydrocarbon from compressor skid.

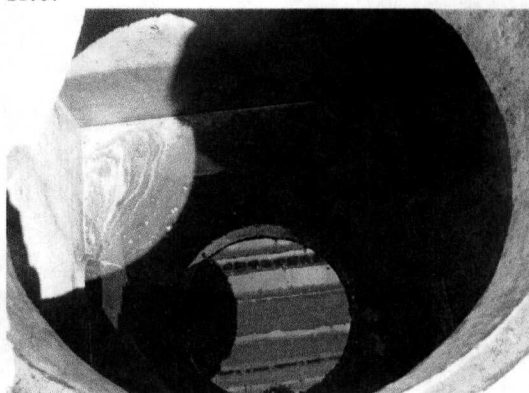


Photo 18: Single walled tanks.

OCD Inspection: DCP Midstream Eunice GP, GW - 016

Inspector(s): Leonard Lowe

Company Rep: Diane Kocis and Johnny Bradford

Date: 08.25.09

Time: 10:00 – 12:00

Page 4

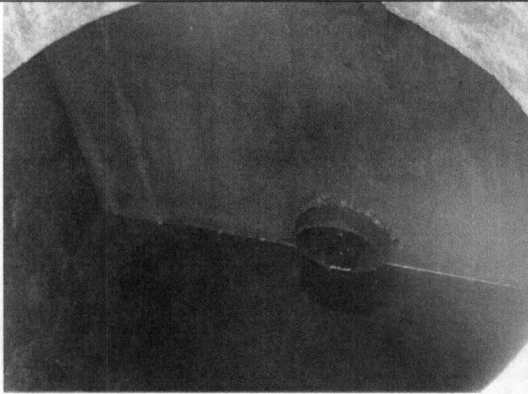


Photo 19: Drain line in to one BGT.

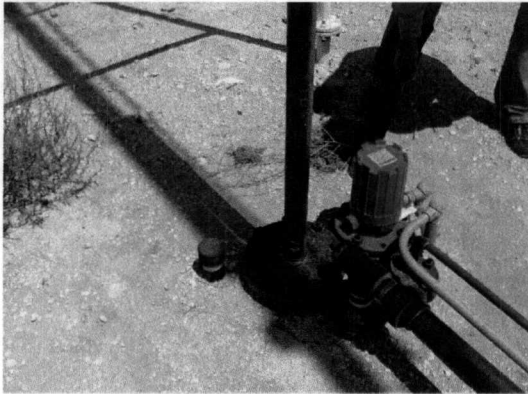


Photo 20: A new BGT installed on the western side of facility.

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Tuesday, May 19, 2009 9:37 AM
To: 'Kocis, Diane E'
Cc: Lang, Ruth M
Subject: GW-016, Eunice GP Admin Complete
Attachments: 5.GW-XXX, Example PN.doc; GW-016, Admin Complete Letter.pdf; GW-016, OCD PN.pdf; GW-016, Renewal Draft Permit.pdf

Ms. Diane Kocis,

The OCD has determined your discharge application to be administratively complete.

Attached you will find documents referencing this first milestone in the GW-016 renewal process.

Please submit to the OCD your version of the public notice for approval. I have also attached an applicant version of that an applicant notice should read like.

Thank you for your attention.

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Governor
Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



May 19, 2009

Dear, Diane Kocis

**Re: Discharge Plan Renewal Permit GW-016
DCP Midstream L.P.
Eunice Gas Plant
Lea County, New Mexico**

The New Mexico Oil Conservation Division (NMOCD) has received DCP Midstream L.P.'s request and initial fee, dated December 24, 2008, to renew GW-016 for the Eunice Gas Plant located in the SE/4 SE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico. The initial submittal and subsequent addendums have provided the required information in order to deem the application "administratively" complete.

Therefore, the New Mexico Water Quality Control Commission regulations (WQCC) notice requirements of 20.6.2.3108 NMAC must be satisfied and demonstrated to the NMOCD. NMOCD will provide public notice pursuant to the WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3492 or leonard.lowe@state.nm.us. On behalf of the staff of the NMOCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Leonard Lowe
Environmental Engineer

LRL/lrl

xc: OCD District I Office, Hobbs





New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Governor
Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



May 19, 2009

Ms. Diane Kocis
DCP Midstream L.P.
370 17th Street, Suite 2500
Denver, Colorado 80202

Re: Renewal Discharge Permit, GW-016
Eunice Gas Plant
SE/4 SE/4 of Section 5, Township 21 South, Range 36 East, NMPML
Lea County, New Mexico

Dear Ms. Kocis:

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby approves the discharge permit for the **DCP Midstream L.P.**, (owner/operator) for the above referenced site contingent upon the conditions specified in the enclosed **Attachment to the Discharge Permit**. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter including permit fees.**

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, please contact Leonard Lowe of my staff at (505-476-3492) or E-mail leonard.lowe@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Glenn von Gonten
Acting Environmental Bureau Chief

Attachments-1



xc: OCD District Office

ATTACHMENT
DISCHARGE PERMIT
APPROVAL CONDITIONS

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of \$100.00, plus a flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required \$100.00 filing fee. The flat fee for a Gas Plant is \$4000.00. Please submit this amount with a signed copy of the permit and return to the OCD within 30 days. Checks should be made out to the New Mexico Water Quality Management Fund.
2. **Permit Expiration, Renewal Conditions and Penalties:** Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on April 25, 2014** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. ***Expired permits are a violation of the Water Quality Act (Chapter 74, Article 6, NMSA 1978) and civil penalties may be assessed accordingly.***
3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38.
4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its December 2008 discharge plan application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.
5. **Modifications:** WQCC Regulation 20.6.2.3107.C and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.

6. Waste Disposal and Storage: The owner/operator shall dispose of all wastes at an OCD-approved facility. Only oil field RCRA-exempt wastes may be disposed of by injection in a Class II well. RCRA non-hazardous, non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.

A. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35.8 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

7. Drum Storage: The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of soil collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. Above Ground Tanks: The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. Labeling: The owner/operator shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. The owner/operator may use a tank code numbering system, which is incorporated into their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

A. All below-grade tanks and sumps must be approved by the OCD prior to installation and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have

secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by the OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. Class V Wells: The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted

in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).

14. Housekeeping: The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.6.2.1203 NMAC and OCD Part 29 (19.15.29 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. OCD Inspections: The OCD Environmental Bureau will perform an inspection of this facility. Inspection results will be posted here:

17. Storm Water: The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. Unauthorized Discharges: The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. An unauthorized discharge is a violation of this permit.

19. Vadose Zone and Water Pollution: The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions: N/A

21. Transfer of Discharge Permit (WQCC 20.6.2.3111) Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise), of a facility with a discharge permit, the transferor shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written

notification, together with a certification or other proof that such notification has in fact been received by the transferee.

Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

22. Closure Plan and Financial Assurance: Pursuant to 20.6.2.3107 NMAC an owner/operator shall notify the OCD when any operations of the facility are to be discontinued for a period in excess of six months. Prior to closure, or as a condition of this permit, or request from the OCD, the operator will submit an approved closure plan, modified plan, and/or provide adequate financial assurance.

23. Certification: (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

Company Name-print name above

Company Representative- print name

Company Representative- Signature

Title

Date: _____

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-016) Ms. Diane Kocis, Senior Environmental Specialist, DCP Midstream, 370 17th Street, Suite 2500, Denver Colorado, 80202 has submitted a renewal application for the previously approved discharge plan for their Eunice Gas Plant, located in the SE/4 SE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County. The facility processes natural gas to remove condensate and sulfur. Approximately 2500 bbls of slop oil, 2500 bbls of produced water, and 80 bbls of lube oil are generated and stored in onsite. These fluids are not to be intentionally discharged to the ground. If accidental discharge occurs immediate recovery/reclamation shall be implemented. Fluids, other than clean water, including dry chemicals, shall be stored within secondary containment and properly bermed. Waste shall be properly maintained and manifested. A copy of the discharge permit once renewed shall be on location at all times and made familiar to all facility personnel. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 72 - 88 feet, with a total dissolved solids concentration of approximately 480 mg/L. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The administrative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the NMOCD web site <http://www.emnrd.state.nm.us/ocd/>. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of April 2009.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director



RECEIVED

2009 MAY 8 AM 11 49

May 5, 2009

UPS Tracking Number 1Z F46 915 0350199029

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
New Mexico Energy, Minerals
& Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: Addendum to DCP Midstream L.P.'s Eunice Gas Plant Discharge Permit Renewal (GW-016)
Lea County, New Mexico

Dear Mr. Lowe:

Per your request, enclosed is an addendum to DCP Midstream, LP's ("DCP MIDSTREAM") discharge permit renewal application (GW-016) that was sent to your office on December 24, 2008.

This addendum is has been prepared in two parts. Part I consists of two tables. Table I summarizes the Eunice Gas Plant materials used or stored on-site. Table II summarizes the wastes generated at the plant. Part 2 addresses the depth to groundwater and an estimate of the total dissolved solids concentration of that groundwater.

If you have any questions concerning this submittal, please contact me at (303) 605-2176. Please send all correspondence regarding this addendum to me at 370 17th Street, Suite 2500, Denver, CO 80202 or to dekocis@dcpmidstream.com

Sincerely,
DCP Midstream, LP

Diane E. Kocis
Senior Environmental Specialist

Enclosure

cc: Larry Hill, District Supervisor (UPS Tracking No. 1Z F46 915 0351688230)
NMOCD District 1 Office
1625 N. French Drive
Hobbs, New Mexico 88240

Part I

Table I

Eunice Gas Plant Materials Used or Stored On-Site

Material Stored/Used	Method of Storage	Approximate Volumes
Natural Gas Condensate	Aboveground storage tanks within secondary containment.	2,500 bbls maximum (capacity)
Natural Gas Liquids	Aboveground storage tanks within secondary containment.	3,333 bbls
Slop Oil	Aboveground storage tanks within secondary containment.	2,500 bbls
Methanol	Aboveground storage tanks within secondary containment.	85 bbls Portable tank (winter use only) 30 bbls
Hot Oil (Chem Treat) Heat medium for amine	Aboveground tank within secondary containment	300 bbls
Lube Oil	Aboveground storage tanks within secondary containment.	80 bbls
Amine	Aboveground storage tank within secondary containment.	500 bbls
Propane	Aboveground storage tank within secondary containment.	265 bbls
Sour Water Storage Tank	Aboveground storage tank within secondary containment	Zero to 500 gal capacity (rarely used)
Equipment Skid/Washdown Water	Directly to RICE Engineering salt water disposal well from process drains	NA (drain quantities are not measured)
Anti-Freeze	Aboveground storage tanks within secondary containment.	84 bbls
Demulsifier	Aboveground storage tanks within secondary containment.	11 bbls
Triethylene Glycol	Aboveground storage tank within secondary	27 bbls

	containment.	
Diesel	Aboveground storage tank within secondary containment.	21 bbls
Gasoline	Aboveground storage tank within secondary containment.	22 bbls
Process Softener Salt	On pallet s on concrete foundation.	30 bags, 60 lbs each
Sulfuric Acid	Aboveground storage tank within secondary containment.	10 bbls
Sodium Hypochlorite (bleach)	3-55gallon drums within secondary containments	2.5 bbls (average volume)
Caustic Soda	Pallet on concrete foundation.	2 bbls
Soap	Plastic tanks within secondary containment	600 gals maximum
Degreaser	Aboveground tanks within secondary containment	300 gals maximum
Cleaning solvent	Aboveground tanks within secondary containment	500 gals
PowderSolv additive	Aboveground tanks within secondary containment	1,200 gals
Corrosion inhibitor	Aboveground tanks within secondary containment	300 gals
Antifoam	Drum on concrete	55 gals
Used Oil	Portable tank	200 gals maximum
Petroleum-Stained Soil	In concrete containment	40 yds ³ (see comments in Table II)

Table II
Eunice Gas Plant Wastes

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY	APPROXIMATE VOLUMES
Produced water	Aboveground storage tank within secondary containment	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well	2,500 bbls maximum (capacity)
Boiler blowdown	Discharged directly to the Rice Engineering disposal line.	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well	NA Not stored.
Cooling tower blowdown	Discharged directly to the Rice Engineering disposal line.	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well	NA Not stored.
RO Reject Water	Discharged directly to the Rice Engineering disposal line.	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well	NA Not stored.
Spent acids	Aboveground storage tank within secondary containment	Off-site disposal facility	Rice Engineering SWD Wells or other OCD permitted class II injection well	500 gals maximum
Spent solvents	Used in parts washer. Recycled until spent.	Off-site disposal facility	Safety Kleen	Zero to 30 gals
Used amine	Aboveground storage tank with containment	Off-site disposal facility	Sundance Services Inc.	30,000 gals max (this number due to change of product this year).
Used oil filters Used amine filters Used glycol filters Used Engine coolants	Recycling dumpster	Off-site recycling	Thermofluids, Inc.	5 - 11 yds ³

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY	APPROXIMATE VOLUMES
Waste Lubrication and Motor Oils	Portable tank	Transported to heater/treator feed tank or stabilized and sold with NGLs (<1%)	NA	NA
Painting wastes	Not generated in last 5 years. If generated, would go to central collection area protected and stored on concrete pad	If generated would go to off-site disposal. Transported by Safety-Kleen	Off-site permitted disposal facility if ever generated.	NA
Sewage	Underground septic tanks	On-site leach fields	NMED permitted on-site leach field	NA
Spent sulfur catalyst	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.	80 yds ³ /year maximum Not generated yearly (only during plant turnarounds).
Charcoal filter media	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.	10 yds ³ /year maximum
Molecular sieve	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.	5 yds ³ /year maximum
Used batteries	On-site collection point on pallets	Off-site recycling	Battery Technologies	Zero in past several years.
Asbestos	Plastic bags and/or drums	Off-site disposal	Asbestos Removal Inc.	None recently. This is not a regular waste. Limited to specific projects.
Municipal trash	Trash cans/bins, dumpsters	Off-site disposal	Waste Management Inc.	One dumpster/week
Soil contaminated with condensate, lube oil, glycol, and/or methanol	Stockpiled onsite in bermed impermeable concrete pad and treated with Microblaze	Following achievement of acceptable remediation levels, soil is used for fill material,	NA	60 yds ³ /year maximum

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY	APPROXIMATE VOLUMES
	to decompose hydrocarbons.	construction of secondary containment, repair of access roads. If excess soil exists above the NMOCD threshold concentrations, it is transported to a permitted facility		

Part II

The static groundwater level for the plant water supply wells is approximately 72 – 88 feet below ground level. The plant water supply wells are 1.5 to 4 miles south of the plant. The nearby City of Eunice has six water supply wells approximately 20 miles north of the city that range in depth from 130 to 200 feet.

A report for a sample of groundwater collected from a Eunice Gas Plant water supply well in 1981 by Martin Water Labs, Inc. listed total dissolved solids (TDS) as 480 mg/kg. This value may have changed over time, as groundwater levels in the vicinity of Eunice have been documented by the Bureau of Reclamation to be lower than historical levels. It is likely that a recent sample from a Eunice Gas Plant water supply well would currently have a higher TDS value; however, the New Mexico Drinking Water Bureau (NMED DWB) does not require analysis of TDS for existing water wells and no recent TDS data are available. The District Manager of the NMED DWB estimated that TDS values for the City of Eunice water supply wells is at least 700 mg/kg.

No depth to groundwater or water quality data are available in the New Mexico Office of the State Engineer Waters database, for the section, township and range where the Eunice Gas Plant is located. All the adjacent sections were reviewed for any water well information and no data are available for those sections either. Section 5 of Township 21 South and Range 36 East, where the Eunice Gas Plant is located, is highlighted in the diagram below and the surrounding sections are labeled for reference.

31	32	33
6	5	4
7	8	9

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. dated 12/24/08

or cash received on in the amount of \$ 100.00

from DLP Midstream LP

for GW-16

Submitted by: Lawrence Romeo Date: 1/14/09

Submitted to ASD by: Lawrence Romeo Date: 1/14/09

Received in ASD by: Date:

Filing Fee ☒ New Facility ☐ Renewal ☒

Modification ☐ Other ☐

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

Full Payment ☐ or Annual Increment ☐

DCP Midstream, LP

370 17th Street, Suite 2500

Denver, CO 80202

Vendor Number

0000078217

Vendor Name

NEW MEXICO-

Check Number**Check Date**

12/24/08

Invoice Number	Invoice Date	Net Amount	Description
12232008	12/23/08	100.00	Eunice Gas Plant DP Permit Renewal GW-016
	Total Paid	\$100.00	

Please Detach and Retain for Your Records



December 24, 2008

RECEIVED

2008 DEC 29 PM 3 58

UPS NEXT DAY AIR (Tracking Number 1Z F46 915 22 1006 322 2)

Mr. Wayne Price
Environmental Bureau Chief
Oil Conservation Division
New Mexico Energy, Minerals
& Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: DCP Midstream L.P.'s Eunice Gas Plant (GW-016)
Discharge Permit Renewal Application and Permit Application Fee
Lea County, New Mexico

Dear Mr. Price:

Enclosed are a signed copy and an original of DCP Midstream, LP's ("DCP MIDSTREAM") discharge permit renewal application for the Eunice Gas Plant (GW-016) and a check in the amount of \$100 for the permit application fee.

Please be advised that DCP MIDSTREAM's submittal of the renewal application and application fee does not waive DCP MIDSTREAM's objection to the OCD's position regarding applicability of the WQCC regulations.

If you have any questions concerning this submittal, please contact me at (303) 605-2176. Please send all correspondence regarding this renewal to me at 370 17th Street, Suite 2500, Denver, CO 80202 or to dekocis@dcpmidstream.com

Sincerely,
DCP Midstream, LP

Diane E. Kocis
Senior Environmental Specialist

Enclosures

cc: Larry Hill, District Supervisor (UPS Next Day Air Tracking No. 1Z F46 915 31 1006 1225)
NMOCD District 1 Office
1625 N. French Drive
Hobbs, New Mexico 88240



NEW MEXICO ENVIRONMENT DEPARTMENT
GROUND WATER QUALITY BUREAU



DISCHARGE PERMIT APPLICATION

Type of Application. Check appropriate box.

- ☐ Application for new Discharge Permit -- new facility
☐ Application for new Discharge Permit -- existing (unpermitted) facility

X ☐ Application for Discharge Permit Renewal

- ☐ Application for Discharge Permit Modification

"Modification" is defined as a change to the permit requirements that result from a change in the location of the discharge, a significant increase in the quantity of the discharge, or a significant change in the quality of the discharge.

- ☐ Application for Discharge Permit Renewal and Modification

For an existing Discharge Permit, please indicate: DP Number GW-16 Expiration date 4/25/09

Checklist of Application Components.

<input type="checkbox"/> Part A: Administrative Completeness.	<i>Instructions for completing the application are included on the form itself and on Supplemental Instructions for Parts A and B. You may fill out the application manually, or a Microsoft Word version may be downloaded from www.nmenv.state.nm.us (Ground Water Quality) and filled out electronically.</i>
<input type="checkbox"/> Part B: Operational, Monitoring, Contingency and Closure Plans, with required attachments. Choose appropriate option: <input type="checkbox"/> Septic Tank System <input type="checkbox"/> General – Various Facility Types	
<input type="checkbox"/> Part C: Site Information, with required attachments.	
X <input type="checkbox"/> \$100 Filing Fee, payable to the New Mexico Environment Department. Required from all applicants. An additional fee will be assessed prior to permit issuance. Permit fees are listed in Section 20.6.2.3114 NMAC.	

Certification. Signature must be that of the person named in Item A-3 of Part A of the application.

I certify under penalty of law that I am knowledgeable about the information contained in this application. The information is, to the best of my knowledge and belief, true, accurate and complete.

Signature: Diane L. Kocis

Date: 12/24/08

Printed Name: Diane Kocis

Title: Sr. Environmental Specialist

Send three complete copies of this application and the filing fee to:

Program Manager
Ground Water Pollution Prevention Section
New Mexico Environment Department
PO Box 5469
Santa Fe, NM 87502

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

**DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS,
REFINERIES, COMPRESSOR, GEOTHERMAL FACILITIES
AND CRUDE OIL PUMP STATIONS**

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: Ennise Gas Plant GW-016
2. Operator: DCP Midstream L.P.
Address: 370 17th Street, Suite 2500
Contact Person: Diane Kocis Phone: (303) 605-2176
3. Location: SE 1/4 NE 1/4 Section 5 Township 21S Range 36E
Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATION: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Diane Kocis Title: Sr. Environmental Specialist

Signature: Diane Kocis Date: 12/24/08

E-mail Address: dkocis@dcpmidstream.com

Eunice Gas Plant
SE/4 NE/4 Section 5 Township 21S Range 36E

DISCHARGE PLAN

This document constitutes a renewal application for the Groundwater Discharge Plan for the Eunice Gas Plant, Discharge Permit GW-016. This Discharge Plan application has been prepared in accordance with the NMOCD "Guidelines for the Preparation of Discharge Plans at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations" (revised 12-95) and New Mexico Water Quality Control Commission (WQCC) regulations, 20.6.2.3-104 and 3-106 NMAC.

1 Type of Operation

The facility is a gas plant that processes natural gas to remove condensate and sulfur. The plant includes a cryogenic plant and turbo-expander to remove natural gas liquids. The facility does not intend or have a discharge or discharges that may move directly or indirectly into groundwater.

2 Operator / Legally Responsible Party

Operator

DCP Midstream, LP
10 Desta Drive, Suite 400 West
Midland, TX 79705
(432) 620-4000
Contact Person: Greg Kardos – Environmental Manager

Legally Responsible Party

DCP Midstream, LP
370 17th Street, Suite 2500
Denver, CO 80202
(303) 595-3331
Contact Person: John Admire – Director, Environmental Protection

3 Facility Location

SE/4 NE/4 Section 5 Township 21S Range 36E, Lea County, NM

See Figure 1 – Site Location Map.

