

NEW DISCHARGE PERMIT GW-40

1. GENERAL PROVISIONS

1. A. Permittee and Permitted Facility: The Director of the Oil Conservation Division (OCD) within the Energy, Minerals and Natural Resources Department issues Discharge Permit GW-40 (Permit) for Abatement of Groundwater and Vadose Zone Contamination to Western Refining SW, Inc. (Permittee) with an address of 539 South Main Street, Room M-7081, Findlay, OH 45840, regarding the Former Giant Bloomfield Refinery (GBR) located in the NW/4 of Section 27, and SW/4 of Section 22, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The facility may be found driving toward the northeast corner of United States Highway 64 and County Road 3500, approximately five miles west of Bloomfield.

The facility consists of the former Giant Bloomfield Refinery storage tanks and equipment, as well as the remedial equipment installed for recovery, treatment, and discharge of groundwater from the Site (pumps, piping, and treatment system). The refinery operated from 1974 to 1982 and is presently inactive.

The Permittee installed a remedial system in stages beginning in 1988 and has gradually been simplified over time. The remediation system was designed to treat groundwater affected by various diesel fuel releases during operation of the former refinery and periodic spills at the truck unloading facility. The remediation system consists of a series of groundwater monitoring wells, groundwater recovery wells, water treatment equipment, and infiltration gallery (treated-water infiltration trenches). During prior years of operation, the treatment system could process up to an estimated 5,000,000 gallons of water per year based on estimated usage of the system.

The Permittee will update its Stage 2 Abatement Plan (see Section 6.A.1) to focus on facility monitoring, remediation of remaining contaminated groundwater and vadose zone source contamination at the facility. Groundwater that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 40 feet below ground surface with a total dissolved solids concentration of approximately 1,500 milligrams per liter (mg/l).

The issuance of this Discharge Permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the Water Quality Control Commission (WQCC), or any applicable federal laws, regulations, or standards.

1. B. Scope of Permit: OCD has been granted authority to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to refineries by statute and by delegation from the Water Quality Control Commission pursuant to Section 74-6-4(E) NMSA 1978.

The Water Quality Act and the rules issued under the Act protect groundwater and surface water of the State of New Mexico by providing that unless otherwise allowed by rule, no person shall cause or allow effluent or leachate to discharge to migrate directly or indirectly into groundwater unless such a discharge is pursuant to an approved discharge permit (20.6.2.3104 and 3106 NMAC).

This new Permit authorizes the Permittee to capture, store and dispose of Phase Separated Hydrocarbons (PSH) from groundwater. When the disposal system is in operation, to discharge between 0 – 50 gallons per minute of treated (Granular Activated Carbon- GAC) contaminated dissolved phase groundwater into an Underground Injection Control (UIC) Class V Remediation Injection Well System (infiltration gallery) at the facility (see Section 3) until such time as injection capacity into a permitted Class V disposal system, is required on an “as needed” basis upon permit issuance. This new Permit includes requirements for annual groundwater monitoring and for the abatement of vadose zone and groundwater contamination resulting from historical releases of diesel fuel along with any other historical facility releases of vadose zone and groundwater contaminants.

This Permit does not authorize on-site disposal of any materials, product, by-product, or oil field waste. This Permit does not convey any property rights of any sort nor any exclusive privilege and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the Permit conditions to comply with the Water Quality Act and the rules issued pursuant to the Act, so neither a hazard to public health nor undue risk to property will result (20.6.2.3109 C NMAC); so no discharge will cause or may cause any stream standard to be violated (20.6.2.3109 H (2) NMAC); so no discharge of any water contaminant will result in a hazard to public health (20.6.2.3109 H (3) NMAC); and numerical standards specified of 20.6.2.3103 NMAC are not exceeded.

1. C. Discharge Permit: This is a new Permit effective for 5-years. Replacement of a prior permit, when one exists, does not relieve the Permittee of its responsibility to comply with the terms of the prior permit while that permit was in effect.

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

1. E. Fees: Every facility that submits a discharge permit application for initial approval or renewal must pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has received the required \$100.00 filing fee. The permit fee for Abatement of Groundwater and Vadose Zone Contamination of \$2,600.00 is due within 30-days of permit issuance. There may also be a fee under 20.6.2.3114 NMAC associated with approval of financial assurance (Table 2) of the greater of \$250.00 or 0.01% of the financial assurance amount, if required. Checks must be payable to the “Water Quality Management Fund” and not the OCD.

