ENSOLUM

DISCHARGE PERMIT APPLICATION

Property: Roadrunner Gas Plant

January 15, 2025

Prepared for:

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1.0 INTRODUCTION

This document provides information for a discharge permit application for the Roadrunner Gas Plant (Facility) operated by Targa Northern Delaware LLC (a subsidiary of Targa Resources LLC (Targa)), in response to a notice from the New Mexico Oil Conservation Division (NMOCD) stating Targa's natural gas plants are subject to the permitting requirements of Title 20, Chapter 6, Part 2 of the New Mexico Administrative Code (NMAC). There are no intentional discharges to groundwater at the Facility. Instead, this discharge permit application describes the measures in place to prevent potential discharges to groundwater of any water contaminant listed in 20.6.2.3103 NMAC or any toxic pollutant. Existing regulatory and operational programs are discussed in the context of site-specific environmental and operational conditions to verify inadvertent releases of liquids stored and used at the Facility are minimized and contained, waste is managed appropriately, and groundwater resources are protected.

This discharge permit application relies heavily on the following existing documents, which are attached:

- *Roadrunner Gas Plant Spill Prevention, Control, and Countermeasure (SPCC) Plan,* including a *Contingency Plan* (SPCC Plan)*:* Appendix A;
- *Targa Resources Standards and Specifications: Mechanical Integrity Plan:* Appendix B; and
- *Waste Management Plan for New Mexico* (WMP)*:* Appendix C

Specific components of the existing plans and policies are referenced in subsequent sections of this document.

2.0 FACILITY DESCRIPTION

The Facility is located approximately 1.65 miles southwest of Loving, New Mexico within Section 32 of Township 23 South, Range 28 East in Eddy County (32.265590° North, 104.107922° West) as depicted on Figure 1. It is a cryogenic gas plant, which began operation in August 2017. The Facility is designed to process 800 barrels per day (2,920,000 barrels per year) of condensate and 490 million standard cubic feet per day (MMSCDF) of natural gas.

Natural gas and condensate from nearby oil and gas production facilities is transported by pipeline into the Facility for treatment and processing. Once gathered at the Facility, the produced natural gas is compressed through cryogenic processing, dehydrated to remove the water content, and processed to remove and recover natural gas liquids. The processed natural gas and recovered natural gas liquids are then sold and shipped to various customers. This process produces small volumes of condensate and oil fluids which are stored at the Facility in bulk storage containers. In addition, the treatment process requires multiple types and sizes of process flow-through vessels and oil-filled operation equipment.

2.1 Property, Operator, and Facility Ownership and Contacts

The following list outlines key entities associated with the Facility ID fAB1806740738, OGRID 331548.

Facility Name:
Roadrunner Gas Plant
1098 Bounds Road,
Loving, New Mexico 88256

Landowner:
Targa Northern Delaware LLC
811 Louisiana Street, Suite 2100
Houston, Texas 77002

Facility Owner and Operator:
Targa Northern Delaware LLC
811 Louisiana Street, Suite 2100
Houston, Texas 77002

Key Facility Contact:
James Aguilar
Operations Supervisor
1098 Bounds Road
Loving, New Mexico 88256
575-200-8895
james.aguilar@targaresources.com

2.2 Facility Diagrams

Facility maps and diagrams are described below and referenced as attachments or as part of the existing SPCC Plan (Appendix A):

- A topographic map depicting topography and the location of the Facility relative to nearby environmental receptors (waterways and water wells) is included as Figure 1.
- A Site Layout depicting an aerial image of the Facility is included as Figure 2.
- Diagrams depicting detailed components of the Facility, including locations, capacities, and contents of all storage containers and process flow-through vessels; storage areas; underground tanks or sumps; transfer stations; connection pipelines (including intra-facility gathering lines); and containments are included as Figures 2A and 2B in the attached SPCC Plan (Appendix A).

2.3 Fencing

The Facility incorporates an outer chain-link perimeter fence and gated entryway. The locations of these fence lines are depicted on the Facility Diagrams in the attached SPCC Plan (Appendix A: Figures 2A through 2B).

2.4 Process Units

The cryogenic processing conducted at the Facility is divided into operational units identified on Figure 2. Gas enters the Facility through slug catchers and is separated into gas and liquids. Gas is directed to amine treatment to remove carbon dioxide. The liquids move to a condensate stabilizer to further separate produced water, which is ultimately stored as wastewater. Gas is dehydrated using glycol and molecular sieves. The dry gas is ultimately compressed through

cryogenic processing. The vapors can be recovered in liquid form (ethane) and sold as natural gas liquids or in gas form and sold as methane.

2.5 Tanks

The Facility utilizes aboveground tanks, chemical tanks, totes, and underground sumps for storage of liquids. The locations of these tanks are included on the Facility Diagrams in Figures 2A and 2B of the SPCC Plan. Details about tank content, size, and construction are included in Section 2.4 of the attached SPCC Plan. Chemicals in 300-gallon totes and 5-gallon buckets are stored temporarily for equipment maintenance. The containers storing liquids that are not oil-based are included in the attached Table 1.

2.6 Process Vessels

This Facility utilizes oil-filled manufacturing equipment (i.e. flow-through process vessels) for continuous recovery and/or intermediate storage of liquids entrained in natural gas. A description of process vessels are included in Section 2.4.1 of the attached SPCC Plan and their locations are identified on the Facility Diagrams in Figures 2A through 2B of the SPCC Plan.

2.7 Berms and Containments

A variety of berms and containments are used as secondary containment for tanks and liquids storage. All bulk storage container installations are constructed so that a means of secondary containment is provided for the entire capacity of the largest container and sufficient freeboard to contain precipitation. Bermed areas are sufficiently impervious to contain discharges of oil and other liquids. The largest storage tanks are set in lined berms constructed of steel while smaller volume tanks are contained using plastic and fiberglass containments. The locations of berms and their capacity as related to stored liquids are included in the attached SPCC Plan. The berms are identified on the Facility Diagrams in Figures 2A and 2B of the SPCC Plan. Construction and capacity are described in Section 2.4 of the SPCC Plan.

2.8 Loading Areas

Truck loading and unloading activities occur at designated areas shown in the SPCC Plan Figure 2B as truck loading connection buckets. The details of these transfer areas are provided in the SPCC Plan and drivers are trained on specific loading procedures at the Facility. The Facility uses a truck loading/unloading area for the shipping and receiving of condensate. A typical tanker truck visiting the Facility has an approximate total capacity of 180 barrels or 7,560 gallons. Tanker trucks only remain at the Facility to transfer liquids. Truck loading occurs only in designated areas outside secondary containment, but spill pans and other catchment devices are utilized and all transfers are monitored. Sorbent materials and/or spill control boom are present to provide spill control if necessary. Drivers are trained according to Targa's Truck Loading and Unloading Procedures. To prevent premature vehicular departure, the Facility posts warning signs in the loading areas and requires truck drivers to chock their wheels prior to loading. Drain and outlets on tank trucks are checked for leakage before loading/unloading or departure and, if necessary, are tightened, adjusted or replaced.

2.9 Storage Areas

The Facility utilizes two outdoor storage areas to stage materials and equipment not permanently in use at the Facility. The locations of storage facilities are shown on Figure 2. Items stored include extra process and operating equipment, construction materials, empty containers, oil products, and maintenance chemicals. Liquids stored in totes or drums are positioned on spill pallets or in bermed areas.

There is also a shed in the amine treatment and dehydration area used to store items like filters and miscellaneous chemicals. The shed is covered with a concrete floor. Table 1 identifies liquids stored in these areas.

2.10 Pits, Ponds, and Impoundments

There are no pits, ponds, or surface impoundments for liquids storage or waste accumulation at this Facility. There are no ponds, lagoons, or catchment basins for stormwater accumulation.

2.11 Disposal Facilities

No on-site disposal occurs at the Facility.

3.0 SITE CHARACTERISTICS

The following sections describe the hydrologic/geologic characteristics in the vicinity of the Facility.

3.1 General Description of Topography, Elevations, and Vegetation Types;

The Facility is located within a portion of the Lower Pecos River Surface Water Basin and within the Carlsbad Declared Groundwater Basin[1]. This area is relatively flat and largely covered by sand dunes underlain by a hard caliche surface. The dune sands are locally stabilized with shin oak, mesquite, and some burr-grass. The vegetation on these soils ranges from open grass stands, grasses, shrubs, desert succulent mixtures and some piñon-juniper woodlands. Mixed stands of trees and riparian vegetation can be found along the Black, Delaware and Pecos Rivers, and around springs and playas in the basin. These areas are used for forage production, farming, wildlife habitat, recreation, while they also provide aesthetics and watershed benefits[2].

3.2 Soil Type

Based on the available site-specific and regional subsurface information, the Facility is underlain by the Reeves-Gypsum land complex on 0 to 3 percent (%) slopes, Reeves loam, shallow on 0 to 1% slopes and Gypsum land-Cottonwood complex on 0 to 3% slopes. These surficial soils are classified as well drained, moderately permeable soils that formed in calcareous and gypsiferous fine textured alluvium derived from gypsum beds. Further classification of these soils indicates that the capacity of the most limiting layer to transmit water is low (0.00 to 0.06 inches per hour) and runoff potential is high. [3]

3.3 Surface Water Features

Figure 1 is a topographic map depicting water bodies, streams, watercourses, and potential groundwater discharges within a 1-mile radius of the Facility boundary. There are no natural surface bodies of water or groundwater discharge sites within ¼-mile of the Facility and where

[1] New Mexico Office of the State Engineer (NMOSE) – online query October 2024
[2] Lower Pecos Valley Regional Water Plan. Volume II Regional Water Plan. Prepared for New Mexico Interstate Steam Commission Regional Water Planning Program. Prepared July 2001. Prepared by Pecos Valley Water Users Organization.
[3]Natural Resources Conservation Services. Web Soil Survey. National Cooperative Soil Survey. Eddy County, New Mexico. Online query accessed October 3, 2024.
https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

drainages exist in interdunal areas, they are ephemeral, discontinuous, dry washes. Manmade surface water features are depicted on Figure 1 and are named. Various man-made irrigation ditches are nearby. The shortest distance to Southern Canal from the Facility boundary is 270 feet northwest. Southern Canal flows southeasterly. Black River Supply Ditch is approximately 2,160 feet south of the Facility boundary and flows south. Figure 1 incorporates the following databases for surface water features: National Wetlands Inventory, National Hydrography Dataset, and United States Geological Survey.

3.4 Water Wells

Figure 1 depicts no water wells within a ¼-mile radius of the Facility using information from the New Mexico Water Rights Database from the New Mexico Office of the State Engineer (NMOSE). There are no water wells located within the Facility boundary.

3.5 Shallowest Aquifer

In this area, groundwater occurs in the Castile and Rustler formations and in the shallower alluvium. Drilling logs for water wells within a 1-mile radius of the Facility indicate that shallow groundwater may be present, with some groundwater depths ranging from approximately 10 feet below ground surface (ft bgs) to the east (direction of the Pecos River) to 190 ft bgs. The estimated depth to an underlying alluvial aquifer at the Facility is less than 50 feet bgs and likely affected by recovery of the groundwater into nearby irrigation canals and application of that irrigation water. The underlying aquifer system consists of the shallow Quaternary alluvium in the Lower Pecos River Basin. Figure 1 provides recorded depths of water from points of diversion wells (POD) as recorded by NMOSE.

3.6 Geological Characteristics

The Facility is underlain by Quaternary alluvium overlying the Permian Ochoa Series – Castile and Rustler formations. The Quaternary deposits in Eddy County include large areas of alluvium and dune sands, which can be divided into younger and older deposits. The older deposits are quartzose conglomerate extending south from Carlsbad to the Black River and the chief source of shallow water in the irrigated areas. It is thickest immediately west of the Pecos River and thins to the west. The younger Gatuna Formation is deposited in local depressions. Terrace and channel deposits are the result of the Pecos River and forms a veneer 5 to 20 feet thick consisting of silt, sand, gravel, cobbles, and boulders. It is usually above the water table. The Rustler Formation occurs beneath the quaternary deposits and unconformably overlies the Castile Formation west of the Pecos River. In the general proximity of the Facility, the Rustler Formation is approximately 500 feet deep. The Rustler Formation is characterized by anhydrite, gypsum, interbedded red and green sandy clays, and some beds of dolomite.[4] The Castile Formation overlies the sedimentary rocks of the Delaware Mountain Group and consists of approximately 1,300 to 2,000 feet of anhydrite, gypsum, and small amounts of halite, dolomite, and sandstone. The Castile Formation thins toward the northwest along the base of the reef escarpment of the Capitan Limestone.

[4] Hendrickson, G.E., and Jones, R.S., 1952, Geology and Ground-Water Resources of Eddy County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, New Mexico Institute of Mining & Technology Groundwater Report 3

3.7 Groundwater Characteristics

Groundwater in this region is obtained from the alluvium, from the Castile Formation, and rarely from the Rustler Formation. Water from the alluvium is less than 100 feet deep, and the quantity of water available is generally sufficient for individual stock and domestic supplies. Water levels are heavily influenced by extraction for irrigation and the effect of seepage from applied irrigation water from canals is typically evident. South of Carlsbad, the water quality is good. East and south, the groundwater quality lessens as a result of mineralization as it mixes with irrigation water and leaking from the Southern Canal. Near the canal, the groundwater is generally fresh to low-salinity brackish. It generally contains greater than 1,000 parts per million (ppm) of sulfate and 400 to 900 ppm of chloride.[5] Total dissolved solids (TDS) concentrations are generally less than 3,000 milligrams per liter (mg/l).[6]

The Castile Formation yields water to many stock and domestic wells. The water from many of these wells is high in sulfate and is undesirable for human consumption. Several springs sourced from the Castile Formation surface in the alluvium throughout the area. The larger springs yield water of fair to good quality. Springs are not identified in the local proximity of the Facility.

The water from the Rustler Formation generally is not desirable for domestic use because of its high chloride and sulfate content. In certain areas wells penetrating the lower part of the Rustler yield concentrated brine derived from the underlying Salado Formation which cannot be used even for livestock. This brine aquifer at the base of the Rustler discharges salt water into the Pecos River in the vicinity of Malaga Bend (Robinson and Lang, 1938, pp. 77-100)[7].

3.8 Site Flooding Potential

The annual precipitation of the region in Eddy County is 14 inches. The most likely flood events occur from heavy storms during the summer months of June through September resulting from prolonged heavy rainfall over dry areas and is characterized by peak flows of moderate duration. These summer rain showers and thunderstorms account for more than half of the annual precipitation.[8] Most of this rainfall collects and runs through dry arroyos, of which none are near the Facility. Based on Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL), the nearest mapped floodplain is associated with the Pecos River, some 1.15 miles away.

4.0 POTENTIAL DISCHARGES

The Facility has no intentional discharges. The NMOCD has determined inadvertent discharges of liquids or improper disposal of waste solids stored at the Facility may have the potential to

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[5] Hale, W.E., 1945, Ground-water conditions in the vicinity of Carlsbad, N. Mex: Unpublished report in the files of the Ground-water Office of the United States Geological Survey, Albuquerque, New Mexico.
6 Cikoski, C., Fichera, M., Mamer, E., and Sturgis, L., 2020, A Three-Dimensional Hydrogeologic Model from the Pecos Slope to the Southern High Plains, Southeastern New Mexico: New Mexico Bureau of Geology and Mineral Resources Open-File Report 614, 145 pages.
[7] Robinson, T. W., and Lang, W. B., 1938, Geology and groundwater conditions of the Pecos River Valley in the vicinity of Laguna Grande de la Sal, with special reference to the salt content of the reiver water: New Mexico State Engineer Twelfth and Thirteenth Biennial Reports Page 79-100.
[8] Flood Insurance Study Eddy County New Mexico and Incorporated areas. Prepared by Federal Emergency Management Agency (FEMA) Flood Insurance Study Number 35015CV000A. Effective June 4 2010. Online query accessed November 22, 2022. https://msc.fema.gov/portal/advanceSearch

impact groundwater. As detailed above, groundwater is estimated to be less than 50 feet deep at the Facility, likely associated with the underlying alluvial aquifer, and often affected by recovery of the groundwater into nearby irrigation canals and application of that irrigation water. Groundwater shallows to the east toward the Pecos River and deepens to the west. The required response from Targa to any release as required in 19.15.29 of the New Mexico Administrative Code (NMAC) and implementation of an SPCC Plan (attached) to protect nearby surface waters make the likelihood of an accidental discharge low.

The information provided below discusses Facility operations and use or storage of any materials, as requested by NMOCD to further mitigate unintentional discharges to groundwater. The contents of aboveground oil storage tanks, volume of containers and associated containments, as well as predicted direction of a release should containment fail are included in the attached SPCC Plan. Similarly, details of process and oil-filled operational equipment are included in the SPCC Plan. Other materials used or stored onsite that are not oil-based but that were observed during a Facility inventory conducted in June 2023 are included in Table 1. Miscellaneous chemicals listed are not always on-site but included in Safety Data Sheet (SDS) inventory because they are sometimes used for maintenance of equipment. These materials are maintained temporarily at minimal volumes and stored in the storage shed or on spill pallets when present.

Targa already limits releases of oil-based chemicals through implementation of its SPCC Plan to protect potential nearby waters of the United States. Similar procedures for storage and handling are applied to chemicals that are not oil-based.

4.1 Onsite Disposal

This Facility does not have any onsite disposal.

4.1.1 Sanitary Sewage

Sanitary sewage is a separate system and does not commingle with any waste generated by gas processing at the Facility. The sewage is disposed of through septic tanks within the Facility, which are emptied on an as-needed basis.

4.2 Offsite Disposal

Wastewater and solid wastes are collected at the Facility, properly characterized, and transported offsite for disposal. Waste is managed by Targa through its WMP (Appendix C), which describes methods and procedures implemented for the identification, classification, minimization, handling, and disposal of wastes generated at the Facility. The wastes are generally categorized as oil and gas exploration and production waste, non-hazardous waste, and hazardous waste. Procedures for waste management of Naturally Occurring Radioactive Materials (NORM) is managed by a separate *NORM Management Plan* referencing 20.3.14.1403 NMAC for possession, use, transfer, transport, storage, and disposal of regulated NORM.

The WMP lists common waste streams generated at Targa locations and provides a list of corporate-approved waste disposal and recycling facilities where waste can be transported. The following wastes are specific to normal operation of the Facility. If there is a waste that is generated and is not specifically identified in the WMP, Targa employees are instructed to contact a Targa Environmental Specialist for assistance.

4.2.1 Oil and Gas Exploration and Production Waste

Wastewater from dehydration, separation, and pigging consists of produced water with minor hydrocarbon constituents. Wastewater is stored in one tank at the Facility as shown on the Facility

Diagrams. In general, wastewater flows by gravity to a separator where solids, sludge, and floating scum are removed. Stormwater that collects in skids and containments is also transferred to the wastewater tank via a system of drains and sumps. This collection system is substantially composed of concrete paving with sumps. Wastewater is disposed of at an approved Class II Injection Well or an approved landfill.

Sludge and tank bottoms are treated similarly. Drainage from sludge that accumulates at the bottom of tanks, compressor skids, or small containments collects in a sump and is pumped to the wastewater tank. Oily sludge accumulates at the bottom of storage tanks and is removed via vacuum truck and discharged directly into a separator for recovery and then into the wastewater Tank. Oils from tanks and separators are transferred to the on-site, in-service crude tanks. Sludge, tank bottoms, and materials generated during tank cleaning activities that are not suitable for recovery are properly containerized and transported off-site and disposed of at an approved landfill or approved subsurface injection facility.

Hydrocarbon and produced water impacted soil is promptly removed and disposed according to waste disposal procedures and secondary containment systems are provided to prevent from reaching navigable waters as listed in SPCC Implementation Measures. Contaminated soil is transported off-site to an approved landfill or landfarm.

Oily rags and used sorbent pads are wrung out to remove liquids, then disposed at an approved landfill.

The following materials are used in gas processing and occasionally replaced as necessary. Waste guides have been established for these materials, which are collected on site and transported for appropriate disposal to an approved disposal facility as listed in the WMP: process filters, amines (such as sludge, filter media, and backwash), molecular sieves, and activated alumina (desiccant).

4.2.2 Non-hazardous Waste

Non-hazardous wastes generated at the Facility consist of general refuse (municipal solid waste), and non-hazardous industrial waste (unusable chemical products or wastes generated by industrial processes). Using process knowledge or laboratory testing, the waste characteristics are determined and profiled. Non-hazardous waste identified at the Facility include: motor oil, lubricating oil, motor or lubricating oil filters, used oil, antifreeze, caustics for cleaning, biocides, batteries, hydraulic fluids, methanol, some paints, and solid waste such as scrap metal and general housekeeping trash. Some paint and chemicals have been profiled as non-hazardous, including acetic acid, empty gas canisters, acrylic gloss, carburetor cleaner, sealant, and degreasers. Small amounts of solid non-hazardous waste are collected as metal, filters, and trash and collected in a roll-off bin, that is picked up by Waste Management every Wednesday at the Facility. During equipment maintenance, materials may be collected and stored in segregated containers within general secondary containment until full or the maintenance operation is complete, then transported off site for recycling or disposal at an approved non-hazardous waste landfill.

4.2.3 Hazardous Waste

The Facility typically does not generate hazardous waste and is considered a Very Small Quantity Generator (VSQG). On occasion hazardous waste may be generated that requires management and disposal. These materials are typically commercial products in small quantities. The Facility utilizes the assistance of an Environmental Specialist to conduct a waste determination to identify the characteristics of the waste and identify an appropriate disposal method with recordkeeping.

Some items that may be occasionally characterized as hazardous include certain paints, solvents, and sealants.

4.2.4 Stormwater Management

Stormwater surface flow is depicted on the Facility Diagrams in the SPCC Plan and generally directed to remain onsite and collect in drains, depressions or man-made features. Procedures for stormwater management are described in the SPCC Plan. Stormwater accumulation is managed by construction of best management practices within the Facility property. The Facility has implemented procedures for drainage from undiked areas, including visual inspections and offsite removal as needed.