4 Landowner

DCP Midstream, LP
370 17th Street, Suite 2500
Denver, CO 80202

5 Facility Description

The plant receives sour hydrocarbon gas streams from gathering systems and processes the natural gas to remove condensate and sulfur. Process equipment used on site includes turbo expanders, separators, amine contactors and reboilers, glycol dehydrators and reboilers, and compression engines.

6 Materials Stored or Used

There are no materials stored on-site or used that are discharged on site so that they may move directly or indirectly into groundwater. Materials used or stored on site are summarized in the following table.

Material Stored/Used	Method of Storage
Natural Gas Condensate	Aboveground storage tank within secondary containment.
Produced Water Mixture	Aboveground storage tanks within secondary containment.
Engine Coolant (antifreeze)	Aboveground storage tank within secondary containment.
Methanol	Aboveground storage tanks within secondary containment.
Lube Oil	Aboveground storage tanks within secondary containment.
Equipment Skid/Washdown Water	Belowground storage tank within secondary containment.
Stabilized Oil Product	Aboveground storage tanks within secondary containment.
Demulsifier	Aboveground storage tanks within secondary containment.
Natural Gas Liquids	Aboveground storage tanks within secondary containment.
Triethylene Glycol	Aboveground storage tank within secondary containment.
Diesel	Aboveground storage tank within secondary containment.
Gasoline	Aboveground storage tank within secondary containment.
Process Softener Salt	On pallet on concrete foundation within a building
Hydrochloric Acid	Aboveground storage tank within secondary containment.
Sulfuric Acid	Aboveground storage tank within secondary containment.
Sodium Hypochlorite (bleach)	55-gallon drums within secondary containment.
Chemtreat (for pH control)	Aboveground storage tanks within secondary containment.
Caustic Soda (neutralizer for any spills)	In bags on concrete foundation within a building
Amine	Aboveground storage tank within secondary containment.
Waste Amine	Aboveground storage tank within secondary containment.
Soap	Aboveground storage tanks within secondary containment.
Cleaning solvent	Drum and aboveground storage tank within secondary containment.
Powdersolv cleaner	Aboveground storage tanks within secondary containment.
Corrosive inhibitors	Aboveground storage tanks within secondary containment.
Antifoam	55-gallon drum on concrete foundation within building
Used Oil	Portable aboveground storage tank
Petroleum-Stained Soil	On curbed concrete slab

7 Sources and Quantities of Effluent and Waste Solids

There are no effluent or waste solids discharged on site so that they may move directly or indirectly into groundwater. All effluent and waste solids generated at the facility are removed from the facility for off-site disposal in accordance with applicable NMOCD, NMED, and EPA regulations.

Separators/Scrubbers

Effluent or waste solids generated from separators or scrubbers are not discharged on site so that they may move directly or indirectly into groundwater. They are routed to a salt water disposal line for offsite disposal by Rice Engineering.

Boilers and Cooling Towers/Fans

Effluent or waste solids generated from boilers or cooling towers are not discharged on site so that they may move directly or indirectly into groundwater. They are routed to a salt water disposal line for offsite disposal by Rice Engineering.

Process and Storage Equipment Wash Down

Process and equipment washdown are not discharged on site so that they may move directly or indirectly into groundwater. They are routed to aboveground storage tanks and then to a disposal line for offsite disposal by Rice Engineering.

Solvents/Degreasers

Solvent or degreasers are not discharged on site so that they may move directly or indirectly into groundwater. They are routed to aboveground storage tanks and then to a disposal line for offsite disposal by Rice Engineering.

Spent Acids

Spent acids are not discharged on site so that they may move directly or indirectly into groundwater. They are routed to aboveground storage tanks and then to a disposal line for offsite disposal by Rice Engineering.

Used Engine Coolants

Engine coolants are not discharged on site so that they may move directly or indirectly into groundwater. They are recycled back through the engines.

Waste Lubrication and Motor Oils

Lubricating and motor oils are not discharged on site so that they may move directly or indirectly into groundwater. They are routed through an aboveground tank to the feed tank and then to the sales line for recycling.

Used Oil Filters

Used oil filters are not discharged on site so that they may move directly or indirectly into groundwater. Used oil filters are stored on site within containment and transported offsite for recycling.

Solids and Sludges

Solids and sludges are not discharged on site so that they may move directly or indirectly into groundwater. Tank bottoms are hauled offsite for proper disposal.

Painting Wastes

Painting wastes are not generally generated at the facility and therefore not discharged on site so that they may move directly or indirectly into groundwater. If they were generated, they would be transported offsite by Safety Kleen for proper management and/or disposal.

Sewage

Domestic discharges are made through two septic tanks and the associated leach systems subject to the Environmental Improvement Board's Liquid Waste Disposal Regulations, 20.7.3 NMAC.

Lab Wastes

Lab wastes are not discharged on site so that they may move directly or indirectly into groundwater. They are collected in a 40-gallon drum and transported offsite for disposal.

Other Liquids and Solid Wastes

Other liquids or solid wastes are not discharged on site so that they may move directly or indirectly into groundwater.

8 Liquid and Solid Waste Collection / Storage / Disposal

Collection/Storage

All liquid and solid wastes are collected and stored in containers for off-site disposal. The table below provides a summary of current storage and collection methods.

On November 19, 2008, DCP requested temporary permission for onsite storage of sulfur, due to a lack of availability of rail cars to transport the product to market. On November 20, 2008, OCD provided temporary permission for onsite storage of sulfur.

On-site Disposal

The only on-site disposal activities at the facility are for domestic sewage. There are two NMED permitted leach systems associated with the septic tanks and they are used for domestic waste only.

Off-site Disposal

All liquid and solid wastes are disposed off site. The following table provides information regarding wastes collected and stored for off site disposal and/or recycling.

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY
Produced water	Aboveground storage tank	Off-site Class II	Rice Engineering SWD Wells

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY
	within secondary containment	injection wells	permitted class II injection well
Boiler blowdown	Discharged directly to the Rice Engineering disposal line.	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well
Cooling tower blowdown	Aboveground storage tank within secondary containment	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well
RO Reject Water	Aboveground storage tank within secondary containment	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well
Process and Storage Equipment Washdown	Aboveground storage tank within secondary containment	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well
Storm Water from Process Skids	Aboveground storage tank within secondary containment	Off-site Class II injection wells	Rice Engineering SWD Wells permitted class II injection well
Spent acids	Used as treating chemical for cooling tower water only. Aboveground storage tank within secondary containment	Off-site disposal facility	Rice Engineering SWD Wells or other OCD permitted class II injection well
Used amine	Aboveground storage tank with containment	Off-site disposal facility	Controlled Recovery Inc. or Sundance Services Inc.
Used oil filters	Recycling dumpster	Off-site recycling	Thermofluids, Inc.
Used amine filters	Recycling dumpster	Off-site recycling	Thermofluids, Inc.
Used glycol filters	Recycling dumpster	Off-site recycling	Thermofluids, Inc.
Used inlet filters	Recycling dumpster	Off-site recycling	Thermofluids, Inc.
Used engine coolants	Routed back through engines for re-use.	NA	NA
Waste Lubrication and Motor Oils	Portable tank	Transported to heater/treater feed tank or stabilized and sold with NGLs (<1%)	NA
Painting wastes	Not generated in last 5 years. If generated, would go to central collection area	If generated would go to off-site disposal. Transported by Safety-	Off-site permitted disposal facility

WASTE	COLLECTION & STORAGE METHOD	FINAL DISPOSITION	RECEIVING FACILITY
	protected and stored on concrete pad	Kleen	
Sewage	Underground septic tanks	On-site leach fields	NMED permitted on-site leach field
Spent solvent	Parts washer	Recycled through parts washer. Off-site recycling if generated.	Safety Kleen
Spent sulfur catalyst	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.
Charcoal filter media	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.
Molecular sieve	Temporary aboveground roll-off container	Off-site OCD permitted facility for Exempt Wastes	Controlled Recovery Inc.
Used light bulbs	Cardboard boxes	Off-site recycling	Safety-Kleen
Used batteries	On-site collection point on pallets	Off-site recycling	Battery Technologies
Asbestos	Plastic bags and/or drums	Off-site disposal	Asbestos Removal Inc.
Municipal trash	Trash cans/bins, dumpsters	Off-site disposal	Waste Management Inc.
Soil contaminated with condensate, lube oil, glycol, and/or methanol	Stockpiled onsite on bermed impermeable concrete pad and treated with Microblaze to decompose hydrocarbons.	Following achievement of acceptable remediation levels, soil is for fill material, construction of secondary containment, and/or repairing access roads	NA
Amine contactor tower cleaning fluids	Job specific rental tanks	Off-site disposal	Controlled Recovery Inc.

9 Proposed Modifications

DCP requested a discharge permit modification for installation of a 94-gallon sump on December 16, 2008, and NMOCD approved the permit modification on December 17, 2008. The sump will collect rainwater and traces of lube oil from the new vapor recovery unit skid. It was designed in accordance with ASTM Standard D 4097-82.

10 Inspection, Maintenance, and Reporting

Routine inspections and maintenance are performed to ensure proper collection, storage, and off-site disposal of all wastes generated at the facility.

11 Spill / Leak Prevention and Reporting (Contingency Plans)

DCP will respond to and report spills as outlined in the DCP Environmental Compliance Manual and in accordance with the requirements of NMOCD [19.15.29.8 NMAC] and WQCC regulation [20.6.2.1203 NMAC].

12 Site Characteristics

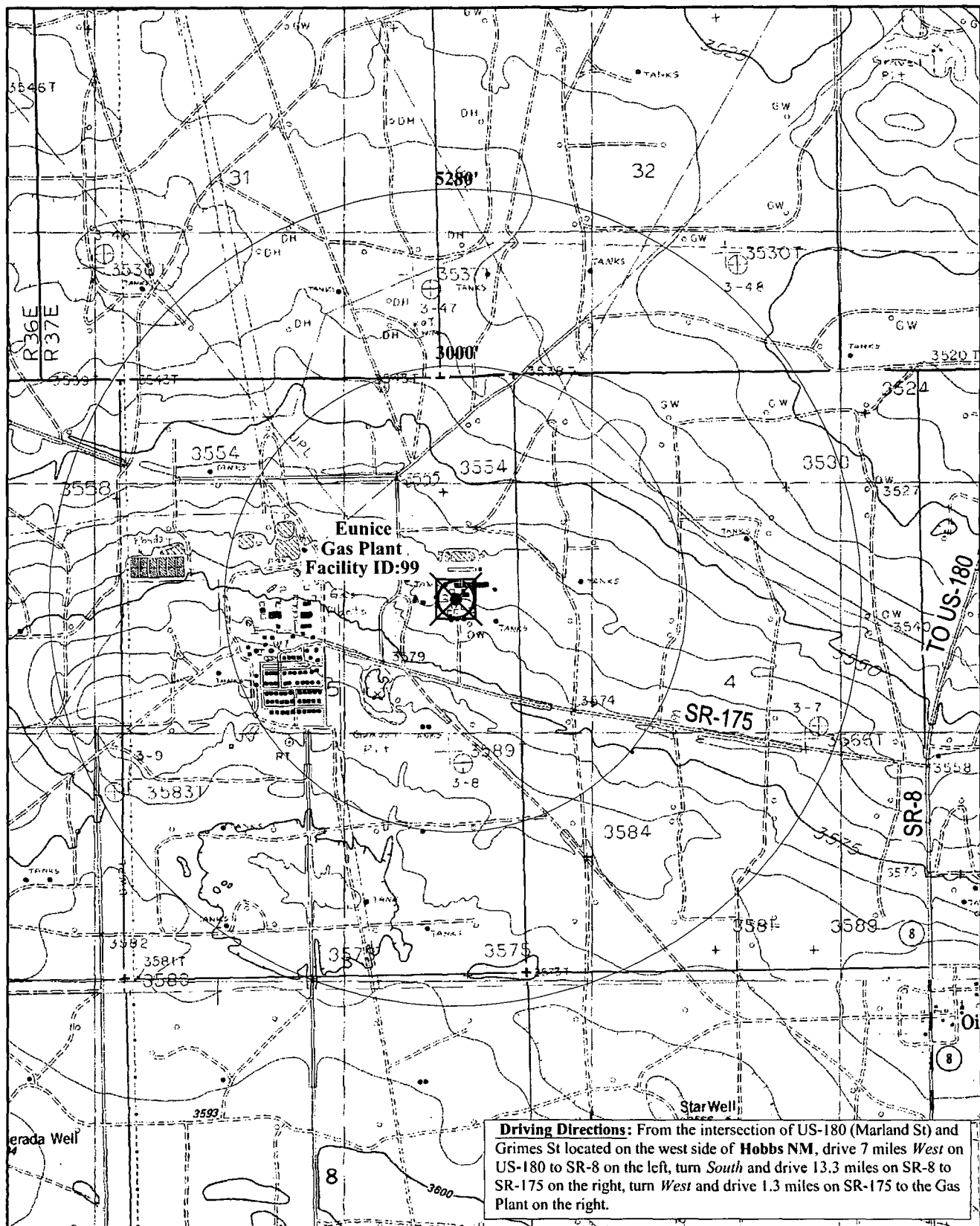
No Changes.

13 Additional Information

All unauthorized releases and discharges will be reported to the NMOCD in accordance with 19.15.29 NMAC and WQCC regulation, 20.6.2.1203 NMAC.

FIGURES

FIGURE 1. Site Location Map – Eunice Gas Plant



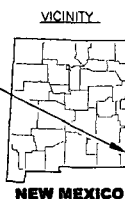
0 1 mile
0 1 kilometer



dcp
Midstream.

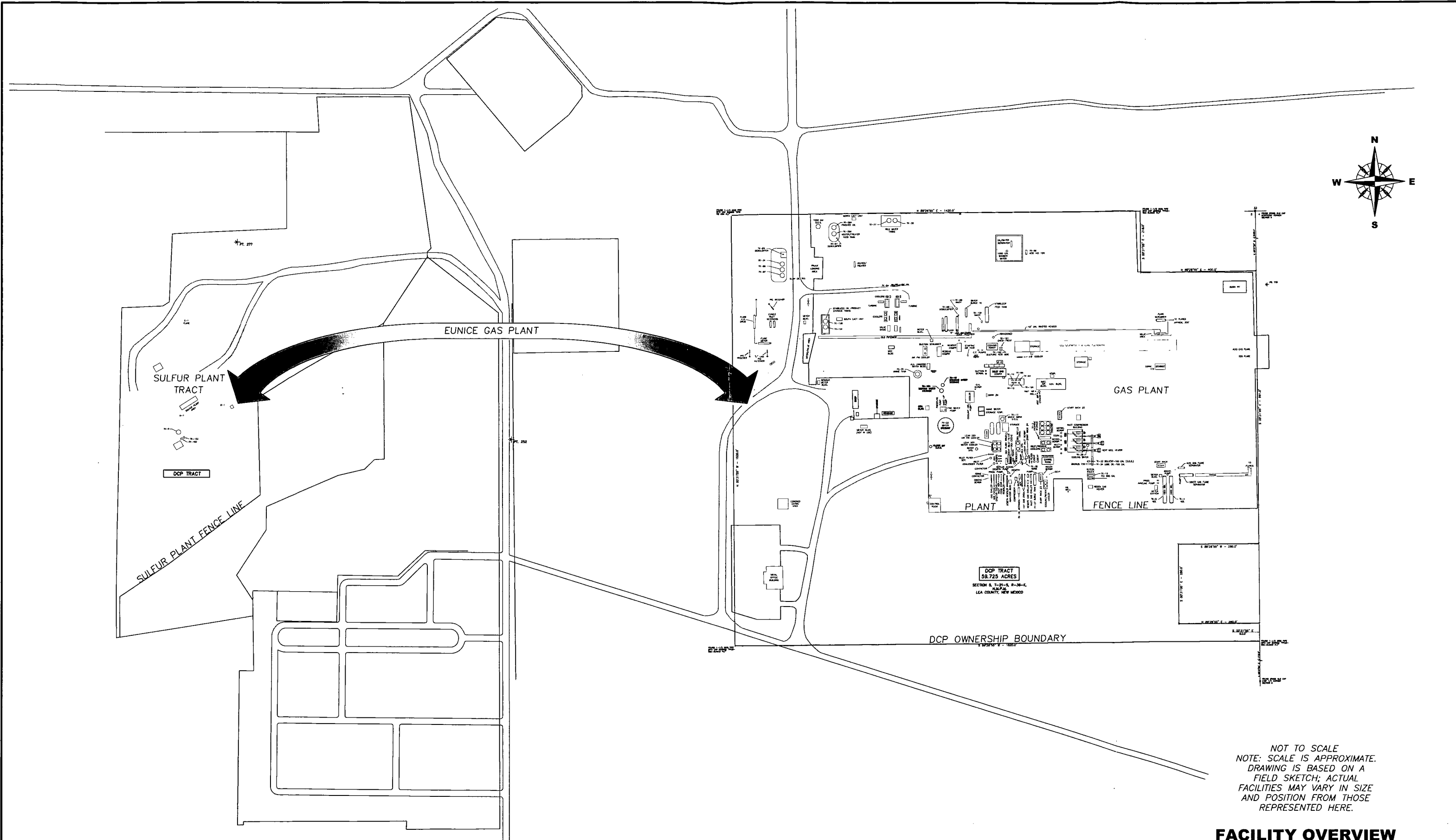
Eunice Gas Plant
Lea County, New Mexico
Zone 13 UTMH 660752m UTMV 3598658m
Lat. 32° 30' 49" Long. 103° 17' 19"

PHOTO VERIFIED



32103E3 Monument South
Source: USGS 1:24,000 scale
Drawn by: JRE
Revised by: JRE
Date 2-1-06
ENVIRONMENTAL
AFFAIRS DEPARTMENT

FIGURE 2. Facility Plot Plan Overview – Eunice Main Gas Plant and Sulfur Plant



REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.	REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.
0	12-23-08	DRAWN FROM DEFS SKETCH (12-29-03)	J.R.E.	D.E.K.									



FACILITY OVERVIEW

EUNICE GAS PLANT
EUNICE GATHERING SYSTEM

Lea County
NEW MEXICO

\\data\EhsDrawings\Mapping\NewMexico\Eunice\Eunice_SPCC_Diane

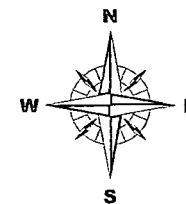
FIGURES 3. and 4. Eunice Main Gas Plant and Sulfur Plant

FOUND 1-1/2 IRON PIPE
WITH CAP MARKED "GPM"
NW COR PLT

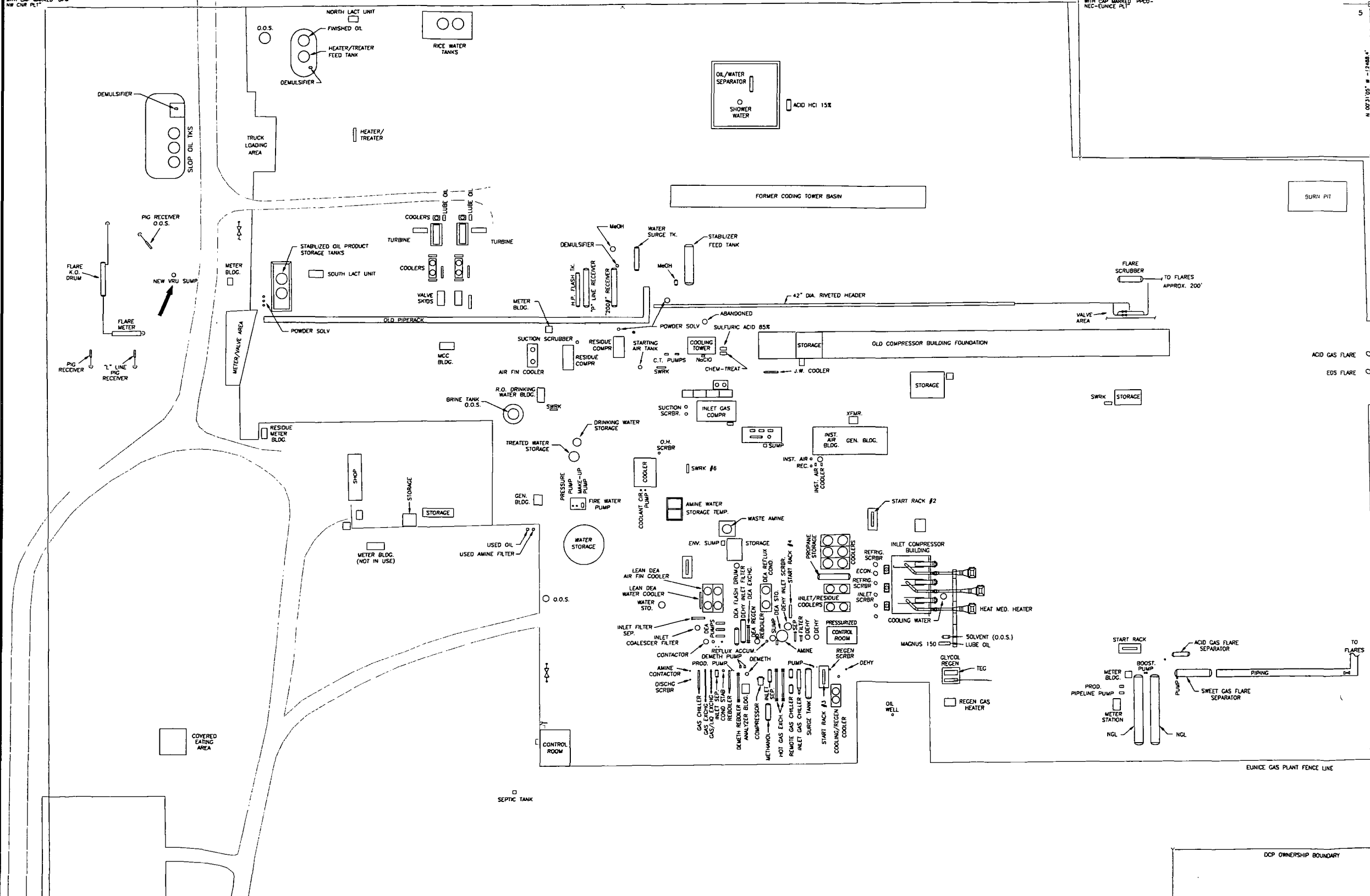
FOUND 1-1/2 IRON PIPE
WITH CAP MARKED "PPCO"
NE-CUNICE PLT

32

4 FOUND BRASS GLO CAP
NORTHEAST CORNER
SECTION 5



PT. 113



NOT TO SCALE
Note: This drawing is based on an aerial photograph
and a field sketch. As drawing is not to scale, actual
containers, equipment, or piping may vary in size and
position from those represented here.