1. F. Effective Date, Expiration, Renewal Conditions, and Penalties for Operating Without a Permit: This Permit is effective immediately from the date the Permittee receives this discharge permit when all fees are paid, renewed, or until the permit is terminated. This new Permit **will expire on July 12, 2025**, which is beyond the cessation of the surface discharge described in Section 1. B as abatement of vadose zone and groundwater contamination resulting

from the discharge(s) may continue under provisions of this Permit. The Permittee shall submit an application for subsequent renewal no later than 120 days before the expiration date (20.6.2.3106 F NMAC). If a Permittee submits a renewal application at least 120 calendar days before the Permit expires and complies with the approved Permit, then the existing Permit will not expire until OCD has approved or disapproved the renewal application. A discharge 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 (74-6-10.1 and 10.2 NMSA 1978).

1. G. Modifications: The Permittee 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 (20.6.2.3107 C NMAC). OCD may require the Permittee to submit a permit modification pursuant to 20.6.2.3109E NMAC and may modify or terminate a permit pursuant to Section 74-6-5(M) through (N) NMSA 1978.

1. H. Transfer of Permit: Prior to any transfer of ownership, control, or possession of the facility (whether by lease, conveyance or otherwise), the transferor shall notify the transferee in writing of the existence of this Permit, and shall deliver to OCD a copy of such notification, together with a certification or other proof that such notification has been received by the transferee pursuant to 20.6.2.3111 NMAC. Upon receipt of such notification, the transferee shall inquire into all the provisions and requirements contained in the Permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the OCD's file or files concerning the Permit. Upon assuming either ownership or possession of the Facility the transferee shall have the same rights and responsibilities under the Permit as were applicable to the transferor (20.6.2.3111 NMAC).

Transfer of the ownership, control, or possession of the Facility does not relieve the transferor of responsibility or liability for any act or omission which occurred while the transferor owned, controlled, or was in possession of the Facility (20.6.2.3111E NMAC).

1. I. Closure Plan and Financial Assurance: A closure plan is hereby required, unless received with the application, within 60 days under 20.6.2.3107 A. (11) NMAC along with financial assurance, if requested by OCD, to implement such a plan. The plan shall provide, at a minimum, for the removal or plugging of all lines leading to the discharge locations to eliminate discharge(s). As abatement of vadose zone and groundwater contamination resulting from the discharge progresses, modification of the closure plan and financial assurance will be required to incorporate the abatement effort including possibly post-closure monitoring.

1. J. Compliance and Enforcement: If the Permittee violates or is violating a condition of this Permit, OCD may issue a compliance order requiring compliance immediately or within a specified period, suspending or terminating this Permit, and/or assessing a civil penalty (74-6-10 NMSA 1978). OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (74-6-10 (A) (2) and 11 NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge 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 permit issued pursuant to a state or federal law or regulation (74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS

2. A. Contingency Plan: The Permittee shall implement its contingency plan to cope with failure of the Permit or system. The Permittee shall follow the “off-line” OCD technical guidelines for “Releases” to address the contingency plan or other OCD approved alternative guidelines on a case-by-case basis only.

2. B. 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. C. Release Reporting: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, and may report a release using an OCD form C-141, if it determines that a release 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, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD.

1. Oral Notification: As soon as possible after learning of such a release, but in no event, more than twenty-four (24) hours thereafter, the Permittee shall notify OCD of a release. The Permittee shall provide the following:

- the name, address, and telephone number of the person or persons in charge of the facility, as well as of the Permittee;
- the name and location of the facility;
- the date, time, location (including NAD83 Lat./Long. Decimal to at least 5 places), and duration of the release;
- the source and cause of release;
- a description of the release, including its chemical composition;
- the estimated volume of the release; and,
- any corrective or abatement actions taken to mitigate immediate environmental damage from the release.

2. Written Notification: Within one week after the Permittee has discovered a release, the Permittee shall send initial written notification (may use an OCD form C-141 with attachments) to OCD off-line verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

3. **Corrective Action:** The Permittee shall undertake such corrective actions as are necessary and appropriate to contain and remove or mitigate the damage caused by the release along with the filing of subsequent corrective action reports with the OCD.