If a situation requires discharge of accumulated rainwater to the ground surface, qualified Facility personnel will conduct a visual evaluation of the water quality to ensure the release of uncontaminated stormwater only. Facility personnel will record the date, area(s) inspected, and results of the evaluation(s). The evaluated accumulated stormwater must be clear and free of color; odor; floating, settled, and suspended solids; foam; and oil sheen in order to be authorized for discharge. If the evaluated stormwater does not meet the above criteria, it will be managed in an environmentally sound manner and disposed/recycled of in accordance with federal and state requirements.

There are no ponds, lagoons, or catchment basins on-Site. Additionally, Targa maintains manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful, as described in the SPCC Plan.

4.2.5 Groundwater Contamination

There is currently no known groundwater contamination associated with the Facility.

4.2.6 Commingled Waste Streams

There are no commingled waste streams at the Facility.

5.0 COLLECTION AND STORAGE SYSTEMS

The Facility stores over 95,000 gallons of oil, wastewater, condensates, glycol, amine, lube oil, synthetic oil, hot oil surge, and transformer oil in the tanks. Aboveground storage tanks are used throughout the Facility to hold and store crude oil, condensate and produced water (as wastewater). These tanks range in size from 16,800 gallons to 42,000 gallons. Pumps, valves, and piping systems are used throughout the Facility to transfer various liquids among tankage and truck loading. Lube oil, engine oil, diesel fuel, and gasoline tanks are stored in aboveground fixed containers and tanks. Current tank contents and total capacity are listed in the SPCC Plan. The Facility also receives, stores, and uses a variety of additives and chemicals that are stored in small volumes in totes and other containers (Table 1). Oil-filled operational equipment and storage containers are used to manage the process flow-through within the Facility as described in the SPCC Plan.

According to the SPCC Plan, the Facility utilizes the industry standard API-12R1 for additional freeboard capacity which recommends containment equal to at least 110% of the largest single container. The condition of secondary containment and containment pad/liners are inspected and maintained as described in the SPCC Plan. There are some implementation measures that are not yet fully operational that include increased berm volume requirements to fully meet that standard. Targa is scheduled to implement those measures in 2025.

Targa implements a Mechanical Integrity Plan (MIP; Appendix B) for equipment, including tanks. The program is intended to verify that equipment used in transporting, containing, and processing hydrocarbons are fit-for-service for their application. It also specifies inspection activities designed to ensure mechanical integrity.

5.1 Buried Storage Tanks

The Facility does not have buried storage tanks installed onsite.

5.2 Sumps

Sumps are utilized to collect stormwater and liquids from compressor skids or small containments. These are connected by drains and pumped on an as-needed basis either to the wastewater tank or to a vacuum truck to be disposed off-site.

5.3 Buried Piping

Targa employs the following best management practices for buried piping installation and maintenance:

- *Implementation of a General Design Standards for Field Gas Pipelines and Piping Facilities* as well as a *General Plant Piping Design and Construction Standards,* both of which cover general requirements for the design, materials, fabrication, assembly, installation, heat treatment, examination, inspection, and testing of field piping systems and pipelines. These documents apply engineering and technical standards to piping.
- Hydrotesting of piping is conducted upon putting pipe into service.
- New or replaced buried piping is cathodically protected and is installed with a protective wrapping or coating.
- The MIP covers inspection and testing of buried piping after equipment is put in service.
- If a section of buried line is exposed, it is inspected for signs of deterioration and corrective actions are taken as indicated by the magnitude of the damage.
- A pickling procedure is used anytime a portion of the facility is rendered inactive.

5.4 Effluent Treatment Facilities

This Facility does not have an effluent treatment system.

5.5 Aboveground Valves and Piping

This Facility has aboveground piping installed or replaced that are regularly examined during normal facility walk-through for general condition and necessary for corrective action. Facility walk-throughs are generally conducted on a daily basis at Targa's manned facilities for flange joints, expansion joints, piping supports, metal surfaces, catch pans, and valve locks and/or seals. The procedures listed in Section 5.3 Buried Piping are also implemented for Aboveground piping where appropriate.

6.0 INSPECTION, MAINTENANCE, AND REPORTING

Targa personnel and contractors routinely conduct inspection, maintenance, and repair of all tanks, equipment, instrumentation, valves, piping, and other items necessary for the continued safe operation of the Facility. Some of these activities are conducted under applicable regulations, like SPCC requirements, and involve detailed recordkeeping and reporting.

6.1 Bulk Storage Containers

All bulk storage containers are inspected monthly and necessary testing techniques can include hydrostatic, radiographic, ultrasonic, and/or acoustic emissions for bulk storage containers subject to quantitative integrity testing requirements provided in the SPCC Plan and MIP. All malfunctions, improper operations of equipment, evidence of leaks, stains, or discolored soils, etc. are logged and communicated to the Plant Superintendent or Manager of Operation. Specific procedures that relate to sources of liquid effluent and solid waste are described below.

Tanks that are constructed of welded steel are visually inspected monthly for signs of deterioration, discharges, or accumulation of oil inside diked areas, and undergo an external inspection by certified inspector every 20 years. In addition, copies of the completed external inspections are maintained on file for the life of the tank.

For drums, totes, or any additional portable container, the Facility implements monthly inspections, which provide equivalent environmental protection to integrity testing. These containers are typically elevated without direct contact to the ground which poses a minimal risk of corrosion and allows for all sides of the containers to be inspected. All oil containing drums, totes, or portable tanks are inspected routinely (non-documented) and monthly (documented). Many of these containers are single-use, and/or are kept on site temporarily and the inspection is performed by an owner's inspector who is familiar with the site and can identify changes and developing problems. Additional information can be found in the SPCC Plan, where inspection records and recordkeeping requirements are described.

6.2 Process Equipment

Every oil-filled equipment is designed, constructed, and installed according to good engineering practices and industry standards as described in the MIP. Inspection frequencies are established in accordance with the applicable American Petroleum Institute (API) or National Board Inspection Code (NBIC) standard or recommended practice. The compatibility of the oil and container's construction material has been evaluated prior to use. Preventive maintenance is conducted based on regularly scheduled visual inspections, tests, or evidence of the oil spills and/or problems as described in the MIP. A pickling procedure is in place to ensure integrity of piping with an implementation schedule of short term (less than 1 year) maintenance checks and long term (greater than 1 year) system cleaning.

6.3 Piping

The attached MIP covers inspection and testing of aboveground and buried piping after equipment is put in service. Required inspections include thickness measurements and visual external inspections. Internal inspections are considered if a pipe segment fails.

6.4 Containment Drainage

The Facility's storage areas are manually operated, employ open and closed designed valves, pumps, and ejectors as indicated in the SPCC Plan. Contents of the storage areas and tank containment areas are inspected by Facility personnel prior to each draining event to ensure only oil-free water is discharged.

6.5 Housekeeping

Targa personnel also conduct periodic inspections, specifically around the oil/condensate storage containers, for good housekeeping issues, operation and maintenance issues, soil erosion (if applicable), the condition of structural controls, and secondary containment structures. Process vessels are emptied and inspected periodically. Daily inspections are performed around the wastewater tanks, cryogenic, and amine treatment areas for containment integrity, evidence of leaks, and odors. Facility personnel conduct visual surveillance of concrete paving, curbing, catch basins, and trenches. Problems with containment systems and signs of leaks, corrosion, or deterioration are reported to the Operations Manager for scheduled immediate repairs.

Emergency equipment is located in control building. Scheduled annual briefings are conducted to the Targa's personnel that includes a review of operation and maintenance of equipment to prevent discharges; applicable pollution control laws, rules and regulations; general Facility operations; persons accountable for discharge prevention; and the contents of the SPCC Plan.

7.0 PROPOSED MODIFICATIONS

No modifications of the existing collection, treatment, and/or disposal systems are required at this time. However, in the case of Facility expansion, the Facility will notify NMOCD in writing for modification of this discharge permit. An application and a description of the requested modifications will be included in the written notice.

8.0 SPILL/LEAK PREVENTION AND REPORTING PROCEDURES (CONTINGENCY PLAN FOR RELEASES)

Targa has implemented a Spill Contingency Plan that is included in the Facility SPCC Plan (Appendix F of attached SPCC Plan). The Spill Contingency Plan describes processes necessary to respond to discharges of oil. A general response will include ensuring all personnel are notified, isolating the source, establishing an appropriate perimeter and control points, and assessing the hazard, then implementing appropriate control measures. These actions vary based on size and source and are described in the existing attached plans. In the event of a sizeable release, Targa will work closely with State regulators to develop a plan for remediation according to 19.15.29 NMAC. For de minimis (less than 5 barrels) releases, the response will generally involve stopping the release (if applicable), use of absorbent materials, collection and containerization of the spill and any contaminated media, and notification of additional response personnel if needed. Chemicals stored on site that are not oil-based are minimal in volume and unlikely to result in a discharge to groundwater based on extent, underlying lithology, and short-term identification and response associated with a manned facility.

8.1 Notifications Procedures

Notification of discharges in accordance with local, state, and federal requirements will be directed by the Spill Prevention Coordinator (SPC) in accordance with Spill Prevention Coordinators role in the SPCC Plan. The Spill Response Coordinator will provide information regarding the characteristics of the materials and equipment involved and provide access to Targa resources as requested by responding agencies. A notification contact list is included in the SPCC Plan. All discharges and/or releases, regardless of the amount released, will be reported to NMOCD's Administrative Permitting Section via the E-Permitting System on Form C-141 within the required timeframe (within 24 hours of discovery of the release for a release meeting the criteria in section

19.15.29.7(A) NMAC or within 15 days after discovering any other discharge and/or release regardless of the amount released).

9.0 PUBLIC NOTICE

Targa will provide written notice of the Discharge Permit Application by the following methods per Subsection B of 20.6.2.3108 NMAC.

- One sign measuring at least 2 feet by 3 feet will be displayed at the main entrance to the Facility on Bounds Road. The sign will display the public notice in English and Spanish languages and be displayed for 30 days.
- One additional notice will be posted of the discharge site at the local post office. The sign will display the public notice in English and Spanish languages and be displayed for 30 days.
- Written notice will be given by mail or electronic mail in English and Spanish to owners of all properties within 1/3-mile distance from the property boundary of the Site.
- A synopsis of the notice will be given in English and Spanish languages in a display ad at least 3 inches by 4 inches in a newspaper of general circulation (not in a classified or legal advertisement section) in the *Carlsbad Current-Argus*, a newspaper of general circulation in southeastern New Mexico.

9.1 Schedule

Targa will issue public notice within 30 days after the NMOCD determines the Discharge Permit application is administratively complete. This includes public notice to the newspapers and mailings to the appropriate surface owners identified for distribution. The newspaper publication will run for 1 business day.

Within 15 days of completion of the public notice requirements, Targa will submit proof of notice to the NMOCD that includes an affidavit of mailings and a list of property owners, proof of publication in a newspaper, and an affidavit of posting.

9.2 Proposed Public Notice

The proposed public notice is presented below and includes the items specified in Subsection F of 20.6.2.3108.

NOTICE OF PUBLICATION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 of the New Mexico Administrative Code), the following discharge permit application 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) 476-3441:

NMOCD Discharge Permit Number GW-XXX
Roadrunner Gas Plant
Targa Northern Delaware, LLC (Targa)
N32.265590, W104.107922; Section 32, Township 232S, Range 28E
1098 Bounds Road, Loving, New Mexico 88256
Mr. James Aguilar (575-200-8895; james.aguilar@targaresources.com)

Targa announces the submittal of an application for potential unintended discharges at the Roadrunner Gas Plant located approximately 2 ½ miles south of Loving on Bounds Road. The Facility stores over 95,000 gallons of oil, wastewater, condensates, glycol, amine, lube oil, synthetic oil, hot oil surge, and transformer oil in aboveground storage tanks and vessels and is designed to process 800 barrels per day (2,920,000 barrels per year) of condensate and 490 million standard cubic feet per day (MMSCDF) of natural gas. The Facility is a cryogenic gas plant through which natural gas and condensate from nearby oil and gas production facilities is transported by pipeline for treatment and processing. Once gathered at the Facility, the produced natural gas is dehydrated to remove the water content and compressed through cryogenic processing. The discharge permit includes a description of materials stored and used at the Facility and any waste generated. Groundwater occurs less than 50 feet below ground surface and contains total dissolved concentrations (TDS) typically less than 3,000 milligrams per liter (mg/L). The discharge permit addresses how liquids and solid waste will be handled, stored, and disposed of, including procedures to prevent an unintended discharge. Response actions and abatement requirements for spills and leaks are addressed.

The NMOCD has determined the application is administratively complete and is in the process of preparing a draft permit. The NMOCD shall post notice on its website and distribute notice of the submittal of the application to affected local, state, federal, tribal, or pueblo government agency, political subdivisions, ditch associations, and land grants as identified by the department, and persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. Interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices. The NMOCD will also accept comments and statements of interest regarding the draft permit and will create a facility-specific mailing list for persons who wish to receive future notices. Prior to ruling on any proposed permit, the Director shall allow a period of at least (30) days after the draft permit is posted, during which time interested persons may submit comments.

Persons interested in obtaining further information, submitting comments, or requesting to be on a facility-specific mailing list for future notices may contact the Oil Conservation Division contact listed below:

Mr. Joel Stone
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Division
1220 South St. Francis Drive Santa Fe, NM 87505
(505) 709-5149

10.0 FACILITY CLOSURE/POST CLOSURE PLAN

Since this discharge permit is for unintended discharges, a closure and post-closure plan must include the entire Facility. Since the Facility is on land owned by Targa and the closed loop infrastructure is well maintained with secondary containment, any historical releases are likely to be minimal. The following general procedures will apply to prevent impacts to groundwater upon cessation of Facility operations:

- Targa will isolate, purge, and flush all fluids from process equipment, lines, pipes, vessels, and storage tanks. If applicable, equipment will also be locked out/tagged out prior to closure. Liquids and sludges will be disposed of off-site as described above in Section 4.2.

- Liquids that are not oil-based will be segregated. Any unused chemicals will be identified and profiled, then handled and disposed of using a third-party waste handler licensed and certified to handle hazardous and non-hazardous waste. Any solid waste, such as building materials, containment metal, liner, and miscellaneous metal or lumber will be recycled or disposed offsite as solid waste.

- All equipment will be isolated and locked out. At the property owner's discretion, aboveground tanks, storage vessels, process equipment, and piping will remain in place, be dismantled and recycled, or transferred for use at another facility.

- Belowground piping will be cut at 3 feet bgs, capped on both ends, and buried in place.

- Any solid waste, such as building materials, concrete, containment metal, liner, and miscellaneous metal or lumber will be recycled or disposed offsite as solid waste.

- Any releases that were deferred under 19.15.29 NMAC will be addressed under the requirements of Part 29.

- Targa will collect soil samples from approximate locations nearest operational areas identified in Figure 3. Proposed sample locations will be grid based and focused on Facility operations and designed to identify any residual impacted soil.

    - Soil samples will be collected from the ground surface and field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. If field screening indicates the samples exceed 100 milligrams/kilogram total petroleum hydrocarbons (TPH) or 600 mg/kg chloride, a hand auger, direct push technology, or other equivalent methods may be used to advance a borehole in that location. Samples will be collected every foot until field screening indicates residual impacts are absent.

    - All soil samples will be placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to a certified laboratory for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-motor oil range organics (MRO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

    - Laboratory analytical results will be compared to the requirements of 19.15.29 NMAC and reported, addressed, and closed according to those regulations.

- Following any remediation of impacted soil, Targa will restore the Facility footprint to match surrounding contours.

- For the purposes of the closure and post-closure cost estimate (Section 11.0), Targa has included estimated costs for revegetation including reseeding with native seed blend, monitoring, and maintenance for two successive growing seasons. Targa proposes to evaluate the necessity for revegetation with NMOCD and the private landowner based on conditions at the time of closure to develop an appropriate site-specific reclamation and revegetation plan, that prevents the exceedance of standards for groundwater listed in 20.6.2.3103 NMAC.

- Targa will submit a Closure Report detailing closure actions, sampling results, and, if necessary, any ongoing maintenance or monitoring of groundwater wells, such as annual reporting.

11.0 FINANCIAL ASSURANCE

The estimated costs for closure/post-closure activities are located in Appendix D. Targa will submit financial assurance to the NMOCD in the amount of the Facility's estimated closure and post-closure costs within 30 days of NMOCD's approval. The financial assurance will be provided on NMOCD-prescribed forms or forms otherwise acceptable to the NMOCD, payable to the NMOCD.

12.0 GROUND WATER DISCHARGE PERMIT APPLICATION AND PERMIT FEES

Pursuant to 20.6.2.3114 NMAC, a filing fee of $100.00 is being submitted with this application. The permit fee of $4,000.00 for a gas processing plant will be submitted within 30 days of receipt of the approved Discharge Permit.

13.0 CERTIFICATION

Include a certification statement: CERTIFICATION: I hereby certify that the information submitted with this application is true, accurate, and complete to the best of my knowledge and belief.

Jimmy Oxford
Vice President Operations

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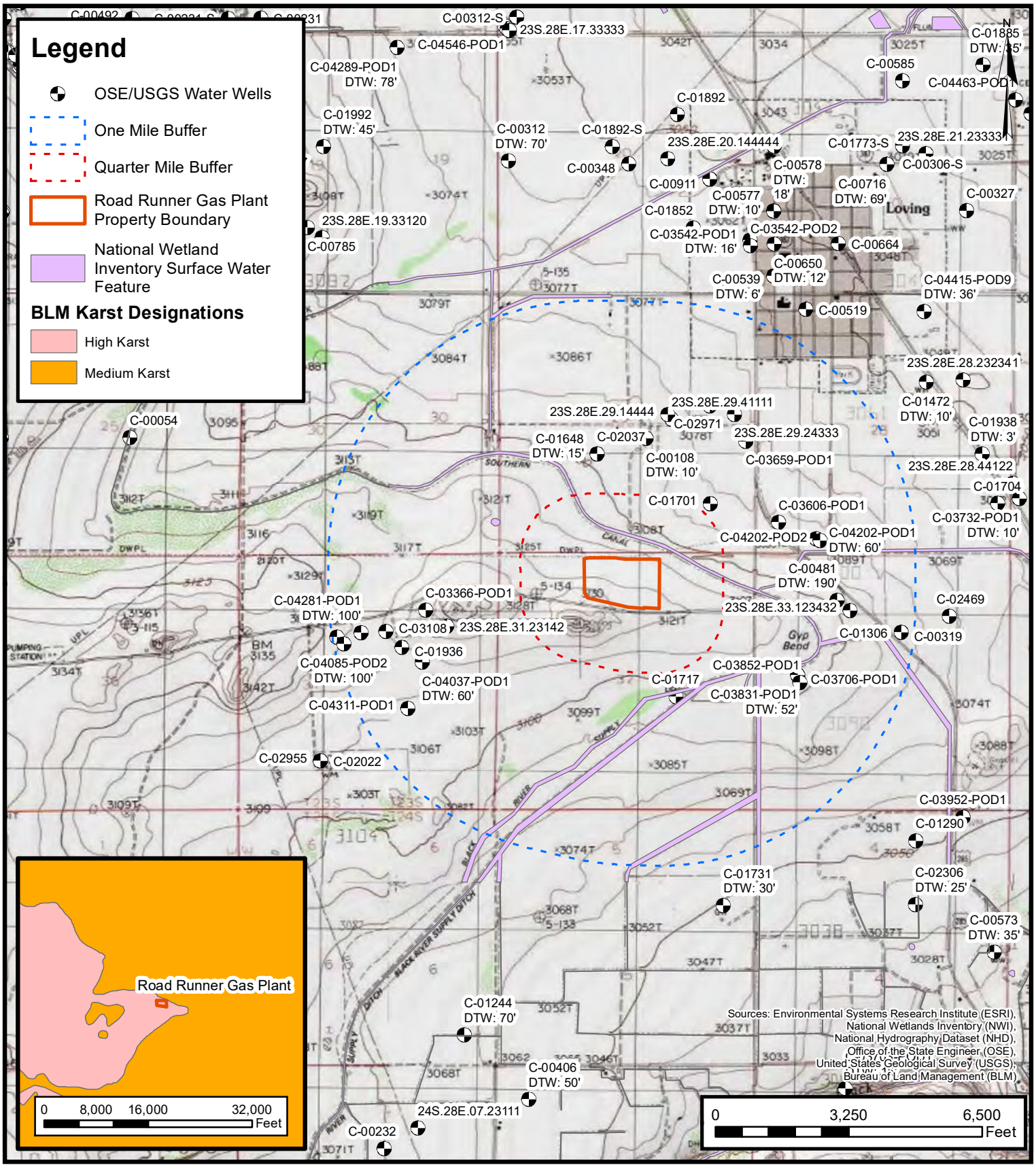
FIGURES



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\Targa Midstream Services, LP\07A1136002 - Road Runner Gas Plant Discharge Permit\1 - MXDs\Figure 1 - Site Receptor Map.mxd