PLOT PLAN

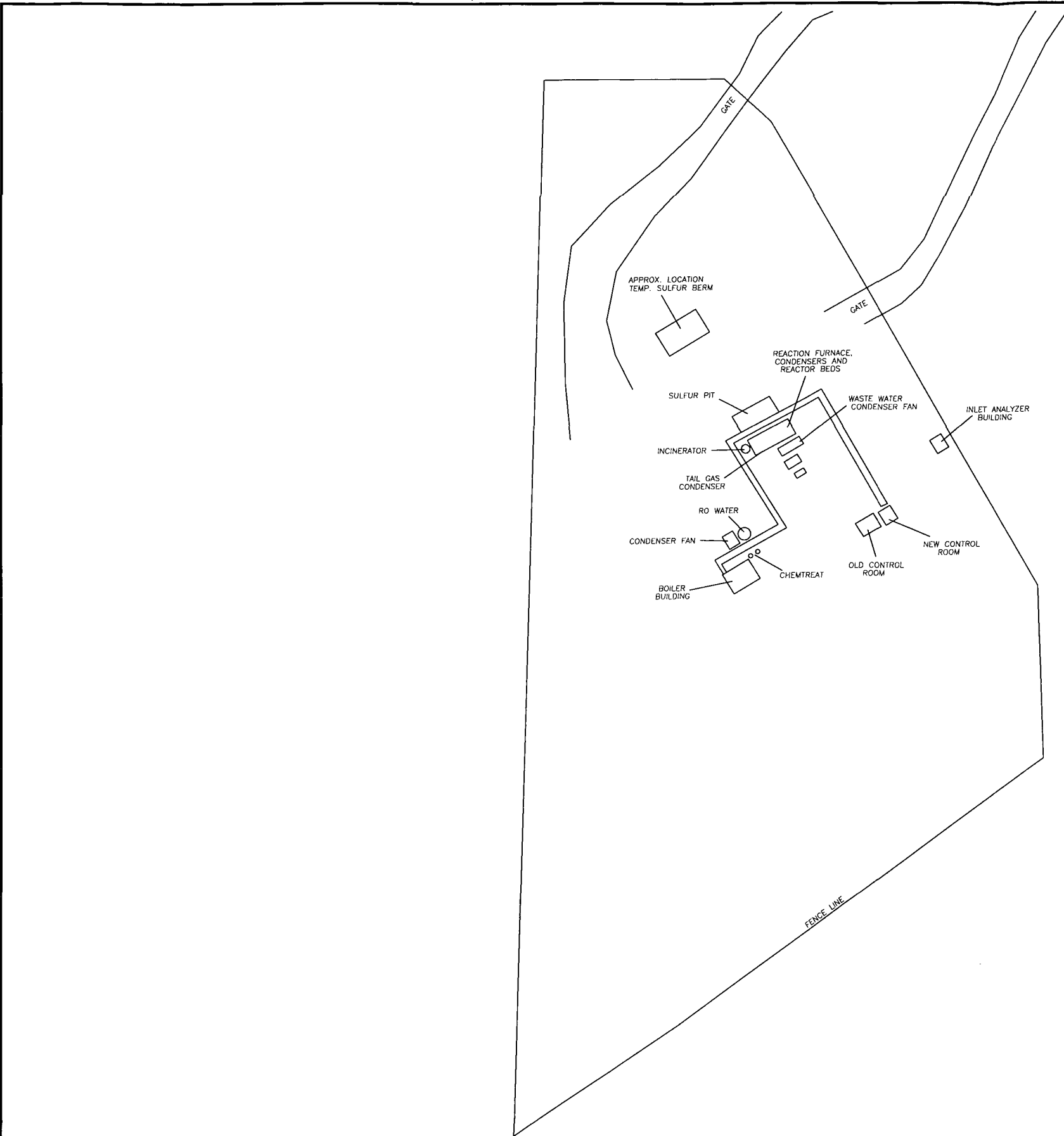
EUNICE GAS PLANT EUNICE GATHERING SYSTEM

Lea County
NEW MEXICO

DWG. NAME: \data\EhsDrawings\Mapping\NewMexico\Eunice\Eunice_Plot

REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.	REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.
0	3-21-07	DRAWN FROM DEFS SKETCH (12-29-03)	J.R.E.	J.R.									
1	12-15-08	REVISIONS FROM FIELD SKETCH	M.C.	D.K.									





NOT TO SCALE
NOTE: SCALE IS APPROXIMATE.
DRAWING IS BASED ON A
FIELD SKETCH; ACTUAL
FACILITIES MAY VARY IN SIZE
AND POSITION FROM THOSE
REPRESENTED HERE.

SULFUR PLANT

REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.
0	12-23-08	DRAWN FROM DEFS SKETCH (12-29-03)	J.R.E.	D.E.K.		

REV	DATE	REVISION	BY	CHK'D	ENGR.	ENGR. MGR.



**EUNICE GAS PLANT
EUNICE GATHERING SYSTEM**

**Lea County
NEW MEXICO**

\\data\EhsDrawings\Mapping\NewMexico\Eunice\Eunice_SPCC_Diane

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, December 17, 2008 8:16 AM
To: 'Kocis, Diane E'; Price, Wayne, EMNRD
Cc: Lang, Ruth M; Dunn, Philip B; Jackson, James; Bradford, Johnnie
Subject: RE: Request for minor modification to GW-016 (Eunice Gas Plant) for installation of a 94-gallon sump

Diane:

Your request for a "Minor Modification" to the OCD Eunice Gas Plant Discharge Permit (GW-016) is approved. Please incorporate routine inspections of sump consistent with your discharge permit.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this plan does not relieve DCP Midstream L.P. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve DCP Midstream L.P. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Kocis, Diane E [mailto:DEKocis@dcpmidstream.com]
Sent: Tuesday, December 16, 2008 1:42 PM
To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Cc: Lang, Ruth M; Dunn, Philip B; Jackson, James; Bradford, Johnnie
Subject: Request for minor modification to GW-016 (Eunice Gas Plant) for installation of a 94-gallon sump

Wayne and Carl,

Attached is a request for installation of a 94-gallon sump at DCP's Eunice Gas Plant (GW-16). The sump will collect rainwater and traces of lube oil from the new vapor recovery unit skid.

I have also attached a facility plot plan (planned tank installation location highlighted), construction drawing, construction specifications and a photo of the sump. Please note that in the "tank construction details" attachment, specifications for this tank are located in the bottom part of the file, immediately after the ASTM standard specifications.

Please let me know if additional information would be helpful and if I should copy the Artesia OCD office (Mike Bratcher) on this request.

Thank you for your attention to this matter.

Diane E. Kocis
Sr. Environmental Specialist
DCP Midstream

303.605.2176 direct line

720.236.2285 cell

DEKocis@dcpmidstream.com

This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From: Kocis, Diane E [DEKocis@dcpmidstream.com]
Sent: Tuesday, December 16, 2008 1:42 PM
To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Cc: Lang, Ruth M; Dunn, Philip B; Jackson, James; Bradford, Johnnie
Subject: Request for minor modification to GW-016 (Eunice Gas Plant) for installation of a 94-gallon sump
Attachments: Eunice GP GW-016 Discharge Permit Modification Request.doc; Eunice_Plot Revised 12-15-2008.pdf; VRU Sump.JPG; new sump 2'X4'.pdf; tank construction details.pdf; MurTex tank fabricators 081208-1.xlsx

Wayne and Carl,

Attached is a request for installation of a 94-gallon sump at DCP's Eunice Gas Plant (GW-16). The sump will collect rainwater and traces of lube oil from the new vapor recovery unit skid.

I have also attached a facility plot plan (planned tank installation location highlighted), construction drawing, construction specifications and a photo of the sump. Please note that in the "tank construction details" attachment, specifications for this tank are located in the bottom part of the file, immediately after the ASTM standard specifications.

Please let me know if additional information would be helpful and if I should copy the Artesia OCD office (Mike Bratcher) on this request.

Thank you for your attention to this matter.

Diane E. Kocis
Sr. Environmental Specialist
DCP Midstream

303.605.2176 direct line
720.236.2285 cell

DEKocis@dcpmidstream.com

This inbound email has been scanned by the MessageLabs Email Security System.



December 15, 2008

UPS NEXT DAY AIR (*Tracking Number 1Z F46 915 01 9690 5405*)

Mr. Wayne Price
Environmental Bureau Chief
Oil Conservation Division
New Mexico Energy, Minerals
& Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: Discharge Permit Modification Request (GW-016)
Eunice Gas Plant
Eddy County, New Mexico

Dear Mr. Price:

DCP requests a modification to Discharge Permit GW-016, for installation of a 2-barrel below grade sump at the Eunice Gas Plant. The sump is a fiberglass double-walled tank with leak detection. It will be used to collect rainwater and traces of lube oil from a new vapor recovery unit skid.

Enclosed are the manufacturers drawing, a facility plot plan with the planned installation location highlighted, a summary of the construction materials and a photograph of the sump.

If you have any questions concerning this planned installation, please contact me at (303) 605-2176. Please send all correspondence regarding this renewal to me at 370 17th Street, Suite 2500, Denver, CO 80202.

Sincerely,
DCP Midstream, LP

Diane E. Kocis
Senior Environmental Specialist

Enclosures

cc: NMOCD District 2 Office (*UPS Next Day Air Tracking No. 1Z F46 915 13 9609 5394*)
1301 W. Grand Avenue
Artesia, NM 88210



bcc: Jon Bebbington
Greg Kardos
Johnnie Lamb
Corp. Env. File 2.2.3.1 Eunice Gas Plant, NM

THE MUR-TEX COMPANY

FIBERGLASS FABRICATORS

PRICE QUOTATION

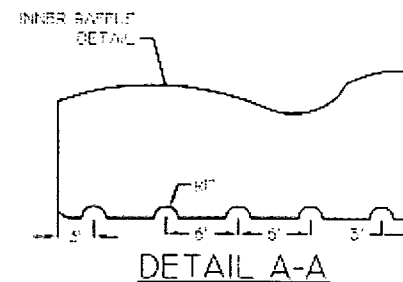
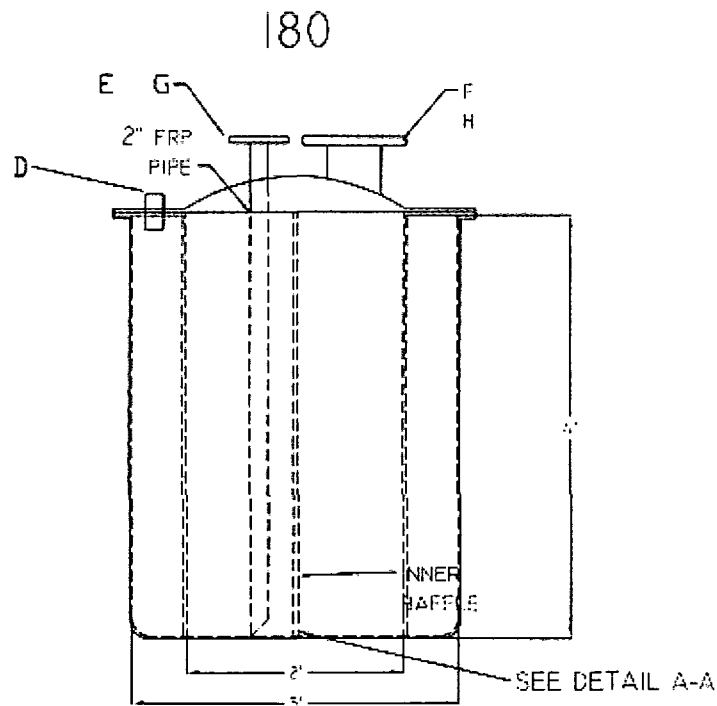
TO:	DCP Midstream	DATE: 8-12-08		THANK YOU FOR THIS OPPORTUNITY !!!!!!!!!!!!!! VALID FOR 60 DAYS
ATTN:	Pennie Ormsby	<u>INQUIRY NUMBER</u>	<u>QUOTE NUMBER</u>	
ADDRESS	# 10 Desta Drive Suite 400w		081208-1	
CITY, ST	Midland, TX	TERMS	<u>FOB</u>	
PHONE	432-620-4105	net 30	Amarillo	
FAX		<u>SHIPPING METHOD</u>	<u>SALESPERSON</u>	
E-MAIL	plormsby@dcpmidstream.com	Mur-Tex	L. Vasquez	

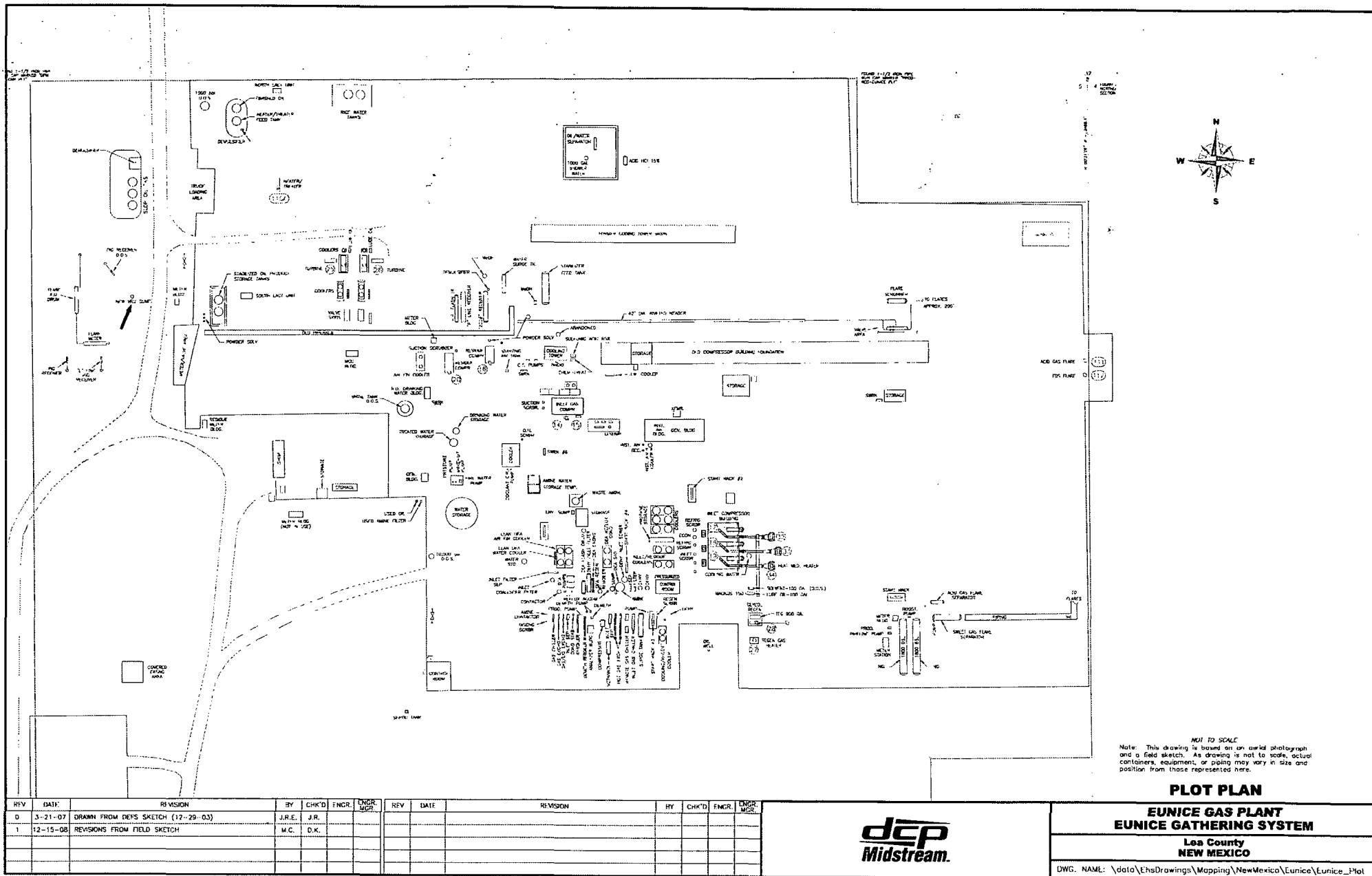
HERE IS THE MUR-TEX CO'S QUOTATION ON THE GOODS NAMED, SUBJECT TO THE CONDITIONS NOTED:

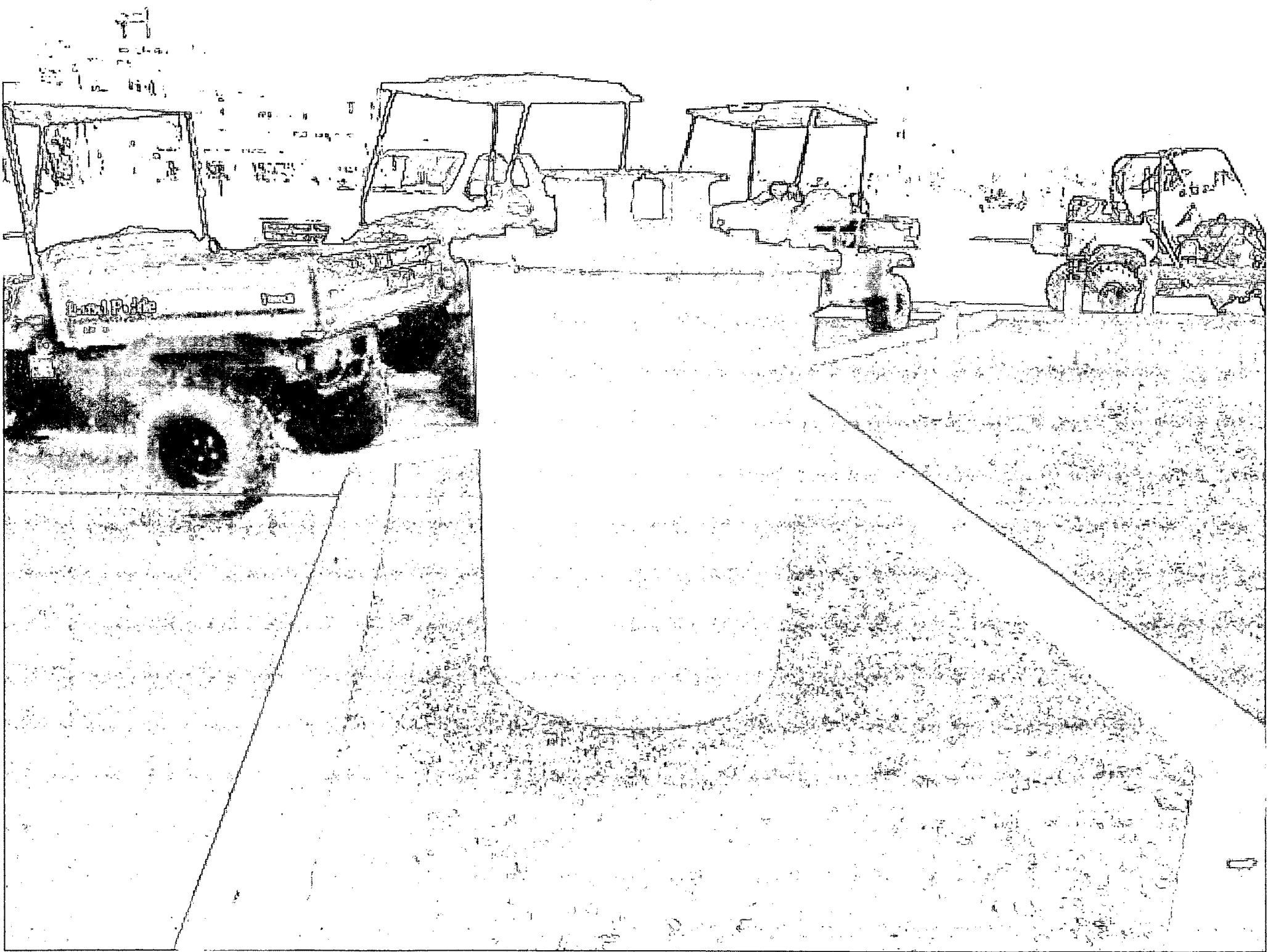
QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED
1	<p>2' dia x 4' tall D.C. fiberglass tank</p> <p>Corrosion liner: V.E.</p> <p>Exterior layer: GP</p> <p>Exterior Color: Tan</p> <p>Pressure: Atmospheric</p> <p>Construction: ASTM D 4097</p> <p>Temperature: Ambient</p> <p>Service:</p> <p>Capacity: 94 gallons</p> <p>Nozzles: per drawing 080108-1</p> <p>DELIVERY: Mur-Tex will ship on or before 6 weeks after receipt of customer purchase order and approved drawings.</p> <p>SUBMITTALS: No later than <u>8</u> days after receipt of the purchase order, Mur-Tex will supply approval drawings and other submittals.</p> <p>SIGNATURE _____</p>	\$1,021.00	\$1,021.00

CONDITIONS: The prices and terms on this quotation are not subject to verbal changes or other agreements unless in writing by the Seller. All quotes and agreements are contingent upon strikes, accidents, fires, availability of materials and all other causes beyond our control. Prices are based on cost and conditions existing on date of quotation and are subject to change by the Seller before final acceptance. Typographical and stenographic errors are subject to correction. Purchaser agrees to accept either overage or shortage not in excess of 10% to be charged for pro-rata. Purchaser assumes liability for patent and copyright infringement when goods are made to Purchaser's specifications. If quotation specifies material to be furnished by the Purchaser, ample allowance must be made for reasonable spoilage and material must be of suitable quality to facilitate efficient production. Conditions not specifically stated herein shall be governed by established trade customs. Terms inconsistent with those stated herein may appear on Purchaser's formal order will not be binding on the Seller.

