

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



DECEMBER 14, 2017

Mr. Randy Dade
HollyFrontier Navajo Refining,
LLC 501 East Main
Artesia, New Mexico 88210

Re: Approval of Discharge Permit WDW-4 (UICI-8-4) for Class I (Non-hazardous) Waste Injection Wells HollyFrontier Navajo Refining, LLC, Eddy County, New Mexico

Dear Mr. Dade:

The discharge permit (UICI-8-4) for the HollyFrontier Navajo Refining, LLC (Navajo) Class I Non-hazardous Waste Injection Well:

WDW-4 UICI-8-4 is located approximately 8.5 miles east-southeast of Artesia on Hwy-285 and Hwy-82 on the north side of Hwy-82. UL: N, Section 23 Township 17 South, Range 27 East, 1,215 FSL 2,445 FWL, Lat. 32.81581, Long. -104.25003, NMPM, Eddy County, New Mexico.

OCD hereby approves the new discharge permit pursuant to 20.6.2.3109A NMAC. Please note 20.6.2.3109G NMAC, which provides for possible future amendment of the permits. Please be advised that approval of this discharge permit does not relieve HollyFrontier Navajo Refining, LLC of liability if operations result in pollution of surface water, ground water, or the environment.

This discharge permit will **expire on December 14, 2022**. Navajo should submit discharge permit renewal applications in ample time before this date. Note that under 20.6.2.3106F 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 discharge permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit renewal application for the Navajo's Class I Non-Hazardous Waste Injection Well is subject to 20.6.2.3114 NMAC. Every billable facility submitting a discharge permit application is assessed a non-refundable filing fee of \$100.00. OCD has already received the required \$100.00 filing fees for this Class I non-hazardous waste injection well. OCD now requires a \$4,500.00 discharge permit fee for the Class I non-hazardous waste injection well check made payable in the amount of \$4,500 to the "Water Quality Management Fund."

If you have any questions, please contact Carl Chavez of my staff at (505) 476-3490 or email: CarlJ.Chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this new discharge permit review.

December 14, 2017

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Sincerely,

A handwritten signature in dark ink, reading "David R. Catanach", is written over a light blue rectangular background.

David R. Catanach
Director

DRC/cc

Attachments: Discharge Permit and Fact Sheet

xc: Jim Griswold, OCD- Environmental Bureau Chief
OCD Artesia District Office
Scott Denton, HollyFrontier Navajo Refining, LLC

**NEW DISCHARGE PERMIT
FOR
CLASS I NON-HAZARDOUS WASTE INJECTION WELL
UICI-8-4 (WDW-4)**

**HollyFrontier Navajo Refining, LLC
Unit N of Section 23 Township 17 South, Range 27 East, NMPM**

December 14, 2017

HollyFrontier Navajo Refining, LLC of 501 East Main Street in Artesia, New Mexico 88210 (the Permittee) is permitted to continue operation of Underground Injection Control (UIC) Class I non-hazardous waste disposal well WDW-4 described in applications filed in this regard by the Permittee or modifications and in accordance with (a) the terms of this Permit, (b) the rules governing underground injection 20.6.2.5000 NMAC, and (c) all other applicable provisions of the Water Quality Act and the rules promulgated under the Act. The Permittee is responsible for insuring any oil and gas operations located within the area of the disposal well do not interfere with the proper authorized operation of the well. Certain changes to the operations described will require a modification to this permit including any necessary changes to the amount of financial assurance. The Oil Conservation Division (OCD) of the Energy, Minerals, and Natural Resources Department will determine if any changes constitute a discharge permit modification under 20.6.2.7 P NMAC.

1. GENERAL PROVISIONS

1.A. Permittee and Permitted Facility. The Director of the OCD renews Discharge Permit UICI-8-4 for operation of UIC Class I non-hazardous waste injection well Waste Disposal Well No. 4 (WDW-4 with API # (TBD)) located 1,215 feet from the Southern section line and 2,445 feet from the Western section line of Section 23 in Township 17 South, Range 27 East NMPM; Eddy County, New Mexico (Latitude 32.81581 degrees, Longitude -104.25003 degrees).