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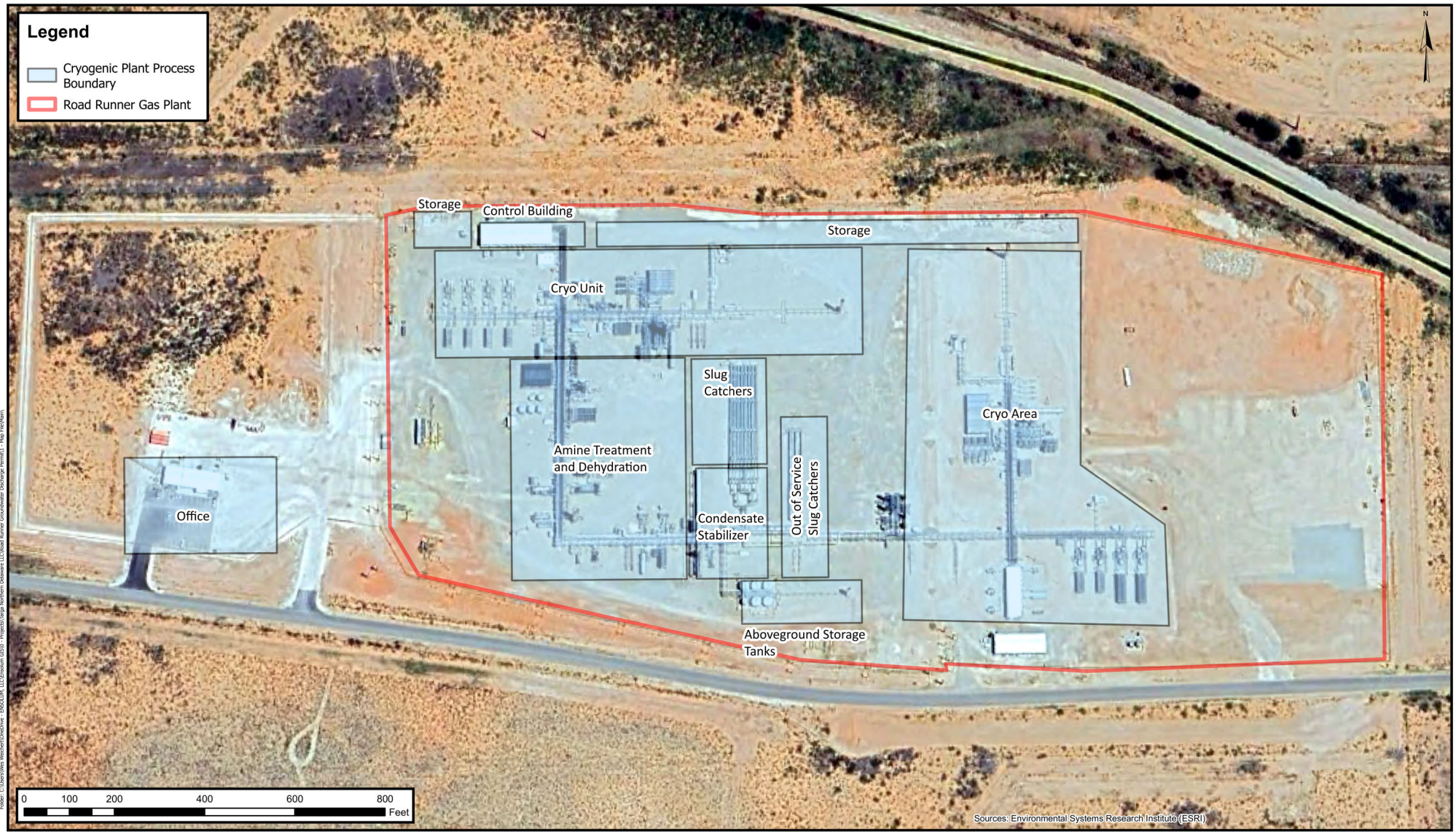
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Roadrunner Gas Plant Discharge Permit
Targa Northern Delaware LLC
Sec 32 T23S R28E
Eddy County, New Mexico
Project Number: 07A1136002

FIGURE
1



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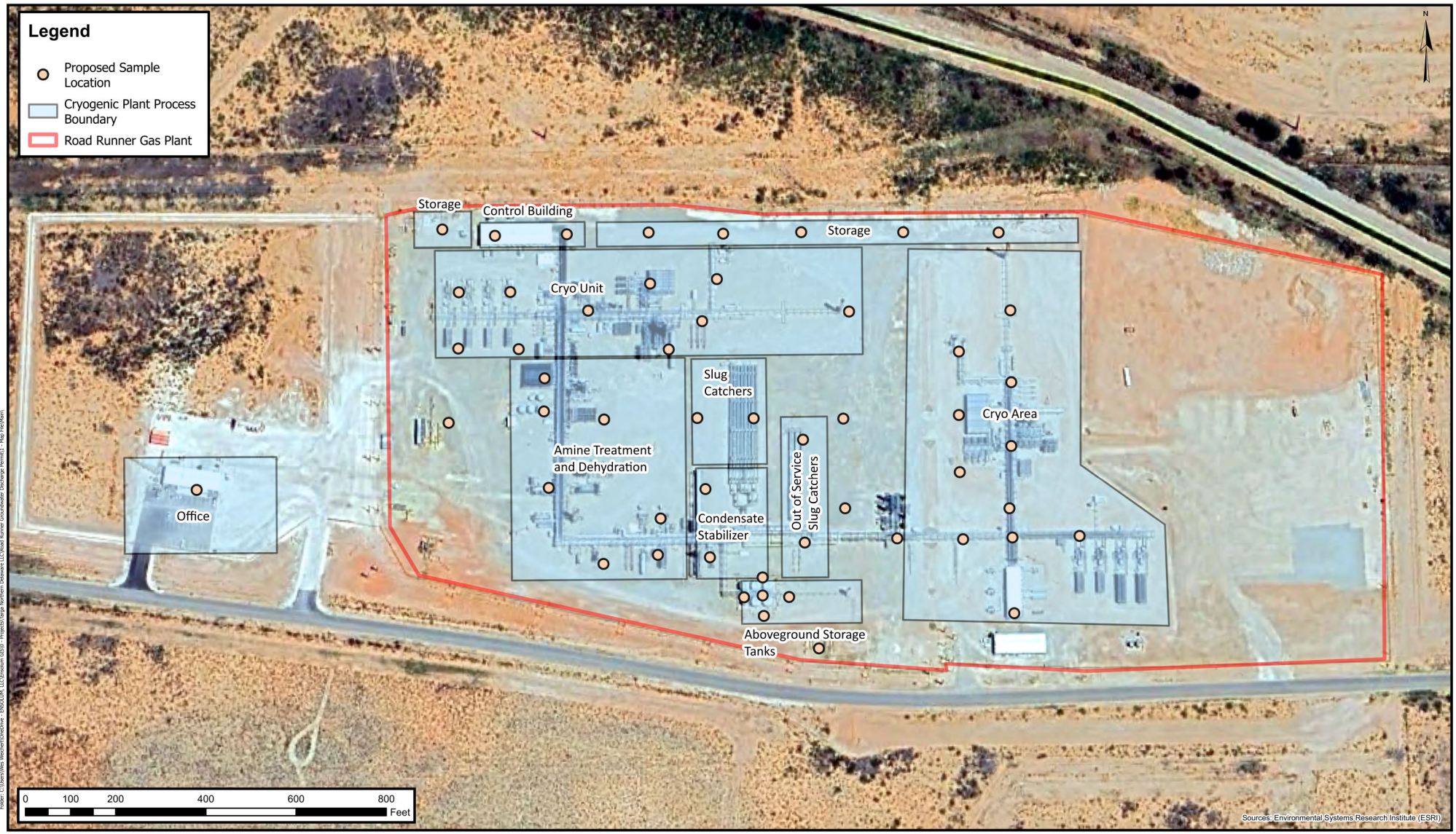
Environmental, Engineering and Hydrogeologic Consultants

Site Layout Map

Road Runner Gas Plant Discharge Permit
Targa Northern Delaware LLC
Sec 32 T23S R28E
Eddy County, New Mexico
Project Number: 07A1136002

FIGURE 2



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Proposed Sampling Closure Grid

Road Runner Gas Plant Discharge Permit
Targa Northern Delaware LLC
Sec 32 T23S R28E
Eddy County, New Mexico
Project Number: 07A1136002

FIGURE 3

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TABLES

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TABLE 1
CHEMICALS NOT INCLUDED IN THE SPCC REGULATED FACILITY COMPONENTS
Roadrunner Gas Plant
Targa Northern Delaware LLC
Eddy County, New Mexico

Chemical/Material Name	Manufacturer Name	Maximum Capacity (gallons)	Predicted Direction of Flow	Storage/Containment
Non-Oil based Chemicals				
Glycol (Triethylene Glycol)	Coastal Chemical Company	150	Southeast	Amine Treatment Area/Steel berm
ChemTherm 550	Coastal Chemical Co.	330	Southeast	Amine Treatment Area/Storage Shed
Methanol	North American Plastics	2 x 520	East	Cryo Unit Area/Steel berm
Amine (Diglycolamine)	Brenntag Mid-South Inc.	400	East	Cryo Unit Area/Steel berm
Amine (Diglycolamine)	Brenntag Mid-South Inc.	100	East	Amine Treatment Area/Steel berm
Defoamer	Spartan Chemical Co.	330	East	Amine Treatment Area/Storage Shed
Raw Water		210	East	Cryo Unit Area/Visual Inspections
Glycol		4 x 1500	South-Southwest	Amine Treatment Area/Steel berm
Lubricant (Dri-Lube Aerosol)	Certified Labs Div. of NCH Corp.	55	South-Southeast	Storage Area/Spill Pallets
Temporary Miscellaneous Maintenance Chemicals				
Corroseal	Applied Coatings Technology	<55	East	Amine Treatment Area/Storage Shed
H-130 Microbiocide	Nalco Company	<55	East	Amine Treatment Area/Storage Shed
Carbon Filter		<55	South-Southeast	Amine Treatment Area/Storage Shed
Amine-Carbon Filter		<55	East	Amine Treatment Area/Storage Shed
Rich Solids Filter		<55	East	Amine Treatment Area/Storage Shed
Synfilm 32		25	South-Southeast	Storage Area/Spill Pallets
Synfilm 46		55	South-Southeast	Storage Area/Spill Pallets

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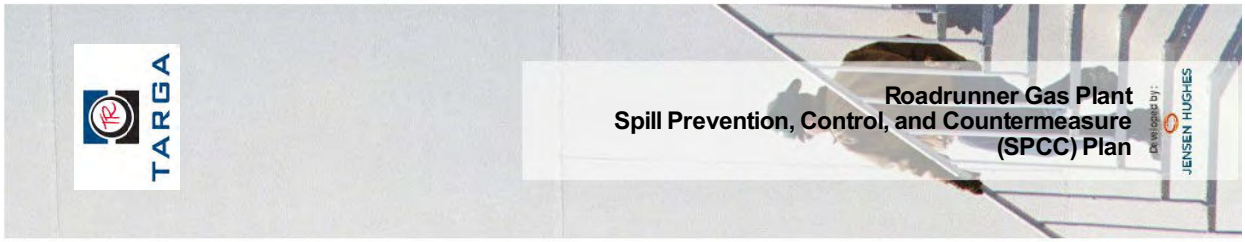
APPENDIX A

SPCC PLAN


TARGA
Roadrunner Gas Plant
Spill Prevention, Control, and Countermeasure
(SPCC) Plan
Developed by:
JENSEN HUGHES


TARGA
Roadrunner Gas Plant
Spill Prevention, Control, and Countermeasure (SPCC) Plan


TARGA
Roadrunner Gas Plant
Spill Prevention, Control, and Countermeasure (SPCC) Plan
Developed by:
JENSEN HUGHES
19450 State Highway 249, Suite 525 • Houston, Texas 77070 USA • Tel: 281-955-9600 • smartplan@jensenhughes.com • www.jensenhughes.com

TARGA

Roadrunner Gas Plant

Spill Prevention, Control, and Countermeasure (SPCC) Plan

Last PE Certification: 9/23/2024

Last Reviewed: 10/03/2024

Developed by:

JENSEN HUGHES

19450 State Highway 249, Suite 525 • Houston, Texas 77070 USA • Tel: 281-955-9600 • smartplan@jensenhughes.com • www.jensenhughes.com

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CODE OF FEDERAL REGULATIONS CROSS-REFERENCE TABLE		
Citation	**Description**	**Section / Page**
§112.3	**Requirement to Prepare and Implement a SPCC Plan**	**See below**
§112.3	Owner/operator must prepare SPCC plan	All
§112.3(d)(1)	Professional Engineer (P.E.) Certification	**Page 6**
§112.3(e)	Maintain complete copy of plan	**SECTION 1.1**, **SECTION 1.2**
§112.3(g)	Qualified facilities/self-certification	**SECTION 1.2**
§112.4	**Amendment of SPCC Plan by Regional Administrator**	**See below**
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§112.7(a)(3)(i)	Type of oil in each container and its storage capacity	**SECTION 2.4**
§112.7(a)(3)(ii)	Discharge prevention measures including procedures for routine handling of products	**SECTION 1.7**, **SECTION 1.8**
§112.7(a)(3)(iii)	Discharge or drainage controls such as secondary containment around containers and other structures, equipment and procedures for control of a discharge	**SECTION 2.4**
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§112.7(a)(4)	Procedures for reporting a discharge, unless FRP has been submitted	**SECTION 1.6**, **APPENDIX D**
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CODE OF FEDERAL REGULATIONS CROSS-REFERENCE TABLE, CONTINUED

REGULATORY CROSS-REFERENCE, CONTINUED		
Citation	**Description**	**Section / Page**
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§112.7(j)	Conformance with other requirements	**SECTION 1.10**
§112.7(k)	Qualified Oil-Filled Operational Equipment	**SECTION 2.4**
§112.7(k)(1)	Qualification Criteria-Reportable Discharge History	**SECTION 1.4**, **SECTION 1.6**
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§112.7(k)(2)(i)	Establishment of Inspection & Monitoring Plan	**SECTION 2.6**
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§112.8(b)	Facility drainage	**SECTION 2.7**
§112.8(b)(1)	Restrain drainage from diked storage areas	**SECTION 2.7**
§112.8(b)(2)	Manual valves in diked areas	**SECTION 2.7.1**
§112.8(b)(3)	Facility drainage systems from undiked areas with a potential for a discharge	**SECTION 2.7.2**
§112.8(b)(4)	If not 8(b)(3), diversion system for ditches	N/A
§112.8(b)(5)	If pump transfer required for drainage water treatment, provide fail-safe pumps and at least two pumps	N/A
§112.8(c)	Bulk storage containers	**SECTION 2.4**, **SECTION 2.5**
§112.8(c)(1)	Material and construction	**SECTION 2.4**
§112.8(c)(2)	Secondary means of containment	**SECTION 2.4**
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CODE OF FEDERAL REGULATIONS CROSS-REFERENCE TABLE, CONTINUED

REGULATORY CROSS-REFERENCE, CONTINUED		
Citation	**Description**	**Section / Page**
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§112.8(c)(7)	Monitor possible leakage from defective internal heating coils	**SECTION 2.5.3**
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§112.8(c)(9)	Observation of effluent treatment facilities	**SECTION 2.7.3**
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§112.8(c)(11)	For mobile or portable containers provide secondary containment	**SECTION 2.4**, **SECTION 2.5.1**
§112.8(d)	Facility transfer operations, pumping, and Facility process	**SECTION 2.8**
§112.8(d)(1)	Buried pipe corrosion protection	**SECTION 2.8.1**
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§112.20(e)	**Certification of Substantial Harm Determination**	**See below**
§112.20(e)	Certification of Substantial Harm Determination	**Page 9**

MANAGEMENT APPROVAL

Management is committed to the implementation of the procedures outlined in this SPCC Plan and the prevention of releases of oil to navigable waters of the United States and the environment. Management understands that certification of this Plan by the Professional Engineer in no way relieves the owner or operator of this facility of the duty to prepare and fully implement this Plan in accordance with provisions of the SPCC rules (40 CFR §112). This SPCC Plan is approved by the management personnel below at a level of authority to commit the necessary resources to fully implement the Plan, including the commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

"I hereby attest that I am familiar with the requirements outlined in this plan and am committed to dedicating any and all resources necessary to implement all provisions of this SPCC Plan."

Name:	James Aguilar	**Signature:**	Digitally signed by JNA on 10/03/24 10:30 AM
Title:	Operations Supervisor	**Date:**	10/3/2024

P.E. CERTIFICATION

40 CFR, Part 112.3(d) Professional Engineer Certification	
Being familiar with the provisions of 40 CFR, Part 112, I attest to the following: • I am familiar with the requirements of this part • I or my agent has visited and examined the Facility • The Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part • Procedures for required inspections and testing have been established • The Plan is adequate for the Facility **Note: Certification is conditional pending satisfactory resolution of the required improvements listed in the Plan Implementation Measures Not Yet Fully Operational Section of this plan.**	
Printed Name of Registered Professional Engineer:	David Bonga
Signature of Registered Professional Engineer:	
Date:	9/23/2024
P.E. Registration No.:	26316
State of P.E. Registration:	New Mexico
Firm's Registration No.:	NA
Seal: 	

PLAN IMPLEMENTATION MEASURES NOT YET FULLY OPERATIONAL

PLAN IMPLEMENTATION MEASURES NOT YET FULLY OPERATIONAL

- Any implementation measures that are required by this Plan or recommended by the Professional Engineer to bring the Facility into compliance with the SPCC requirements shall be identified on the following table.
- The Plan is conditionally approved and certified by the Professional Engineer based upon satisfactory completion and documentation of the Implementation Measures identified below.
- These measures must be satisfied by the scheduled completion date by the Responsible Party.
- Upon completion, a date and signature shall be provided and the actions items that were taken to address the implementation measures must be noted.
- Example implementation measures that may not be fully operational at the time of Plan development include but are not limited to:
  - Secondary containment structures
  - Diversionary structures
  - Security measures
  - Integrity testing program

Implementation Measure	Responsible Party	Scheduled Due Date	Actions Taken	Completed	
				Date	Signature
Increased berm volume for Area D shall be provided to ensure an effective containment capacity for the tank volume plus adequate freeboard for a 24-hour, 25-year storm event to meet the requirements of 40 CFR 112.8(c)(2). Targa will have 6 months after the date of the PR certification to address the insufficiencies identified.	Targa Resources		Under evaluation for implementation of oil spill contingency plan or modification of containment.		
Increased berm volume for Area I shall be provided to ensure an effective containment capacity for the tank volume plus adequate freeboard for a 24-hour, 25-year storm event to meet the requirements of 40 CFR 112.8(c)(2). Targa will have 6 months after the date of the PE certification to address the insufficiencies identified.	Targa Resources		Under evaluation for implementation of oil spill contingency plan or modification of containment.		
Sufficient containment for the 55 gal lube oil drum shall be provided to ensure an effective containment capacity for the tank volume plus adequate freeboard for a 24-hour, 25-year storm event to meet the requirements of 40 CFR 112.8(c)(2). Targa will have 6 months after the date of the PE certification to address the insufficiencies identified.	Targa Resources	3/27/2023	Secondary Containments were procured and are in use.	6/7/2023	Digitally signed by James Aguilar on 06/07/23 11:00 AM
Technical Update to include the addition of the new Roadrunner 2 processing train. Sufficient containment for the 330-gal oil totes shall be provided to ensure an effective containment capacity for the tank volume plus adequate freeboard for a 24-hour, 25-year storm event to meet the requirements of 40 CFR 112.8(c)(2). Targa will have 6 months after the date of the PE certification to address the insufficiencies identified.	Targa Resources	3/13/2025			

PLAN REVIEW AND AMENDMENTS

PLAN AMENDMENTS

The Spill Prevention Coordinator (SPC) will review the SPCC plan at least once every five years and any amendments, if required, will be made within six months of the review. This SPCC plan will be amended within six months whenever there is a change in Facility design, construction, operation, or maintenance procedure that materially affects the Facility's potential for an oil spill.

NON-TECHNICAL AMENDMENTS

- Non-technical amendments are not certified by a Professional Engineer (P.E.)
- Examples include name changes, phone number changes, or similar non-technical text changes

TECHNICAL AMENDMENTS

- All technical amendments are certified by a P.E.
- Examples of technical changes include
  - Replacement, reconstruction or movement of tanks, vessels or piping systems
  - Any alteration of secondary containment
  - Changes to standard operating procedures related to discharge prevention measures
- A technical amendment is required "when there is a change that materially affects the Facility's potential to discharge oil"
- Any amendment made under this section will be prepared within 6 months of the change and implemented as soon as possible but always within 6 months of the preparation of the amendment
- If a technical amendment only affects certain pages, the P.E. can certify those pages. These changes will be documented on the log form below.

Amend Date	Name	Amend Plan (Y/N)	Description of Review / Amendment	Affected Section(s)	P.E. Certification (Y/N)
8/1/2018	GHD Services Inc.	Yes	New Plan	All	Yes
3/27/2023	GHD Services Inc.	Yes	5-Year Review per 40 CFR 112.5(b). This plan is conditionally approved and certified by the PE based upon satisfactory completion and documentation of the implementation measures specified in "Plan Implementation Measures not yet fully operational" Section.	All	Yes
9/13/2024		Yes	Technical Update to include new Roadrunner 2 processing train equipment.	All	Yes

PLAN REVIEW AND AMENDMENTS, CONTINUED

PLAN REVIEW LOG				
MANAGEMENT REVIEW • An owner or operator must review and evaluate the SPCC Plan at least once every five years from the PE signature date of the Plan. A review of the Plan must also be completed whenever there is a change in the facility which affects the potential for a discharge of oil. In addition, the owner or operator has to amend the Plan within six months of review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of discharge to navigable waters or adjoining shorelines. The owner or operator must implement any Plan amendment resulting from the review as soon as possible, but no longer than six months after the amendment.				
• By signing below, I am certifying that I have completed a review and evaluation of the SPCC Plan for this facility, and a Plan amendment **does or does not** need to be completed.				
Review Date	**Name**	**Title**	**Amend Plan (Y/N)**	**Signature**

SPILL PREVENTION COORDINATORS

SPCC PREVENTION COORDINATORS	
Primary SPC: Aquilar, James 575-200-8895 (Mobile)	**Alternate:** Austin, Tillman Targa Resources 575-810-6082 Ext. 25232 (Office) 575-942-7435* (Mobile) jaustin@targaresources.com (Email)

SPCC INSPECTION AND DOCUMENTATION SCHEDULE

SPCC INSPECTION AND DOCUMENTATION SCHEDULE		
Description	**Schedule**	**Documentation**
Tank Inspections	Minimum Monthly / to be determined using Targa Bulk Storage Container Integrity Management Plan (**SECTION 2.6**).	Completed inspection forms are saved in SPCC plan electronic library or at the local ES&H regional office.
Employee Training	Annually from date of hire for oil-handling employees (**SECTION 1.7**).	Documentation of completed computer-based training is saved in the SPCC main electronic library and is also accessible from the Houston corporate office.
Secondary Containment Documentation	As needed (**SECTION 2.7**).	Completed inspection forms are saved in SPCC plan electronic library or at the local ES&H regional office.