511 WEST 48TH AVENUE * AMARILLO, TX 79110
P.O. BOX 31240 * AMARILLO, TX 79120
(806) 373-7418 * (800) 299-7418 * FAX (806) 373-9448
lvasquez@mur-tex.com

[illegible]







Standard Specification for CONTACT-MOLDED GLASS-FIBER-REINFORCED THERMOSET RESIN CHEMICAL-RESISTANT TANKS¹

This standard is issued under the fixed designation D 4097; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers cylindrical tanks fabricated by contact molding for above-ground vertical installation, to contain aggressive chemicals at essentially atmospheric pressure, and made of a commercial-grade polyester, vinyl ester, or furan resin. Included are requirements for materials, properties, design, construction, dimensions, tolerances, workmanship, and appearance.

1.2 This specification does not cover the design of vessels intended for pressure above hydrostatic, vacuum conditions, or vessels intended for use with liquids heated above their flash points.

1.3 The values given in parentheses are provided for information purposes only.

NOTE 1—Special design consideration should be given to vessels subject to superimposed mechanical forces, such as earthquakes, wind load, or agitation, and to vessels subject to service temperature in excess of 180°F (82°C).

2. Applicable Documents

2.1 ASTM Standards:

- C 581 Test for Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures²
- C 582 Specification for Reinforced Plastic Laminates for Self-Supporting Structures for Use in a Chemical Environment³
- D 618 Conditioning Plastics and Electrical Insulation Materials for Testing⁴
- D 638 Test for Tensile Properties of Plastics⁵
- D 790 Tests for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials⁵
- D 883 Definitions of Terms Relating to Plastics⁶

D 2583 Test for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor⁵

D 2584 Test for Ignition Loss of Cured Reinforced Resins⁷

D 2996 Specification for Filament-Wound Reinforced Thermosetting Resin Pipe³

D 2997 Specification for Centrifugally Cast Reinforced Thermosetting Resin Pipe³

F 412 Definitions of Terms Relating to Plastic Piping Systems¹

3. Terminology

3.1 *General*—Definitions are in accordance with Definitions D 883 and F 412, unless otherwise indicated.

3.2 *contact molding*—includes the “hand lay-up” or a combination of the “hand lay-up” and the “spray-up” manufacturing processes.

4. Classification

4.1 Tanks meeting this specification are classified according to type as follows:

4.1.1 *Type I*—Tanks manufactured with a single generic type of thermoset resin throughout.

4.1.2 *Type II*—Tanks manufactured with different generic types of thermoset resin in the barrier and the structural portion.

¹ This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.23 on Reinforced Plastic Piping Systems and Chemical Equipment.

Current edition approved Jan. 29, 1982. Published May 1982.

² Annual Book of ASTM Standards, Parts 34 and 35.

³ Annual Book of ASTM Standards, Part 34.

⁴ Annual Book of ASTM Standards, Parts 22, 35, and 39.

⁵ Annual Book of ASTM Standards, Part 35.

⁶ Annual Book of ASTM Standards, Parts 34, 35, and 36.

⁷ Annual Book of ASTM Standards, Part 36.



NOTE 2—The external corrosive environment due to spillage or corrosive vapors should be considered when specifying Type II tanks (see 7.1.3.2).

5. Materials

5.1 *Resin*—The resin used shall be a commercial grade, corrosion-resistant thermoset that has either been evaluated in a laminate by test in accordance with 11.3, or that has been determined by previous documented service to be acceptable for the service conditions. Where service conditions have not been evaluated, a suitable resin may also be selected by agreement between manufacturer and purchaser.

5.1.1 The resin shall contain no fillers or pigments except as follows:

5.1.1.1 A thixotropic agent that does not interfere with visual inspection of laminate quality, or with the required corrosion resistance of the laminate, may be added for viscosity control.

NOTE 3 The addition of a thixotropic agent will reduce the resistance of many resin systems to certain corrosive chemical environments.

5.1.1.2 Resin shall contain no pigments, dyes, or colorants, except as agreed upon between the manufacturer and the purchaser.

NOTE 4 The addition of pigments, dyes, or colorants may interfere with visual inspection of laminate quality.

5.1.1.3 Ultraviolet absorbers may be added for improved weather resistance if agreed upon between the manufacturer and the purchaser.

5.1.1.4 Antimony compounds or other fire-retardant agents may be added to halogenated resins for improved fire resistance, if agreed upon between the manufacturer and the purchaser.

5.2 *Reinforcement* The reinforcing materials used shall be commercial grades of glass fiber sized with coupling agents compatible with the resin used. The reinforcement for the inner surface (7.1.1) shall be a suitable chemical-resistant glass surfacing mat, or where specified, an organic fiber surfacing material. The reinforcement for the balance of the laminate shall be an E-glass fiber reinforcement.

6. Design Requirements

6.1 *Straight Shell* The minimum required wall thickness of the cylindrical straight shell at any fluid level shall be determined by the following equation, but shall not be less than

$\frac{3}{16}$ in.:

$$t = PD/2S_h = 0.036 \gamma HD/2S_h \text{ or } (9807 \gamma HD/2S_h)$$

where:

t = wall thickness, in. (mm),

S_h = allowable hoop tensile stress (not to exceed $\frac{1}{10}$ of the ultimate hoop strength), psi (see 11.8),

P = pressure, psi (kPa),

H = fluid head, in. (mm),

γ = specific gravity of fluid, and

D = inside diameter of tank, in. (mm).

NOTE 5—The calculation is suitable for the shell design of elevated dished-bottom tanks that are mounted or supported below the tangent of the dished-bottom head. Special consideration must be given to the loading on the straight shell at the support when tank has mounting supports located above the tangent line.

NOTE 6—Table X2.1, Appendix X2, illustrates typical straight-shell wall thicknesses.

6.2 *Top Head*—The top head, regardless of shape, shall be able to support a 250-lb (113.4 kg) load on a 4 by 4-in. (100 by 100 mm) area without damage and with a maximum deflection of $\frac{1}{2}\%$ of the tank diameter.

6.2.1 The minimum thickness of the top head shall be $\frac{3}{16}$ in. (4.8 mm).

NOTE 7 Support of auxiliary equipment, snow load, or operating personnel, may require additional reinforcement or the use of stiffening ribs, or both, sandwich construction, or other stiffening systems.

6.3 Bottom Head:

6.3.1 The minimum thickness for a fully supported flat-bottom head shall be as follows:

$\frac{3}{16}$ in. (4.8 mm) for 2 to 6-ft (0.6 to 1.8-m) diameter,

$\frac{1}{4}$ in. (6.4 mm) for over 6 to 12-ft (1.8 to 3.7-m) diameter,

and

$\frac{5}{16}$ in. (9.5 mm) for over 12-ft (3.7-m) diameter.

6.3.2 Heads may be molded integrally with the straight-shell, or may be molded separately with a 4-in. (100-mm) minimum straight flange length for subsequent joining to shell.

6.3.3 The radius of the bottom knuckle of a flat-bottom tank shall be not less than $1\frac{1}{2}$ in. (38 mm). The minimum thickness of the radiused section, shall be equal to the combined thickness of the shell wall and the bottom. The reinforcement of the knuckle radius area shall taper so that it is tangent with the flat bottom, and shall not extend beyond the tangent line onto the tank bottom, but shall extend up the vertical tank wall a minimum of 4 in. (100 mm) on tanks up to 4 ft (1.25 m) in diameter, and 12

in. (305 mm) on 24 in. diameter. The reinforcement into the side wall or 3 to 4 in. (76 to 100 mm) of manufacture that reinforcement beyond tangent point, configuration, are a function of the tank shape. The bottom shall have a uniform contact when the tank is filled.

6.3.4 The thickness of the bottom suitable for the fluid head shall be determined by the following equation, but not less than (4.8 mm):

$$t = 0.885 PR/S = 0.885 (0.036 \gamma H)$$

where:

t = thickness, in.

S = allowable stress

γ = specific gravity

P = pressure, psi

R = inside radius

H = distance from deepest port

NOTE 8 This equation in Appendix X3 shows objection has been raised by RTR material knuckle should be considered and this document has been determined.

6.3.5 The dished radius of curvature of the inside diameter and a knuckle radius of the head.

6.4 *Open-Top* open-top tanks shall have a reinforcing flange or be sufficiently rigid to tank after installation in accordance with 11.3.

6.5 Joints:

6.5.1 The second joint to join hoop segments to join the bottom shall be equal to the shell

in. (305 mm) on tanks over 4 ft (1.25 m) in diameter. The reinforcement shall then taper into the side wall over an additional length of 3 to 4 in. (76 to 100 mm) (see Fig. 1). Methods of manufacture that extend additional bottom reinforcement beyond the bottom knuckle radius tangent point, but maintain flat bottom configuration, are also permissible. The perimeter of the tank shall be a flat plane, and the bottom shall have no projections that will prevent uniform contact with a flat support surface when the tank is filled with liquid.

6.3.4 The thickness of an elevated dished bottom suitable for supporting the weight of the fluid head shall be determined by the following equation, but shall not be less than $\frac{3}{16}$ in. (4.8 mm):

$$t = 0.885 \frac{PR}{S} = \frac{0.885 (0.036 \gamma HR)/S \text{ or } (0.885(9807 \gamma HR)/S)}$$

where:

- t = thickness, in. (mm),
- S = allowable stress (not to exceed $\frac{1}{10}$ of ultimate strength), psi (kPa) (see 11.8),
- γ = specific gravity of fluid,
- P = pressure, psi (kPa),
- R = inside radius of dished head, in. (mm), and
- H = distance from the top of the fluid to the deepest portion of the bottom, in. (mm).

NOTE 8—This equation and the alternative shown in Appendix X3 should be used with caution since objection has been raised concerning their applicability to RTR materials. Discontinuity stresses at the knuckle should be considered. This is under study and this document will be revised when a solution has been determined.

6.3.5 The dished-bottom head shall have a radius of curvature that is equal to or less than the inside diameter of the tank straight shell, and a knuckle radius of at least 6% of the diameter of the head.

6.4. *Open-Top Tanks*—The top edge of open-top tanks shall have a horizontal reinforcing flange or other means of reinforcement sufficiently rigid to maintain the shape of the tank after installation. The flange shall be in accordance with Table 1.

6.5. Joints:

6.5.1 The secondary laminate joints are used to join hoop segments of the straight shell, or to join the bottom or top head to the shell, the thickness of the structural joint overlay shall be equal to the shell thickness as determined in

6.1.

6.5.2 The minimum width of the structural joint overlay for bottom supported tanks is shown in Table 2.

6.5.3 The corrosion-resistant barrier component of the joint shall be formed in the same manner as the inner surface and the interior layer (7.1.1 and 7.1.2) and shall not be considered a structural element in determining joint thickness. The minimum overlay width shall be 4 in. (100 mm).

6.5.4 The thickness of a joint near the bottom tangent line shall not be considered to contribute to the knuckle reinforcement of 6.3.3, but shall be additive thereto.

6.6. Fittings:

6.6.1 The more common method of fabricating nozzles is by contact molding both the nozzle neck and flange to the dimensions shown in Table 3. The corrosion-resistant barrier of the nozzle shall be at least equivalent to the inner surface and interior layer (7.1.1 and 7.1.2) and shall be fabricated from the same resin as the tank head or shell to which it is attached.

6.6.2 Acceptable alternative methods are the use of contact-molded pipe, filament-wound pipe in accordance with Specification D 2996, or centrifugally cast pipe in accordance with Specification D 2997, joined to a suitable contact-molded, compression-molded, or filament-wound flange. The corrosion-resistant barrier of the contact molded portions of such nozzles shall be equivalent to the inner surface and interior layer (7.1.1 and 7.1.2) and shall be fabricated from the same resin as the tank head or shell to which it is attached.

6.6.3 Nozzles 4 in. (100 mm) and smaller shall be supported by a suitable gusseting technique using plate gussets or conical gussets, as shown in Figs. 2 and 3. Plate gussets, where needed, shall be evenly spaced around the nozzle and are to be added after complete assembly of nozzle on shell. Larger nozzles, subject to superimposed mechanical forces, require special consideration.

6.6.4 Manways are treated as nozzles and have a minimum inside diameter of 18 in. (460 mm). Table 7 should be used as a guide for flange and cover design for hydrostatic pressures up to 15 psig (103 kPa). A dished cover of reduced thickness designed in accordance with 6.3.4 may be used, provided the flange

thickness is at least equal to that of the mating flange.

6.6.4.1 Manways installed in top heads may be of the flanged design indicated in 6.6.4 for atmospheric pressure, or may be of a non-flanged design, as agreed upon between the manufacturer and the purchaser.

6.6.5 Vents shall be provided on all closed-top tanks. Minimum vent size should exceed the size of the largest inlet or outlet nozzle.

NOTE 9—Special vent sizing consideration should be given to the numerous operating situations that could otherwise cause a positive or a negative pressure in a closed tank. Since overfilling a closed tank with a top vent can cause it to be overpressurized, a suitably sized overflow or other appropriate protection may be required to prevent overpressuring the tank.

6.7. *Hold-Down Lugs*—Hold-down lugs shall be a requirement on all tanks for outdoor service, or on tanks subject to seismic loads or vibration, unless otherwise agreed upon between the manufacturer and the purchaser.

6.7.1 Hold-down lugs shall be placed on the tank so they do not protrude below the bottom surface of the tank.

6.8 Lifting lugs or other provisions for lifting tanks (see Appendix X1) shall be provided for tanks over 500 lb (226.8 kg) in weight.

7. Laminate Construction Requirements

7.1. *Structural Tank*—The laminate comprising the structural tank (bottom, cylindrical shell, top head) shall consist of a corrosion-resistant barrier comprised of an inner surface and interior layer, plus a structural layer.

7.1.1. *Inner Surface*—The inner surface exposed to the chemical environment shall be a resin-rich layer 0.010 and 0.020 in. (0.254 to 0.508 mm) thick reinforced with a suitable chemical-resistant glass-fiber surfacing mat, or with an organic-fiber surfacing mat, in accordance with 5.2.

NOTE 10—This resin-rich inner surface will contain less than 20 % by weight of reinforcing material.

7.1.2. *Interior Layer*—The inner surface layer exposed to the corrosive environment shall be followed with a layer composed of resin reinforced only with noncontinuous glass-fiber strands applied in a minimum of two plies of chopped strand mat equivalent to a total of 3 oz/ft² (0.92 kg/m²). As an alternative, a minimum of two passes of chopped roving, mini-

mum length 0.5 in. (13 mm) to a maximum length of 2.0 in. (50.8 mm), shall be applied uniformly by the spray-up process to an equivalent weight. Each ply of mat or pass of chopped roving shall be well rolled prior to the application of additional reinforcement. The combined thickness of the inner surface and interior layer shall not be less than 0.10 in.

7.1.2.1 Glass content of the inner liner and the interior layer combined shall be $27 \pm 5\%$ by weight, when tested in accordance with 11.4.

7.1.3. *Structural Layer*—Subsequent reinforcement shall consist of 1.5 oz/ft² (0.46 kg/m²) chopped strand mat or equivalent weight of chopped roving and such additional number of alternating plies of 24 oz/yd² (814 g/m²) woven roving and 1.5 oz/ft² (0.46 kg/m²) mat or equivalent chopped roving as required to achieve the thickness as calculated according to 6.1. The designations of these specific weights of glass reinforcement are for reference only and may consist of other weight combinations of reinforcement materials, when agreed upon between the manufacturer and the purchaser. Each successive ply or pass of reinforcement shall be well-rolled prior to the application of additional reinforcement.

7.1.3.1 When the outer surface of this structural layer will be subject to spillage or a corrosive environment, a resin-rich layer in accordance with 7.1.1 shall be applied over the final layer of chopped strand glass reinforcement.

7.1.3.2 Where air-inhibited resin is exposed to air, full surface cure shall be obtained by coating such surface with a gel coat of resin containing 0.2 to 0.6 % paraffin with a melt point of 122 to 126°F (50 to 52°C). Other techniques such as sprayed, wrapped, or overlaid films are also acceptable methods to attain surface cure.

7.1.3.3 Tanks used for outdoor service or subject to ultraviolet exposure shall incorporate provisions to minimize ultraviolet degradation. Suitable methods include use of ultraviolet absorbers, screening agents, incorporation of pigment of sufficient opacity in the outer surface of the resin rich layer, or use of resins inherently resistant to ultraviolet degradation. Since pigmentation makes inspection difficult, it shall be added after inspection with supplier-purchaser agreement.

7.1.4 All woven roving and surfacing mat



shall be overlapped. Laps in subsequent layers shall be staggered at least 2.25 in. (67 mm) from laps in the preceding layer.

7.1.5 Where woven roving is used, chopped-strand glass reinforcement shall be used as alternating and final layers.

7.2 Joints:

7.2.1 The width of the first layer of joint overlay shall be 3 in. (76 mm) minimum. Successive layers shall uniformly increase in width to that specified in Table 2 to form a smooth contour laminate centered on the joint.

7.2.2 A highly filled resin paste shall be placed in the crevices between joined pieces, leaving a smooth surface for lay-up.

7.2.3 The cured resin surfaces of parts to be joined shall be roughened to expose glass fibers. This roughened area shall extend beyond the lay-up areas so that no reinforcement is applied to an unprepared surface. Surfaces shall be clean and dry before lay-up. The entire roughened area shall be coated with paraffinated resin after joint overlay is made.

7.2.4 The interior overlay of a joint shall consist of a minimum of two plies of 1.5 oz/ft² (0.46 kg/m²) chopped strand mat reinforcement, followed by a resin-rich layer reinforced with surfacing mat. This overlay shall be the equivalent of 7.1.1 and 7.1.2 combined, and shall be centered on the joint. It shall be finished in accordance with 7.1.3.2.

7.2.5 The outer structural overlay of a joint shall be centered on the joint, fabricated in accordance with 6.5.1, and shall be finished in accordance with 7.1.3.2.

7.3 Fittings and Accessories:

7.3.1 The surface of fittings, tank accessories, and the laminates required for their installation, that are exposed to the corrosive media, shall be constructed in accordance with 7.1.1 and 7.1.2.

7.3.1.1 The cut edges of laminates containing woven roving exposed to the chemical environment shall be sealed with a laminate conforming to 7.1.1 and 7.1.2. All other cut edges and any machined flange faces shall be coated with resin only. In either case, the resin used shall be that in the equipment laminate and must contain paraffin to assure adequate cure.

7.3.2 *Nozzle and Manway Installation*—Flanged nozzles may be installed with the pipe stub flush with the inside of the tank shell (Flush Type, Fig. 5) or projecting inside the

tank (Penetrating Type, Fig. 6).

7.3.2.1 *Nozzle Projection*—The installed nozzle shall maintain a minimum clearance of 3 in. (76 mm) between the back face of the flange and the exterior of the cutout opening reinforcement. In addition, this clearance shall not be less than the shear distance required for proper installation of the nozzle (see 7.3.3).

7.3.2.2 *Cutout Reinforcement Laminate*—

When a vessel shell or head is cut in an area bearing hydrostatic pressure, P , the cutout shall be reinforced on a circular area concentric with the cutout as shown in Figs. 5 and 6. Acceptable patterns of reinforcement placement are shown in Fig. 4.

7.3.2.3 *Cutout Reinforcement Diameter*—

The outer diameter of the cutout reinforcing laminate, d_r , shall not be less than two times the nominal nozzle diameter. For nozzles less than 6 in. (152 mm) in diameter, the minimum cutout reinforcement diameter, d_r , shall be the nominal nozzle size plus 6 in. (152 mm).

7.3.2.4 *Cutout Reinforcement Thickness*—

The thickness, t_r , of the cutout reinforcement laminate for nozzles installed in cylindrical shells or dished heads shall be determined as follows:

$$t_r = PDK/2S_r$$

where:

K = 1.0 for nozzles 6-in. (152 mm) diameter and larger,

$K = d/d_r - d$ for nozzles less than 6-in. (152 mm) diameter,

P = hydrostatic pressure at the point of nozzle installation, psi (kPa),

D = inside diameter of tank, in. (mm),

S_r = allowable tensile stress (not to exceed $\frac{1}{10}$ of the ultimate strength of the cut-out reinforcing laminate) (Table 5),

d = nominal nozzle diameter, in. (mm), and

d_r = cutout reinforcement diameter, in. (mm). This thickness, t_r , may be applied to the outer or inner surfaces, or be divided between them as shown in Fig. 4.

NOTE 11—When t_r is calculated to be $\frac{1}{16}$ in. (3.2 mm) or less, it can be disregarded, as the strength requirements will be met by t_o , the overlay thickness shown in Figs. 5 and 6.

7.3.2.5 When reinforcing materials are cut to facilitate placement around an installed nozzle, joints in successive reinforcing layers should be staggered to avoid overlapping and

(on cylindrical shell installations) shall not be placed so they parallel the axis of the tank. The intent of this requirement is to avoid orienting joints in reinforcing layers perpendicular to the maximum load-bearing direction (circumferential).

7.3.3 Nozzle Installation Laminates—Nozzle installation laminate dimensions are shown in Figs. 5 and 6. Installation laminate placements are shown in Fig. 4. The all interior installation laminate placement is used only when the nozzle being installed has an integral conical gusset preventing application of an exterior laminate.

7.3.3.1 Total Installation Thickness—The inside and outside installation thicknesses shall be based on a combined total thickness, t_w , that shall be defined as the lesser of either the cutout reinforcement thickness, t_r , or two times the nozzle neck thickness, t_n .

7.3.3.2 Inside Installation Laminate Construction—The inside installation laminate shall be constructed using only noncontinuous glass reinforcements. When woven roving is used it must be covered by a laminate equivalent to 7.1.1 and 7.1.2. When the inside laminate consists only of a corrosion barrier, the length of the laminate, h_i , shall be the lesser of 3 in. (76 mm) or the nominal radius of the nozzle.

7.3.3.3 Installation Laminate Lengths—The length of the outside laminate, h_o , and the inside laminate, h_i , shall each be equal to the shear length, h_s , given in Table 6, based on the thickness of the individual laminates.