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-exempt non-hazardous) oil field waste fluids into WDW-4. This permit also covers the wastewater conveyance pipeline emanating from the Permittee's refinery situated in Artesia approximately 8.5 miles West to the location of WDW-4. Groundwater that may be affected by a release near the wellsite resides at an approximate depth of 50 - 100 feet below ground surface having a total dissolved solids concentration of approximately 2,200 ppm.

1.B. Scope of Permit. This discharge permit for an injection well is issued pursuant to the Water Quality Act (Chapter 74, Article 6 NMSA 1978) and regulations promulgated by the Water Quality Control Commission (WQCC). OCD has been granted the authority by statute and delegation from the WQCC to administer the Act as it applies to UIC Class I non-hazardous waste injection wells associated with the oil and gas industry. The Act and regulations protect groundwater and surface water of the State of New Mexico by providing that unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge such that it may move directly or indirectly into groundwater.

This permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or waste other than exempt or non-hazardous oil field fluids into WDW-4 including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, and wash-down water. The Permittee may not dispose of any industrial waste fluid that is not oil field waste that is generated at its refinery. The New Mexico Environment Department permits the management of fluids that are not generated in the oil field. This permit does not convey any property rights of any sort or any exclusive privilege to the Permittee and does not authorize any injury to property or persons, any invasion of other private rights, or any infringement of state, federal, or local laws, rules, or regulations.

1.C. Permittee Commitments. The Permittee shall ensure all operations are consistent with the terms and conditions of this permit and in conformance with all pertinent regulations under the Water Quality Act so that neither a hazard to public health nor undue risk to property will result; so that no discharge will cause or may cause any stream standard to be violated; so that no discharge of any water contaminant will result in a hazard to public health;

and so that the technical criteria and performance standards for Class I non-hazardous waste injection wells are met. Furthermore, the Permittee shall abide by all commitments submitted in its permit application of April 6, 2017 including any attachments and/or amendments all of which are hereby incorporated into this Permit by reference.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 or 3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). The Permittee shall not inject waste fluids into groundwater containing 10,000 parts per million or less total dissolved solids (TDS).

1.D. Definitions. Terms not specifically defined in this permit shall have the same meanings as those in the Water Quality Act or the regulations adopted pursuant to the Act, as the context requires.

1.E. Fees. Every facility that submits a discharge permit application for initial approval shall pay the filing and permit fees specified in 20.6.2.3114 NMAC. OCD has already received the required \$100.00 filing fee. The Permittee shall submit the \$4,500.00 permit fee for a Class I injection well to OCD by check made payable to "Water Quality Management Fund" no later than thirty days after the date that this permit is issued.

1.F. Effective Date, Expiration, Renewal Conditions, and Penalties for Operating Without a Permit: This permit is effective immediately until the permit is terminated or expires. This permit will expire **December 14, 2022**. If the Permittee submits a subsequent application for renewal no later than 120 days before this permit expires and is in compliance with the permit, then the existing permit will not expire until OCD has approved or disapproved the application. A permit continued under this provision remains fully effective and enforceable. Operating with an expired permit may subject the Permittee to civil and/or criminal penalties (Sections 74-6-10.1 and 10.2 NMSA 1978).

1.G. Modifications and Termination: The Permittee shall notify the OCD of any facility expansion, any injection pressure increase above the limit specified in permit condition 3.B, or process modification that would result in any significant modification in the discharge of water contaminants (20.6.2.3107C NMAC). The OCD may require the Permittee to submit a permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978 and 20.6.2.3109E and 20.6.2.5101I NMAC.

If data submitted pursuant to any monitoring requirements specified in this permit or other information available to the OCD indicate 20.6.2 NMAC is or may be violated, the OCD may require modification or terminate this permit for the following causes:

- Noncompliance by Permittee with any condition of this permit,
- The Permittee's failure in the application or during the review process to fully disclose all relevant facts, or the Permittee's misrepresentation of any relevant facts,
- A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by permit modification or termination,
- Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards,
- Violation of any applicable state or federal effluent regulations or limitations, or
- Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

1.H. Transfer of Permit. The transfer provisions of 20.6.2.3111 NMAC do not apply to a permit for a Class I non-hazardous waste injection well. The Permittee may request to transfer its permit if the OCD receives written notice 30 days prior to the transfer date and the OCD does not object. OCD may require modifications to the permit as a condition of transfer and will require demonstration of adequate financial responsibility by the transferee.