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? **No**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest above ground oil storage tank plus sufficient freeboard to allow for precipitation? **No**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at distance [as calculated using the appropriate formula in Appendix C-III (59 FR 34105) or a comparable formula] such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? **No**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? **No**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years? **No**

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature:	Digitally signed by JNA on Jun 7 2023 12:00AM 11:00 AM
Name:	James Aguilar
Title:	Operations Supervisor
Date:	Jun 7 2023 12:00AM

1.0 GENERAL INFORMATION

1.1 PLAN AVAILABILITY

A copy of this SPCC Plan is maintained at the following locations and is available for on-site review upon request of the EPA Regional Administrator:

- Targa's web-hosted SPCC platform TRP SMARTPLAN™ accessible from the nearest manned facility
  - Web address: https://www.trpcorp.com/targa_sp/index.aspx
  - Accessible without login credentials from Targa's intranet (MyTarga) at the nearest manned facility
- Targa Corporate Office - Houston (electronic copy)

1.2 DEVIATIONS TO THE SPCC RULE

Any deviations to the rule will be identified in this Plan along with reasoning for the non-conformance, a detailed description of the alternative method, and how that method will achieve equivalent environmental protection.

1.3 PLAN REVIEW AND UPDATE PROCESS

Five Year Review

In accordance with §112.5(b), Targa will complete a formal review and evaluation of this SPCC Plan at least once every five (5) years and document the review on the Log of Plan Review and Amendments. This review will be conducted by the Facility's Spill Prevention Coordinator with assistance from the Regional EHS Specialist as needed and will include review of the following:

- The accuracy of the Plan with current operations and procedures.
- The accuracy of the Plan with current SPCC Regulations.
- Applicability of new prevention and control technology that may significantly reduce the likelihood of a spill event from the Facility if such technology has been field-proven at the time of review.
- Capacity and structural integrity of secondary containment systems.
- SPCC inspection documentation and records.

Facility Changes Requiring Plan Revision

Whenever there is a change in the Facility design, construction, operation or maintenance which materially affects the Facility's potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines, the SPCC Plan will be amended. Changes that require revision to the Plan may include, but are not limited to:

- Commissioning or decommissioning of containers.
- Replacement, reconstruction, or movement of containers.
- Reconstruction, replacement, or installation of piping systems.
- Construction or demolition that might alter secondary or tertiary containment structures and/or drainage systems.
- Revision of standard operating or maintenance procedures at the Facility.

Facility operations and engineering personnel are responsible for notifying the Spill Prevention Coordinator and regional environmental staff of such changes to the Facility. Revisions and amendments to the Plan are to be managed by regional environmental staff.

Certification of Revisions

All amendments which could materially affect the Facility's potential for a discharge into navigable waters of the United States or adjoining shores (technical amendments) must be certified by a Registered Professional Engineer ("P.E.") or self-certified. Plans certified by a Professional Engineer, or portions of a self-certified plan certified by a Professional Engineer, must be re-certified by a Professional Engineer if amended. Self-certified plans must be amended if the Facility undergoes a significant change and do not require Professional Engineer re-certification. Non-technical amendments such as changes to personnel, telephone references, and other non-technical text changes do not require re-certification by a P.E.

1.3.1 Oil Spill Contingency Plan Review and Update Process

Five Year Review

Part of Targa's formal review and evaluation of this SPCC Plan is the review of the Oil Spill Contingency Plan and its applicability to the site. Documentation of the review will be recorded on the Log of Plan Review and Amendments section. This review will be conducted by the Facility's Spill Prevention Coordinator with assistance from the Regional EHS Specialist as needed and will include review of the following:

- The accuracy of the Oil Spill Contingency Plan with current equipment, operations, and procedures.
- The accuracy of the Oil Spill Contingency Plan with current response authorities, responsibilities, duties, and/or resources at the Facility.
- The accuracy of the Oil Spill Contingency Plan with current SPCC Regulations.
- Applicability of new prevention and control technology that may significantly reduce the likelihood of a spill event from the Facility if such technology has been field-proven at the time of review.

Facility Changes Requiring Oil Spill Contingency Plan Revision

Whenever there is a change in the Facility design, construction, operation, or maintenance which materially affects the Facility's potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines, the SPCC Plan will be amended. If secondary containment to prevent a discharge from the facility was determined to not be practicable or if alternative requirements were implemented in lieu of general secondary containment for oil-filled operational equipment (OFOE), the Oil Spill Contingency Plan will also be amended.

Changes that require revision to the Oil Spill Contingency Plan may include, but are not limited to:

- Commissioning or decommissioning of containers whose secondary containment to prevent a discharge from the facility was determined to not be practicable.
- Replacement, reconstruction, or movement of containers whose secondary containment to prevent a discharge from the facility was determined to not be practicable.
- Reconstruction, replacement, or installation of OFOE and/or piping systems that follow alternative requirements implemented in lieu of general secondary containment.
- Revision of response authorities, responsibilities, duties, and/or resources at the Facility.
- Revision of notification and/or response action procedures at the Facility.

Facility operations and engineering personnel are responsible for notifying the Spill Prevention Coordinator and regional environmental staff of such changes to the Facility. Revisions and amendments to the Plan are to be managed by regional environmental staff.

1.4 SPILL REPORTING TO REGIONAL ADMINISTRATOR

The information found in **APPENDIX D**, "Spill Reporting Form and Submittal of Information to Regional Administrator for Qualified Discharge(s)" must be submitted to the EPA Regional Administrator within 60 days of a discharge event(s) which meets one of the following conditions:

- The Facility has a single discharge event greater than 1,000 gallons of oil or oil products into or upon navigable waters of the United States or adjoining shorelines or:
- The Facility has two (2) discharge events greater than 42 gallons of oil or oil products into or upon navigable waters of the United States or adjoining shorelines in a 12 month period.

The Corporate Houston Office, with assistance from the Regional Environmental Coordinator will submit such reports to the EPA. A copy of this report will also be sent to the appropriate state agency(ies) in charge of oil pollution control activities.

The contract resources available to the Facility for discharge cleanup and the appropriate agency contact numbers for spill notification are provided in **APPENDIX C**: Emergency Response Notification List.

Has the Facility experienced a reportable discharge as described above?
☒ No ☐ Yes

1.5 CONTACT LIST AND PHONE NUMBERS

The contact list and phone number reference for the Facility are provided in **APPENDIX C**.

1.6 NOTIFICATION DATA SHEET

A spill notification data sheet is provided in **APPENDIX D**.

1.7 PERSONNEL, TRAINING AND DISCHARGE PREVENTION

Targa provides annual SPCC training to all oil-handling personnel through the online Learning Management System covering the following topics:

- Operation and maintenance of equipment to prevent oil discharges;
- Oil discharge procedure protocols;
- Applicable oil spill prevention and pollution control laws, rules, and regulations;
- General facility operations; and,
- An overview of SPCC plan content.

Documentation of the required annual training is maintained electronically in the SMARTPLAN™ system Main Library.

Additional training may be conducted by regional environmental staff to ensure adequate understanding of the SPCC plan for the Facility. These sessions include information on known previous discharges and spills, discussion of Facility-specific potential discharges and component failures, and other precautionary measures. **APPENDIX A** includes an outline of SPCC training material that can be used for reference.

1.8 PREVENTION, RESPONSE AND CLEANUP

Prevention

The Facility discharge prevention measures, including procedures for the routine handling of products (loading, unloading, facility transfers, etc.) include, but are not limited to, containment, employee training, spill response equipment, security measures, and periodic inspections.

Countermeasures

The Facility discharge discovery, response and cleanup capabilities include trained oil-handling employees, on-site spill control equipment and contract environmental response companies. The resources available to the Facility for discharge cleanup and response are provided in the Contact List in **APPENDIX C**. In addition to available resources in the contact list, spill response equipment (such as sorbent pads and materials, shovels, etc.) is staged either at the Facility or at the nearest manned Targa facility. Additionally, response equipment may be stored in operator vehicles, and in some areas, spill response trailers are also available for deployment to remote facilities. If a spill occurs, personnel (or contractors hired to clean up material) will promptly clean up spilled material and collect it properly per the spill response procedure below:

- Ensure safety of all personnel prior to responding.
- Don appropriate PPE.
- Stop or limit the spill by controlling the source.
- Contain the spill using absorbent materials (pads, booms, dikes) or by cutting trenches or building berms. Use shovels and other equipment to control the flow of the spill.
- Notify the Facility Manager, Spill Prevention Coordinator, and/or the Alternate Spill Prevention Coordinator as soon as possible. The Spill Prevention Coordinator will assist in spill response to ensure that all required agencies and contracted cleanup companies are notified and spill remediation to ensure all applicable State and Federal laws are met.
- The spilled material must be recovered as much as possible. Any impacted soil surface or water surface will also have to be remediated. This will generate a waste stream that must be disposed of and documented properly. The waste stream must be contained in an approved container or in a containment area.
- Take note of the volume of material that spilled.
- The area of the spill should be restored to its original condition, as close as possible.
- The Spill Prevention Coordinator will contact the appropriate regulatory agencies and will initiate the spill reporting notifications as required under applicable State and Federal regulations.

The contract resources available to the Facility for discharge cleanup and the appropriate agency contact numbers for spill notification are provided in **APPENDIX C**: Emergency Response Notification List.

Disposal

The Facility will dispose of all recovered materials in accordance with all applicable local, state and federal guidelines.

1.9 IMPRACTICABILITY

The containment and/or diversionary structures or equipment to prevent a discharge are practicable at the Facility.

1.10 CONFORMANCE WITH OTHER REQUIREMENTS

If there are any State or local regulations that are more stringent than the Federal regulations, a description of conformance with these regulations is described below:

Oil spills/releases and reporting in New Mexico are primarily regulated under 19.15.29 and 20.5.7 NMAC. Refer to the ES&H Incident Reporting Procedures, Section 28 - New Mexico Reporting - Reportable Release of Hazardous Substances or Spill of Oil for Targa's guidelines when a release occurs.

The SPCC regulations listed under 40 CFR 112 are more stringent than the state of New Mexico requirements for this type of facility. This Facility, therefore, conforms with the general requirements of 40 CFR 112. All discharge notifications are made in compliance with local, state, and federal requirements.

2.0 FACILITY INFORMATION

2.1 FACILITY AND OWNER / OPERATOR INFORMATION

FACILITY INFORMATION			
Name of Facility:	Roadrunner Gas Plant	**Type of Facility:**	Gas Plant Onshore/Non Production
Location of Facility:		**Name & Address of Owner:**	Targa Resources 811 Louisiana Street, Suite 2100 Houston, TX 77002
Latitude / Longitude:	32° 16' 1.06" N -104° 7' 0.79" W	**Name & Address of Operator:**	Same as Owner

Additional Facility Information
Nearest Receiving Water
Surface water drains in an easterly or northern direction depending on the spill release location at the Facility. A release from the eastern half of the site would flow east about 0.6 miles to the Black River Supply Ditch. A release from the northern and western portion of the site would flow north about 2,000 feet towards the Southern Canal.
Landside Directions
From US Hwy 285 S, proceed straight onto S Canal St/US Hwy 285 S for approximately 11 miles. Turn right onto Higby Hole Rd. for 0.4 miles. Turn right onto Bounds Road to the entrance gate to the Facility located on the right (north) side of the road.
Nearest Manned Facility
Trojan Horse Compressor Station

2.2 FACILITY DESCRIPTION

The Roadrunner Gas Plant is located south-southeast of Carlsbad, NM, at 32.266960°N, -104.116886°W in Eddy County, New Mexico. The Facility layout is rectangular shaped (east/west orientation). The topography of the site is relatively flat, and drainage of the site occurs via sheet flow and shallow drainage channels from southwest to East/Northeast.

The Facility is a cryogenic gas plant. Natural gas and condensate from production facilities is piped into the Facility for treatment and processing before entering into sales lines. The process produces small amounts of condensate and oily fluids which are stored on-Site in bulk storage containers. In addition, the treatment process requires multiple types and sizes of process flow-through vessels and oil-filled operational equipment.

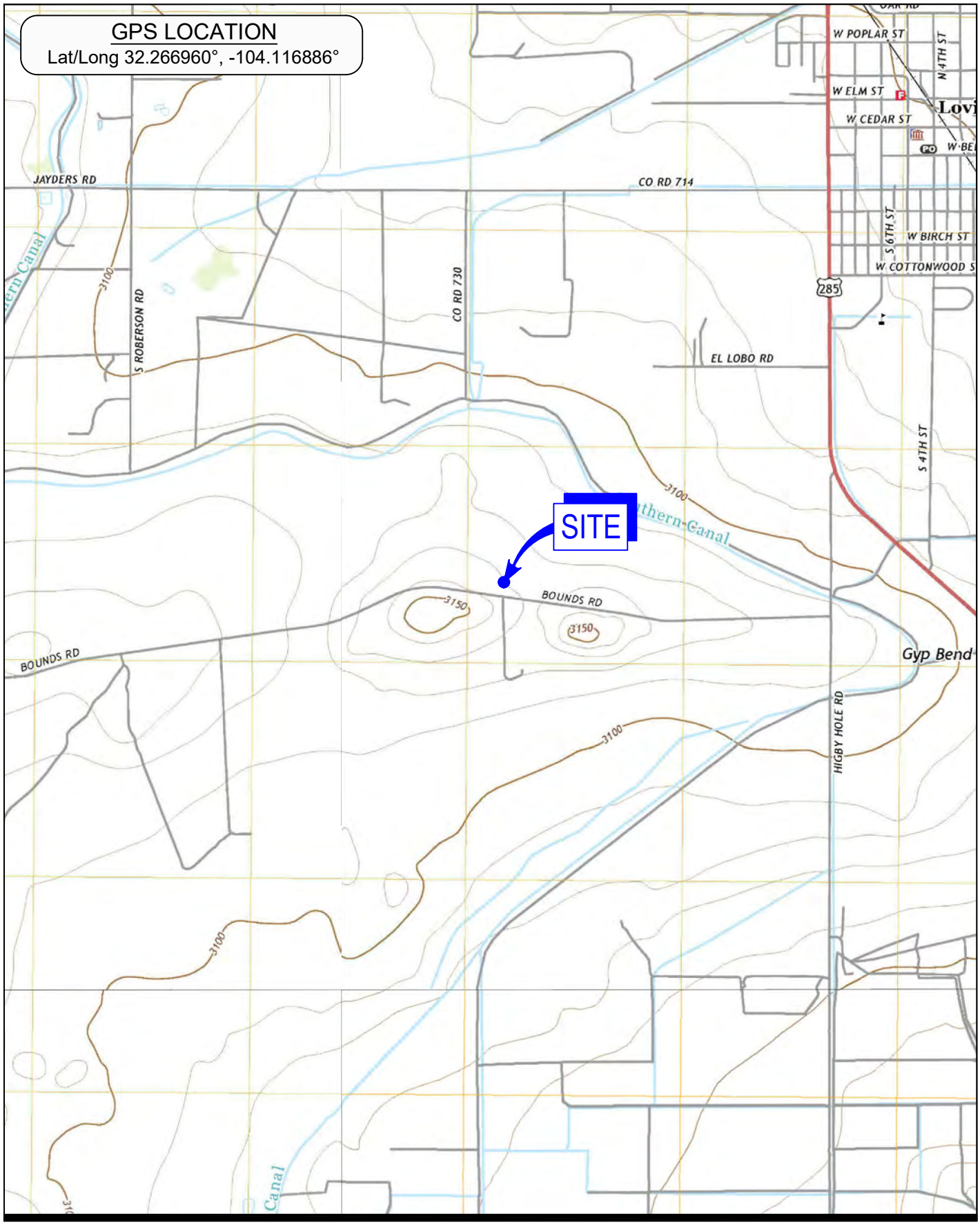
Located within the Facility's fenced compound are eight (8) bulk Above-Ground Storage Tanks (ASTs); five (5) containing condensate, one (1) containing wastewater, one (1) containing used lube oil, and one (1) containing lube oil. Also, included at the Facility are nine (9) compressors, ten (10) lube oil ASTs, two (2) engine oil ASTs, one (1) gasoline AST, two (2) diesel ASTs, eight (8) transformers, and miscellaneous oil drums/totes, and other related gas processing, compression, and flow control equipment. See SECTION 2.4.1 for additional information on oil-filled equipment and process flow through vessels located at the site. Other non-SPCC regulated AST containers located at the Facility include; methanol, degreaser, soap, defoamer, TEG and other miscellaneous ASTs.

Site security for the Facility is documented in **SECTION 2.11** of this plan.

See **SECTION 2.3** of this plan for site figures showing the location and layout of the Facility. See **SECTION 2.4** of this plan for detailed tank and containment information at the Facility.

Loading/offloading from trucks does occur at the Facility. Bulk storage containers, as defined within §112.2, exist at the Facility. Additional detail regarding loading/offloading operations can be found in **SECTION 2.9** of this plan.

This Plan covers only the subject Facility.



0 1000 2000 ft

1" = 2000 ft

Coordinate System:
NEW MEXICO EAST STATE PLANE
NAD83 FEET

N

GHD

TARGA RESOURCES
EDDY COUNTY, NEW MEXICO
ROADRUNNER GAS PROCESSING PLANT

Project No. **12641135**
Date **September 2024**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Dallas\Projects\562\12641135\Digital_Design\ACAD\Figures\RPT-ROADRUNNER\12641135-GHD-00-00-RPT-EN-D101_WA-ROADRUNNER.dwg
Plot Date: 19 September 2024 3:10 PM

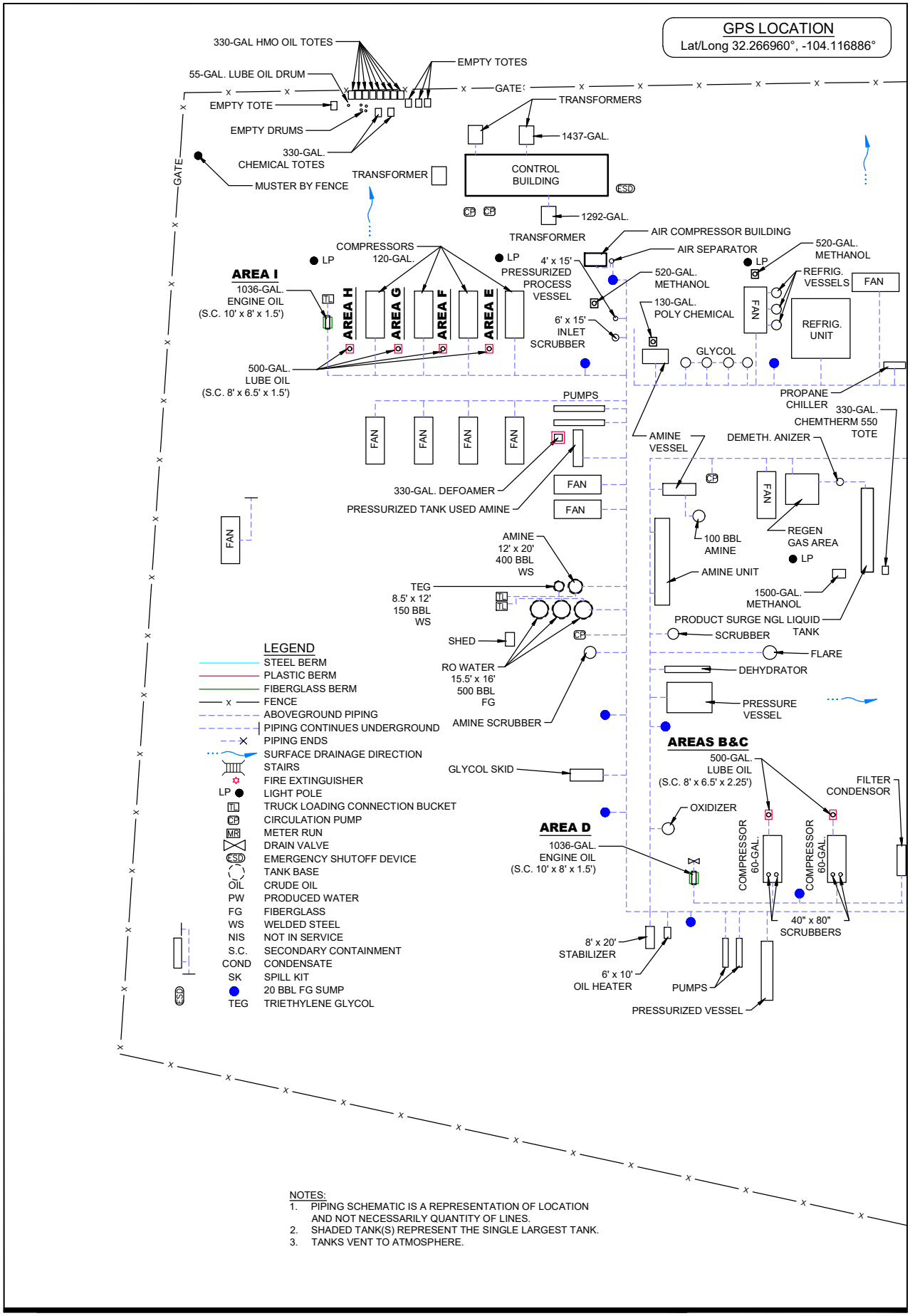
Data Source: USGS QUADRANGLE MAPS; BOND DRAW, LOVING, MALAGA AND OTIS, NM (2020).

2.3 FACILITY LAYOUT AND DIAGRAM

The Facility is shown in the attached Facility diagrams below. The information shown on the drawings includes (if applicable to the Facility):

- Process equipment, operating equipment and electrical equipment that contains oil.
- Loading/unloading racks. By rule definition, a rack is a fixed structure (such as platform, gangway) necessary for loading or unloading a tank truck or tank car, which is located at a facility subject to 40 CFR Part 112. A loading/unloading rack includes a loading or unloading arm and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personal safety devices.
- Loading/unloading areas subject to general secondary containment requirements (40 CFR Part 112.7 (c))
- Bulk storage containers and containment
- Oil transfer piping
- Completely buried, partially buried, and bunkered containers
- Drum and mobile and portable container storage areas
- Contents of all containers
- Drainage
- Area topography
- Security features including lighting and fencing
- Buildings

Click to view/print Figure 1



NOTES:
1. PIPING SCHEMATIC IS A REPRESENTATION OF LOCATION AND NOT NECESSARILY QUANTITY OF LINES.
2. SHADED TANK(S) REPRESENT THE SINGLE LARGEST TANK.
3. TANKS VENT TO ATMOSPHERE.