7.3.3.4 In nozzle installations where the installation overlay is installed before the cutout reinforcement has fully cured, that portion of the overlay that extends onto the tank shell may be considered to become a part of the cutout reinforcement laminate if the installation laminate length is extended to the required cutout reinforcement diameter, d_r .

7.3.4 Gussets—If gussets (either plate or conical) are used to stiffen the installed nozzle, gusset installation laminates are in addition to the requirements of 7.3.3. Other gusseted nozzle installations may be used as agreed upon between the manufacturer and the purchaser.

7.3.5 Location of Cutouts on the Shell—For cutouts made within 6 in. (152 mm) of the knuckle radius area of a head or within 6 in. (152 mm) of a shell-to-shell or shell-to-head joint additional hole cutout reinforcement is

required, unless the area of installation is at a point within the vessel that operates at atmospheric pressure.

7.3.6 All nozzles and manways shall be installed in accordance with Figs. 5 and 6. The interior overlay shall present the same corrosion-resistant construction to the fluid as specified in 7.1.1 and 7.1.2.

8. Dimensions and Tolerances

8.1 Standard tank diameters, based on internal measurements with the tank in the vertical position, are listed in Table 4. Tolerance on the inside diameter, including out-of-roundness, shall be $\pm 1\%$.

8.2 Where employed, shell taper shall be additive to the figure used for the tank diameter, unless otherwise specified by the manufacturer and accepted by the purchaser. The shell taper shall not exceed $\frac{1}{2}^\circ$ per side.

8.3 Tolerance on overall tank height shall be $\frac{1}{2}\%$, but shall not exceed $\pm \frac{1}{2}$ in. (± 13 mm).

8.4 Nozzle flange faces shall be perpendicular to the centerline of the pipe within tolerances shown in Fig. 7, and shall be flat within $\pm \frac{1}{32}$ in. (± 0.8 mm) through 18-in. (457-mm) nozzle size and $\pm \frac{1}{16}$ in. (± 1.6 mm) for larger nozzle sizes.

8.5 The standard orientation of flanges shall provide bolt holes straddling the normal centerlines of the tank. Bolt holes of flanges located on the tank top or bottom shall straddle the principal Y-Y centerline of the vessel or lines parallel to it.

8.6 The location of nozzles shall be held to the tolerances shown in Fig. 7.

9. Workmanship

9.1 The finished laminate shall be free as commercially practicable from defects such as foreign inclusions, dry spots, air bubbles, pinholes, pimples, and delaminations that will impair the serviceability of the vessel.

NOTE 12—A representative laminate sample may be used for determination of an acceptable surface finish and acceptable level of visual imperfections.

9.2 The inner surface shall be smooth, free of cracks, and crazing, and be limited to two pits per square foot. The pits shall be less than $\frac{1}{8}$ in. (3.2 mm) in diameter and less than $\frac{1}{16}$ in. (0.8 mm) deep. All pits must be covered with sufficient resin to assure coverage of the inner surface reinforcement. Minor wrinkles are per-

missible provided their surface is smooth and free of cracks.

9.3 The outer surface of the laminate shall be relatively smooth and free of exposed fibers or sharp projections. Hand-sanded finish is acceptable but sufficient resin shall be present to prevent exposed fiber.

10. Requirements

10.1 *Physical Properties*—The minimum physical properties of the laminate constructions used to manufacture various portions of a tank and its accessories shall be as shown in Table 5 when tested in accordance with 11.5 and 11.6 or as agreed upon between the manufacturer and the purchaser.

NOTE 13—Some resin reinforcement combinations may provide ultimate values higher than shown in Table 5. Where higher values are used, they should be verified by the manufacturer and approved by the purchaser.

10.2 *Degree of Cure*—When tested in accordance with 11.7, the laminate shall have a Barcol hardness of at least 90 % of resin manufacturer's published Barcol hardness for a cured resin to indicate sufficient cure.

NOTE 14—The use of organic reinforcing materials or additives such as antimony trioxide may reduce the Barcol hardness readings without necessarily indicating undercure.

NOTE 15—A test for surface cure of polyester resins is as follows: Remove mold release or paraffin wax, if present, and wipe clean of dust. Rub a small amount of acetone on the laminate surface until acetone evaporates. If the surface becomes softened or tacky, it is an indication of possible undercure.

11. Test Methods

11.1 *Conditioning*—Condition the specimens prior to test at $23 \pm 2^\circ\text{C}$ (70 to 77°F) for not less than 40 h in accordance with Procedure A of Method D 618 for those tests when conditioning is required and in all cases of disagreement.

11.2 *Test Conditions*—Conduct the test at a laboratory temperature of $23 \pm 2^\circ\text{C}$ (70 to 77°F) unless otherwise specified.

11.3 *Chemical Resistance of Resin*—Determine the chemical resistance of the resin in accordance with Method C 581.

11.4 *Glass Content*—Determine the glass content of the inner liner and interior layer combined. Obtain a test sample by carefully splitting these combined areas from the struc-

tural layer. The glass content of the separated sample shall be determined in accordance with Method D 2584.

11.5 *Tensile Strength*—Tensile strength of the laminate shall be determined in accordance with Method D 638.

11.6 *Flexural Properties*—Determine the flexural strength and tangent modulus of elasticity of the laminate in accordance with Method D 790.

11.7 *Degree of Cure*—Degree of cure of the laminate shall be found by determining the Barcol hardness in accordance with Method D 2583.

11.8 *Physical Properties*—Where required, physical properties shall be determined in accordance with the test methods listed in Specification C 582.

12. Marking

12.1 The tank shall be marked to identify the producer, the date of manufacture, the capacity, all resins used, the inner surface reinforcements, and the words "Pressure-Atmospheric."

13. Shipping

13.1 Since there are variations in the design of support cradles, lifting and hold-down lugs, and methods of shipping, the manufacturer's special instructions shall be followed in all cases.

13.2 Tanks shall be mounted on cradles if shipping horizontally, or on a suitable skid of pallet if shipping in the vertical position. The cradles or skid shall be padded and secured to the bed of the vehicle in such a manner that will prevent damage to the tank with normal handling. The tank shall be secured to the cradles or skid so that there can be no movement of the tank in a relation to the skid or cradle under normal handling.

13.3 A suitable stiffening member shall be provided at the open end of open top tanks.

13.4 Tanks shall be loaded to provide at least 2-in. (50.8-mm) clearance between the tank (including fittings) and the bulkheads or bed of the vehicle.

13.5 When two or more tanks are shipped on the same vehicle, sufficient clearance or padding shall be provided between tanks to prevent contact in transit.

13.6 Upon arrival at the destination, the purchaser shall be responsible for inspection for damage in transit. If damage has occurred, a claim should be filed with the carrier by the purchaser and the supplier should be notified.

If the damage is not first repaired by the fabricator prior to the tank being put into service, the purchaser accepts all future responsibility for the effects of tank failure resulting from such damage.

TABLE 1 Reinforcing Flange for Open-Top Tanks^{A,B}

L ft (m)	Tank Diameter, ft (m)									Flange Type	Flange Dimensions	
	2 (0.610)	4 (1.219)	6 (1.829)	8 (2.438)	9 (2.743)	10 (3.048)	11 (3.353)	12 (3.658)			Width, in. (mm)	Thickness ^C , in. (mm)
2(0.610)	A	A	A	C	D	E	F	G	A		2(51)	1/4(6)
4(1.219)	A	A	A	C	D	E	F	G	B		2(51)	1/2(10)
6(1.829)	A	A	A	C	D	E	F	G	C		2(51)	1/2(13)
8(2.438)	A	A	A	C	D	E	F	G	D		2 1/2(64)	3/4(10)
10(3.048)	A	A	B	C	D	E	F	G	E		2 1/2(64)	1/2(13)
12(3.658)	A	A	B	D	D	E	F	G	F		3(76)	1/2(10)
14(4.267)	A	A	B	D	E	F	F	G	G		3(76)	1/2(13)
16(4.877)	A	A	C	E	E	G	G	H	H		3(76)	3/4(16)
18(5.486)	A	A	C	E	F	G	G	H	J		3(76)	1/2(19)
20(6.096)	A	A	D	E	F	G	H	J	K		3(76)	1(25)
24(7.315)	A	B	D	F	G	H	J	K				
30(9.144)	A	B	E	G	H	H	K	K				
36(10.973)	A	B	E	H	J	K	K					
40(12.192)	A	B	E	H	J	K						

where: L = maximum distance from flange to tank bottom or uppermost shell stiffener if used.

^A This table is based on handling considerations only. Significant superimposed loads, such as from wind or seismic conditions, should be considered independently.

^B Reinforcement configurations other than flanges may be used if equal or greater stiffness is provided.

^C Flange thickness shall be at least equal to adjacent vessel wall thickness.

TABLE 2 Minimum Widths of Joint Overlay for Circumferential Joints

H × D =	60	100	140	180	220	260	300	340	380	420	460	500
Minimum width of	4	4	5	6	7	8	9	10	11	12	13	14
outside, ^A in. (mm)	(102)	(102)	(127)	(152)	(178)	(203)	(229)	(254)	(279)	(305)	(330)	(356)

where:

H = distance from the top of the liquid level to the joint, ft (m), and

D = inside diameter of the tank, ft (m).

^A Axial joint overlay widths shall be twice the width shown below and in the table.

TABLE 3 Dimensions for Contact Molded Flanged Nozzles
(25 psi Rating)

Nozzle Inside Diameter, (D), in. (mm)	Minimum Wall Thickness, (t _n), in. (mm)	Minimum Flange Thickness, (t _f), in. (mm)	Minimum Hub Thickness, (t _h), in. (mm)	Minimum Hub Length, (h), in. (mm)
1(25)	1/16(5)	1/2(13)	1/4(6)	2(51)
1 1/2(38)	1/16(5)	1/2(13)	1/4(6)	2(51)
2(51)	1/16(5)	1/2(13)	1/4(6)	2(51)
3(76)	1/16(5)	1/2(13)	1/4(6)	2(51)
4(102)	1/16(5)	1/2(13)	1/4(6)	2(51)
6(152)	1/16(5)	1/2(13)	1/4(6)	2(51)
8(203)	1/16(5)	1/4(14)	1/8(8)	2 1/4(57)
10(254)	1/16(5)	1/8(17)	1/4(10)	2 1/4(70)
12(305)	1/16(5)	1/4(19)	1/4(10)	3(76)
14(356)	1/4(6)	1/16(21)	1/16(11)	3 1/4(83)
16(406)	1/4(6)	1/4(22)	1/16(11)	3 1/2(89)
18(457)	1/4(6)	1/8(24)	1/2(13)	3 1/4(95)
20(508)	1/4(6)	1(25)	1/2(13)	4(102)
24(610)	1/4(6)	1 1/2(29)	1/16(14)	4 1/2(114)

TABLE 4 Standard Tank Inside Diameters

in. (mm)
24(610)
30(762)
36(914)
42(1067)
48(1219)
54(1372)
60(1524)
66(1676)
72(1829)
84(2134)
96(2438)
108(2743)
120(3048)
132(3353)
144(3658)

TABLE 5 Laminate Physical Properties

Property	Thickness, in. (mm)			
	$\frac{1}{8}$ to $\frac{3}{16}$ (3.2 to 4.8)	$\frac{1}{4}$ (6.4)	$\frac{3}{16}$ (7.9)	$\frac{1}{2}$ and up (9.5 and up)
Ultimate tensile strength, min. psi (mPa)	9 000(62)	12 000(83)	13 500(93)	15 000(103)
Flexural strength, min. psi (mPa)	16 000(110)	19 000(131)	20 000(138)	22 000(152)
Flexural modulus of elasticity (tangent), psi (mPa)	700 000(4 830)	800 000(5 520)	900 000(6 200)	1 000 000(6 900)

TABLE 6 Shear Bond Length (Fig. 5 & 6)

NOTE—When internal overlay serves only as a corrosion barrier, the total shear length must be placed on the exterior overlay.

Overlay Thickness, in. (mm)	$\frac{1}{8}$ (6.4)	$\frac{3}{16}$ (8)	$\frac{1}{4}$ (9.5)	$\frac{5}{16}$ (11)	$\frac{3}{8}$ (13)	$\frac{7}{16}$ (14)	$\frac{1}{2}$ (16)	$\frac{5}{8}$ (17.5)	$\frac{3}{4}$ (19)	$\frac{7}{8}$ (22)	1(25.4)
h (shear length), in. (mm)	3(76)	3(76)	3(76)	3½(90)	4(100)	4½(114)	5(127)	5½(140)	6(152)	7(178)	8(203)

where: h = total shear length ($h_o + h_i$) (Fig. 5 or 6).

TABLE 7 Typical Dimensions of Manways

Size ^A , in. (mm)	Diameter of Flange and Cover, in. (mm)	Thickness of Flange and Cover, in. (mm)	Diameter of Bolt Circle, in. (mm)	Number of Bolts	Bolt Hole Diameter, in. (mm)
Side Shell Manway—up to 15 psig hydrostatic head					
18(457)	25(635)	1(25)	22½(578)	16	¾(19)
20(508)	27(699)	1(25)	25(635)	20	¾(22)
22(559)	30(762)	1(25)	27(686)	20	1(25)
24(610)	32(813)	1½(29)	29½(749)	20	1(25)
Top Manway—atmospheric pressure					
18(457)	25(635)	¾(10)	22½(578)	16	¾(13)
20(508)	27½(699)	¾(10)	25(635)	20	¾(13)
22(559)	30(762)	¾(10)	27(686)	20	¾(13)
24(610)	32(813)	¾(10)	29½(749)	20	¾(13)

^A Bolt size = bolt hole diameter minus ½ in. (3 mm).

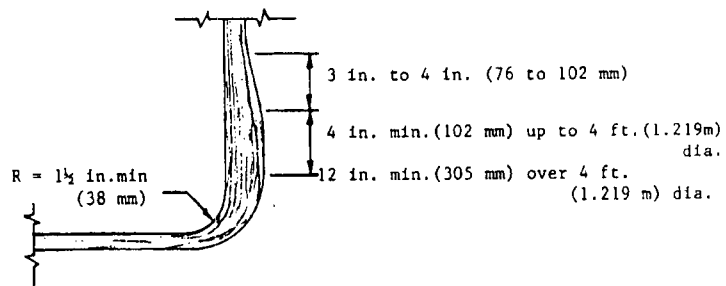


FIG. 1 Bottom Knuckle of Flat-Bottom Tank

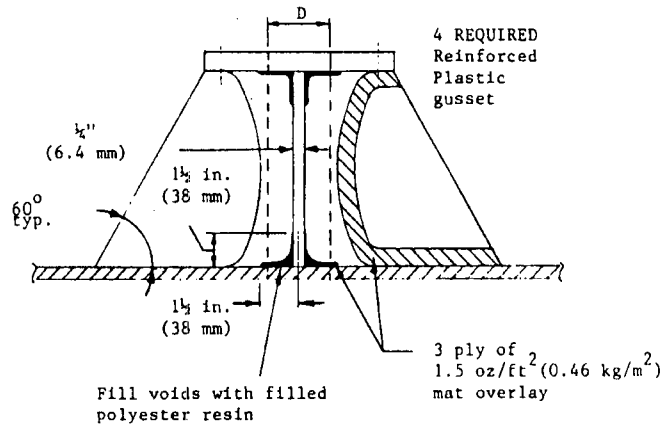


FIG. 2 Plate-Type Gussets

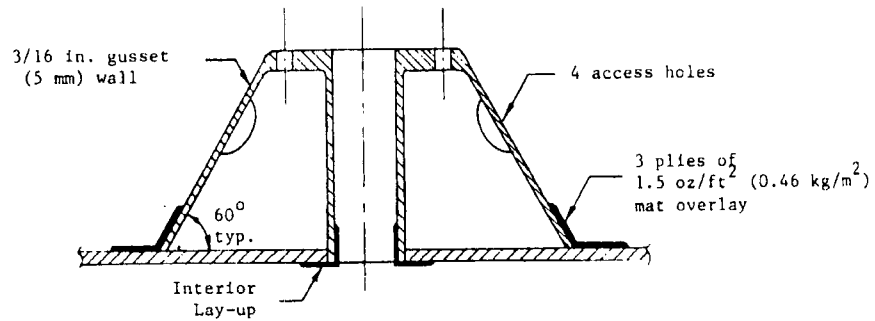
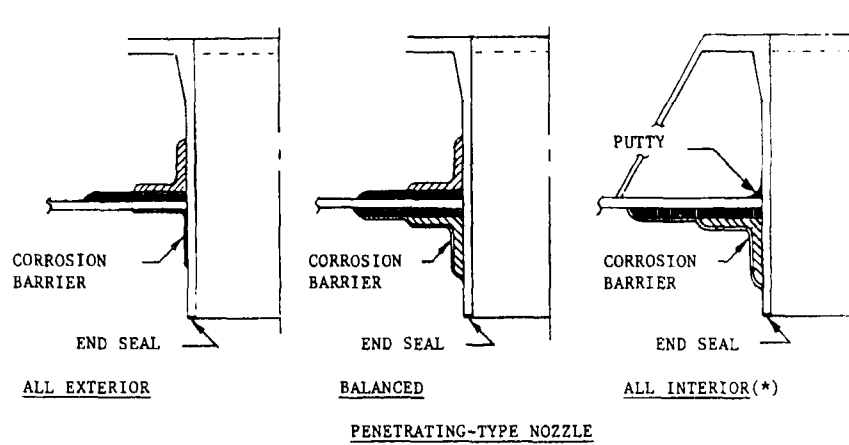
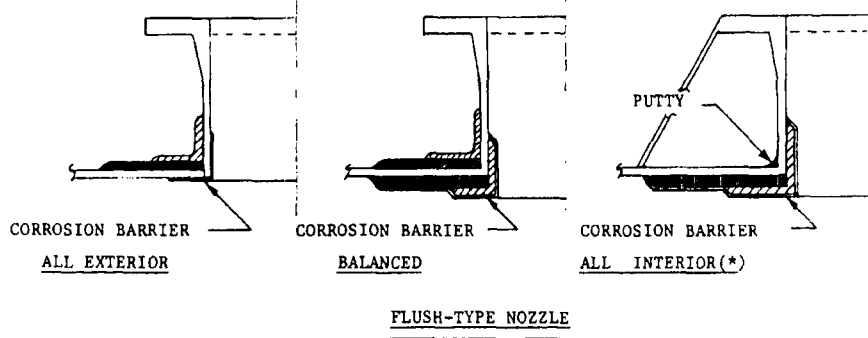


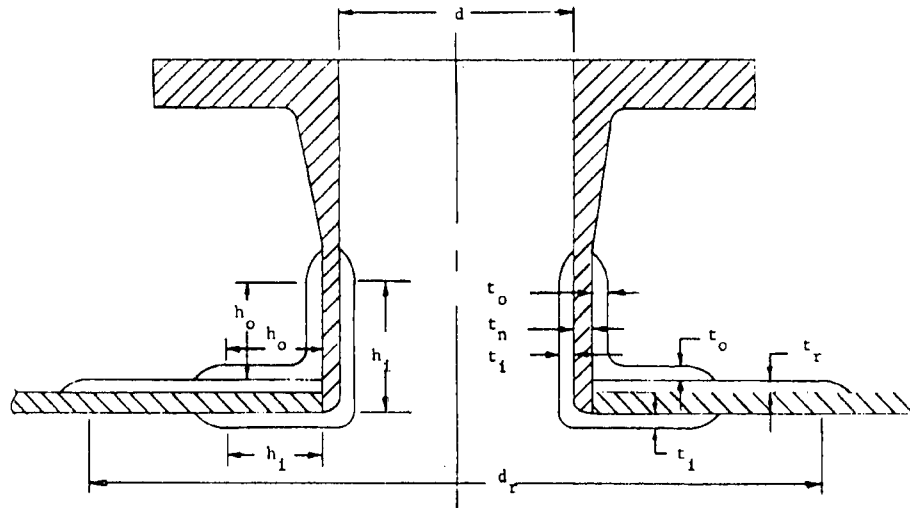
FIG. 3 Conical-Type Gussets

NOZZLE INSTALLATION AND CUT-OUT
REINFORCEMENT LOCATION ALTERNATE



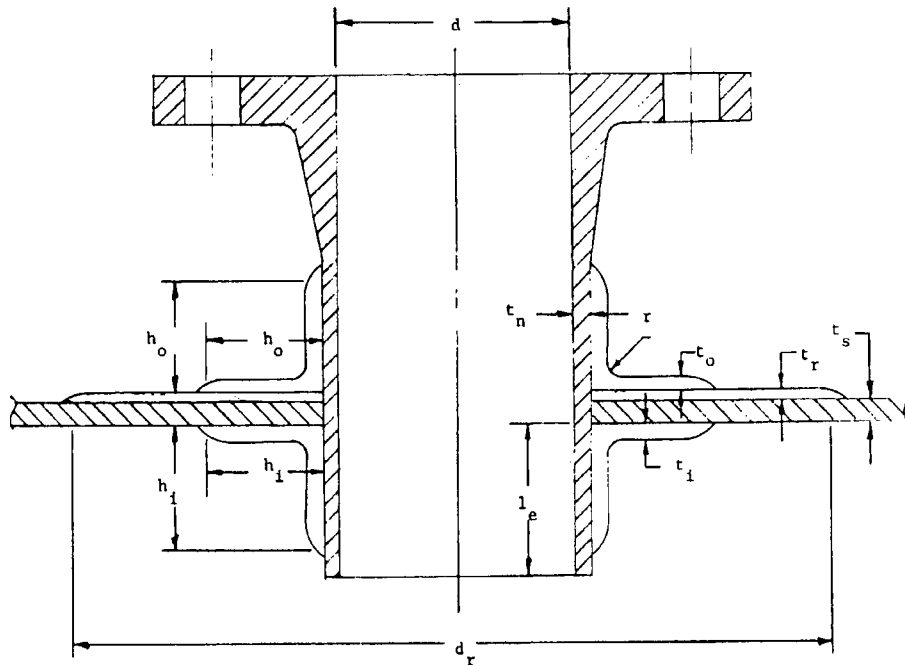
NOTE—This installation method is used only when the nozzle being installed has an integral conical gusset preventing application of an exterior laminate.