The written notice shall be signed by both the Permittee and transferee, include an acknowledgment by the transferee that they will be responsible for compliance with the permit upon taking possession of the facility, set a specific date for transfer of the permit, and include information related to the transferee's financial responsibility as required by 20.6.2.5210B(17) NMAC.

1.I. Compliance and Enforcement. If the Permittee violates any condition of this permit, OCD may issue a compliance order requiring compliance immediately or within a specified time period, or assess a civil penalty, or both (74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a permit or in violation of a condition of a permit; making any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a discharge permit issued pursuant to a state or federal law or regulation (74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS

2.A. Quarterly Monitoring Requirements. The Permittee shall properly conduct operations at its facility by injecting only RCRA exempt and RCRA non-hazardous, non-exempt oil field waste fluids. Injected waste fluids shall not exhibit the characteristics of ignitability, reactivity, corrosivity, or toxicity under 40 CFR 261 Subpart "C" 261.21 – 261.24 (July 1, 1992), at the point of injection into WDW-4 based upon analytic laboratory testing and/or monitoring. Pursuant to 20.6.2.5207B, the Permittee shall provide analyses of the injected fluids at least quarterly to yield data representative of their toxicity characteristic.

The Permittee shall also analyze the injected fluids quarterly for the following characteristics:

- pH as determined by Method 9040
- Eh
- Specific conductance
- Specific gravity
- Temperature
- Concentrations of major dissolved cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, bromide, total dissolved solids, and cation/anion balance using the methods specified in 40 CFR 136.3
- RCRA Characteristics for ignitability (ASTM Methods), corrosivity (SW-846), and reactivity (determined through Permittee's application of knowledge or generating process)

The Permittee shall also analyze the injected fluids quarterly for the constituents identified in the Quarterly Monitoring List below to demonstrate that the injected fluids do not exhibit the characteristic of toxicity using the Toxicity Characteristic Leaching Procedure, EPA SW-846 Test Method 1311 (see Table 1, 40 CFR 261.24(b)).

QUARTERLY MONITORING LIST			
EPA Hazardous Waste No.	Contaminant	SW-846 Method	Regulatory Level (mg/l)
D004	Arsenic	1311	5.0
D005	Barium	1311	100.0
D018	Benzene	8021B	0.5
D006	Cadmium	1311	1.0
D019	Carbon tetrachloride	8021B 8260B	0.5
D020	Chlordane	8081A	0.03
D021	Chlorobenzene	8021B 8260B	100.0

D022	Chloroform	8021B 8260B	6.0
D007	Chromium	1311	5.0
D023	o-Cresol	8270D	200.0
D024	m-Cresol	8270D	200.0
D025	p-Cresol	8270D	200.0
D026	Cresol	8270D	200.0
D027	1,4-Dichlorobenzene	8021B 8121 8260B 8270D	7.5
D028	1,2-Dichloroethane	8021B 8260B	0.5
D029	1,1-Dichloroethylene	8021B 8260B	0.7
D030	2,4-Dinitrotoluene	8091 8270D	0.13
D032	Hexachlorobenzene	8121	0.13
D033	Hexachlorobutadiene	8021B 8121 8260B	0.5
D034	Hexachloroethane	8121	3.0
D008	Lead	1311	5.0
D009	Mercury	7470A 7471B	0.2
D035	Methyl ethyl ketone	8015B 8260B	200.0
D036	Nitrobenzene	8091 8270D	2.0
D037	Pentachlorophenol	8041	100.0
D038	Pyridine	8260B 8270D	5.0
D010	Selenium	1311	1.0
D011	Silver	1311	5.0
D039	Tetrachloroethylene	8260B	0.7
D040	Trichloroethylene	8021B 8260B	0.5
D041	2,4,5-Trichlorophenol	8270D	400.0
D042	2,4,6-Trichlorophenol	8041A 8270D	2.0
D043	Vinyl chloride	8021B 8260B	0.2

If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol concentration is used.

If the quantitation limit is greater than the regulatory level, then the quantitation limit becomes the regulatory level.