0 40 80 ft
1" = 80 ft
Coordinate System: NEW MEXICO EAST STATE PLANE NAD83 FEET

TARGA RESOURCES
EDDY COUNTY, NEW MEXICO
ROADRUNNER GAS PROCESSING PLANT

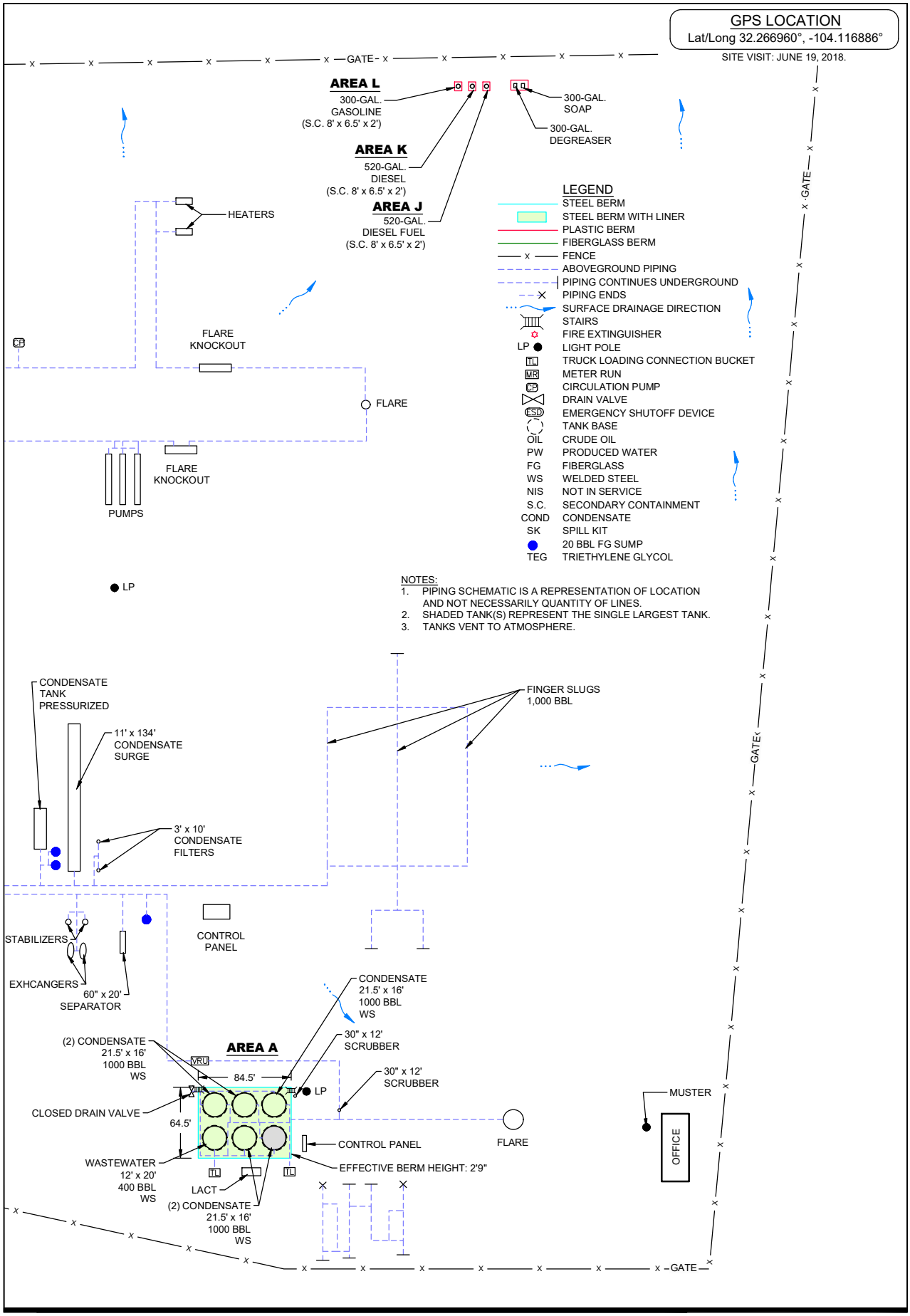
Project No. 12641135
Date September 2024

FACILITY DIAGRAM

FIGURE 2A

2.3 FACILITY LAYOUT AND DIAGRAM, CONTINUED

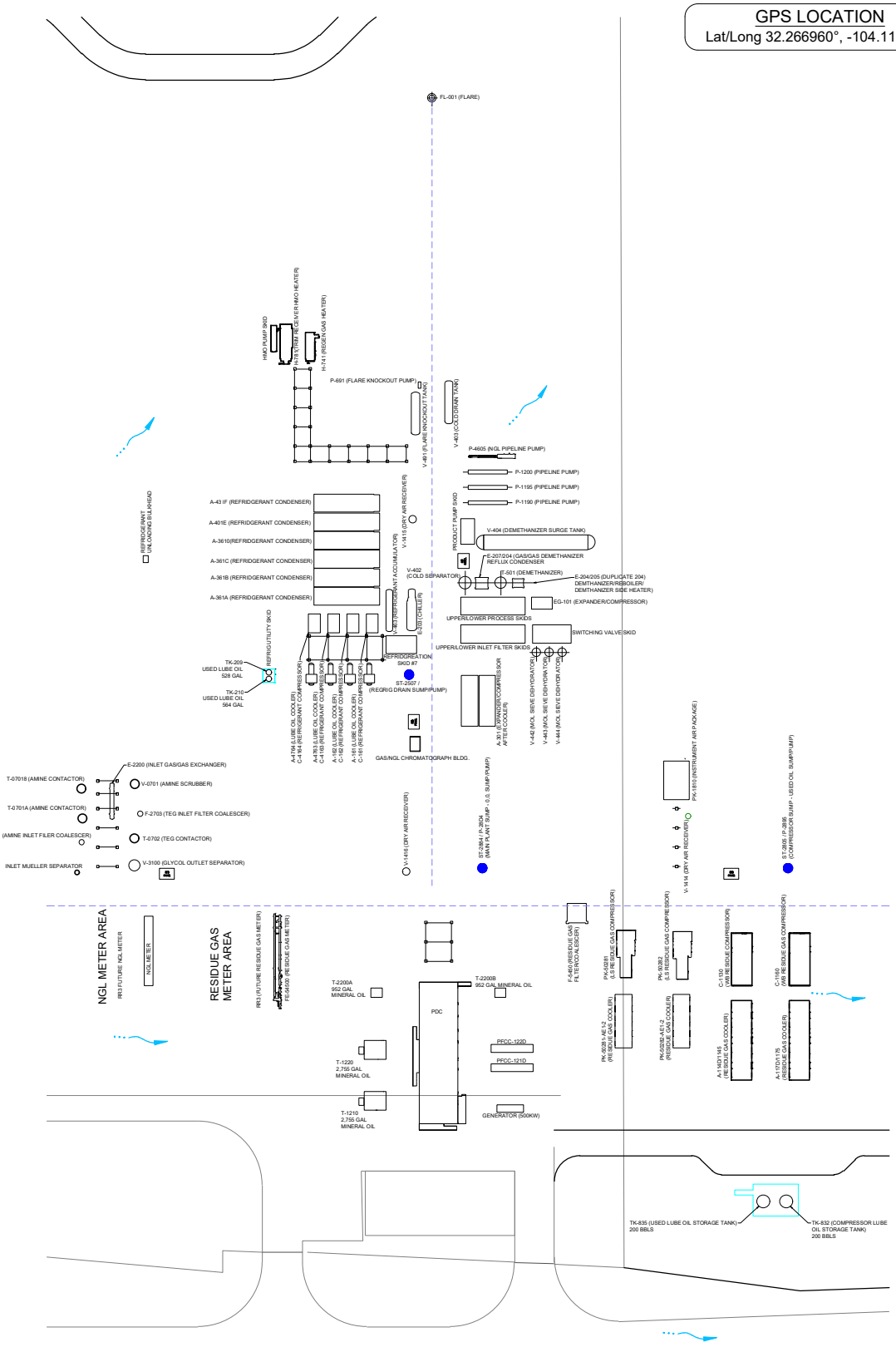
Click to view/print Figure 2A


GPS LOCATION
Lat/Long 32.266960°, -104.116886°
SITE VISIT: JUNE 19, 2018.
GATE
AREA L
300-GAL. GASOLINE (S.C. 8' x 6.5' x 2')
300-GAL. SOAP
300-GAL. DEGREASER
AREA K
520-GAL. DIESEL (S.C. 8' x 6.5' x 2')
AREA J
520-GAL. DIESEL FUEL (S.C. 8' x 6.5' x 2')
HEATERS
LEGEND
STEEL BERM
STEEL BERM WITH LINER
PLASTIC BERM
FIBERGLASS BERM
FENCE
ABOVEGROUND PIPING
PIPING CONTINUES UNDERGROUND
PIPING ENDS
SURFACE DRAINAGE DIRECTION
STAIRS
FIRE EXTINGUISHER
LP LIGHT POLE
TL TRUCK LOADING CONNECTION BUCKET
MR METER RUN
CP CIRCULATION PUMP
DRAIN VALVE
ESD EMERGENCY SHUTOFF DEVICE
TANK BASE
OIL CRUDE OIL
PW PRODUCED WATER
FG FIBERGLASS
WS WELDED STEEL
NIS NOT IN SERVICE
S.C. SECONDARY CONTAINMENT
COND CONDENSATE
SK SPILL KIT
20 BBL FG SUMP
TEG TRIETHYLENE GLYCOL
CP
FLARE KNOCKOUT
FLARE
FLARE KNOCKOUT
PUMPS
LP
NOTES:
1. PIPING SCHEMATIC IS A REPRESENTATION OF LOCATION AND NOT NECESSARILY QUANTITY OF LINES.
2. SHADED TANK(S) REPRESENT THE SINGLE LARGEST TANK.
3. TANKS VENT TO ATMOSPHERE.
CONDENSATE TANK PRESSURIZED
11' x 134' CONDENSATE SURGE
3' x 10' CONDENSATE FILTERS
FINGER SLUGS 1,000 BBL
STABILIZERS
EXHCANGERS
60" x 20' SEPARATOR
CONTROL PANEL
CONDENSATE 21.5' x 16' 1000 BBL WS
30" x 12' SCRUBBER
AREA A
(2) CONDENSATE 21.5' x 16' 1000 BBL WS
VRU
84.5'
LP
30" x 12' SCRUBBER
CLOSED DRAIN VALVE
64.5'
CONTROL PANEL
FLARE
MUSTER
OFFICE
WASTEWATER 12' x 20' 400 BBL WS
TL
LACT
TL
EFFECTIVE BERM HEIGHT: 2'9"
(2) CONDENSATE 21.5' x 16' 1000 BBL WS
GATE
GATE
GATE
0 40 80 ft
1" = 80 ft
Coordinate System:
NEW MEXICO EAST STATE PLANE
NAD83 FEET
N
GHD
TARGA RESOURCES
EDDY COUNTY, NEW MEXICO
ROADRUNNER GAS PROCESSING PLANT
FACILITY DIAGRAM
Project No. 12641135
Date September 2024
FIGURE 2B

2.3 FACILITY LAYOUT AND DIAGRAM, CONTINUED

Click to view/print Figure 2B

GPS LOCATION
Lat/Long 32.266960°, -104.116886°



LEGEND

PIPE
SURFACE DRAINAGE DIRECTION
SECONDARY CONTAINMENT
20 BBL FG SUMP

NOTES:
1. REFERENCE ELEVATION EXCLUDING GRAVEL: 3117' - 9" = 100' - 0"

0 40 80 ft
1" = 80 ft
Coordinate System:
NEW MEXICO EAST STATE PLANE
NAD83 FEET

N

GHD

TARGA RESOURCES
EDDY COUNTY, NEW MEXICO
ROADRUNNER GAS PROCESSING PLANT

CONDENSER

Project No. 12641135
Date September 2024

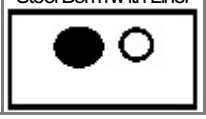
FIGURE 2C

2.3 FACILITY LAYOUT AND DIAGRAM, CONTINUED

Click to view/print Figure 2C

2.4 REGULATED BULK OIL STORAGE CONTAINERS AND POTENTIAL SPILLS

SPCC Tank ID (Site Tank ID) or Loading / Unloading Rack ID	Contents	Major Potential Source of Spill	Total Capacity (gallons)	Discharge Rate (gpm)	Flow Direction	Secondary Containment Volume (gallons) - Effective Containment Capacity	Secondary Containment Construction	Inventory Control ID
ABOVEGROUND FIXED CONTAINERS - Total: 254,584 gallons								
1 - 1,000 bbl Condensate Tank (isolated)	Condensate	Overfill/ Leak/ Rupture	42,000	395	Contained / NNE	112,119 (Area A)	Steel Berm with Liner	3,4
1 - 1,000 bbl Condensate Tank (isolated)	Condensate	Overfill/ Leak/ Rupture	42,000	395	Contained / NNE	112,119 (Area A)	Steel Berm with Liner	3,4
1 - 1,000 bbl Condensate Tank (isolated)	Condensate	Overfill/ Leak/ Rupture	42,000	395	Contained / NNE	112,119 (Area A)	Steel Berm with Liner	3,4
1 - 1,000 bbl Condensate Tank (isolated)	Condensate	Overfill/ Leak/ Rupture	42,000	395	Contained / NNE	112,119 (Area A)	Steel Berm with Liner	3,4
1 - 1,000 bbl Condensate Tank (isolated)	Condensate	Overfill/ Leak/ Rupture	42,000	395	Contained / NNE	112,119 (Area A)	Steel Berm with Liner	3,4
1 – 400 bbl Wastewater Tank (isolated)	Wastewater	Overfill/ Leak/ Rupture	16,800	441	Contained / SSE	112,119.44 (Area A)	Steel with Liner	3,4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	875 (Area B)	Plastic	4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	875 (Area C)	Plastic	4
1 – 1,036 gal Engine Oil Tank	Engine Oil	Overfill/ Major Leak/ Rupture	1,036	325	Inadequate Containment / NNE	<1,242.96 (Largest Tank + Rainfall) See Plan Implementation Measures Section for Correction (Area D)	Fiberglass	4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	583 (Area E)	Plastic	4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	583 (Area F)	Plastic	4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	583 (Area G)	Plastic	4
1 – 500 gal Lube Oil Tank	Lube Oil	Overfill/ Leak/ Rupture	500	229	Contained / NNE	583 (Area H)	Plastic	4
1 – 1,036 gal Engine Oil Tank	Engine Oil	Overfill/ Leak/ Rupture	1,036	325	Inadequate Containment / NNE	<1,242.96 (Largest Tank + Rainfall) See Plan Implementation Measures Section for Correction (Area I)	Plastic	4
1 – 520 gal Diesel Fuel Tank	Diesel	Overfill/ Leak/ Rupture	520	229	Contained / NNE	778 (Area J)	Plastic	4
1 – 520 gal Diesel Fuel Tank	Diesel	Overfill/ Leak/ Rupture	520	229	Contained / NNE	778 (Area K)	Plastic	4
1 – 300 gal Gasoline Tank	Gasoline	Overfill/ Leak/ Rupture	300	229	Contained / NNE	778 (Area L)	Plastic	4
(8) – 330-gal	Lube Oil	Overfill/	2,640	330	Inadequate	<330 (Largest	--	4

HMO Oil & Expander Oil		Leak/ Rupture			Containment / NNE	Tank + Rainfall) See Plan Implementation Measures Section for Correction --		
TK-827 (RR2)	Lube Oil	Overfill/ Leak/ Rupture	8,820		Contained / NNE	19,054	Steel Berm with Liner 	3,4

2.4 REGULATED BULK OIL STORAGE CONTAINERS AND POTENTIAL SPILLS, CONTINUED

SPCC Tank ID (Site Tank ID) or Loading / Unloading Rack ID	Contents	Major Potential Source of Spill	Total Capacity (gallons)	Discharge Rate (gpm)	Flow Direction	Secondary Containment Volume (gallons) - Effective Containment Capacity	Secondary Containment Construction	Inventory Control ID
ABOVEGROUND FIXED CONTAINERS - Total: 254,584 gallons								
TK-832 (RR2)	Used Lube Oil	Overfill/ Leak/ Rupture	8,820		Contained / NNE	19,054	Steel Berm with Liner 	3,4
TK-210 (RR2)	Used Lube Oil	Overfill/ Leak/ Rupture	564		Contained / NNE	1,137	Steel 	
ST-209 (RR2)	Used Lube Oil	Leak/Failure	528		Contained / NNE	1,137	Steel 	
PROCESS FLOW-THROUGH AND OIL-FILLED EQUIPMENT - Total: 241,828 gallons								
Process Flow-Through and Oil-Filled Equipment, if any, is described in **SECTION 2.4.1**.								
TOTAL OIL STORAGE CAPACITY AT FACILITY = 496,412 gallons								

NOTES:

1. The material and construction of bulk storage containers are compatible with the material stored and conditions of storage such as pressure and temperature.
2. Except as noted in the **SPCC Plan Implementation Measures**, all bulk storage container installations are constructed so that a means of secondary containment is provided for the entire capacity of the largest container and sufficient freeboard to contain precipitation.
3. Diked areas are sufficiently impervious to contain discharged oil.
4. Visible discharges, which result in a loss of product from containers, will be promptly corrected and any accumulations of oil in the diked areas will be promptly removed.
5. Inventory Control ID (**SECTION 2.5.4**)

2.4.1 Process Flow-Through and Oil-Filled Equipment

Oil-filled operational equipment is equipment that includes an oil storage container (or multiple containers and associated piping intrinsic to the operation of the equipment) in which the oil is present solely to support the function of the apparatus or the device. It is not considered a bulk storage container and does not include oil-filled manufacturing equipment (flow-through process).

Examples of oil-filled operational equipment at this Facility include the following with an aggregate storage capacity of >2,959 gallons:

Oil-Filled Operational Equipment	Contents	Capacity (gallons)	Number of Units at the Facility	Type of Failure	Direction of Flow for Uncontained Discharge	Secondary Containment Method
Transformers	Dielectric Mineral Oil	>55 (ea.)	2	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Transformer	Dielectric Mineral Oil	1,437	1	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Transformer	Dielectric Mineral Oil	1,292	1	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Compressors	Compressor Oil	60 (ea.)	2	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Compressors	Compressor Oil	120 (ea.)	4	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Pipeline Pump (RR2)	Lube & Gear Oil	80 (ea.)	3	Leak/Failure	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Transformers (RR2)	Dielectric Mineral Oil	952 (ea.)	2	Leak/Rupture	Not Contained / North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
Transformers (RR2)	Dielectric Mineral Oil	2755 (ea.)	2	Leak/Rupture	North	Oil-Filled Alternative Requirements per 40 CFR 112.7(k)(2)
TOTAL: >2,959						

This Facility also utilizes oil-filled manufacturing equipment (i.e. flow-through process vessels) for continuous recovery and/or intermediate storage of liquids entrained in natural gas. These flow-through process vessels are subject to the general SPCC requirements under 40 CFR Part 112.7 and may be subject to sized secondary requirements of 40 CFR Part 112.8(c)(2) depending on the operation of the associated processes and the vessel.