FIG. 4 Nozzle Installation and Cutout Reinforcement Location Alternate



- d = nozzle diameter.
- d_r = cutout reinforcement diameter — greater of 2 times d or the nozzle diameter plus 6 in. (152 mm) (see 7.3.2.3).
- h_i = inside shear bond length (see 7.3.3.3).
- h_o = outside shear bond length (see 7.3.3.3).
- h_s = shear bond length (Table 6).
- t_i = inside installation laminate thickness, $t_w - t_o$ (see 7.3.3.1).
- t_o = outside installation laminate thickness, (see 7.3.3.1).
- t_r = cutout reinforcement laminate thickness (see 7.3.2.4), and
- t_w = total installation thickness — lesser of t_i and 2 times t_o (see 7.3.3.1).

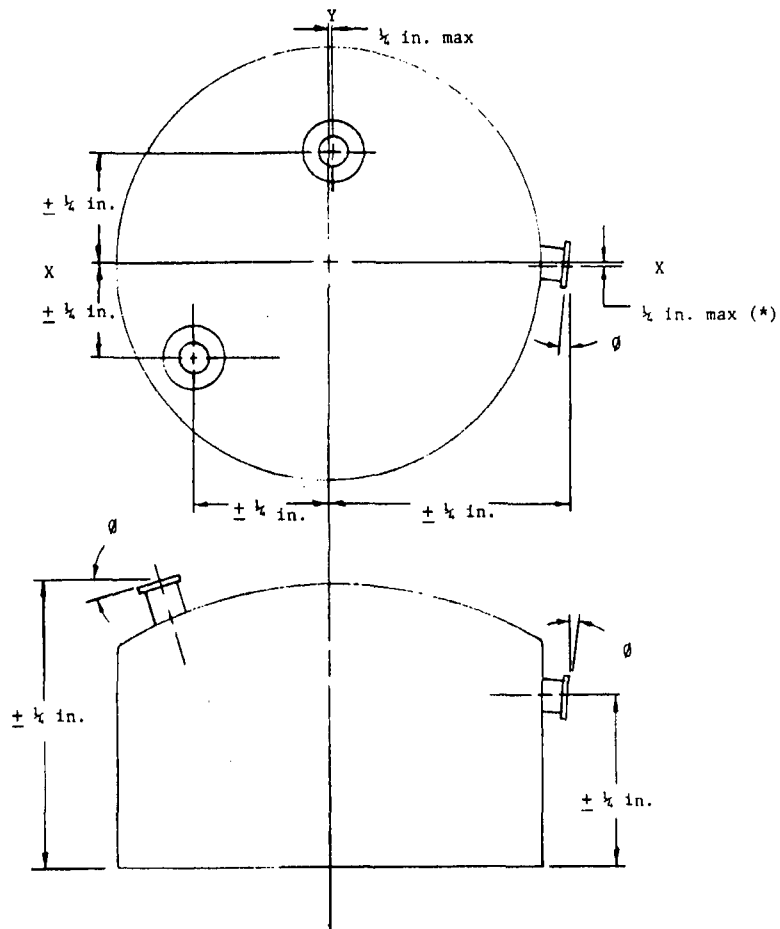
FIG. 5 Flush Nozzle Installation



- d = nozzle diameter,
- d_r = cutout reinforcement diameter — greater of: $2d$ or $d + 6$ in. (152 mm) (see 7.3.2.3),
- t_s = shell thickness (see 6.1),
- t_n = nozzle stub thickness (see Table 3),
- t_r = cutout reinforcement laminate thickness (see 7.3.2.4),
- t_o = outside installation laminate thickness (see 7.3.3.1),
- t_i = inside installation laminate thickness, $t_w - t_o$ (see 7.3.3.1),
- t_w = total installation laminate thickness — lesser of t_r and $2t_s$ (see 7.3.3.1),
- $h_o, h_i = h_s$ = shear bond length (Table 6) (see 7.3.3.3),
- l_e = extension into tank 2 in. (51 mm), min. and
- r = fillet radius $\frac{3}{8}$ in. (9.5 mm), min.

NOTE— All inside overlays will contain only mat reinforcement.

FIG. 6 Penetrating Nozzle Installation



Nozzle Inside Diameter, in	Permissible Angular Deviation ϕ
Up to 10	1°
10 and larger	$\frac{1}{2}^\circ$

FIG. 7 Nozzle Location and Orientation Tolerances

APPENDIXES

(NONMANDATORY INFORMATION)

X1. HANDLING AND INSTALLATION

X1.1 Handling

X1.1.1 The following normal precautions should be taken in handling the tank at the destination:

X1.1.1.1 Proper rigging practices should be observed at all times. Hoisting equipment operators should attach a guide line to prevent tank from swinging out of control.

X1.1.1.2 The tank should not be dropped or allowed to strike any other object. Damage caused by dropping or striking other objects may result in cracking the inner corrosion-resistant liner as well as the structural portion of the tank.

X1.1.1.3 The tank should not be rolled or slid on rough ground. Never set a tank upon a fitting or other protrusions that may be attached to the shell.

X1.1.1.4 In working around the tank, care should be exercised to prevent tools, scaffolding, or other objects from striking the tank or being dropped on or inside the tank. Soft-soled shoes should be worn by workman entering the tank. Where ladders are used (inside and outside) all points of contact with the tank should be cushioned to protect the surface from scratching or point loading.

X1.1.1.5 The use of a crane is recommended both in lifting and positioning the tank. The clearance between the head shackle of the crane and the tank should be at least equal to the span between the lugs used for lifting. If this is not possible, a spreader bar must be used to approximate the same angle in lifting.

X1.1.1.6 Where tanks are not equipped with lifting lugs, it is recommended that such tanks be lifted with rope slings (over 1 in. in diameter) or fabric straps positioned near each end of the tank. Tanks can be moved by positioning fork lift trucks on either side of the tank with forks padded.

X1.1.1.7 Under no conditions should chains or cables be allowed to contact a tank. Full protection must be provided when using chains or cables. Do not attach lifting devices to any fitting other than lifting lugs.

X1.1.1.8 When storing the tank on the ground

prior to installation, it should be placed on the shipping cradles and tied down so that it cannot roll due to wind or sloping ground.

X1.2 Installation

X1.2.1 Vertical flat bottom tanks should be installed on a base providing continuous support and having sufficient strength to support the weight of the tank full of liquid with negligible deflection. Full support of the bottom should be obtained by one of the following:

X1.2.1.1 If the surface of the pad and the bottom of the tank are flat and have no projections from the plane surface, the tank may be set on such a surface.

X1.2.1.2 If the conditions of X1.2.1.1 cannot be met, methods of support recommended by the manufacturer should be used.

X1.2.2 If the tank has a bottom drain, a hole should be provided in the pad with sufficient clearance so that the drain and its flange will not contact the base at any point.

X1.2.3 Erection of Vertical Tank:

X1.2.3.1 Tanks should be handled with a crane, utilizing the lifting lugs provided. Do not attempt to lift tank by attaching to other fittings. Prior to hoisting the top end, a suitable protection pad of material should be placed under the bottom pivot point of tank so that as tank rises, the strain is taken on the pad. The hoist wire should be connected to the top lifting lugs, and tank should be raised carefully using guide ropes to prevent sudden swinging.

X1.2.3.2 All hold-down lugs supplied should be utilized to secure the tank to its pad. Hold-down lugs should be grouted or shimmed to prevent excessive loads being transferred to the tank shell.

X1.2.3.3 Valves, controllers, or other heavy items connected to tank nozzle should be independently supported.

X1.2.3.4 When agitators, mixers, cooling/heating coils are to be used, special design considerations are to be used.

X2. WALL THICKNESSES

X2.1 The wall thicknesses shown in Table X2.1 can be used as a guide for tanks designed in accord-

ance with the equation in 6.1, using the minimum laminate physical properties given in Table 5.

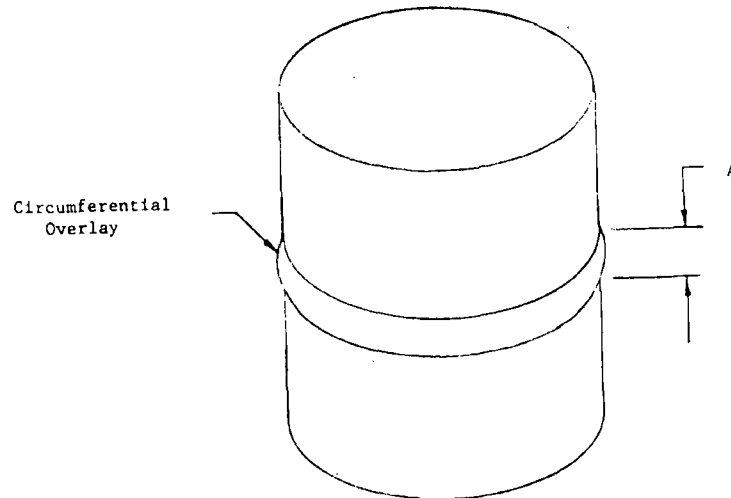


TABLE X2.1 Wall Thicknesses^a

Distance from top, ft	Tank Diameter, ft (Inch-pound Units)														
	2	2½	3	3½	4	4½	5	5½	6	7	8	9	10	11	12
	Wall Thickness, in.														
2	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
4	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
6	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
8	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
10	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
12	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
14	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
16	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
18	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
20	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
22	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
24	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜	⅜
	Tank Diameter, m (SI Units)														
Distance from top, m	0.61	0.76	0.914	1.07	1.22	1.37	1.524	1.68	1.83	2.134	2.44	2.743	3.048	3.35	3.66
	Wall Thickness, mm														
0.61	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
1.22	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
1.83	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
2.44	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	6.35	6.35	6.35	6.35	6.35	6.35
3.05	4.76	4.76	4.76	4.76	4.76	4.76	4.76	6.35	6.35	6.35	6.35	6.35	6.35	7.94	7.94
3.66	4.76	4.76	4.76	4.76	4.76	4.76	6.35	6.35	6.35	6.35	6.35	7.94	7.94	7.94	9.53
4.27	4.76	4.76	4.76	4.76	6.35	6.35	6.35	6.35	6.35	7.94	7.94	7.94	7.94	9.53	9.53
4.88	4.76	4.76	4.76	6.35	6.35	6.35	6.35	6.35	6.35	7.94	7.94	9.53	9.53	9.53	11.11
5.49	4.76	4.76	4.76	6.35	6.35	6.35	6.35	7.94	7.94	7.94	9.53	9.53	9.53	11.11	12.7
6.10	4.76	4.76	6.35	6.35	6.35	6.35	7.94	7.94	7.94	9.53	9.53	9.53	11.11	12.7	12.7
6.72	4.76	6.35	6.35	6.35	6.35	7.94	7.94	7.94	9.53	9.53	11.11	12.7	12.7	12.7	14.29
7.32	4.76	6.35	6.35	6.35	6.35	7.94	7.94	7.94	9.53	9.53	11.11	12.7	12.7	14.29	15.88

^a This table is based on a design factor of 10 to 1 and a liquid specific gravity of 1.2 using the laminate construction detailed in 7.1.1, 7.1.2, and 7.1.3 and the minimum laminate physical properties in Specification C 582 and Table 5.



X3.1 An alternative method for calculating the thickness of an elevated dished bottom head is as follows: (refer to 6.3.4):

$$t_c = PR_c/2S = 0.036 \gamma HR_c/2S$$

$$\text{or } (9807 \gamma HR_c W/2S)$$

$$t_i = PR_c W/2S = 0.036 \gamma HR_c W/2S$$

$$\text{or } (9807 \gamma HR_c W/2S)$$

where:

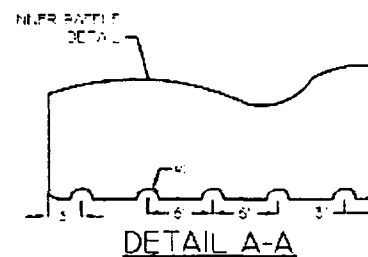
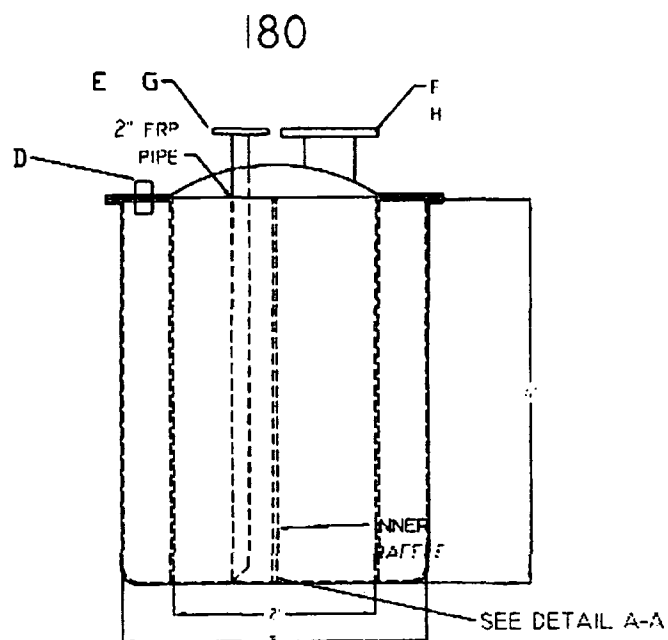
t_c = head thickness in area of the crown radius,

t_i = head thickness in area of the knuckle radius,
in. (mm),
 S = allowable stress, psi (kPa),
 γ = specific gravity of fluid,
 P = pressure, psi (Pa),
 R_c = crown radius of dished head, in. (mm),
 H = fluid head, in. (mm),
 W = stress intensification factor = $(1/4)(3 + R_c/r_i)$,
and
 r_i = knuckle radius of the dished head, in. (mm).

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 1916 Race St., Philadelphia, Pa. 19103.

FITTING SCHEDULE				
MK. ITEM	DIA. (D)	ELEV.	ORIE	SERVICE
A	2'	2'	SIDE	FLANGE
B	4'	2'	SIDE	FLANGE
C	2'	2'	SIDE	FLANGE
D	2'	TOP	225	LEAK DETECT
E	2'	TOP	315	FLG DOWN COMER
F	2'	TOP	45	VENT
G	4'	TOP	225	FLANGE
H	6'	TOP	135	FLANGE
I				
J	2'	2'	SIDE	FLANGE
RESIN SPECIFICATION				
LINER		VINYL ESTER		
STRUCTURAL		GENERAL PER POSE		
EXTERIOR		TAN GEL COAT		
LAMINATION SYMBOLS AND THICKNESS				
SYMBOL		DESCRIPTION		THICKNESS/LAYERS
V	ONE (1) LAYER "C" VEIL			0.01"
N	ONE (1) LAYER NEXUS VEIL			0.01"
C	ONE (1) LAYER CARBON VEIL			0.01"
M	ONE (1) LAYER 1 1/2 OZ/SQ.FT CHOPPED STRAND MAT			0.045"
WR	ONE (1) LAYER 24 OZ/SQ.FT WOVEN ROVING			0.035"
FW	ONE (1) CYCLE ON FILAMENT WINDING			0.040"
U	ONE (1) LAYER UNIDIRECTIONAL ROVING			0.020"
CH	ONE (1) LAYER OF CHOPPED STRAND (CH15 TO CH45)			0.015" to 0.045"
layeres on tank				
inner tank: v,2m,2m(wr,m), knuckle (wr)				
outer tank: v,2m,2m(wr,m) knuckle (wr)				
top: v,2m, m,wr,m				
baffle: v,2m,wr,2m,v				
UNLESS OTHERWISE NOTED				
I) INNER TANK CONSTRUCTED WITH VINYL ESTER CORROSION BARRIER				



FITTING SCHEDULE				
YR. REV.	REV. NO.	F. E.V.	QTR	SERVICE
A				
B				
C				
D	2"	TOP	225	LEAK DETECT
E	2"	TOP	315	FLG DOWN CORNER
F	2"	TOP	45	VENT
G	4"	TOP	225	FLANGE
H	6"	TOP	135	FLANGE
I				
J				

FRSIN, 819.71 (C4) ON

NAME	VINYL ESTER
STRUCTURE	GENERAL PER POSE
EXTERIOR	TAN OF MODAL

LAMINATION, SYMBOLS AND DECKNESS

[illegible]

UNLESS OTHERWISE NOTED

INNER TANK CONSTRUCTED WITH VIN. ESTER
CORROSION BARRIER

[illegible]

THE MUR-TEX CO.

2'X4' DUAL TANK

DCP

NAME	JOHN C. FARRER	DATE	8/10/68
AGE	36	TIME	10:45 AM
SEX	MALE	PLACE	080125-
HEIGHT	5' 10"	WEIGHT	175
HAIR	BROWN	COMPLEXION	Fair
EYES	BROWN	TEETH	Good
SCARS	None	MARKS	None
REMARKS	SUBJECT OF INVESTIGATION		

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 7/28/04,
or cash received on _____ in the amount of \$ 4,000.00
from Duke Energy Field Services
for Ernie G.P. GW-016
Submitted by: [Signature] Date: 8/9/04
Submitted to ASD by: _____ Date: _____
Received in ASD by: _____ Date: _____
Filing Fee _____ New Facility _____ Renewal ☒
Modification _____ Other _____
Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment ☒ or Annual Increment _____

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER WITH VISIBLE FIBERS AND A TRUE WATERMARK ON THE REVERSE SIDE.

Duke Energy Field Services, LP
Accounts Payable
370 17TH ST SUITE 2500
Denver, Colorado 80202

THE CHASE MANHATTAN BANK, N.A.
SYRACUSE, NEW YORK

50-8377213

VENDOR NO.

0000078217

CHECK DATE

07/28/04

CHECK NUMBER

PAY
ONLY



4000.00
FOUR ZERO ZERO ZERO CTSCIS

NOT NEGOTIABLE AFTER 120 DAYS

CHECK AMOUNT

*****\$4,000.00

TO THE
ORDER OF

NEW MEXICO
WATER MANAGEMENT QUALITY
MANAGEMENT FUND
C/O OIL CONSERVATION DIVISION
Santa Fe, NM 87505



[Signature]
AUTHORIZED SIGNATURE

Four thousand and 00/100 Dollars

HOLD BETWEEN THUMB AND FOREFINGER, OR BREATHE ON COLORED BOX, COLOR WILL DISAPPEAR, THEN REAPPEAR.

Duke Energy Field Services, LP
Accounts Payable
370 17TH ST SUITE 2500
Denver, Colorado 80202

VENDOR NUMBER
0000078217
VENDOR NAME
NEW MEXICO-

CHECK NUMBER
[REDACTED]
CHECK DATE
07/28/04

INVOICE NUMBER	INVOICE DATE	NET AMOUNT	DESCRIPTION
EUNICE DISCHARG	05/01/04	4,000.00	EUNICE GP
			TOTAL PAID
			\$4,000.00

PLEASE DETACH AND RETAIN FOR YOUR RECORDS

July 30, 2004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED (Article No. 7001 2510 0004 4113 2791)

Mr. Jack Ford
New Mexico Energy, Minerals
& Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: Eunice Gas Plant
Discharge Plan GW-016
Lea County, New Mexico

Dear Mr. Ford:

Duke Energy Field Services, LP (DEFS) has reviewed the New Mexico Oil Conservation Division's (OCD) letter dated May 1, 2004 concerning the discharge permit for DEFS's Eunice Gas Plant. On March 15, 2004, DEFS had requested cancellation of the permit, asserting that "[w]ith the . . . completion of the backfilling of these two former surface impoundments, there are no discharges of effluent, leachate, water contaminants, or toxic pollutants at the Eunice Gas Plant, nor are any such discharges planned or intended." DEFS has continued the discharge permit and submitted the renewal application because the closure of two out of service former surface impoundments (evaporation pit and skimmer pit) had not been completed

Your May 1st letter rejects that request, stating that DEFS must continue the current discharge permit for Eunice until the OCD develops a Best Management Plan regulation for facilities "that have no discharge of materials that would be detrimental to surface or protectable fresh waters of the State". The letter also stated that DEFS must return an executed copy of the Attachment of the Approval Discharge Permit Conditions with a check for \$4,000.00 flat fee.

After reviewing the matter, DEFS has decided that it will maintain the discharge permit until closure of these two former surface impoundments is approved by OCD. Enclosed is a check for \$4,000 for the flat fee. However, DEFS will not execute the Discharge Permit Approval Conditions dated March 9, 2004 in the Attachment to the Discharge Permit GW-016. DEFS believes that those conditions are beyond the OCD's authority under the Water Quality Act and the WQCC regulations. DEFS will continue to abide by all applicable Federal, State, and local regulations.

In addition, DEFS would like to make a correction to all recent correspondence from CY 2003 through present that referenced Discharge Plan GW-009 for the Eunice Gas Plant. The correct Discharge Plan number for this facility is GW-016. DEFS apologizes for any confusion this may have caused.

If you have any questions regarding these matters, please call me at (303) 605-1717.

Sincerely,
Duke Energy Field Services, LP



Karin Kimura
Senior Environmental Specialist

Enclosure

cc: NMOCD District 1 Office (Certified Mail Return Receipt Requested Article No. 7001 2510 0004 4113 2784)
1625 N. French Drive, Hobbs, NM 88240



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor

May 1, 2004

Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

Ms. Karin Char Kimura
Senior Environmental Specialist
Duke Energy Field Services
370 Seventeenth Street, Suite 2500
Denver, Colorado 80202

**RE: EUNICE GAS PLANT, GW-016
LEA COUNTY, NEW MEXICO**

Dear Ms. Kimura:


The New Mexico Oil Conservation Division (OCD) is in receipt of your letter, dated March 15, 2004. This correspondence was regarding Duke Energy Field Services' receipt of an approved renewal of the discharge permit for the Eunice Gas Plant located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, Lea County, New Mexico. This renewal application from Duke Energy Field Services was submitted pursuant to the New Mexico Water Quality Conservation Commission (WQCC) Regulation 20 NMAC 3106 and approved March 9, 2004.