If dissolved metals, EPA Method 1311 TCLP is required with the exception of total mercury.

2.B. Groundwater Monitoring Wells. At least one groundwater monitoring well shall be installed in proximity of and hydrogeologically downgradient from WDW-4. The monitoring well(s) shall be screened into the uppermost water-bearing unit using 15 feet of well screen with the top of the screened interval positioned 5 feet above the water table. The Permittee shall propose a monitoring frequency with analytic and monitoring parameters to detect potential groundwater contamination.

2.C. Contingency Plan. The Permittee shall implement the contingency plans included in its application to cope with failure of a system.

2.D. Closure. Within 30-days of permit issuance, the Permittee shall submit for OCD's approval, a closure plan with third-party cost estimate for plugging and abandonment of WDW-4, surface restoration in the area of the well, and proper abandonment of the wastewater conveyance pipeline. The plan should include a completed form C-103 for plugging and abandonment of the injection well. The Permittee shall plug and abandon its well pursuant to 20.6.2.5209 NMAC. OCD may require the Permittee to revise or update the closure plan. The obligation to implement the closure plan as well as the requirements of the plan survives the termination or expiration of this permit.

At least 30 days prior to the date the Permittee proposes to close or discontinue operation of WDW-4, the Permittee shall notify OCD. The following information shall be provided in the pre-closure notification:

- Name and location of the facility
- Name and address of Permittee
- Contact person with telephone number
- Type of well
- Year of well construction
- Well construction details
- Type of discharge including average flow in gallons per day
- Proposed well closure activities
- Proposed date of well closure

2.E. Record Keeping. The Permittee shall maintain records of all inspections required by this permit at its facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.F. Release Reporting. The Permittee shall comply with the following pursuant to 20.6.2.1203 NMAC if a release occurs of oil or other water contaminant in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property. The Permittee shall report to OCD any unauthorized releases of water contaminants in accordance with any additional commitments made in its approved contingency plan.

As soon as possible after learning of such a release, but no more than 24 hours thereafter, the Permittee shall verbally notify OCD and provide the following:

- The name, address, and phone number of the person in charge of the facility, as well as of the owner/Permittee of the facility
- The name and location of the facility
- The date, time, location, duration, and volume of the release
- The cause of the release
- A description of the release, including its probable chemical constituents
- Any actions taken to mitigate immediate damage from the release

Within 15 days after the Permittee has discovered a release, the Permittee shall provide written notification (may use Form C-141) to OCD verifying the prior oral notification and providing any appropriate additions or corrections to the information previously provided.

Corrective actions shall be undertaken with oversight by the OCD.

2.G. Other Requirements.

The Permittee shall allow any authorized representative of the OCD to:

- Enter the premises at reasonable times
- Inspect and copy records required by this permit
- Inspect any treatment works, monitoring, or analytical equipment
- Sample effluent

- Use Permittee's monitoring systems and wells to collect samples

The Permittee shall provide OCD with at least five working days' advance notice of any environmental sampling to be performed pursuant to this permit, or any well subsurface work such as mechanical integrity testing, well plugging, or decommissioning of any equipment.

The Permittee shall supply the Division with a copy of the mud log over the permitted disposal interval and the estimated in-situ water salinity based on open-hole logs. The Permittee may substitute the calculated salinity with laboratory analyses (that includes an analysis for total dissolved solids) of the formation fluid from the permitted disposal interval. If significant hydrocarbon shows occur while drilling, the Permittee shall notify the Division's Artesia District Office and the Permittee shall be required to receive written permission prior to commencing injection.

The Permittee shall ensure all environmental sampling and laboratory testing meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure all samples are analyzed by an accredited by the National Environmental Laboratory Accreditation Conference (NELAC). The Permittee shall submit summary data tables, laboratory reports, and laboratory quality assurance/quality control and data quality objectives documentation OCD.

2.H. Financial Assurance. Pursuant to 20.6.2.5210B(17) NMAC, the Permittee will provide financial assurance to the OCD in an acceptable form and in an amount representative of the estimated total cost provided in the closure plan (section 2.D. above) for plugging of the injection well, surface restoration, and abandonment of the wastewater conveyance pipeline. The Permittee shall review the financial assurance any time the closure plan is revised. OCD may require additional financial assurance to ensure funding is available to plug the well or for any required corrective actions.