2 D. Other Requirements:

1. **Inspection and Entry:** Pursuant to 20.6.2.4107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, upon the presentation of proper credentials, to:
 - enter the facility at reasonable times;
 - inspect and copy records required by this Permit;
 - inspect any treatment works, monitoring, and analytical equipment;
 - sample any wastes, discharge, groundwater, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor;
 - use the Permittee's monitoring systems and wells to collect samples; and,
 - gain access to off-site property not owned or controlled by the Permittee but accessible to the Permittee through an access agreement if allowed by the agreement.
2. **Advance Notice:** Pursuant to 20.6.2.4107B NMAC, the Permittee shall provide OCD with at least four working days advance notice of any environmental sampling to be performed pursuant to this Permit, or of any monitoring well plugging or abandonment.
3. **Plugging and Abandonment:** Pursuant to 20.6.2.4107C NMAC, the Permittee shall propose to plug and abandon a monitoring well or UIC Class V Well to the OCD for approval. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from both OCD and the Office of the State Engineer.

2. E. Annual Report: The Permittee shall submit a single report to the OCD on or before June 15th of each year pursuant to 20.6.2.3107 NMAC. The annual report shall include the following:

1. A summary of all major refinery activities or events;
2. A summary of the discharge activities, including the quality and volume of the discharge;
3. A summary of all leaks, spills, and releases and corrective actions taken;
4. A summary of the discovery of any new vadose zone or groundwater contamination including any plume expansion(s);
5. A summary of all waste, wastewater and PSH disposed of, sold, or treated on-site, including a refinery wastewater balance sheet and mass balance of the waste effluents;

6. Documentation regarding the closure of UIC Class V wells, if any, used for the disposal of industrial wastes or a mixture of industrial wastes, ~~and~~ domestic wastes, ~~other than~~ and treated groundwater or effluent (see Section 3 below);
7. Documentation regarding the plug and abandonment of any monitor and/or recovery wells;
8. Documentation of untreated effluent volume, recovered PSH volume, treated and injected effluent volume, injection flow rates (min., max. and avg.), treated effluent water quality verified by environmental analytical laboratory data results before injection, and certification that WQCC water quality standards were met, and/or instances where standards were not met and corrective actions taken to correct such a situation.
9. A description of ground water monitoring and remediation activities conducted throughout the year, including sample collection procedures, decontamination procedures, sample handling procedures, and management of associated wastes;
10. Summary tables of groundwater data including water quality, purging parameters, groundwater elevation, and thickness of any PSH;
11. Copies of laboratory analytical data sheets with quality assurance/quality control information;
12. Contour maps for each aquifer depicting the potentiometric gradient for each monitoring event;
13. Iso-concentration maps of major constituents of concern for each monitoring event (to include all groundwater quality standards historically and currently detected through monitoring above water quality standards of 20.6.2.3103 NMAC);
14. PSH thickness isopleth maps for each monitoring event;
15. Plots of static water elevation versus time in key wells, specifically those that contain PSH;
16. Tabulation of the volumes of PSH removed from recovery wells or monitoring wells throughout the year; and
17. Conclusions and recommendations.

3. CLASS V WELLS

Pursuant to 20.6.2.5002 B NMAC, leach fields and other wastewater disposal systems at OCD regulated facilities injecting non-hazardous fluid into or above an underground source of drinking water are Underground Injection Control (UIC) Class V injection wells. This Permit does not authorize the Permittee to use a UIC Class V injection well for the disposal of industrial waste at the Facility. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any UIC Class V industrial waste injection wells at its Facility that inject non-hazardous industrial wastes or a

mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) other than contaminated groundwater within 90 calendar days of the issuance of this Permit. The Permittee shall document the closure of any UIC Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated groundwater in its annual report (see Section 2. E. 6 above).

The Permittee must obtain a permit from the New Mexico Environment Department for other Class V wells, including wells used only for the injection of domestic wastes.

3.A. UIC Class V Well or Infiltration Gallery: The Permittee will operate the treated effluent injection system or remedial system on an “as needed” basis in the most efficient manner possible with the proper operation, monitoring and maintenance required to protect groundwater, public health, and the environment.