The OCD is currently studying the development of a Best Management Plan regulation for facilities that have no discharge of materials that would be detrimental to surface or protectable fresh waters of the State. Please be advised that until such regulation is adopted by the OCD and the WQCC all facilities will continue to be subject to current OCD and WQCC rules and regulations.

It will be necessary for Duke Energy Field Services to return an executed copy of the Attachment of the Approved Discharge Permit Conditions together with a check for \$4,000.00 flat fee for the Eunice Gas Plant facility. Failure to comply could result in a violation of WQCC regulations.

If you have any questions please contact me at (505) 476-3489 or the Acting OCD Director, Ms. Joanna Prukop at (505) 476-3200.

Sincerely,


W. Jack Ford, C.P.G.
Environmental Bureau
Oil Conservation Division

cc: Hobbs OCD District Office



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

March 9, 2004

Lori Wrotenbery
Director

Oil Conservation Division

Ms. Karin Char Kimura
Duke Energy Field Services
370 17th Street, Suite 2500
Denver, Colorado 80202-9732

**RE: Discharge Permit Renewal GW-016
Duke Energy Field Services
Eunice Gas Plant
Lea County, New Mexico**

Dear Ms. Kimura:

The ground water Discharge Permit GW-016 renewal for the Duke Energy Field Services Eunice Gas Plant located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is **hereby approved** under the conditions contained in the enclosed attachment. The proposed site modification is subject to the following stipulations:

1. a workplan for the closure of the surface impoundments (evaporation pit and skimmer pit) must be submitted to the OCD for approval within 30 days of receipt of the discharge permit approval.

The discharge plan consists of the original discharge permit approval for GW-009 dated October 11, 1983, merger of GW-009 and GW-016 approved April 25, 1984, the renewal application dated November 20, 2003 and the attached stipulations of approval. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter.**

The Discharge Permit application was submitted pursuant to 20 NMAC 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is approved pursuant to 20 NMAC 3109.A. Please note 20 NMAC 3109.E and 20 NMAC 3109.F, which provide for possible future amendments or modifications of the permit. Please be advised that approval of this permit does not relieve Duke Energy Field Services of liability should operations result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Mr. Karin Char Kimura
GW-016 Eunice Gas Plant
March 9, 2004
Page 2

Please note that 20 NMAC 3104 of the regulations provides: "When a permit has been approved, discharges must be consistent with the terms and conditions of the permit." Pursuant to 20 NMAC 3107.C., Duke Energy Field Services is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to 20 NMAC 3109.G.4., this permit is for a period of five years. This approval will expire on **April 25, 2009**, and Duke Energy Field Services should submit an application in ample time before this date. Note that under 20 NMAC 3106.F. of the regulations, if a discharger submits a Discharge Permit application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge permit facilities will be required to submit the results of an underground drainage testing program as a requirement for Discharge Permit.

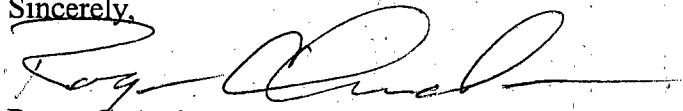
The Discharge Permit application for the Duke Energy Field Services Eunice Gas Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge permit application will be assessed a fee equal to the filing fee of \$100 plus a flat fee of \$4,000.00 for gas processing plants. The OCD has received the filing fee.

Error! Bookmark not defined. Please make all checks payable to: **Water Management
Quality Management Fund**

**C/o: Oil Conservation Division
1220 South St. Francis Drive**

If you have any questions please contact Mr. W. Jack Ford at (505) 476-3489. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,



Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PERMIT GW-016
DUKE ENERGY FIELD SERVICES
EUNICE GAS PLANT
DISCHARGE PERMIT APPROVAL CONDITIONS
(March 9, 2004)

1. Payment of Discharge Permit Fees: The \$100.00 filing fee has been received by the OCD. The \$4,000.00 required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.
2. Duke Energy Field Services Commitments: Duke Energy Field Services will abide by all commitments submitted in the Discharge Permit renewal application dated November 20, 2003.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste characterization per 40 CFR Part 261.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.
7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.
10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to Discharge Permit. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
11. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans that are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.
13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.
14. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.
15. Storm Water Plan: Duke Energy Field Services shall maintain storm water runoff controls. As a result of Duke Energy Field Services' operations any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any storm water runoff then Duke Energy Field Services shall notify the OCD within 24 hours, modify the plan within 15 days and submit for OCD approval. Duke Energy Field Services shall also take immediate corrective actions pursuant to Item 12 of these conditions.

16. Closure: The OCD will be notified when operations of the Eunice Gas Plant are discontinued for a period in excess of six months. Prior to closure of the Eunice Gas Plant a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: Duke Energy Field Services, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Duke Energy Field Services further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

DUKE ENERGY FIELD SERVICES

by _____

Title _____



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Ms. Karm Char Kimura

Senior Environmental Specialist

Duke Energy Field Services Inc

P.O. Box 5493

Denver, Colorado 80217

May 22, 2003

Lori Wrotenberg

Director

Oil Conservation Division

**RE: Minor Modification
GW-016 Eunice Gas Plant
Lea County, New Mexico**

Dear Ms. Kimura:

The New Mexico Oil Conservation Division (OCD) has received Duke Energy Field Services Inc. letter dated May 16, 2003 requesting a modification to the Eunice Gas Plant (GW-016) discharge permit. The Duke Energy Field Services Inc. request to install a single-walled, carbon steel tank for the storage of sulfur is considered a minor modification to the above referenced discharge permit and public notice will not be issued. **The requested minor modification is hereby approved.**

The Application for modification was submitted pursuant to Water Quality Control Commission (WQCC) Regulation 3107.C and is approved pursuant to WQCC Regulation 3109.

Please note that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan". Pursuant to 20 NMAC 3107.C Duke Energy Field Services Inc. is required to notify the Director of any facility expansion, production increase or process modification that would result in a significant modification in the discharge of potential ground water contaminants.

Note, that OCD approval does not relieve Duke Energy Field Services Inc. of liability should Duke Energy Field Services Inc. operations result in contamination of surface waters, ground waters or the environment.

If you have any questions please feel free to call W. Jack Ford at (505)-476-3489.

Sincerely,

Roger C. Anderson

Environmental Bureau Chief

cc: OCD Hobbs District Office



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

February 17, 1999

CERTIFIED MAIL

RETURN RECEIPT NO. Z-357-870-067

Mr. Mel Driver, P.E.
GPM Gas Corporation
P.O. Box 50020
Midland, Texas 79710-0020

**RE: Discharge Plan Renewal GW-016
GPM Gas Corporation
Eunice Gas Processing Plant
Lea County, New Mexico**

Dear Mr. Driver:

The ground water discharge plan renewal GW-016 for the GPM Gas Corporation Eunice Gas Processing Plant located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. The discharge plan renewal consists of the renewal application letter dated December 23, 1998 from GPM Gas Corporation as well as the following OCD approvals; discharge plan approval for GW-009 dated October 11, 1983, merger of GW-009 and GW-016 approval dated October 8, 1993, discharge plan for GW-016 approval April 25, 1984, renewal of discharge plan GW-016 approval dated October 31, 1989, renewal of discharge plan GW-016 approval dated April 25, 1994 and the attached conditions of approval. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The discharge plan renewal application was submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is approved pursuant to Section 3109.A. Please note Sections 3109.E and 3109.F, which provide for possible future amendments or modifications of the plan. Please be advised that approval of this plan does not relieve GPM Gas Corporation of liability should operations result in pollution of surface water, ground water, or the environment.

Mr. Mel Driver, P.E.
GW- 016 Eunice Gas Processing Plant
February 17, 1999
Page 2

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., GPM Gas Corporation is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.G.4., this renewal plan is for a period of five years. This renewal will expire on April 25, 2004, and GPM Gas Corporation should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

The discharge plan renewal application for the GPM Gas Corporation Eunice Gas Processing Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of \$50. There is a flat fee assessed equal to one-half of the original flat fee. The renewal flat fee for the Eunice Gas Processing Plant will be \$1,667.50. The OCD has not received the filing fee and is due upon receipt of this discharge plan approval.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-016
GPM GAS CORPORATION
EUNICE GAS PROCESSING PLANT
DISCHARGE PLAN APPROVAL CONDITIONS
(February 17, 1999)


1. Payment of Discharge Plan Fees: The \$50.00 filing fee has not been received by the OCD. There is a required renewal flat fee for gas processing plants equal to one-half of the original flat fee. The Eunice Gas Processing Plant renewal flat fee is \$1,667.50. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the initial payment due upon receipt of this approval.
2. GPM Gas Corporation Commitments: GPM Gas Corporation will abide by all commitments submitted in the discharge plan renewal application letter dated December 23, 1998 and these conditions for approval.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste characterization per 40 CFR Part 261.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.
7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.
10. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity a minimum of every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
11. **Class V Wells:** Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
12. **Housekeeping:** All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.
13. **Spill Reporting:** All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.
14. **Transfer of Discharge Plan:** The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. **Closure:** The OCD will be notified when operations of the Eunice Gas Processing Plant are discontinued for a period in excess of six months. Prior to closure of the Eunice Gas Processing Plant a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
16. **Certification:** GPM Gas Corporation, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. GPM Gas Corporation further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

GPM GAS CORPORATION

by 
Title
Asset Manager



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

February 17, 1999

CERTIFIED MAIL

RETURN RECEIPT NO. Z-357-870-067

Mr. Mel Driver, P.E.
GPM Gas Corporation
P.O. Box 50020
Midland, Texas 79710-0020

**RE: Discharge Plan Renewal GW-016
GPM Gas Corporation
Eunice Gas Processing Plant
Lea County, New Mexico**

Dear Mr. Driver:

The ground water discharge plan renewal GW-016 for the GPM Gas Corporation Eunice Gas Processing Plant located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. The discharge plan renewal consists of the renewal application letter dated December 23, 1998 from GPM Gas Corporation as well as the following OCD approvals; discharge plan approval for GW-009 dated October 11, 1983, merger of GW-009 and GW-016 approval dated October 8, 1993, discharge plan for GW-016 approval April 25, 1984, renewal of discharge plan GW-016 approval dated October 31, 1989, renewal of discharge plan GW-016 approval dated April 25, 1994 and the attached conditions of approval. Enclosed are two copies of the conditions of approval. Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.

The discharge plan renewal application was submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is approved pursuant to Section 3109.A. Please note Sections 3109.E and 3109.F, which provide for possible future amendments or modifications of the plan. Please be advised that approval of this plan does not relieve GPM Gas Corporation of liability should operations result in pollution of surface water, ground water, or the environment.

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

**Environmental Bureau
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505**

Mr. Mel Driver, P.E.
GW- 016 Eunice Gas Processing Plant
February 17, 1999
Page 2

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

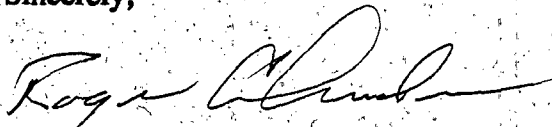
Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., GPM Gas Corporation is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.G.4., this renewal plan is for a period of five years. This renewal will expire on April 25, 2004, and GPM Gas Corporation should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

The discharge plan renewal application for the GPM Gas Corporation Eunice Gas Processing Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of \$50. There is a flat fee assessed equal to one-half of the original flat fee. The renewal flat fee for the Eunice Gas Processing Plant will be \$1,667.50. The OCD has not received the filing fee and is due upon receipt of this discharge plan approval.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-016
GPM GAS CORPORATION
EUNICE GAS PROCESSING PLANT
DISCHARGE PLAN APPROVAL CONDITIONS
(February 17, 1999)

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has not been received by the OCD. There is a required renewal flat fee for gas processing plants equal to one-half of the original flat fee. The Eunice Gas Processing Plant renewal flat fee is \$1,667.50. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the initial payment due upon receipt of this approval.
2. GPM Gas Corporation Commitments: GPM Gas Corporation will abide by all commitments submitted in the discharge plan renewal application letter dated December 23, 1998 and these conditions for approval.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste characterization per 40 CFR Part 261.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.
7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.
10. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity a minimum of every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
11. **Class V Wells:** Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
12. **Housekeeping:** All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.
13. **Spill Reporting:** All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.
14. **Transfer of Discharge Plan:** The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Closure: The OCD will be notified when operations of the Eunice Gas Processing Plant are discontinued for a period in excess of six months. Prior to closure of the Eunice Gas Processing Plant a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
16. Certification: GPM Gas Corporation, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. GPM Gas Corporation further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

GPM GAS CORPORATION

by _____
Title



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

April 20, 1998

CERTIFIED MAIL
RECEIPT NUMBER Z-357-869-950

Mr. Mel P. Driver
Environmental Engineer
GPM Gas Corporation
4044 Penbrook
Odessa, Texas 79762

**RE: EUNICE GAS PLANT, GW-016
LEA COUNTY, NEW MEXICO**

Dear Mr. Driver:

OCD is in receipt of your data, dated April 3, 1998, and attached laboratory report for construction wood samples collected from the on-site dismantling of water cooling tower at the above referenced site. Based upon laboratory results of the collected samples OCD approves the burial on-site of the wood construction material from the cooling tower material within the boundaries of the plant at the above referenced plant. This letter is to correct the letter of April 15, 1998 referencing the Linam Ranch Gas Plant, GW-015.

Note that OCD approval does not relieve GPM Gas Corporation of liability should GPM Gas Corporation's operations result in contamination of surface waters, ground waters or the environment.

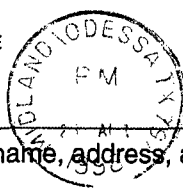
If you have any questions please feel free to call Jack Ford at (505) 827-7156.

Sincerely,

W. Jack Ford, C.P.G.
Geologist
Environmental Bureau
Oil Conservation Division

cc: Hobbs OCD District Office

UNITED STATES POSTAL SERVICE

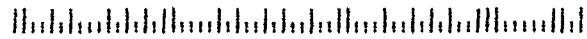


First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

Environmental Bureau
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

57





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 10, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-398

Mr. Scott Seeby
GPM Gas Corp.
4044 Penbrook
Odessa, Texas 79762

**RE: Discharge Plan Inspection
Discharge Plan GW-016
Eunice Complex (Gas Plant/Compressor Station)**

Dear Mr. Seeby:

The New Mexico Oil Conservation Division (OCD) has completed this inspection report as part of the permit compliance process for discharge plan GW-016. The following OCD staff members were present during the compliance inspection on Tuesday April 8, 1997 - Mr. Wayne Price and Mr. Patricio Sanchez. The purpose of this report is to provide GPM with the information that is needed to comply with the terms and conditions of GW-016 as this permit was renewed on April 25, 1994. However, it will be GPM's responsibility to comply with the terms and conditions of GW-016.

1. GPM should check compliance with the previous renewal approval(s) from OCD, see attachment no. 1 and attachment no. 2.
2. GPM should look at the practices at the facility of handling solid waste and facility demolition debris - see attachment no. 3, photos 4, 5, 6, 7, 9, 10, 13, and 20.
3. Since this facility is a gas plant any non-exempt waste(s) that are commingled with exempt wastes prior to transportation to a Class II UIC SWD well must be characterized at the point of generation prior to mixing with exempt wastes for hazardous constituents and characteristics per 40 CFR Part 261. GPM shall look at all wastes streams that are commingled and test those that are non-exempt prior to mixing, the non-exempt streams must be non-hazardous per RIC, TCLP, and cannot contain any listed hazardous waste(s).

Note: Only Exploration and Production wastes that "Exempt from RCRA Subtitle C" may be disposed of in Class II UIC Salt Water Disposal wells.

4. GPM cease the discharge of laboratory waste to the septic tank (Class V Well), and will prepare a work plan to investigate the septic tank and leech field area that will meet the following:

A. WQCC Regulations 20 NMAC 6.2, Part 3, 3103 A, B and C, Constituents.

B. Hazardous Constituents as defined in 40 CFR Part 261.

(Note: The above analysis will conform with EPA approved methods per SW-846.)

5. GPM needs to submit a plan of action to include appropriate regulatory classification and sampling of the contaminated soil pile. (See attachment no. 3, photo no.8)
6. GPM needs to research the 5 drain lines that are in attachment no. 3, photo no. 11 - Are these lines currently out of service? Also, do these lines pose any current or future environmental liability?
7. The integrity of the Rice Tanks needs to be confirmed based on the visual staining within the tank area. (See attachment no. 3, photo no. 12)
8. The gun-barrel/slop-oil tank area release that was reported on December 19, 1996 is in need of follow up with regards to vertical and horizontal extent based on 20 NMAC 6.2, Part 3, 3103 constituents. (See attachment no.3, photos no. 14 and no. 15.)
9. The condensate tank shown in Attachment no.3, photo no. 16 - is in need of padding/curbing, However during the inspection the GPM representatives stated that other potential concerns regarding the padding/curbing not be installed existed. GPM should propose an alternative spill/control measure if GPM wishes not to install an impermeable pad/curb type containment below this specific saddle tank.
10. At the compressor station GPM needs to verify that lube oil and other waste effluents are not leaching from the foundations at both the active and inactive portions of the facility. (See attachment no.3, photos no.'s 17,20, 21, 22 and 23.)
11. The reflux water at the SRU that is currently being discharge on the ground need to be tested for the appropriate 20 NMAC 6.2, Part 3, 3103 constituents to insure that the discharge is not impacting ground water, if the discharge exceeds any of the WQCC constituent levels GPM will have to cease this discharge, and capture the effluent and reuse/recycle/dispose properly.

UNITED STATES POSTAL SERVICE

MIDLAND/DESSA TX 797 08/13/97

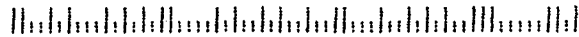


First-Class Mail
Postage & Fees Paid
USPS 55
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

Environmental Bureau
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

43

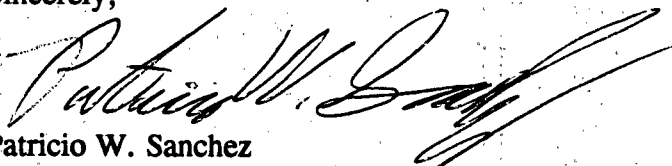


Mr. Scott Seeby
GPM "GW-016"
Inspection Report
June 10, 1997
Page 3

GPM will address the above 11 mentioned issues in a report by September 10, 1997. The report will be submitted in duplicate to the Santa Fe OCD Office for approval, with a copy to the Hobbs OCD District office. The response will contain time lines and documentation for complying with the above mentioned comments.

If GPM any questions with regards to this inspection report feel free to contact me at (505)-827-7156.

Sincerely,



Patricio W. Sanchez
Petroleum Engineering Specialist
Environmental Bureau - OCD

(Enclosure - Attachment no. 1, Attachment no. 2, and Attachment no. 3)

c: OCD Hobbs District

ATTACHMENT NUMBER 1
GW-016 as renewed on April 25, 1994



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

April 25, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P 176 012 076

Mr. Vince Bernard
Safety & Environmental Supervisor
GPM Gas Corporation
4044 Penbrook
Odessa, TX 79762

**Re: Discharge Plan GW-016
Eunice Gas Plant
Lea County, New Mexico**

Dear Mr. Bernard,

The groundwater discharge plan renewal, GW-016, for the GPM Gas Corporation Eunice Gas Plant, located in the SE/4, NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the application dated March 23, 1994 and the response to OCD comments dated April, 5, 1994 and April 21, 1994.

Discussion of the final disposition of the spent mole sieve and spent carbon are continuing between GPM and the OCD. Although final approval of the disposal materials will occur as a modification to the discharge plan at a future date, this is to be considered as part of the current renewal, negating the need for collection of discharge plan modification fees for this action.

The discharge plan was submitted pursuant to section 3-106 of the Water Quality Control Commission Regulations. It is approved pursuant to section 3-109.A.. Please note Section 3-109.F., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve you of your liability should your operation result in actual pollution of surface or ground waters or the environment which may be actionable under other laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened,

Mr. Vince Bernard
April 25, 1994
Page 2

netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

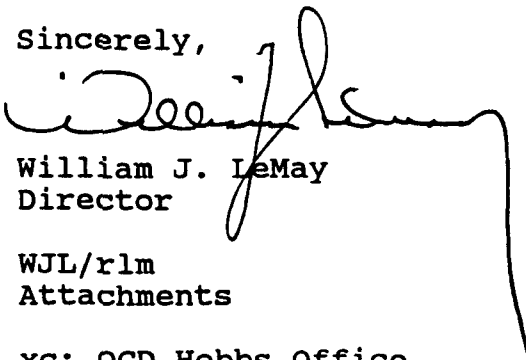
Pursuant to Section 3-109.G.4., this approval is for a period of five years. This approval will expire April 25, 1999, and an application for renewal should be submitted in ample time before that date.

The discharge plan application for the GPM Gas Corporation Eunice Gas Plant is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus the flat rate of one thousand six hundred sixty-seven dollars and fifty cents (\$1667.50) for gas processing plant discharge plan renewal. The fifty (50) dollar filing fee and the one thousand six hundred sixty-seven dollars and fifty cents (\$1667.50) flat fee have not been received by the Oil Conservation Division, and should be submitted on receipt of this approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



William J. LeMay
Director

WJL/rlm
Attachments

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN GW-016 APPROVAL
GPM GAS CORPORATION
EUNICE GAS PLANT
DISCHARGE PLAN REQUIREMENTS
(April 25, 1994)

1. Sump Integrity Test Methods: All existing sumps within the gas processing plant, including the catch basin, shall be visually inspected at least annually for leaks. Reports of inspections shall be maintained at the gas plant for a minimum of five years. Annual integrity tests of the Anti-freeze Make-up/Holding Tank shall be conducted according to procedures outlined in Attachment 3-4 of GPM's March 23, 1994 response to OCD comments.

Any new sumps or below-grade tanks will incorporate leak detection in their designs.

2. Pressure Testing: A proposal outlining procedures and schedule for testing all below-grade drain system pipelines shall be submitted to the OCD by June 25, 1994. Positive pressure testing of the plant drain system shall be performed in accordance with the procedures once approved by the OCD.