2.I. Reporting. The Permittee shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD no later than 45 days following the end of each calendar quarter. The quarterly reports shall include:

- Physical, chemical and other relevant characteristics of injected fluids (see Condition 2.A)
- Monthly average, maximum and minimum values for injection pressure, flow rate, injected volume, and annular pressure
- Groundwater monitoring well information from Condition 2.B
- Continuous monitoring charts and information from Permit Condition 3.C

The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD by **March 31st** of the following year. The annual reports shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well (WDW-4), Name of Permittee, permit number, API number of well, date of report, and person submitting report
- Summary of injection well operations for the year including descriptions and reasons for any remedial work on the well with a copy of form C-103(s)
- Brief explanation describing deviations from the normal operation
- Monthly injection volume, including the cumulative total which should be carried over each year
- Maximum and average injection pressures
- Copies of the quarterly chemical analyses and all quality assurance and data quality objective information
- Summary tables providing historic laboratory data for quarterly waste fluid samples
- Mechanical integrity test data
- Fall-off testing data
- Summary with interpretation of mechanical integrity tests, fall-off tests, Bradenhead tests, *etc.*, with conclusions and recommendations
- Reports of any leaks or spills (include any C-141 forms)
- Area of Review (AOR) summary with any new wells penetrating the injection zone within a 1-mile radius of WDW-4

3. OPERATIONS

3.A. Operating Requirements. The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206B NMAC to ensure the maximum injection pressure at the wellhead does not initiate new fractures or propagate existing fractures in either the injection or confining zones, or cause the movement of injection or formation fluids into groundwater having 10,000 ppm or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that WDW-4 is discharging or suspects that it is discharging fluids into a zone other than the permitted injection zone specified in Permit Condition 3.B, then the Permittee shall cease operations until proper repairs are made, notify the OCD within 24 hours, and shall not resume injection until the Permittee has received approval from the OCD.

The annulus between the injection tubing and the long string of injection casing shall be filled with a fluid approved and at an annulus pressure both approved by the OCD.

3.B. Injection Operations. The Permittee shall inject only RCRA exempt or non-hazardous, non-exempt oil field waste fluids into the subsurface formations residing from approximately 10,400 feet to 10,900 feet below ground surface (bgs) at WDW-4. The surface casing is set with a maximum depth of 1,500 feet bgs. The protection casing is set to a maximum depth of 10,400 feet bgs. The injection tubing is set with the injection packer at a depth of approximately 10,400 feet bgs with open hole to approximately 11,000 feet bgs. The Permittee shall ensure the injected fluids enter only the specified injection interval and do not escape into other formations.

The Permittee shall ensure the injection pressure on WDW-4 as measured at the surface shall not exceed a gauge pressure of 2,080 pounds per square inch and equip the well with a pressure limiting device. The Permittee shall inspect the device daily and shall report any pressure exceedances within 24 hours of detection to OCD.

OCD may authorize an increase in the maximum surface injection pressure if the Permittee demonstrates higher pressure will not result in migration of the injected fluid from the designated injection interval by means of a valid step-rate test preferably run in coordination with a fall-off test. Any increase in injection pressure shall not exceed the formation parting pressure. Any step rate testing shall be pre-approved by OCD.

3.C. Continuous Monitoring Device. The Permittee shall continue to use a continuous monitoring device in advance of injection that records on an hourly basis the injection pressure, injection rate, totalized injection volume, and annular pressure between the injection tubing and the production casing. If the device requires chart changing, the Permittee shall utilize a procedure that depressurizes and properly re-aligns the pens on the chart scale during changing to prevent anomalous noise.

3.D. Mechanical Integrity. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure, and no detectable conduit for fluid movement out of the injection zone through the well bore, or vertical channels adjacent to the well bore, which the OCD considers to be significant. Pursuant to 20.6.2.5204 NMAC, the Permittee shall conduct a mechanical integrity test (MIT) for WDW-4 at least once every five years or more frequently as the OCD may require for good cause during the life of the well. The Permittee shall also complete an MIT after all well workovers, including when it pulls the tubing or reseats the packer. The Permittee shall request MIT pre-approval from OCD using form C-103 (Sundry Notices and Reports on Wells). The Permittee shall notify OCD five working days prior to conducting any MIT to allow the opportunity to witness.