2.4.1 Process Flow-Through and Oil-Filled Equipment, Continued

Examples of flow-through process equipment (i.e.: oil-filled manufacturing equipment) not associated with pressurized gas process areas at this facility include the following with an aggregate storage capacity of >9,295 gallons:

Flow-Through Process Equipment	Contents	Capacity (gallons)	Number of Units at the Facility	Type of Failure	Direction of Flow for Uncontained Discharge	Secondary Containment Method
Oil Transfer Piping (Lube Oil, Condensate, Open Drain Water (Wastewater), Used Oil & Slop Oil)	-	>55	--	Leak/Rupture	Northeast	General Containment
Fiberglass Sump	Condensate, Lube Oil, and Slop Oil	840 (ea.)	11	Leak/Rupture	Northeast	General Containment
Compressor Sump (ST-2805 - RR2)	Used Oil	1000	1	Leak/Rupture	Northeast	General Containment
Main Plant Sump (ST-2804 - RR2)	Condensate, Process Water, Used Oil	1480	1	Leak/Rupture	Northeast	General Containment
TOTAL: >9,295						

2.4.1 Process Flow-Through and Oil-Filled Equipment, Continued

The facility also uses pressure vessels for the intermediate recovery/accumulation of liquids from process flow-through vessels associated with the gas processing. Examples of vessels used for intermediate recovery/accumulation of entrained liquids generated by the gas processing activities at the facility include the following process flow-through vessels with an aggregate storage capacity of less than 241,828 gallons (based on shell capacity):

Flow-Through Process Equipment	Contents	Capacity (gallons)	Number of Units at the Facility	Type of Failure	Direction of Flow for Uncontained Discharge	Secondary Containment Method
30" x 12' Scrubber	Condensate, Lube Oil, and Slop Oil	440	2	Leak/ Rupture	East	General Containment
60" x 20' Separator	Condensate, Lube Oil, and Slop Oil	2,938	1	Leak/ Rupture	East	General Containment
Stabilizers	Condensate, Lube Oil, and Slop Oil	>55 (ea.)	2	Leak/ Rupture	East	General Containment
3' x 10' Condensate Filters	Condensate	529 (ea.)	2	Leak/ Rupture	East	General Containment
Pressurized Condensate Tank	Condensate	>55	1	Leak/ Rupture	East	General Containment
Finger Slugs	Condensate, Lube Oil, and Slop Oil	42,000 (ea.)	3	Leak/Failure	East	General Containment
11' x 134' Condensate Surge	Condensate	95,260	1	Leak/Failure	East	General Containment
Flare Knockouts	Condensate, Lube Oil, and Slop Oil	>55 (ea.)	2	Leak/ Rupture	East	General Containment
Heaters	Heating Oil	>55 (ea.)	2	Leak/ Rupture	Northeast	General Containment
Pressurized Vessel	Condensate, Lube Oil, Heating Oil, and Slop Oil	>55 (ea.)	2	Leak/ Rupture	East	General Containment
6' x 10' Oil Heater	Heating Oil	2,115	1	Compartment Failure/ Leak	Northeast	General Containment
8' x 20' Stabilizer	Condensate, Lube Oil, and Slop Oil	7,520	1	Leak/ Rupture	East	General Containment
Scrubber	Condensate, Lube Oil, and Slop Oil	>55	1	Leak/ Rupture	East	General Containment
40" x 80" Scrubbers	Condensate, Lube Oil, and Slop Oil	435 (ea.)	2	Leak/ Rupture	East	General Containment
Product Surge NGL Liquid Tank	Natural Gas Liquids	>55	1	Overfill/ Leak/ Rupture	East	General Containment

2.4.1 Process Flow-Through and Oil-Filled Equipment, Continued

Flow-Through Process Equipment	Contents	Capacity (gallons)	Number of Units at the Facility	Type of Failure	Direction of Flow for Uncontained Discharge	Secondary Containment Method
4' x 15' Pressurized Process Vessel	Condensate, Lube Oil, and Slop Oil	1,410	1	Leak/ Rupture	East	General Containment
6' x 15' Inlet Scrubber	Condensate, Lube Oil, and Slop Oil	3,172	1	Leak/ Rupture	East	General Containment
Cold Drain Tank (V-403 - RR2)	Natural Gas Liquids	> 55 gallons	1	Overfill/ Leak/ Rupture	East	General Containment
Cold Separator (V-402 - RR2)	Natural Gas Liquids	> 55		Overfill/ Leak/ Rupture	East	General Containment
Flare Knockout Drum (V-491 - RR2)	Condensate/NGL	> 55	1	Leak/ Rupture	East	General Containment
Fuel Gas Scrubber (RR2)	Condensate/NGL	> 55	1	Leak/ Rupture	East	General Containment
Product Surge Tank (V-404- RR2)	Natural Gas Liquids	5,386	1	Leak/ Rupture	East	General Containment
Slug Catcher (V-1100 - RR2)	Crude/ Condensate	105,000	1	Leak/ Rupture	East	General Containment
TEG Flash Tank (V-0801 -RR2)	TEG	719	1	Leak/ Rupture	East	General Containment
TOTAL: 241,828						

These vessels also typically operate at a positive pressure, are designed for either separation and/or temporary accumulation of entrained liquids from the gas stream or temporarily contain liquids (processed on-site) . These vessels are monitored through remote inventory control/transfer systems and/or direct visual monitoring systems to ensure process control is maintained. Recovered liquids are automatically transferred to the scrubbers, separators, and stabilizers. Consistent with USEPA guidance provided in "SPCC Guidance for Regional Inspectors" dated December 16, 2013, these vessels are operated as oil-filled manufacturing equipment (flow-through process) during normal operating conditions based on the intent of each vessel, automated control of the transfer of recovered liquids, and limited residence time of recovered liquids; thus, sized secondary containment is not required for the aforementioned pressure vessels.

2.4.2 Additional Potential Spills Information

Loading/unloading areas for the tanks are either outside secondary containment areas and have spill pans or other types of catchment devices (i.e., spill pans), or other general secondary containment method. See **SECTION 2.9**.

Loading/unloading areas for the tanks are either outside secondary containment areas and have spill pans or other types of catchment devices (i.e., spill pans), or other general secondary containment method.

Truck loading/unloading activities occur at designated loading/unloading areas. All liquid transfers are monitored. General secondary containment in the form of spill kits, tank trucks, and connection buckets are utilized to contain the most probable release. A release from the eastern half of the site would flow east about 0.6 miles to the Black River Supply Ditch. A release from the northern and western portion of the site would flow north about 2,000 feet towards the Southern Canal. The flow rate will be relative to the size of release. Drivers on-Site are trained on and will follow Targa's Truck Loading/Unloading Procedures

2.4.3 Oil Spill Contingency Plan Impracticability

The Oil Spill Contingency Plan is included in this facility's SPCC plan because passive sized secondary containment to prevent a discharge from the facility was determined to not be practicable (see **SECTION 2.4** of this SPCC Plan) and/or alternative requirements were implemented in lieu of general secondary containment for process flow through and oil-filled equipment (see **SECTION 2.4.1** of this SPCC Plan). More information regarding specific SPCC regulated facility components that are covered in the Oil Spill Contingency Plan can be found in the **APPENDIX F.1** (Overview).

The Oil Spill Contingency Plan has been developed and implemented in accordance with 40 CFR, Part 112.7(d) and/or (k) and Appendix F of the SPCC Guidance for Regional Inspectors (December 16, 2013) and imposes the requirements of 40 CFR, Part 109: Criteria for State, Local and Regional Oil Removal Contingency Plans, and complements the prevention and control measures presented in the remainder of this SPCC Plan.

The purpose of the Oil Spill Contingency Plan is to define procedures and tactics for responding to, controlling,

containing, and recovering discharges of oil to prevent impacts to navigable waters or adjoining shorelines of the United States, originating more specifically from the impracticability determinations of **SECTION 2.4** of this SPCC Plan.

The objective of procedures described in the Oil Spill Contingency Plan is to protect the public, facility personnel, and other responders during oil/oil products discharges. In addition, the Oil Spill Contingency Plan is intended to minimize damage to the environment, natural resources, and facility installations from a discharge of oil/oil products.

2.5 BULK STORAGE CONTAINERS

The following controls apply to bulk aboveground storage containers at the Facility:

- Secondary containment structures for bulk storage containers are identified in the Regulated Bulk Oil Storage Container and Potential Spills table in **SECTION 2.4** for SPCC applicable storage containers.
- Except as noted in the **SPCC Implementation Measures**, all bulk storage container installations are constructed so that a means of secondary containment is provided for the entire capacity of the largest single container plus sufficient freeboard to contain precipitation.
- The Facility utilizes the industry standard API-12R1 for additional freeboard capacity which recommends containment equal to at least 110% of the largest single container.
- Where bulk containers are manifolded together such that the loss of one (1) result in the loss of all, the combined storage capacity of the manifolded containers will be used to determine secondary containment and freeboard capacity.
- Secondary containment diked areas are sufficiently impervious to contain discharged oil from reaching navigable waters or adjoining shorelines before cleanup begins.
- Details concerning the construction of fixed secondary containment systems are provided in the Regulated Bulk Oil Storage Container and Potential Spills table in **SECTION 2.4**.
- Visible discharges, which result in any accumulations of oil in the diked area(s) are promptly removed and disposed of according to the waste disposal procedures described in **SECTION 1.8**.
- Secondary containment volume calculations, where secondary containment is present, are provided in Regulated Bulk Oil Storage Container and Potential Spills table in **SECTION 2.4**.
- Drainage from secondary containment areas, where secondary containment is present, is discussed in **SECTION 2.7**.

2.5.1 Mobile or Portable Storage Containers

Mobile or portable storage containers may be currently contained at the Facility. If mobile or portable storage containers are used at this Facility, they will be shown in the Container and Potential Spills Table. Mobile containers include 55-gallon drums, totes, mobile fueling tanks and other mobile/portable containers. In addition to controls listed in **SECTION 2.5**, the following apply to mobile or portable containers:

- These containers are generally located in dedicated storage areas which are positioned or located so as to prevent a spill from reaching navigable waters or adjoining shorelines.
- These containers are located where they will not be subject to periodic flooding or washout.
- Dedicated mobile or portable storage container areas if present would be identified on the Facility Diagram (**SECTION 2.3**).
- Containers that may be temporarily located outside the dedicated storage area are positioned or located so as to prevent a spill from reaching navigable waters or adjoining shorelines until they can be returned to the dedicated storage area.

2.5.2 Buried, Partially Buried or Bunkered Storage Tanks

The Facility does not have buried, partially buried or bunkered metallic storage tanks that were installed on or after January 10, 1974.

2.5.3 Bulk Containers with Internal Heating Coils

The Facility does not have bulk storage tanks with internal heating coils.

2.5.4 Bulk Container Inventory Control

Container installations shall be engineered with at least one of the following devices. Check all that apply to the Facility. Inventory control identification should be noted (1, 2, 3, 4, or 5) in the Regulated Bulk Oil Storage Container and Potential Spills Tables in **SECTION 2.4** and **APPENDIX F**.

☐ 1. High Liquid Level alarms with signals or audible alarms **OR** loading operations at small tanks that are attended and constantly monitored during the loading operations.
☐ 2. High liquid level pump cutoff device set to stop the flow at predetermined container content level.
☒ 3. Direct audible or code signal communication (e.g., high level alarms) between the container gauges and a nearby plant, manned facility, or pump station.
☒ 4. Fast response system for determining the liquid level is used for each bulk storage container (e.g., computer monitor, direct vision gauge). A person must be present to monitor gauges and the tank. Fluid levels in drums used for oil storage and not equipped with direct visual gauges shall be visually gauged prior to transfer of oil.
☐ 5. Not Applicable

2.6 INSPECTIONS, TESTS AND RECORDS

2.6.1 Bulk Storage Container Inspection

For the bulk storage containers, at the Facility, the following integrity management program is in effect:

- The outside of all bulk storage containers and their associated supports and foundations are inspected routinely during normal Facility walk-through for signs of deterioration, discharges, or accumulation of oil inside secondary containment areas. **Facility walk-throughs are generally conducted on a daily basis at Targa's manned and unmanned facilities.**
- These routine Facility walk-through inspections will not be documented unless a corrective action must be taken.
- Documented visual external inspections for all bulk storage containers and their associated supports and foundations is conducted monthly and noted on the Storage Container Visual Inspection Log (**APPENDIX B**). *The Facility may use logs or forms that are kept under usual and customary business practices, in lieu of the above reference form.*
- Liquid level sensing devices for overfill protection (where applicable) are tested regularly to ensure proper operation per 40 CFR § 112.8(c).
- Inspections for oil discharges within diked areas occur during the regular rounds of the operator, conducted generally on a daily basis at manned and unmanned facilities. Any oil in the dike will be cleaned up in a timely manner.
- In the event that a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service, the container will be evaluated for the risk of discharge or failure due to brittle fracture or other catastrophe.
- Inspection forms are maintained electronically in the SMARTPLAN(TM) System or at the Facility or the Regional or Local Field Office.
- A summary of the inspection requirements applicable to the Facility is provided in the Targa Bulk Storage Container Integrity Management Plan.

2.6.2 Bulk Storage Container Integrity Testing

Bulk storage containers are categorized based on construction, age, and volume and are integrity tested accordingly per the Targa Bulk Storage Container Integrity Management Plan. Container categories are listed in the **SECTION 2.4**. All bulk storage containers are inspected monthly and additional testing techniques can include hydrostatic, radiographic, ultrasonic, and/or acoustic emissions for those containers subject to quantitative integrity testing requirements. Inspection procedures and schedules are based on the Container Category. Please refer to the Targa Bulk Storage Container Integrity Management Plan (saved in Targa's SMARTPLAN Main Library) for detailed inspection procedures and schedules.

The Facility chooses to deviate from the integrity testing requirements specifically for elevated shop-built containers up to 30,000 gallons and single-use containers such as drums, totes, and other small portable containers. These containers are elevated such that all sides of the container are visible during inspections and any problems that may occur will be quickly identified. Routine monthly inspections will provide equivalent environmental protection for integrity testing of such containers.

Records of integrity testing will be kept in engineering job books or environmental records at the Facility or a nearby Field Office.

2.6.3 In-Service Piping and Transfer Equipment

All buried piping is integrity tested at the time of installation, modification, construction, relocation or replacement. Documentation of integrity testing is kept in engineering job books and is retained for a period of at least 3 years.

All aboveground valves and piping (including flange joints, valve glands and bodies, catch pans, pipe supports, locking of valves and metal surfaces) are examined by Facility operators during walk-throughs that are generally conducted on a daily basis.

2.7 FACILITY DRAINAGE

2.7.1 Facility Diked Drainage

Drainage of stormwater from the Facility's diked storage areas, where present, is restrained by manually operated, open-and-closed designed valves, pumps, ejectors or other as indicated in the Container and Potential Spills Tables found in **SECTION 2.4**.

Bypass valves, where present, are normally kept closed and are resealed by Facility personnel following drainage.

The contents of the diked storage areas, where present, are inspected by Facility personnel prior to each draining event to ensure that only oil-free water (no product sheen) is discharged. Discharges from tank containment areas are supervised.

If oil or oil sheen is observed in a diked storage area, vacuum trucks or other appropriate means will be used to remove any and all oil before drainage.

Each drainage event and associated inspection are recorded on the Secondary Containment Drainage Event Log found in **APPENDIX E**. *The Facility may use logs or forms that are kept under usual and customary business practices, in lieu of the above-referenced log.*

2.7.2 Facility Undiked Area Drainage

With the exception of transformers/oil-filled equipment/uncontained transfer areas, the Facility does not have the potential to discharge oil into undiked areas given the secondary containment provisions noted in **SECTION 2.4**.

See **SECTION 2.0** for description of drainage at the Facility.

2.7.3 Effluent Treatment Facilities

This facility does not have an effluent treatment system. All wastewater is properly characterized and trucked offsite for treatment or disposal.

2.8 TRANSFER OPERATIONS, PUMPING, AND IN-PLANT PROCESSES

2.8.1 Buried Piping

The Facility may have buried piping installed or replaced after August 16, 2002. Where applicable, Targa employs the following:

- New or replaced buried piping is cathodically protected and is installed with a protective wrapping or coating.
- If a section of buried line is exposed, it is inspected for signs of deterioration and corrective actions are taken as indicated by the magnitude of the damage.
- Integrity and leak testing of buried piping is performed at the time of installation, modification, construction, relocation, and/or replacement.
- *Note: Aboveground piping, which passes through dikes and roadways, is not considered to be buried piping*

2.8.2 Out-of-Service Piping

Connections are capped or blank-flanged at the transfer point and marked as to origin when the piping is not in service or in standby service for extended periods (i.e. greater than six (6) months).

TARGA RESOURCES

EMPLOYEE TRAINING

PROGRAM OUTLINE

Listed below is the outline used to administer the SPCC training required under Title 40 of the Code of Federal Regulation (CFR) Part 112. The on-site spill prevention coordinator or competent designee will present each of the topics listed below at a scheduled training session to personnel working at the Facility. The on-site spill prevention coordinator or competent designee shall receive annual spill prevention refresher training from the Targa Corporate Environmental Manager.

Pollution Control Laws, Rules and Regulations

The SPCC regulation was promulgated on December 11, 1973 under the authority of Section 311 of the Clean Water Act.

Section 311 of the Clean Water Act authorizes the President to issue regulations establishing procedures, methods and equipment to prevent discharges of oil from vessels and on-shore facilities.

Title 40 of the Code of Federal Regulation (CFR) Part 112 requires that facilities with aboveground petroleum storage capacity greater than 1,320 gallons (Considering only containers with capacities of 55 gallons or greater), establish procedures, methods and equipment to prevent and control spills of petroleum product from the storage facilities.

The SPCC Plan prepared for the Facility is intended to address the requirements of 40 CFR 112. The main elements of the SPCC rules that are covered by the Plan include: a description of the tanks used to store petroleum product, the spill control features associated with the tanks and associated transfer facilities, potential spills that may happen at the Facility, the Facility spill history, a description of the spill response procedures, security features of the Facility and the tanks, an inspection program for the tanks, and a personnel training program.

Operation and Maintenance of Equipment

The following features regarding the tanks and spill control equipment will be described by the Site Manager:

- Operation of any tank liquid level measurement devices;
- Operation of the transfer devices (pumps, hosing, piping) associated with the tanks;
- Operation of locks on the tank fill ports or pumps;
- Location, use and disposal of sorbents used to contain small spills;
- Response actions and reporting requirements for large volume spills; and
- Inspection of the tanks and related recordkeeping requirements.

Spill Prevention Briefing

The following spill prevention training will be discussed by the Site Manager:

- Potential spills at the Facility and precautionary measures that can be taken to avoid the spills; and
- Any malfunctioning components associated with the tanks and what repairs have been or are scheduled to be made.

EMPLOYEE TRAINING LOG

Course Description: Spill Prevention Control and Countermeasure Plan

Instructor: _____

DATE	NAME	TIME	SIGNATURE

2.8.3 Aboveground Valves and Piping

The Facility has aboveground piping installed or replaced after August 16, 2002. The Facility employs the following:

- All pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.
- Aboveground valves and piping and appurtenances are regularly examined during normal Facility walk-through for general condition and necessity for corrective action. Facility walk-throughs are generally conducted on a daily basis at Targa's manned and unmanned facilities.
- The following items are included in the examination:
    - Flange joints,
    - Expansion joints,
    - Valve glands and bodies,
    - Piping supports,
    - Metal surfaces,
    - Catch pans, and
    - Valve locks and/or seals.

These weekly Facility walk-through inspections are not documented unless a corrective action must be taken.

Integrity testing for on-site, in-service piping will follow applicable Targa standards.

Documented visual inspections of all regulated aboveground valves and piping and appurtenances are conducted annually and noted on the Storage Container Visual Inspection Log (**APPENDIX B**). *The Facility may use logs or forms that are kept under usual and customary business practices, in lieu of the above reference form*.

2.9 TANK TRUCK AND TANK CAR LOADING RACKS

Tank truck loading/unloading rack(s) are not present at the Facility.

Railcar loading/unloading rack(s) are not present at the Facility.

Truck loading/unloading areas are present at this Facility. The unloading of condensate into bulk storage tanks or loading of condensate or other light hydrocarbon liquids at the Facility is not considered a loading rack. If a loading arm or other appurtenances are not present at this location, then by definition per 40 CFR 112.7(h) a loading rack does not exist. However, depending on the location, size, and likelihood of contamination of a navigable waterway due to a spill while loading or unloading trucks/railcars at this Facility, containment may be present at the loading/unloading areas even if not required by the regulation. Loading/unloading areas, not defined as a loading/unloading rack, are required to meet the general secondary containment requirements of §112.7(c). Loading and unloading areas are identified on plot plans in **SECTION 2.3**. Sized secondary containment is not required at the loading/unloading areas; however, in accordance with 40 CFR 112.7(c)(1) spill control equipment including dedicated catch pans, containment, etc. along with spill pans, sorbent materials, and/or spill control boom shall be present to provide spill control for the loading/unloading areas.

In order to prevent premature vehicular departure, the Facility has warning signs in the loading areas and at loading racks, if present. The Facility also requires that truck drivers chock their wheels prior to loading.

Drain and outlets on tank trucks and tank cars are checked for leakage before loading/unloading or departure and, if necessary, are tightened, adjusted or replaced.

2.10 VEHICLE WARNINGS

Warning signs, where appropriate, are posted at appropriate locations throughout the Facility to prevent vehicles from damaging aboveground piping and appurtenances.

Bumper guards, where appropriate, are provided in critical vehicular access areas to protect aboveground piping and/or other oil transfer operations.

2.11 FACILITY SECURITY

2.11 Facility Security
Fencing
The Facility is surrounded by a six (6) foot tall chain linked fence with barbed security wire which encircles the entire footprint of the facility to restrict access to authorized personnel only.
All gates into the Facility shall remain locked when the Facility is unattended.
Lighting
Facility lighting shall be adequate at loading/unloading areas and other active areas in order to assist in the discovery of discharges and to prevent discharges occurring through acts of vandalism.
Area lights shall illuminate active areas of the Facility.
Valves
All drain valves from containment areas, when present, shall be locked in the closed position or are secured/inaccessible to unauthorized personnel, to prevent unauthorized opening.
Valves which permit direct outward flow of a container's contents shall be locked or are secured/inaccessible to unauthorized personnel so that they remain closed when in non-operating or standby status.
Keys for all locks shall be kept with all operators that visit the Facility.
Starter Controls
Starter controls, if present, on all oil pumps in non-operating or standby status shall be locked in the off position and located at a site accessible only to authorized personnel.
Out-of-Service Piping
Oil-containing piping is present at the Facility. The Facility securely caps or blank flanges the loading/unloading connections of Facility piping when not in service or when in standby service for an extended period of time (i.e. greater than six (6) months), or when piping is emptied of liquid content either by draining or by inert gas pressure.