The Driscopipe polyurethane wastewater pipeline does not require integrity testing during the current discharge plan period. During the 1999 renewal, pipeline structure integrity will be reviewed to determine future testing requirements.

3. Spills: All spills and/or leaks shall be reported to the OCD district office pursuant to WQCC Rule 1-20 and OCD Rule 116.
4. Eunice EP Compressor Station: Use of all compression and process equipment, tanks, below-grade tanks, sumps and underground discharge drain system associated with the Eunice EP Compressor Station shall be discontinued and taken out-of-service by April 1, 1995, and the OCD notified of completion of this work by May 1, 1995.
5. Spent Lube Oil: Spent engine lube oil (or the wastewater stream into which it is placed) shall be tested for TCLP constituents by May 1st of each calendar year and results submitted to the OCD within thirty days.
6. Drum Storage: All chemical and lubrication drums shall be stored on pad and curb type containment.

ATTACHMENT NUMBER 2

**October 8, 1993 letter from OCD combining GW-016 and GW-009 into
GW-016**



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

October 8, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-035

Mr. Vince Bernard
Safety, Environmental Supervisor
GPM Gas Services Company
4044 Penbrook
Odessa, Texas 79762

RE: Discharge Plan GW-16 Eunice Gas Plant
Discharge Plan GW-9 Eunice EP Compressor Station

Dear Mr. Bernard,

On July 19, 1993 the New Mexico Oil Conservation Division (OCD) notified you that the approved groundwater discharge plan, GW-16, for the Eunice Gas Plant located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, would expire on April 25, 1994. Also, the OCD has received your application for renewal of the approved groundwater discharge plan, GW-9, for the Eunice EP Compressor Station located in the NW/4 of Section 1, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico, of which the current plan is due to expire on October 11, 1993.

On September 28, 1993, OCD personnel visited each of these facilities for discharge plan renewal inspections. During this visit, you expressed interest in the feasibility of combining the discharge plans of each of these facilities into one discharge plan. The request was based on the premise that 1) the compressor station was originally owned by El Paso Natural Gas Company, and purchased by GPM (Phillips) in 1986, and 2) the compressor station and gas plant have contiguous right-of-way boundaries.

Based on these facts, OCD agrees to combine the discharge plans for these facilities. This will be done under discharge plan GW-16, which is due to expire on April 25, 1994. The number of the discharge plan for the Eunice EP Compressor Station, GW-9, is to be

vacated effective as of this date, and all terms and conditions of the previously approved discharge plan, as of this date, have been incorporated into discharge plan GW-16.

The following comments and requests for additional information are based on the review of the application for renewal of GW-9 for the Eunice Compressor Station and observations made during the OCD site visits on September 28. Note that since GPM does not currently have an application for renewal of GW-16 submitted to the OCD, these comments can be incorporated into that application rather than responding directly.

Eunice EP Compressor Station

- The August 1989 groundwater discharge plan included procedures to conduct annual integrity tests of the oil storage tank and the sump at the northwest corner of the Building 1 (re: Phillips April 3, 1989 letter, response to comment #1). Have these tests been implemented? If so, please submit copies of test procedures and results.
- Annual inspections are required for all below-grade tanks and sumps to ensure mechanical integrity. As part of the discharge plan, GPM should submit procedures for annually determining the mechanical integrity of the Classifier, Slop Oil and Contingency Tanks.
- Five-year inspections are required for underground discharge drain systems. OCD understands that, in August 1992, GPM has completed replacement of the existing steel drain piping with welded polyurethane pipe, which has a 20-year structural integrity guarantee. If GPM wishes to be exempt from the five-year inspection requirements, a request should be submitted as part of the discharge plan, along with manufacturer's data for review.
- The lube oil filter pads at Building 1 need curbs added to contain oil spills. The existing spills need to be cleaned up.
- General housekeeping is needed in some areas of the facility. In particular, oil staining of the ground occurs beneath the inlet/outlet gas lines at Buildings 1 and 2, plus some oil staining around the raw gas scrubber and Building 1's sump pump.

Eunice Gas Processing Plant

- Annual inspections are required for underground Oil/Water Separators to ensure mechanical integrity. As part of the

Mr. Vince Bernard
October 8, 1993
Page 3

discharge plan, GPM should submit procedures for annually determining the mechanical integrity of the Oil/Water Separator.

- During the site visit, it was mentioned that the wastewater draining from the main process pad drains to a storage tank, and then hauled to a Class I well (because of potential amine contamination). Is this a below-grade storage tank? If so, an annual inspection should be included in the discharge plan renewal application. Also, the OCD is unaware of any Class I wells in New Mexico. Please identify the well to which the wastewater is hauled.
- The wall containing the sour water tank has no bottom and should be padded.

Additional comments may be forthcoming for the gas processing plant pending submittal and review of the discharge plan renewal application. Plans and proposed completion schedules are to be submitted for the mechanical integrity inspections, and for the installation of any curbs and/or pads.

If you have any questions, please contact me at (505) 827-4080.

Sincerely,



Roger C. Anderson
Environmental Bureau Chief

RCA/rlm

xc: OCD Hobbs Office

ATTACHMENT NUMBER 3
Photographs taken at GW-016 by OCD on April 8, 1997

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 1

DATE: 4/08 /97



PHOTO NO. 2

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 3

DATE: 4/08 /97



PHOTO NO. 4

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 5

DATE: 4/08 /97



PHOTO NO. 6

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 7

DATE: 4/08 /97



PHOTO NO. 8

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 9

DATE: 4/08 /97



PHOTO NO. 10

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 11

DATE: 4/08 /97



PHOTO NO. 12

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 13

DATE: 4/08 /97



PHOTO NO. 14

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 15

DATE: 4/08 /97



PHOTO NO. 16

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 17

DATE: 4/08 /97



PHOTO NO. 18

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)

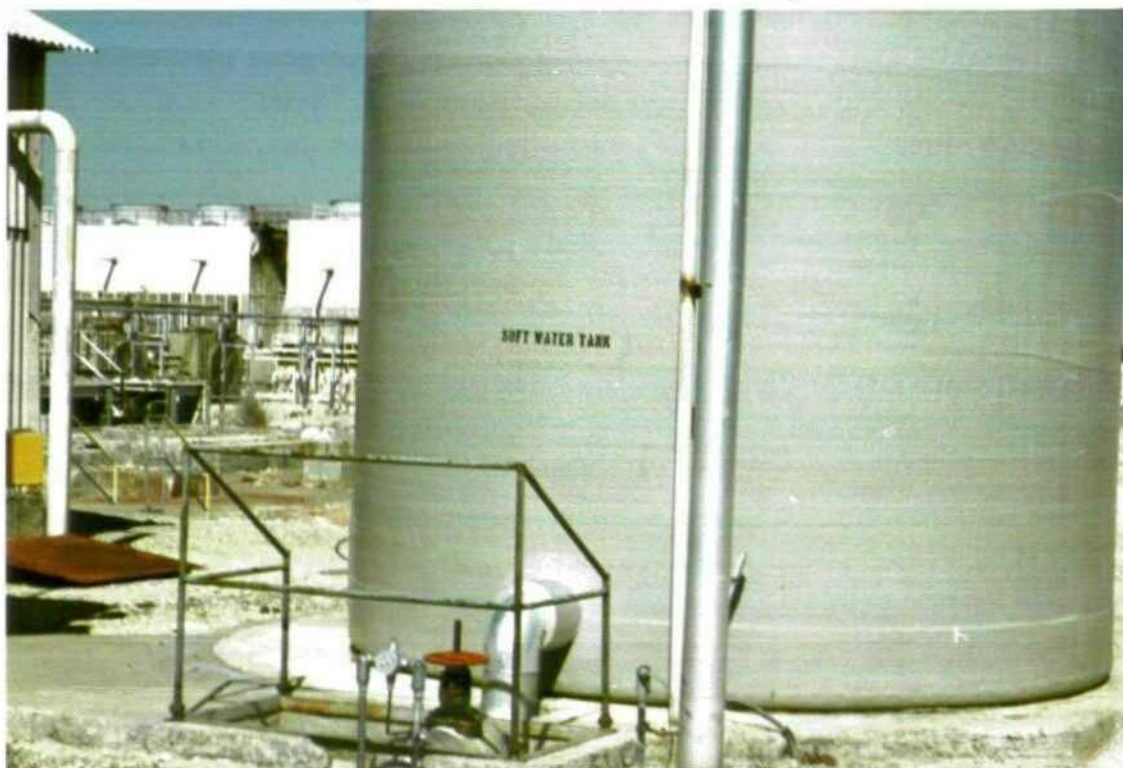


PHOTO NO. 19

DATE: 4/08 /97



PHOTO NO. 20

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 21

DATE: 4/08 /97



PHOTO NO. 22

DATE: 4/08 /97

GPM Eunice Complex GW-016
(PHOTOS BY OCD)



PHOTO NO. 23

DATE: 4/08 /97



PHOTO NO. 24

DATE: 4/08 /97



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

November 18, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-357-870-036

Mr. Mel Driver
GPM Gas Corporation
4044 Penbrook
Odessa, Texas 79762

**RE: Discharge Plan GW-016 Renewal
Eunice Gas Plant
Lea County, New Mexico**

Dear Mr. Driver:

On April 25, 1994, the groundwater discharge plan, GW-016, for the **Eunice Gas Plant** located in the SE/4 NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, was approved by the Director of the New Mexico Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. **The approval will expire on April 25, 1999.**

If your facility continues to have potential or actual effluent or leachate discharges and you wish to continue operation, you must renew your discharge plan. **If GPM Gas Corporation submits an application for renewal at least 120 days before the discharge plan expires, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved.** The OCD is reviewing discharge plan submittals and renewals carefully and the review time can extend for several weeks to months. Please indicate whether you have made, or intend to make, any changes in your system, and if so, please include these modifications in your application for renewal.

Please submit the original and one copy to the OCD Santa Fe Office and one copy to the OCD Hobbs District Office. Note that the completed and signed application form must be submitted with your discharge plan renewal request. (Copies of the WQCC regulations and discharge plan application form and guidelines have been provided to GPM Gas Corporation in the past. A complete copy of the regulations is also available on OCD's website at www.emnrd.state.nm.us/oqd.htm.)

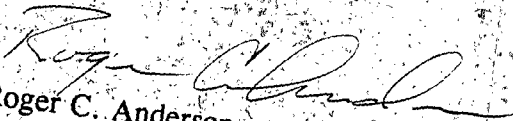
Mr. Mel Driver
GPM Gas Corporation, GW-016
November 18, 1998
Page 2

The discharge plan renewal application for the Eunice Gas Plant is subject to the WQCC Regulations 3114 discharge plan fee. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of fifty (\$50) dollars. There is a renewal flat fee required of \$1,667.50 for gas plants which is equal to one-half of the original flat fee. The fifty (\$50) dollar filing fee is to be submitted with discharge plan renewal application and is nonrefundable.

Please make all checks payable to NMED-Water Quality Management and addressed to the OCD Santa Fe Office.

If you no longer have any actual or potential discharges a discharge plan is not needed, please notify this office. If you have any questions regarding this matter, please do not hesitate to contact W. Jack Ford at (505) 827-7156.

Sincerely,


Roger C. Anderson
Environmental Bureau Chief

RCA/wjf

cc: OCD Hobbs District Officer

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 1-16-95,

or cash received on _____ in the amount of \$ 1717.50

from GPM Gas Services Co

for (GW-016) Eunice Gas Plant

Submitted by: _____ Date: _____
(Facility Name) (OP No.)

Submitted to ASD by: Chris Eustice Date: 2-15-95

Received in ASD by: Carol A. Eschbacher Date: 2/15/95

Filing Fee ☒ New Facility _____ Renewal ☒

Modification _____ Other _____
(specify)

Organization Code 521.07 Applicable FY 95

To be deposited in the Water Quality Management Fund.

Full Payment ☒ or Annual Increment _____

WESTSTAR BANK, n.a.
BARTLESVILLE, OKLAHOMA

GPM GAS CORPORATION
BARTLESVILLE, OKLAHOMA 74004

86-827103

DATE CHECK NO. AMOUNT

8000027604

01/16/95

\$1,717.50

PAY TO THE ORDER OF

EXACTLY *****\$1,717 DOLLARS AND 50 CENT

NEW MEXICO ENVIRONMENTAL DEPT
WATER QUALITY MANAGEMENT
2040 S. PACHECO
SANTA FE NM 87505

GPM GAS CORPORATION 51



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

April 25, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL

RETURN RECEIPT NO. P 176 012 076

Mr. Vince Bernard
Safety & Environmental Supervisor
GPM Gas Corporation
4044 Penbrook
Odessa, TX 79762

**Re: Discharge Plan GW-016
Eunice Gas Plant
Lea County, New Mexico**

Dear Mr. Bernard,

The groundwater discharge plan renewal, GW-016, for the GPM Gas Corporation Eunice Gas Plant, located in the SE/4, NE/4 of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the application dated March 23, 1994 and the response to OCD comments dated April, 5, 1994 and April 21, 1994.

Discussion of the final disposition of the spent mole sieve and spent carbon are continuing between GPM and the OCD. Although final approval of the disposal materials will occur as a modification to the discharge plan at a future date, this is to be considered as part of the current renewal, negating the need for collection of discharge plan modification fees for this action.

The discharge plan was submitted pursuant to section 3-106 of the Water Quality Control Commission Regulations. It is approved pursuant to section 3-109.A.. Please note Section 3-109.F., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve you of your liability should your operation result in actual pollution of surface or ground waters or the environment which may be actionable under other laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened,

Mr. Vince Bernard
April 25, 1994
Page 2

netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

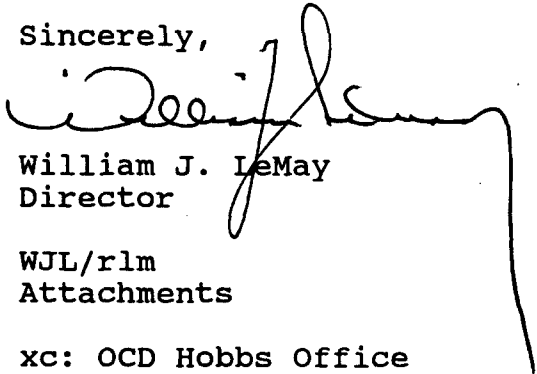
Pursuant to Section 3-109.G.4., this approval is for a period of five years. This approval will expire April 25, 1999, and an application for renewal should be submitted in ample time before that date.

The discharge plan application for the GPM Gas Corporation Eunice Gas Plant is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus the flat rate of one thousand six hundred sixty-seven dollars and fifty cents (\$1667.50) for gas processing plant discharge plan renewal. The fifty (50) dollar filing fee and the one thousand six hundred sixty-seven dollars and fifty cents (\$1667.50) flat fee have not been received by the Oil Conservation Division, and should be submitted on receipt of this approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



William J. LeMay
Director

WJL/rlm
Attachments

xc: OCD Hobbs Office

UNITED STATES POSTAL SERVICE



Official Business

OIL CONSERVATION DIVISION
RECEIVED

PENALTY FOR PRIVATE
USE TO AVOID PAYMENT
OF POSTAGE, \$300



'94 MAY 2 AM 8 50

Print your name, address and ZIP Code here

• Oil Conservation Division •
Environmental Bureau
PO Box 2088
Santa Fe, NM 87504-2088

ATTACHMENT TO THE DISCHARGE PLAN GW-016 APPROVAL
GPM GAS CORPORATION
EUNICE GAS PLANT
DISCHARGE PLAN REQUIREMENTS
(April 25, 1994)

1. Sump Integrity Test Methods: All existing sumps within the gas processing plant, including the catch basin, shall be visually inspected at least annually for leaks. Reports of inspections shall be maintained at the gas plant for a minimum of five years. Annual integrity tests of the Anti-freeze Make-up/Holding Tank shall be conducted according to procedures outlined in Attachment 3-4 of GPM's March 23, 1994 response to OCD comments.

Any new sumps or below-grade tanks will incorporate leak detection in their designs.

2. Pressure Testing: A proposal outlining procedures and schedule for testing all below-grade drain system pipelines shall be submitted to the OCD by June 25, 1994. Positive pressure testing of the plant drain system shall be performed in accordance with the procedures once approved by the OCD.

The Driscopipe polyurethane wastewater pipeline does not require integrity testing during the current discharge plan period. During the 1999 renewal, pipeline structure integrity will be reviewed to determine future testing requirements.

3. Spills: All spills and/or leaks shall be reported to the OCD district office pursuant to WQCC Rule 1-201 and OCD Rule 116.
4. Eunice EP Compressor Station: Use of all compression and process equipment, tanks, below-grade tanks, sumps and underground discharge drain system associated with the Eunice EP Compressor Station shall be discontinued and taken out-of-service by April 1, 1995, and the OCD notified of completion of this work by May 1, 1995.
5. Spent Lube Oil: Spent engine lube oil (or the wastewater stream into which it is placed) shall be tested for TCLP constituents by May 1st of each calendar year and results submitted to the OCD within thirty days.
6. Drum Storage: All chemical and lubrication drums shall be stored on pad and curb type containment.



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

October 31, 1989

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL

RETURN RECEIPT NO. P 106-675-177

Mr. Michael D. Ford
PHILLIPS 66 NATURAL GAS COMPANY
4001 Penbrook
Odessa, Texas 79762

RE: Discharge Plan GW-16
Eunice Plant
Lea County, New Mexico

Dear Mr. Ford:

The ground water discharge plan (GW-16) renewal for the Phillips 66 Natural Gas Company's Eunice Gas Plant located in the SE/4 NE/4 Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby approved.

The original discharge plan was approved on April 25, 1984 and expired on April 25, 1989. The renewal application consists of the original discharge plan as approved April 25, 1984, the renewal application dated April 12, 1989 and materials dated October 20 and October 31, 1989 submitted as supplements to the renewal application.

The discharge plan renewal was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It is renewed pursuant to Section 3-109.F., which provides for the possible future amendments of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of the environment which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those listed in the plan.

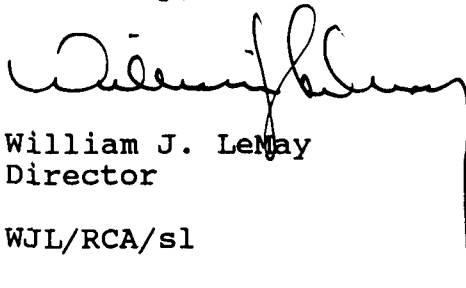
Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C., you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Mr. Michael D. Ford
October 31, 1989
Page -2-

Pursuant to Section 3-109.G.4, this plan approval is for a period of five (5) years. This approval will expire April 25, 1994 and you should submit an application for renewal in ample time before that date. It should be noted that all gas processing plants and oil refineries in excess of twenty-five years of age will be required to submit plans for, or the results of an underground drainage testing program as a requirement for discharge plan renewal.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

A handwritten signature in dark ink, appearing to read 'William J. Lemay', with a long, sweeping horizontal line extending to the right.

William J. Lemay
Director

WJL/RCA/sl

cc: OCD Artesia Office

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address and ZIP Code in the space below.

- Complete Items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

OIL CONSERVATION DIVISION
RECEIVED

'89 NOV 13 AM 9 53



PENALTY FOR PRIVATE
USE, \$300

RETURN
TO



Print Sender's name, address, and ZIP Code in the space below.

ENERGY AND MINERALS DEPARTMENT

Oil Conservation Division

P.O. Box 2086

Santa Fe, New Mexico 87501



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

August 21, 1989

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P 106-675-111

Mr. Michael D. Ford
PHILLIPS 66 NATURAL GAS COMPANY
4001 Penbrook
Odessa, Texas 79762

RE: Discharge Plan GW-9
Eunice (EP) Plant
Lea County, New Mexico

Dear Mr. Ford:

The ground water discharge plan (GW-9) renewal for the Phillips 66 Natural Gas Company's Eunice E.P. Gas Plant located in the NW/4 Section 5, Township 21 South, Range 38 East, NMPM, Lea County, New Mexico, is hereby approved.

The original discharge plan was approved on October 11, 1983 and expired on October 11, 1988. The renewal application consists of the original discharge plan as approved October 11, 1983, the renewal application dated October 3, 1988 and materials dated December 14, 1988, January 26, 1989, April 3, 1989 and August 14, 1989 submitted as supplements to the renewal application.

The discharge plan renewal was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It is renewed pursuant to Section 3-109.F., which provides for the possible future amendments of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of the environment which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those listed in the plan.

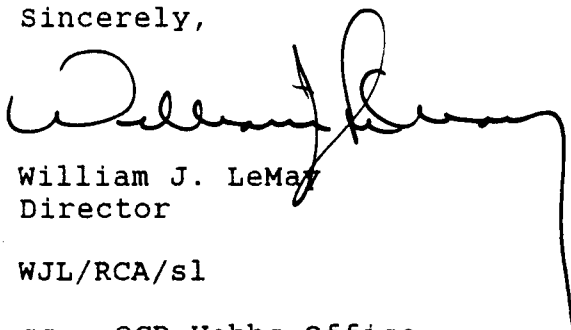
Please note that Section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C., you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Mr. Michael D. Ford
August 21, 1989
Page -2-

Pursuant to Section 3-109.G.4, this plan approval is for a period of five (5) years. This approval will expire October 11, 1993 and you should submit an application for renewal in ample time before that date. It should be noted that all gas processing plants and oil refineries in excess of twenty-five years of age will be required to submit plans for, or the results of an underground drainage testing program as a requirement for discharge plan renewal.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', with a long, sweeping horizontal line extending to the right.

William J. LeMay
Director

WJL/RCA/sl

cc: OCD Hobbs Office

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article: "Return Receipt Requested" adjacent to number.

RETURN
TO



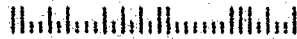
Print Sender's name, address, and ZIP Code in the space below.

ENERGY AND MINERALS DEPARTMENT

Oil Conservation Division

P.O. Box 2088

Santa Fe, New Mexico 87501



RECEIVED

AUG 28 1989

**OIL CONSERVATION DIV.
SANTA FE**



PENALTY FOR PRIVATE
USE, \$300