The Permittee shall conduct the MIT by applying a pressure of at least 500 psig to the casing/tubing annulus from surface to the injection packer for at least 30 minutes. The MIT passes if there is a less than a 10% change in the final test pressure compared to the starting pressure. When conducting and evaluating an MIT, the Permittee shall apply methods and standards generally accepted in the oil and gas industry and follow OCD's 2004 *Underground Injection Control Program Manual* guidance. The Permittee shall submit the results to OCD within 30 days of completion. If any remedial work or any other workover operations are necessary, the Permittee shall comply with Permit Condition 3.F.

If the MIT indicates failure, the Permittee shall immediately shut-in the well, investigate, and notify the OCD within 24 hours. The Permittee shall not resume injection operations until approved by OCD.

The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts an MIT.

The OCD may consider the use of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed alternative and all technical data supporting its use. The OCD may approve the request if it will reliably demonstrate the integrity of the well.

3.E. Fall-Off Testing. The Permittee shall undertake fall-off testing on at least an annual basis. The Permittee shall submit an initial form C-103 sundry notice to OCD for pre-approval and comply with OCD's 2007 *UIC Class I Well Fall-Off Test Guidance* for conducting and for reporting the test. Any report should be submitted to OCD within 60 days of test completion and include historic fall-off test results to evaluate injection zone characteristics over time.

3.F. Well Workovers. The Permittee shall provide notice to and shall obtain approval from the OCD prior to commencement of any remedial work or any other workover operations and allow OCD the opportunity to witness the operation. The Permittee shall request approval from OCD using form C-103 (Sundry Notices and Reports on Wells). After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run an MIT in accordance with Permit Condition 3.D to verify that the remedial work has successfully repaired any problems.

3.H. Area of Review. The Permittee shall report to OCD within 72 hours of discovery of any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from WDW-4. Any un-cemented wells within the injection interval shall also be identified by the Permittee and reported to OCD.

4. CLASS V WELLS

Leach fields and other waste disposal systems that inject fluid into or above an underground source of drinking water are considered UIC Class V injection wells. This permit does not authorize the use of any Class V injection well for the disposal of industrial waste and the Permittee shall close any such well that injects industrial wastes or a mixture of industrial and domestic waste within 90 calendar days of the issuance of this permit. The Permittee shall document the closure of any such Class V wells in its Annual Report. Class V wells, including wells used only for the injection of domestic wastes, are typically permitted by the New Mexico Environment Department.

FACT SHEET
New Mexico Oil Conservation Division Class I Nonhazardous
Underground Injection Control Draft Discharge Permit # UICI-8-4
County of Eddy
HollyFrontier Navajo Refining, LLC

Location:

HollyFrontier Navajo Refining, LLC (Navajo)

UL: N, Section 23, Township 17 South, Range 27 East NMPM

(Lat. 32.81581, Long. -104.25003)

Directions: The Waste Disposal Well No. 4 (WDW-4) - API No. 30-015-##### (TBD) is located approximately 8.5 miles east-southeast of the intersection of Hwy 285 and Hwy-82 on the north side of Hwy 82 (~ 325 ft. N of Hwy-82).

Discharge Contact:

Mr. Scott Denton

Environmental Manager

HollyFrontier Navajo Refining, LLC

501 East Main, Artesia, NM 88210

Telephone: (575) 746-5487

Email: Scott.Denton@HollyFrontier.com

Regulatory Contact:

Mr. Carl Chavez, Environmental Engineer

New Mexico Oil Conservation Division, Energy, Minerals & Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505 Telephone: (505) 476-3490

Fax: (505) 476-3462 (include name and mail code from above)

Email: CarlJ.Chavez@state.nm.us

I. Purpose of the Fact Sheet

Pursuant to the Underground Injection Control (UIC) regulations in Title 40 of the Code of Federal Regulations (CFR), §124.8, and State §20.6.2 et seq. NMAC, the purpose of this fact sheet is to briefly describe the principal facts and the considerations that went into preparing the draft discharge permit. To meet these objectives, this fact sheet contains background information on the discharge permit process, a description of the facility, a brief discussion of the discharge permit conditions, and the reasons for these discharge permit conditions.