APPENDIX A - SPCC PERSONNEL TRAINING PROGRAM AND DOCUMENTATION

Click to view/print Employee Training

APPENDIX B - INSPECTIONS, TESTING AND RECORDS

No Files Uploaded

TARGA RESOURCES

SPILL RESPONSE NOTIFICATION FORM

Note: Initial notifications should not be delayed pending collection of all information. Spill Prevention Coordinator to fill out form

Date of Last Update: _____

Reporter's Last Name: _____ **First:** _____

Position: _____

Phone Number: Day: _____ **Evening:** _____

Company: _____

Organization Type: _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Were Materials Discharged? (Y / N) **Confidential?** (Y / N)

Meeting Federal Obligations to Report? (Y / N) **Date Called:** _____

Calling for Responsible Party? (Y / N) **Time Called:** _____

INCIDENT DESCRIPTION

Location: _____

Substance Spilled: _____

Amount Spilled: _____

Source of Incident: _____

Cause of Incident: _____

_____

_____

_____

_____

Number of and Nature of Injuries (if any): _____

_____

_____

_____

_____

Date of Incident: _____ **Time of Incident:** _____**AM/PM**

Incident Address/Location_____

Nearest City: _____ **State:** _____ **County:** _____ **Zip:** _____

Distance from City: ___ **Direction from City:** _____ **Units of Measure:** _____

Container Type: _____

Tank Storage Capacity _____ **Unit of Measure:** _____

Facility Oil Storage Capacity: _____ **Unit of Measure:** _____

Latitude: _____

Longitude: _____

SPILL RESPONSE NOTIFICATION FORM (Continued)

Date of Last Update: _____

MATERIAL INFORMATION

CHRIS* Code	Product Name	Discharged Quantity	Unit of Measure	Material Discharged in Water? Yes/No	Quantity	Unit of Measure

* CHRIS - Chemical Hazard Response Information System Codes:

OSX	= Fuel Oil	OIL	= Crude Oil
ODS	= Diesel Fuel	OMN	= Cutter Stock Oil
OTF	= Transformer Oils	ASR	= Asphalt Blending Stocks

RESPONSE ACTION

Actions Taken to Correct, Control or Mitigate Incident:

_____

_____

_____

IMPACT

Number of Injuries: _____ **Number of Deaths:** _____

Were there Evacuations? (Y / N) **Number Evacuated:** _____

Was there any Damage? (Y / N) **Damage in Dollars (approx.):** _____

Medium Affected: _____

Description: _____

Additional Information about Medium: _____

_____

_____

SPILL RESPONSE NOTIFICATION FORM (Continued)

Date of Last Update: _____

ADDITIONAL INFORMATION

Any additional information about the incident not already recorded elsewhere in the report:

_____

_____

_____

_____

_____

_____

CALLER NOTIFICATIONS

EPA? (Y / N) **USCG?** (Y / N) **State?** (Y / N) **Other?** (Y / N)

Describe:

_____

_____

_____

Log:

Name of EPA Contact: _____ **Follow Up Required:** (Y / N)

Reference Report Number: _____

Date/Time Called: _____/_____

Name of USCG/NRC Contact: _____ **Follow Up Required:** (Y / N)

Reference Report Number: _____

Date/Time Called: _____/_____

Name of State Contact: _____ **Follow Up Required:** (Y / N)

Reference Report Number: _____

Date/Time Called: _____/_____

Other Contact:_____ **Name:** _____

Follow Up Required: (Y / N)

Reference Report Number: _____

Date/Time Called: _____/_____

APPENDIX C - TARGA EMERGENCY RESPONSE NOTIFICATION LIST

Spill Response Coordinator and/or Designated Persons Accountable for Oil Spill Prevention	
Primary SPC: Aquilar, James 575-200-8895 (Mobile)	**Alternate:** Austin, Tillman Targa Resources 575-810-6082 Ext. 25232 (Office) 575-942-7435* (Mobile) jaustin@targaresources.com (Email)

* 24-hour number

TARGA EMERGENCY RESPONSE NOTIFICATIONS LIST	
Nearest Manned Facility	
Roadrunner Gas Plant	
Federal, State and Local Agencies (as necessary)	
National Response Center	800-424-8802* 202-267-2675
U.S. EPA Region (Region 6)	800-877-6063 214-665-2760
Occupational Safety and Health Administration (OSHA) - New Mexico State Plan Office - Santa Fe	505-476-8700 (Office)
Occupational Safety and Health Administration (OSHA) - Region 6	972-850-4145 (Office)
Occupational Safety and Health Administration (OSHA) - Washington, DC	800-321-6742
State Emergency Response Commission (SERC) - New Mexico	505-476-9600 (Office)
New Mexico Department of Public Safety	505-827-9000 (Office)
New Mexico Environmental Department	505-476-6025
New Mexico Oil Conservation District (Hobbs Office)	575-370-3186 575-393-6161
New Mexico State Police - Carlsbad	575-885-3137 (Office)
Eddy County Emergency Management	575-628-5450 (Office)
Eddy County Sheriff Department	575-616-7155 (Office)
Loving Fire Department	575-745-3600 (Office)
Loving Police Department	505-745-3511 (Office)
Malaga Fire Department	575-745-2311 (Office)
Carlsbad Ambulance Service	575-885-2111 (Office)
Carlsbad Medical Center	575-887-4100* (Office)
Additional Company Contacts	
Sylwia Reynolds Spvr ES&H	432-247-4839 Ext. 24246 (Office) 432-310-8844* (Mobile) sreynolds@targaresources.com (Email)
Cleanup Contractors (as necessary)	
Lighthouse Environmental Services - New Mexico	432-381-0863 (Office)

TARGA RESOURCES
CONTAINMENT AREA DRAINAGE DOCUMENTATION

Date of Inspection	Containment Area Drained	Date of Drainage	Oil Removal Required? (Yes/No)	Inspector's Signature	Comments

TARGA EMERGENCY RESPONSE NOTIFICATIONS LIST, CONTINUED

* 24-hour number

TARGA EMERGENCY RESPONSE NOTIFICATIONS LIST, CONTINUED	
Cleanup Contractors (as necessary) , Continued	
WSP - Environmental Consultant (Main Contact - Kevin Dworsky)	361-573-6442 (Office) 361-218-9312* (Mobile) 361-204-7528

APPENDIX D - SPILL REPORTING FORM AND SUBMITTAL OF INFORMATION TO REGIONAL ADMINISTRATOR FOR QUALIFIED DISCHARGE(S)

Click to view/print Spill Notification Form

APPENDIX E - CONTAINMENT DRAINAGE RECORDS

Click to view/print Containment Drainage Documentation

APPENDIX F - SPCC PART 109 CONTINGENCY PLAN

F.1 OVERVIEW

This Oil Spill Contingency Plan has been developed and implemented in accordance with 40 CFR, Part 112.7(d) and/or (k) and Appendix F of the SPCC Guidance for Regional Inspectors (December 16, 2013) and imposes the requirements of 40 CFR, Part 109: Criteria for State, Local and Regional Oil Removal Contingency Plans, and complements the prevention and control measures presented in the remainder of the SPCC Plan. The Oil Spill Contingency Plan is included in this facility's SPCC plan because passive sized secondary containment to prevent a discharge from the facility was determined to not be practicable (see **SECTION 2.4** of this SPCC Plan) and/or alternative requirements were implemented in lieu of general secondary containment for process flow through and oil-filled equipment (see **SECTION 2.4.1** of this SPCC Plan).

The purpose of this Oil Spill Contingency Plan is to define procedures and tactics for responding to, controlling, containing, and recovering discharges of oil to prevent impacts to navigable waters or adjoining shorelines of the United States, originating more specifically from the impracticability determinations of **SECTION 2.4** of the SPCC Plan.

The objective of procedures described in this Oil Spill Contingency Plan is to protect the public, facility personnel, and other responders during oil/oil products discharges. In addition, this plan is intended to minimize damage to the environment, natural resources, and facility installations from a discharge of oil/oil products.

This Oil Spill Contingency Plan has been developed for the following SPCC regulated facility components:

ID	Contents	Maximum Capacity (gallons)	Reason Covered by Oil Spill Contingency Plan
Transformers	Dielectric Mineral Oil	>55 (ea.)	Oil-Filled Alternative Requirements per 112.7(k)(2)
Compressors	Compressor Oil	60 (ea.)	Oil-Filled Alternative Requirements per 112.7(k)(2)
Transformer	Dielectric Mineral Oil	1,437	Oil-Filled Alternative Requirements per 112.7(k)(2)
Transformer	Dielectric Mineral Oil	1,292	Oil-Filled Alternative Requirements per 112.7(k)(2)
Compressors	Compressor Oil	120 (ea.)	Oil-Filled Alternative Requirements per 112.7(k)(2)
Transformers	Dielectric Mineral Oil	952 (ea.)	Oil-Filled Alternative Requirements per 112.7(k)(2)
Transformers	Dielectric Mineral Oil	2,755 (ea.)	Oil-Filled Alternative Requirements per 112.7(k)(2)

F.2 AUTHORITIES, RESPONSIBILITIES, AND DUTIES

F.2.1 Targa

Targa has the sole authority to respond to discharges of oil within its facility boundaries unless human life, human health, or the environment are harmed or threatened with harm.

Targa has the primary responsibility for providing the initial response to oil/oil products discharge incidents originating from this facility. In order to accomplish this, Targa has designated the Spill Response Coordinator listed in **APPENDIX C** (Targa Emergency Response Notification List) of this SPCC Plan as the qualified Spill Response Coordinator in the event of an oil/oil products discharge. In the event that additional response to oil/oil products discharge incidents from this facility is required, Targa has contracts in place with 3rd Party Response Contractors listed in **APPENDIX C** under *Cleanup Contractors (as necessary)*.

Affiliation	Name	Role	Oil Spill Training
Targa	Aquilar, James	Spill Prevention Coordinator	
Targa	Austin, Tillman	Alternate Spill Prevention Coordinator	Annual SPCC training, Annual Block Training, Monthly Safety Focus

F.2.1 Targa, Continued

The Spill Response Coordinator plays a central coordinating role in any emergency situation, as illustrated on the Emergency Response Notification List and Spill Response Notification Form in Appendix C and Appendix D of this SPCC Plan. The Spill Response Coordinator has the authority to assess the incident, commit the necessary services, equipment, and other financial resources to respond to the discharge, and to request assistance from local fire and/or police departments, contractors, or other responders, as appropriate. The Spill Response Coordinator will direct notifications and initial response actions in accordance with training and capabilities. Targa is committed to responding with operational personnel to a spill within 1-2 hours upon discovery.

In the event of a fire or other emergency situation that threatens the health and safety of those present at the facility, the surrounding public, and/or the surrounding environment the Spill Response Coordinator will direct evacuations and contact the local public safety agencies (e.g. fire, police, medical) identified in **APPENDIX C**. Once public safety agencies have arrived, they may assume full or partial Incident Command until critical hazards (e.g. immediately dangerous to life and health) have been abated, if necessary. The Spill Response Coordinator in the meantime will assume a standby or support role as appropriate, or may assume Incident Command duties in areas outside safety exclusion zones.

The Spill Response Coordinator will provide information regarding the characteristics of the materials and equipment involved in an incident and will provide access to Targa resources as requested by responding agencies. The Spill Response Coordinator has access to reference material at the facility either as printed material or on computer files that can further assist the response activities.

When the Targa Spill Response Coordinator is functioning as Incident Commander (or as part of Unified Command), the Spill Response Coordinator will take necessary measures to control the flow of people, emergency equipment, and supplies as needed to maintain control of the incident. These controls may be necessary to minimize injuries and confusion; Targa will request the support of local public safety agencies (e.g. police, transportation) as necessary if their unique resources and authorities are required.

Whenever circumstances permit, the Spill Response Coordinator transmits assessments and recommendations to managers, supervisors, and environmental specialists for further direction in accordance with the Emergency Response Notification List and Spill Response Notification Form in **APPENDIX C** and **APPENDIX D** of this SPCC Plan.

F.2.2 Local Agencies

Local public safety agencies (e.g. fire, police, medical) in Eddy County, New Mexico have the authority and responsibility to provide first response to incidents within Targa facility boundaries if human life, human health, or the environment are harmed or threatened with harm. Such incidents may include fire, hazardous vapor release, hazardous chemical exposure, and discharge of oil outside the facility. If necessary, the primary local agency (e.g. fire) has the authority to assume incident command in such situations until the critical hazards and threats have been abated and command can be turned over to the responsible party (i.e. Targa) and/or another agency.

Local public safety agencies are identified in **APPENDIX C** of this plan. If necessary after an incident, Targa and its insurance provider will work to comply with local agency response cost reimbursement claims procedures.

F.2.3 State Agencies

New Mexico Environment Department emergency response teams and resource protection agencies have the authority to provide emergency spill response and technical assistance if human life, human health, or the environment are harmed or threatened with harm, and the capabilities of local agency resources have been or may be exceeded. Such assistance duties may include oversight of Targa's response actions, incident management assistance, spill response equipment and personnel, natural resource damage assessments, and long-term monitoring and recovery assistance. The state may exercise authority to take over management of an incident if the State On-Scene Coordinator determines that the responsible party is unable to manage the incident effectively. The state may also request to form Unified Command where multiple agencies and the responsible party may share incident management authority.

Appropriate state agencies are identified in **APPENDIX C** of this plan.

F.2.4 Federal Agencies

When necessary, EPA and USCG emergency response teams have the authority to provide emergency spill response and technical assistance if human life, human health, or the environment are harmed or threatened with harm, the capabilities of state agency resources have been or may be exceeded, and if there is a Federal interest. EPA and USCG have procedures in place to quickly determine which agency has jurisdiction in a given area - generally USCG covers coastal waters and marine port areas, while EPA generally covers inland waters. Targa understands that this facility is situated within EPA's jurisdiction.

Such assistance duties may include oversight of Targa's response actions, incident management assistance, spill response equipment and personnel, natural resource damage assessments, and long-term monitoring and recovery assistance. EPA may exercise authority to take over management of an incident if the Federal On-Scene Coordinator determines that the responsible party is unable to manage the incident effectively. EPA may also request to form Unified Command where multiple agencies and the responsible party may share incident management authority.

EPA may involve other federal agencies as necessary to supply technical expertise or additional response resources. As examples, during an EPA-jurisdiction response, the following agencies may be included:

- USCG may be asked to assist with Incident Command - e.g. safety or finance positions
- NOAA may be asked to supply a Scientific Support Coordinator to model spill trajectories
- USFS may be asked to lead natural resource damage assessments and issue biological opinions
- BLM may be asked to provide information on cultural resources and historical preservation

Appropriate federal agencies are identified in **APPENDIX C** of this plan.

F.3 NOTIFICATION PROCEDURES

Notification of oil/oil products discharges in accordance with local, state, and federal requirements will be directed by the Spill Response Coordinator (Spill Prevention Coordinator (SPC), Alternate Spill Prevention Coordinator (ASPC), or SPC designated person) in accordance with **Spill Prevention Coordinators** in the Introduction Section and **APPENDIX C** of this SPCC Plan. The Spill Response Notification Form included in **APPENDIX D** of this SPCC Plan will be used for documentation and organization of the spill/release event.

F.3.1 Oil Discharge Notification Contact List

The oil spill/discharge notification list is provided in **APPENDIX C** of the facility SPCC plan.

F.3.2 Communication Methods

A variety of fixed and mobile communication equipment (telephone, fax, cell phones, computers) will be used to communicate with management, responders, authorities, and other interested parties. Emergency 911 dispatch can be reached from fixed and mobile phones at the facility.

The primary means of communication will be cell phones which are regularly carried by the Spill Response Coordinator and other designated response personnel 24 hours a day / 7 days a week. Booster antennas are provided when working in remote areas with weak cell service. **APPENDIX C** contains cell phone numbers for these individuals. Cellphones are protected with passwords set by their assigned user, but can be used by anyone to place emergency 911 calls.

A landline phone is available at manned facility offices - outside numbers can be dialed normally. No code needs to be dialed to reach an outside line. If the facility is not manned, **APPENDIX C** lists the nearest manned facility.

Targa uses portable laptop computers that connect using Wi-Fi internet at the nearest manned facility. Targa personnel will provide the Wi-Fi password to authorized guests as needed to support response efforts. Targa personnel with assigned cell phones also have mobile hot-spot capability, access-controlled with a password.

F.4 POTENTIAL HARMS CAUSED BY AN OIL SPILL

F.4.1 Water Use Risks

The following paragraphs describes the critical water use areas near the site that could be negatively impacted by an oil discharge. This information may be requested during the initial spill notification report or during follow-up conversations with local, State, or Federal agencies.

The facility's Site Location Map (Figure 1 in **SECTION 2.3**) shows the location of waterways relative to the facility along with topographic contours that depict the drainage patterns and provide waterway topographic positions. The facility's Site Map (Figure 2 in **SECTION 2.3**) shows drainage patterns on-site.

Surface water drains in an easterly or northern direction depending on the spill release location at the Facility. A release from the eastern half of the site would flow east about 0.6 miles to the Black River Supply Ditch. A release from the northern and western portion of the site would flow north about 2,000 feet towards the Southern Canal.

Ground cover between these potential spill/release sources and the actual potential receiving waterways consists primarily of caliche. Slope within these drainage areas to the actual potential receiving waterways is estimated at variable values - see Facility Diagram . The soil type along the drainage pathway consists of caliche in addition to brush/vegetation . The riverbank consists of caliche in addition to brush/vegetation . A rough estimate of the travel time of an oil spill from the facility to the water body discharge point is variable depending on the size of the release .

F.4.2 Land and Groundwater Use Risks

Other resources potentially at risk in the event of a spill/release of oil/oil products either on-site or on adjacent properties are listed below:

Other Potential Resources at Risk	Description
Recreational Areas within 1 mile radius (parks, recreational centers, playgrounds, sports fields, sports complexes, etc.)	Not Present
Residential Areas within 1 mile radius (including farm homesteads)	Not Present
On-Site Drinking Water Wells	Not Present
On-Site Groundwater Monitoring Wells	Not Present
Adjacent Drinking Water Wells within 1 mile radius	Not Present
Adjacent Groundwater Monitoring Wells within 1 mile radius	Not Present
Other	Not Present

F.5 RESPONSE RESOURCE CAPABILITIES

F.5.1 Commitment of Resources

The **Management Approval** page in the Introduction Section of this SPCC Plan contains a signed Management Approval and Commitment of Manpower, Equipment, and Materials Statement.

F.5.2 Estimate of Required Resources

Universal Spill Response Kits are provided at this facility. In addition, operators in the surrounding area are equipped with spill response equipment in their fleet vehicles. The Universal Spill Response Kits contain at minimum the following spill response supplies:

- Absorbent pads and socks; absorbent pillows; disposal bags; seals; PPE; Emergency Hand Book.

These spill response materials are sufficient to respond to the most likely minor discharges that could potentially occur at the facility and to initially contain a major discharge while waiting for additional materials or support from 3rd Party Response Contractors. Targa's facility-based response resources inventory is verified on a monthly basis during the scheduled facility inspections by designated personnel, and spill response materials are replenished as needed.

In the event that additional response to oil/oil products discharge incidents from this facility is required, Targa has established agreements with the 3rd Party Response Contractors listed in the below table and in **APPENDIX C** under *Cleanup Contractors (as necessary)*. Contractual evidence of these resources is maintained by Targa in supply chain records and can be made available upon request. These contractors have immediate access to an assortment of response equipment and materials. Each contractor has sufficient response equipment to contain and recover the maximum possible discharge. Targa discusses response capacity needs with each contractor to ensure that sufficient staff, equipment and materials are available to respond to worst case discharges for this facility.

These spill response resources are sufficient to respond to the most-likely discharge as well as to the worst-case discharge requirements of 40 CFR 112.8(c)(2) in **SECTION 2.4** and **2.4.1** of the facility SPCC plan.

F.5.3 Facility Response Team

Targa and their utilized 3rd Party Response Contractors have multiple employees trained and available to respond to an oil/oil products discharge. All Targa employees are familiar with the facility layout, location of spill response equipment staging areas, response strategies, and with this SPCC Plan and Oil Spill Contingency Plan for this facility.

F.6 RESPONSE ACTION PROCEDURES

Facility personnel and Targa contractors are equipped and trained to respond to major equipment failures and worst-case discharges in foreseeable conditions. The facility SPCC plan discusses response actions from predicted discharges within the facility. This contingency plan discusses worst-case discharges and any discharge that escapes the facility boundary.

F.6.1 Communications and Control Center

When deemed necessary, a central coordination center will be set up at the facility or nearest equipped location in the event of a discharge. A variety of fixed and mobile communication equipment (telephone, fax, cell phones, computers) will be used to ensure continuous communication with management, responders, authorities, and other interested parties. The primary means of communication will be cell phones which are regularly carried by the Spill Response Coordinator and other designated response personnel 24 hours a day / 7 days a week. **APPENDIX C** contains cell phone numbers for these individuals.

The Spill Response Coordinator is responsible for communicating the status of the response operations and for sharing relevant information with involved parties, including local, state, and federal authorities. In the event that local response agencies, state authorities, or a federal On-Site Coordinator (OSC) assumes incident command, the Spill Response Coordinator will function as the facility representative in the unified command structure.

F.6.2 Tiered Levels of Response

This Oil Spill Contingency Plan addresses potential discharge incidents from the items covered (listed above), including those that affect navigable waters or during which the oil/oil products cannot be safely controlled by facility personnel and confined within the boundaries of the facility. Response to such incidents may necessitate the assistance of outside contractors or other responders to prevent imminent impact to navigable waters.

In the event of an oil/oil products discharge, the first priority will be to stop the product flow and to shut off all ignition sources, followed by the containment, control, and mitigation of the discharge. This Oil Spill Contingency Plan prescribes actions to be performed in response to an oil/oil products discharge from the items covered (listed above) but can also be used for other SPCC-regulated items.

Minor discharges may be controlled on-site without shutdown of the source equipment. However, in the event of a major discharge the source equipment may require shutdown and isolation to limit the quantity of oil/oil products released. The Spill Response Coordinator will make this determination upon initial discovery.

The release of oil/oil products including those covered by this Oil Spill Contingency Plan will be addressed and response activities implemented in accordance with **SECTION 1.8** of this SPCC Plan.

Additionally, the following response actions will be implemented as necessary for worst-case discharges and any other discharge that escapes the facility boundary:

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station

1 - 1,036 gal Engine Oil Day Tank - Area D

Containment Area:	80.0	ft²		
Containment Wall Height:	1.50	ft		
Total Containment Volume Provided:	898	gals. or	21	bbls
Largest Tank - 1 - 1,036 gal Lube Oil Day Tank OD:	---	ft		
Tank Height:	---	ft		
Largest Tank Shell Volume:	1,036	gals. or	25	bbls
Containment Area:	80.0	ft²		
Precipitation Height:	4.5	in		
Total Precipitation Volume to Contain:	224	gals. or	5	bbls

Calculation Summary				
Total Containment Volume (gals)	898	A		
Largest Tank Shell Volume (gals)	1,036	B		
Total Displaced Volume (gals)	0	C		
Total Precipitation Volume (gals)	224	D		
Excess/(Shortfall) Containment Volume =	A–B–C–D			
Excess/(Shortfall) Containment Volume =	(363)	gals. or	(9)	bbls
Available Freeboard for Precipitation:	(7.27)	inches		
Excess/(Shortfall) Containment Volume after 110% release of the largest tank=	(241.94)	gals. or	(5.76)	bbls

Conclusion: Secondary containment is not sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above) nor 110% of the largest storage tank design capacity.