- 1. Operation:** Permittee shall activate the infiltration gallery in accordance with the approved Stage 2 Abatement Plan (see section 6.A.1).
- 2. Monitoring:** Permittee shall propose remedial system monitoring and frequency of monitoring in accordance with the approved Stage 2 Abatement Plan (see Section 6.A.1) to ensure groundwater contaminants do not exceed WQCC 20.6.2.3103 NMAC water quality standards in treated effluent discharged into the infiltration gallery.
- 3. Maintenance:** Permittee shall perform maintenance on the remedial system in accordance with the approved Stage 2 Abatement Plan (see Section 6.A.1) to ensure the remedial system functions properly.

4. DISCHARGE OF TREATED EFFLUENT

The Permittee began discharging treated effluent into the UIC Class V Well or Infiltration Gallery in 1988. This discharge has continued “as needed” at the facility under permit conditions until the permit expired and the remedial system was idled. The discharge occurred at the following location:

- The “Infiltration Gallery” comprised of 100 square feet (five 2 in. lateral perforated pipes set in pea gravel near surface) with a discharge end-of-pipe located at the approximate latitude of 36.703061 degrees, and longitude of -108.093532 degrees (NAD83).

The Permittee shall continue discharging “as needed” into the infiltration gallery at the above location upon OCD approval of the Stage 2 Abatement Plan (see Section 6.A.1).

- The Permittee shall fully restore the infiltration gallery or remedial system back into operation within 90-days of OCD approval of the Stage 2 Abatement Plan (see Section 6.A.1).

The restored remedial system shall be designed, constructed, and operated to contain liquids and solids in a manner that will protect fresh water, public health, safety, and the environment for the

foreseeable future. The Permittee shall operate the remedial system in accordance with the OCD approved Stage 2 Abatement Plan (see Section 6.A.1.).

4.A. Discharge Rate and Location: The Permittee is authorized to discharge no more than 1,715 barrels per day of treated effluent to the UIC Class V Well (see Section 3) within the Facility at the location cited above. Discharge at any other locations is expressly prohibited.

4.B. Sampling and Analysis: The Permittee shall characterize the discharge fluids as follows:

1. The Permittee shall comply with U.S. Environmental Protection Agency Quality Assurance/Quality Control and Data Quality Objectives for all facility environmental sampling and analytical laboratory methods and procedures.
2. The Permittee shall sample and analyze using the methods specified in the Permittee's Annual Report (see Section 2.E.).
3. The Permittee shall retain all environmental sampling and analytical laboratory quality assurance/quality control documentation for at least the last four years.
4. The Permittee shall monitor and record the discharge and/or injection flow(s) weekly and tabulate a monthly, yearly, and cumulative volume summary record. This should include the dates and flow rates when the UIC Class V Well is in operation.
5. The Permittee shall ensure the sampling and flow measurements are representative of the volume and nature of the discharge.
6. The Permittee shall submit all sample data, analytical results, and flow measurements in the annual report (see Section 2.E.).

5. GROUNDWATER MONITORING

The Permittee shall conduct all facility monitoring in accordance with the OCD approved Stage 2 Abatement Plan (see Section 6.A.1.).

The Permittee shall continue to monitor and report facility groundwater and treated effluent quality at the facility in accordance with the Annual Report (see Section 2.E) and any conclusions with recommendations to add or abandon monitoring, recovery, etc. systems. The Permittee shall propose all facility monitoring in the updated Stage 2 Abatement Plan (see Section 6.A.1.).

6. ABATEMENT

There are indications that abatement of vadose zone and groundwater contamination is required due to the historic discharge of diesel fuel. Typically, persons responsible for abatement must

act in accordance with 20.6.2.4104 and 4106 NMAC. However, pursuant to 20.6.2.4105A(6) NMAC, abatement can proceed as part of a discharge plan.

6.A.1. Stage 2 Abatement Plan: The Permittee shall submit an updated Stage 2 Abatement Plan (plan) within 90-days of permit issuance for facility abatement of vadose zone and groundwater contamination associated with historical releases of diesel fuel based on historical and current contaminant hydrogeological conditions at the facility. The plan shall adequately address facility groundwater monitoring, contaminant source control, remedial system monitoring (i.e., remedial system operation, monitoring, and maintenance), and/or other remedial actions as required to comply with applicable WQCC regulations of 20.6.2 et seq. NMAC and 20.6.4 et seq. NMAC.