II. Discharge permit Process

Application and Review Period

The New Mexico Oil Conservation Division Director has authority to issue discharge permits for underground injection activities under Federal 40 CFR §144.31, and State §20.6.2 et seq. NMAC. Navajo Refining, LLC (Navajo) is applying for a new Underground Injection Control (UIC) discharge permit # UICI-8-4 to continue injecting into one (1) Class I injection well known as Gaines Well No. 4 (WDW-4). The well is used to dispose of industrial non-hazardous fluids produced from the Artesia Refinery in Artesia, NM. Wastewater from the process units, cooling towers, boilers, streams from water purification units, desalting units, recovered and treated groundwater are pumped via subsurface pipeline from the refinery approximately 10.5 miles E-SE through a filtration unit before disposal or injection down WDW-4. In February 2017, OCD received a discharge permit application for the continued operation of WDW-4 from Navajo. OCD requested, and Navajo provided, supplemental information in February 2017. After completing a thorough technical review of all submitted information, OCD has determined that the information provided by Navajo is now sufficient to complete a UIC discharge permit. Accordingly, OCD has completed a draft Class I non-hazardous UIC discharge permit that would authorize the continuation of injection for another 5-year period. The draft discharge permit contains operation, maintenance, monitoring, reporting, closure and well abandonment requirements.

Based on OCD's review of the operational standards, monitoring requirements, existing geologic setting, and the operational history of the facility over the prior ten (5) year discharge permitted period, OCD believes the activities allowed under the proposed draft discharge permit are protective of Underground Sources of Drinking Water (USDWs) as required under the Safe Drinking Water Act.

Public Participation

The public has thirty (30) days to review and comment on the Class I UIC draft discharge permit (40 CFR §124.10). The draft discharge permit and this fact sheet are available at the following location:

The draft discharge permit, this fact sheet, and the discharge permit application are available at the following location:

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505 Telephone: (505) 476-3441 or
E-mail: CarlJ.Chavez@state.nm.us
OCD Website: <http://www.emnrd.state.nm.us/OCD/env-draftpublicetc.html>

The public comment period begins on September 10, 2017 and ends on October 10, 2017. During this period, all written comments on the draft discharge permit can be sent, faxed, or e- mailed to Carl Chavez (see the contact information listed on the first page of this fact sheet), who is also available by phone for any questions regarding the draft discharge permit.

All persons, including the applicant, who object to any condition of the draft discharge permit or OCD's decision to prepare a draft discharge permit must raise all reasonably ascertainable issues and submit all reasonable arguments supporting their position by the close of the comment period (40 CFR §124.13). A public hearing may be held only if there is a significant degree of public interest in the draft discharge permit (40 CFR §§124.11 and 124.12).

Final Decision-Making Process

After the close of the public comment period, OCD will review and consider all comments relevant to the new UIC discharge permit and application. If public comments are received, OCD will send a response to comments to the applicant and each person who has submitted written comments or requested notice of the final discharge permit decision. OCD will also post the response to comments document on its website. The response to comments will contain: a response to all significant comments on the draft discharge permit; OCD's final discharge permitting decision; any discharge permit conditions that are changed and the reasons for the changes; and procedures for appealing the decision. The final decision shall be to either issue or deny the discharge permit. The final decision shall become effective no sooner than thirty (30) days after the service of the notice of decision or final discharge permit is posted and no appeal has been received. Within thirty (30) days after the final discharge permit decision has been issued, any person who filed comments on the draft discharge permit, participated in any Public Hearing on this matter, or takes issue with any changes in the draft discharge permit, may appeal to the Water Quality Control Commission to review any condition of the discharge permit decision. Commenters are referred to 40 CFR §124.19 for procedural requirements of the appeal process. If no comments request a change in the draft discharge permit, the discharge permit shall become effective immediately upon issuance (40 CFR §124.15).

III. Description of the Facility

Navajo operates a refinery wastewater treatment plant in Artesia, New Mexico. The County disposes of the concentrated brine (saline) waste product from the reverse osmosis treatment process at the plant via a Class I non-hazardous injection well operating at a distance of approximately 10.5 miles E-SE of the plant. The well is discharge permitted by OCD under a UIC discharge permit, and the injection well has been previously operating under the existing UIC discharge permit. The well was converted from a former gas well in 2000.

The Navajo injection well facility is located approximately 8.5 miles east-southeast of the refinery wastewater treatment plant. The injection fluid is piped via an eight-inch pipeline

from the treatment plant to the injection well. The wastewater or injection fluid is generated from the process units, cooling towers, boilers, streams from water purification units, desalting units, recovered and treated groundwater are pumped via subsurface pipeline from the refinery approximately 10.5 miles E-SE through a series of filtration units before disposal or injection down WDW-4. The units generate a high Total Dissolved Solids- TDS concentrate that is sent to the injection well.

The injection well application was submitted for a new discharge permit. The daily flow rate to the injection well is to be determined. The well is permitted to inject at a maximum of 2,080 psi. The high TDS wastewater effluent is injected into the Devonian Formation in the injection interval from 7,924 feet to 8,476 feet (depth below ground level).

IV. Brief Summary of Specific Discharge Permit Conditions

In order to protect public health and the environment, OCD is proposing the following conditions for operation, monitoring and reporting, plugging and abandonment, and financial responsibility in the Draft Class I UIC Discharge Permit:

Well Operation (Section 2 of the Draft Discharge permit)

The discharge permit restricts Navajo from injecting any hazardous waste into the injection well. The maximum allowable injectate volume and pressure limitations are already set based on the results of testing under the existing discharge permit. The draft discharge permit requires mechanical integrity testing every 5-years or after well workovers, and pressure transient testing annually to ensure protection of underground sources of drinking water. Navajo must demonstrate mechanical integrity by means of an annular pressure test in the tubing/casing annulus, an evaluation of cement integrity in the casing/borehole annulus and sufficient results from temperature logs and radioactive tracer testing. Under the discharge permit, the permittee is required to provide OCD (for its approval) with Sundries to describe the proposed procedures to conduct the various well tests. The permittee is also responsible for measuring and monitoring formation pressure data annually to ensure that pressure buildup is limited to the AOR. The discharge permit also requires that Navajo operate their injection well in such a manner as to not initiate or propagate fractures in the injection formation or the confining zone (aquitard).

Monitoring, Record Keeping, and Reporting (Section 2 of the Draft Discharge permit)

Navajo is required to continuously monitor injection rate, total injection volume, injection pressure, annular pressure, and injection fluid temperature. Navajo is required to sample the injectate on a quarterly basis to determine the quantities/values of the following: Inorganics (i.e., Major Anions and Cations); Solids (i.e., Total Dissolved Solids); General and Physical Parameters (i.e., pH, Conductivity, Hardness, Specific Gravity, Alkalinity and Viscosity); Metals; and Organics.

All sampling analyses must be performed at a certified laboratory. Navajo is required to maintain all operational and monitoring records, and to submit quarterly and annual summary reports to OCD.

Well Plugging and Abandonment (Section 2.D of the Draft Discharge permit)

Upon determination that the injection well regulated by this discharge permit is to be permanently abandoned, Navajo is required to abandon the injection well according to the Plugging and Abandonment Plans in 2.C of the draft discharge permit. OCD reserves the right to change the manner in which a well will be plugged if the well is modified during its discharge permitted life or if the well is not consistent with OCD requirements for construction or mechanical integrity.

Financial Responsibility (Section 2.H and 5.B of the Draft Discharge permit)

The Permittee shall maintain a bond (non-expiring) or arrange for other financial assurance for WDW-4 in the amount of \$95,000 to guarantee closure.

The financial responsibility mechanism and amount shall be reviewed and updated periodically, upon request of OCD. OCD may require the permittee to change to an alternate method of demonstrating financial responsibility.

Duration of Discharge permit (Section 1.F of the Draft Discharge permit)

OCD proposes to issue the discharge permit and the authorization to inject for a period of up to five (5) years with a renewal option unless terminated under the conditions set forth in Section 1.F of the draft discharge permit.