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
6 - 1,000 bbl Condensate and Wastewater Tanks (Isolated) - Area A

Containment Area:	5,450.3	ft²		
Containment Wall Height:	2.75	ft		
Total Containment Volume Provided:	112,119	gals. or	2,670	bbls
Largest Tank (1 - 1,000 bbl Condensate Tank) OD:	21.50	ft		
Tank Height:	16.00	ft		
Largest Tank Shell Volume:	43,453	gals. or	1,035	bbls
Tank Displacement (5 - 1,000 bbl Tank) OD:	21.50	ft		
Tank Height:	16.00	ft		
Displaced Height:	1.58	ft		
Quantity:	5.00			
Tank Displacement Volume:	21,489	gals. or	512	bbls
Tank Displacement (6 - Octagonal Tank Bases)				
Side Length:	9.50	ft		
Base Height:	1.17	ft		
Displaced Area:	435.77	ft²		
Quantity:	6.00			
Tank Base Displacement Volume:	22,818	gals. or	543	bbls
Containment Area:	5,450.3	ft²		
Precipitation Height:	4.50	in		
Total Precipitation Volume to Contain:	15,289	gals. or	364	bbls

Calculation Summary		
Total Containment Volume (gals)	112,119	A
Largest Tank Shell Volume (gals)	43,453	B
Total Displaced Volume (gals)	44,308	C
Total Precipitation Volume (gals)	15,289	D
Excess/(Shortfall) Containment Volume =	A–B–C–D	
Excess/(Shortfall) Containment Volume =	9,070	gals. or 216 bbls
Available Freeboard for Precipitation:	2.67	inches

Conclusion: Secondary containment is sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above).

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
1 - 500 gal Lube Oil Day Tank - Area B and C

Containment Area:	52.0	ft²		
Containment Wall Height:	2.25	ft		
Total Containment Volume Provided:	875	gals. or	21	bbls
Largest Tank - 1 - 500 gal Lube Oil Day Tank OD:	---	ft		
Tank Height:	---	ft		
Largest Tank Shell Volume:	500	gals. or	12	bbls
Containment Area:	52.0	ft²		
Precipitation Height:	4.5	in		
Total Precipitation Volume to Contain:	146	gals. or	3	bbls

Calculation Summary				
Total Containment Volume (gals)	875	A		
Largest Tank Shell Volume (gals)	500	B		
Total Displaced Volume (gals)	0	C		
Total Precipitation Volume (gals)	146	D		
Excess/(Shortfall) Containment Volume =	A–B–C–D			
Excess/(Shortfall) Containment Volume =	229	gals. or	5	bbls
Available Freeboard for Precipitation:	7.08	inches		

Conclusion: Secondary containment is sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above).

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
1 - 500 gal Lube Oil Day Tank - Area E - H

Containment Area:	52.0	ft²		
Containment Wall Height:	1.50	ft		
Total Containment Volume Provided:	583	gals. or	14	bbls
Largest Tank - 1 - 500 gal Lube Oil Day Tank OD:	---	ft		
Tank Height:	---	ft		
Largest Tank Shell Volume:	500	gals. or	12	bbls
Containment Area:	52.0	ft²		
Precipitation Height:	4.5	in		
Total Precipitation Volume to Contain:	146	gals. or	3	bbls
Calculation Summary				
Total Containment Volume (gals)	583	A		
Largest Tank Shell Volume (gals)	500	B		
Total Displaced Volume (gals)	0	C		
Total Precipitation Volume (gals)	146	D		
Excess/(Shortfall) Containment Volume =	A–B–C–D			
Excess/(Shortfall) Containment Volume =	(62)	gals. or	(1)	bbls
Available Freeboard for Precipitation:	(1.92)	inches		
Excess/(Shortfall) Containment Volume after 110% release of the largest tank=	33.48	gals. or	0.80	bbls

Conclusion: Secondary containment is sufficient to hold 110% of the largest storage tank design capacity.

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
1 - 1,036 gal Engine Oil Day Tank - Area I

Containment Area:	80.0	ft²		
Containment Wall Height:	1.50	ft		
Total Containment Volume Provided:	898	gals. or	21	bbls
Largest Tank - 1 - 1,036 gal Lube Oil Day Tank OD:	---	ft		
Tank Height:	---	ft		
Largest Tank Shell Volume:	1,036	gals. or	25	bbls
Containment Area:	80.0	ft²		
Precipitation Height:	4.5	in		
Total Precipitation Volume to Contain:	224	gals. or	5	bbls

Calculation Summary				
Total Containment Volume (gals)	898	A		
Largest Tank Shell Volume (gals)	1,036	B		
Total Displaced Volume (gals)	0	C		
Total Precipitation Volume (gals)	224	D		
Excess/(Shortfall) Containment Volume =	A–B–C–D			
Excess/(Shortfall) Containment Volume =	(363)	gals. or	(9)	bbls
Available Freeboard for Precipitation:	(7.27)	inches		
Excess/(Shortfall) Containment Volume after 110% release of the largest tank=	(241.94)	gals. or	(5.76)	bbls

Conclusion: Secondary containment is not sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above) nor 110% of the largest storage tank design capacity.

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
1 - 500 gal Diesel Tank - Area J

Containment Area:	52.0	ft²		
Containment Wall Height:	2.00	ft		
Total Containment Volume Provided:	778	gals. or	19	bbls
Largest Tank - 1 - 500 gal Diesel Day Tank OD:	---	ft		
Tank Height:	---	ft		
Largest Tank Shell Volume:	500	gals. or	12	bbls
Containment Area:	52.0	ft²		
Precipitation Height:	4.5	in		
Total Precipitation Volume to Contain:	146	gals. or	3	bbls

Calculation Summary				
Total Containment Volume (gals)	778	A		
Largest Tank Shell Volume (gals)	500	B		
Total Displaced Volume (gals)	0	C		
Total Precipitation Volume (gals)	146	D		
Excess/(Shortfall) Containment Volume =	A–B–C–D			
Excess/(Shortfall) Containment Volume =	132	gals. or	3	bbls
Available Freeboard for Precipitation:	4.08	inches		

Conclusion: Secondary containment is sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above).

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
2 - 210 bbl Teresstic 150 Oil & Used Oil Tanks - RR2

Containment Area:	908.2	ft²		
Containment Wall Height:	2.83	ft		
Total Containment Volume Provided:	19,249	gals. or	458	bbls
Largest Tank (1 - 210 bbl Used Oil tank) OD:	-	ft		
Tank Height:	*	ft		
Largest Tank Shell Volume:	8,820	gals. or	210	bbls
Tank Displacement (2 - 210 bbl Tank) OD:	10.00	ft		
Tank Height:	15.00	ft		
Displaced Height:	0.50	ft		
Quantity:	2.00			
Tank Displacement Volume:	587	gals. or	14	bbls
Tank Displacement (N/A)				
Side Length:	0.00	ft		
Base Height:	0.00	ft		
Displaced Area:	0.00	ft²		
Quantity:	0.00			
Tank Base Displacement Volume:	0	gals. or	0	bbls
Containment Area:	908.2	ft²		
Precipitation Height:	4.50	in		
Total Precipitation Volume to Contain:	2,548	gals. or	61	bbls

Calculation Summary		
Total Containment Volume (gals)	19,249	A
Largest Tank Shell Volume (gals)	8,820	B
Total Displaced Volume (gals)	587	C
Total Precipitation Volume (gals)	2,548	D
Excess/(Shortfall) Containment Volume =	A–B–C–D	
Excess/(Shortfall) Containment Volume =	7,294	gals. or 174 bbls
Available Freeboard for Precipitation:	12.88	inches

Conclusion: Secondary containment is sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above).

Appendix A

Secondary Containment Volume Calculations

Roadrunner Compressor Station
2 - Used Refrigerant Lube Oil Storage Tanks - RR2

Containment Area:	101.3	ft²		
Containment Wall Height:	1.50	ft		
Total Containment Volume Provided:	1,137	gals. or	27	bbls
Largest Tank (1 - 820 Gallon tank) OD:	-	ft		
Tank Height:	*	ft		
Largest Tank Shell Volume:	820	gals. or	20	bbls
Tank Displacement (2 - 210 bbl Tank) OD:	0.00	ft		
Tank Height:	0.00	ft		
Displaced Height:	0.00	ft		
Quantity:	0.00			
Tank Displacement Volume:	0	gals. or	0	bbls
Tank Displacement (N/A)				
Side Length:	0.00	ft		
Base Height:	0.00	ft		
Displaced Area:	0.00	ft²		
Quantity:	0.00			
Tank Base Displacement Volume:	0	gals. or	0	bbls
Containment Area:	101.3	ft²		
Precipitation Height:	4.50	in		
Total Precipitation Volume to Contain:	284	gals. or	7	bbls

Calculation Summary		
Total Containment Volume (gals)	1,137	A
Largest Tank Shell Volume (gals)	820	B
Total Displaced Volume (gals)	0	C
Total Precipitation Volume (gals)	284	D
Excess/(Shortfall) Containment Volume =	A–B–C–D	
Excess/(Shortfall) Containment Volume =	33	gals. or 1 bbls
Available Freeboard for Precipitation:	0.52	inches

Conclusion: Secondary containment is sufficient to hold 100% of the largest storage tank design capacity plus freeboard to contain precipitation volume from a 4.5 inch rainfall event (25 year 24 hour rainfall event noted above).

F.6.2 Tiered Levels of Response, Continued

In the event oil/oil products have not yet reached water:

- Deploy sand bags and absorbent socks downgradient from the oil/oil products release zone or erect temporary barriers such as trenches or mounds to prevent the oil/oil products from flowing into receiving waterways.
- Implement land based response actions (countermeasures) including digging temporary containment pits, ponds, or curbs to prevent the flow of oil/oil products into receiving waterways.
- Deploy absorbent socks and sorbent materials along the shoreline of the receiving waterways to prevent oil/oil products from entering surface waters.

In the event oil/oil products have reached water:

- Contact the emergency response contractors and general support contractors (as necessary) listed in **APPENDIX C** of this SPCC Plan.
- Deploy floating booms immediately downstream from the release point. Use a boat for proper deployment (as necessary).
- Control oil/oil products ground flow by placing absorbent socks and other sorbent materials or physical barriers (sandbags, earthen berm, trenches, etc.) across the oil/oil products flow path.
- Deploy additional floating booms across the whole width of the receiving waterways at the next access points downstream from the release point.
- Deploy protective booming measures for downstream receptors that may be impacted by the spill/release.

F.6.3 Recovered Product and Disposal of Contaminated Materials

All waste characterization, handling, and disposal should be conducted in coordination with Targa's regional and corporate environmental specialist and in accordance with Targa's corporate Waste Management Plan. The Spill Response Coordinator, in collaboration with regional and corporate environmental specialists, ensures that all contaminated materials are classified and disposed of appropriately. Waste classified as hazardous waste are disposed of in accordance with Resource Conservation and Recovery Act (RCRA) and any additional applicable or relevant and appropriate solid, universal, and hazardous waste requirements in accordance with local, State, and Federal regulatory requirements.

F.6.4 Local and State Recovery, Damages, and Enforcement

The Spill Response Coordinator ensures that cleanup has been completed and that the contaminated areas have been treated or mitigated according to the applicable or relevant and appropriate requirements including state/federal cleanup action levels. The Spill Response Coordinator will collaborate with local, state, and federal authorities regarding the assessment of damages and enforcement measures.

F.6.5 Response Termination and Follow-Up

After the response has concluded, the Spill Response Coordinator ensures the following:

- All necessary repairs to the defective equipment or flowline section have been completed.
- All circumstances that led to the discharge are reviewed and all necessary precautions are taken to prevent a recurrence. The effectiveness of the response activities is evaluated and necessary adjustments are made to response procedures and personnel training.
- Personnel and contractor debriefings are performed as necessary to emphasize prevention measures and to communicate changes in operations or response procedures.
- An incident critique is performed within 30 days of the discharge including all appropriate persons that responded to the spill. The goal of the incident critique is to discuss lessons learned, the efficiency of this Oil Spill Contingency Plan and its implementation, and its coordination efficiency with other state and local plans.
- If necessary, update this Oil Spill Contingency Plan within 60 days of the critique to incorporate the results, findings, and suggestions developed during the critique.

F.6.6 Training, Exercises, and Plan Updates

Targa has established and maintains an ongoing training program to ensure that our personnel responding to oil/oil products discharges are properly trained and that all necessary equipment is available to them. Targa environmental and safety specialists in conjunction with the Spill Response Coordinator are responsible for implementing and evaluating employee preparedness training. In addition, the 3rd Party Response Contractors listed in **APPENDIX C** have multiple employees trained and available to respond to an oil/oil products discharge. Copies of Targa's training records can be found in the **Main Library** on SMARTPLAN™. Copies of Targa's 3rd Party Response Contractors' training records are maintained by the contractor and are available upon request.

Following a response to an oil/oil products discharge, the Spill Response Coordinator will evaluate the actions taken and identify procedural areas where improvements are needed. The Spill Response Coordinator will conduct a briefing with field personnel, contractors, and local emergency responders to discuss lessons learned and will integrate the outcome of the discussion in subsequent SPCC Plan briefings and employee training seminars. **SECTION 1.7** and **APPENDIX A** of this SPCC Plan provides additional information on training and annual discharge prevention briefings.

As necessary, the Spill Response Coordinator will amend this Oil Spill Contingency Plan and/or this SPCC Plan to reflect changes made to the facility equipment and procedures. **SECTION 1.3** of this SPCC Plan provides additional information on SPCC Plan (including Oil Spill Contingency Plan) routine review and amendment procedures.

ADDITIONAL INFORMATION

Click to view/print Secondary Containment Calculations

ENSOLUM

APPENDIX B

TARGA RESOURCES STANDARDS AND SPECIFICATIONS: MECHANICAL INTEGRITY PLAN

TARGA

TARGA RESOURCES STANDARDS AND SPECIFICATIONS

MECHANICAL INTEGRITY PLAN

Table of Contents

I. SUMMARY OF REVISIONS / CHANGES

Changes are listed by revision number; most recent revisions are also highlighted YELLOW in document.

Rev #	Posted Date	Section	Revision or Change
0	7/8/2020	ALL	Original Issue of Targa Resources Mechanical Integrity Plan
1	8/3/2021	See Details Right	Entire Document – Minor rewordings and text relocations throughout document for improved flow and clarity <u>Section IV</u> 4. – Targa MI/Corrosion Specialist; New Section <u>Section V</u> 1.5, 1.7, & 1.10 – Pressure Vessels; inspection frequency adjustments to reflect code requirements 1.8 – Pressure Vessel Inspection Exclusions; New Section 1.13 – OOS Pressure Vessel Inspections; New Section to reflect code requirements 2.0 – Fired Boilers & Heaters; Changed Fired “Oil” heaters to Fired “Liquid” Heaters to include applicable non-“oil” heaters 4. – Vent and Relief Systems; inspection, Testing, and overhaul frequency adjustments to reflect RAGAGEP, improved reliability, & sustainability 5.0 – I&C General Controls; Adjustments to categorization and inspection frequencies to match PSM terminology 6.0 – I&C ESD Systems; Adjustments to categorization and inspection frequencies to match PSM terminology 7.1 Piping Inspection Intervals; New Section to reflect existing defined code requirements for simplified user reference 7.7 – OOS Piping Inspections; New Section to reflect code requirements 9.0 – Guyed Equipment; New Section <u>Section V</u> Deferrals of Inspection; Approval changed to follow current CPA Action Item Deviation and API process

2	5/5/2022	1, 1.8, 1.9, 4.1	1 – ALPEMA Third Edition – The Standards of the Brazed Aluminum Plant-Fin Heat Exchanger (BAHX) Manufacturers' Association added to references. 1.8/1.9 – BAHX exchanger inspection methods 4.1 – 10 year interval allowed for relief devices where approved by Targa's Mechanical Integrity Group based on a risk assessment.
3	11/3/2022	4.1, 4.3, 4.4, 4.5	4.1 – Renamed "Overhaul" to "Inspection" to be more representative of the task. Decreased Inspection frequency from 5 years to 4 years for Corrosive/Cyclic service and Boilers to create an evenly divisible schedule with Pop/Lift tests for PM purposes. 4.3 – Changed "Overhaul" references to "Inspection". 4.4 – Added National Board VR Stamped shops for testing to improve clarity from section 4.2. 4.5 – Added section 4.5 to provide guidance on Pressure Relief Device Inspections formerly known as "Overhauls" which were not defined.

II. PURPOSE

The purpose of this document is to summarize Targa Resources' (Targa's) plan for mechanical integrity of equipment covered by OSHA 1910.119 Process Safety Management (PSM) and EPA 40 CFR 68.73 Risk Management Plan (RMP).

Targa is committed to identifying and performing inspection activities designed to assure the mechanical integrity of its equipment. This program is intended to verify that equipment within a PSM- or RMP-regulated process, including those used in transporting, containing, and processing hydrocarbons within the facility boundaries, are fit-for-service for their application.

This plan sets expectations to promote:

- Compliance with federal regulations, including PSM and RMP rules
- Compliance with Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)
- Reduction of the severity and frequency of equipment failures
- Reduction of the occurrence of unplanned maintenance events

III. SCOPE

The following categories of PSM/RMP-covered equipment are covered by this plan:

1. Pressure Vessels
2. Fired Boilers and Heaters
3. Atmospheric Storage Tanks
4. Vent and Relief Systems
5. General Instrument and Controls
6. Emergency Shutdown (ESD) Devices
7. Piping Systems
8. Rotating Equipment

IV. Definitions

- **Corrosive Service** – Process streams where partial pressure of H2S ≥ than 0.05psi, CO2 concentrations yielding ≥ 5 MPY corrosion rate, or Amine systems.
- **Condition Monitoring Location (CML)** – Designated location on pressure vessels and piping where thickness monitoring is conducted to monitor the presence and rate of damage and corrosion.
- **Jurisdictional Codes** – Codes adopted by the jurisdiction
- **Jurisdiction** – A legally constituted government administration that may adopt rules relating to pressure vessels
- **PSM** – Process Safety Management as defined by OSHA 29 CFR 1910.119 which concerns the management of hazards associated with highly hazardous chemicals
- **CUI –** Corrosion Under Insulation
- **CUF** – Corrosion under fireproofing
- **EAM** – Computerized enterprise asset management system
- **IDMS** – Inspection data management system
- **IOW** – Integrity Operating Window
- **MOC** – Management of Change
- **MT** – Magnetic Particle Testing
- **NDE** – Nondestructive Examination
- **Non-Corrosive Upstream of Sieve (wet)** –Water saturated (H2O ≥ 1 lb/MMSCFD) process streams where partial pressure of H2S < 0.05psi or CO2 concentrations yielding < 5 MPY corrosion rate.
- **Non-Corrosive Downstream of Sieve (dry)** – Dehydrated (H2O < 1 lb/MMSCFD) process streams where partial pressure of H2S < 0.05psi or CO2 concentrations yielding < 5 MPY corrosion rate.
- **PT** – Dye Penetrant Testing
- **RBI** – Risk Based Inspection
- RT – Inspection by Radiography
- **UT** – Ultrasonic Thickness Measurement
- **In Service** – Designates equipment that is Active (In Service or in Standby states). Equipment not in operation because of a process outage is still considered an in-service equipment.

V. RESPONSIBILITIES

1. The Area Manager

- Responsible for implementation of the Mechanical Integrity Plan (MIP)
- Responsible for making sure the facility has the means and personnel necessary to follow all guidelines set forth in in this plan

2. Authorized Inspector

- Possesses one or more API Certificates (510, 570, 653, 580, etc.)
- Responsible for reviewing final inspection data and verifying all deficiencies are addressed
- Responsible for creating follow-up corrective actions, as needed, for completed inspections
- Responsible for performing all internal & vessel installation inspections in accordance with the frequencies and guidelines set forth in this plan
- Responsible for verifying that all inspections are performed in accordance with the frequencies and guidelines set forth in this plan
- Communicate any deficiencies identified while conducting any of the inspections conducted under this plan to the Area Manager
- Verifies external MI contractor personnel are qualified to properly perform the tasks assigned

3. Inspection Team (Targa Technicians and/or 3rd Party Technicians)

- Responsible for performing the inspections as outlined in this program
- Responsible for verifying that all field inspection plans are correct while performing inspections
- Trained and qualified in the inspection techniques of the equipment they are inspecting
- Documents and records all inspection results as required by the appropriate standards set forth in this plan
- Communicates deficiencies found while conducting inspections to the Authorized Inspector
- Responsible for uploading or validating 3rd Party Technician's inspection data into the IDMS

4. Targa MI/Corrosion Specialist

- A Targa employee within the Mechanical Integrity group
- Experienced and knowledgeable in Mechanical Integrity Codes, Standards, RAGAGEP, inspection techniques, and practices
- Deemed acceptable to Targa Resources, as someone who has knowledge and experience in corrosion damage mechanisms, metallurgy, materials selection, and corrosion monitoring techniques

VI. EQUIPMENT-SPECIFIC PROCEDURES

1. Pressure Vessels

References

- American Petroleum Institute (API) Recommended Practice (RP) 572 – Inspection of Pressure Vessels
- API Standard (STD) 510 – Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair, and Alteration
- American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC), Section VIII
- National Board of Boilers and Pressure Vessels Inspection Code (NBIC)
- API 579-1 / ASME FFS-1 – Fitness for Service (FFS)
- ALPEMA Third Edition – The Standards of the Brazed aluminum Plate-Fin Heat Exchanger Manufactures Association
- 74th GPA Convention – Measurement of Mercury in Natural Gas Streams

Definitions

- **Authorized Inspector** – An inspector who is qualified and certified to perform inspections as defined by API 510
- **Pressure Vessel** – A container designed to withstand internal or external pressure as defined by ASME Section VIII
- **Engineer** – A person holding a degree in engineering experienced with the application of pertinent codes and knowledgeable about repairs made to pressure vessels
- **On-Stream Inspection** – Nondestructive examination of a pressure vessel to establish the suitability for continued operation; the vessel may or may not be in operation while the inspection is being performed
- **Remaining Life** – (years) = (t actual – t minimum) / corrosion rate
- **Corrosion Rate** – (mpy) = (t previous – t actual) / years between actual and t previous
- **t-actual** – The thickness measured at the time of the most recent inspection
- **t-minimum** – The minimum thickness required to retain pressure, as defined in ASME Section VIII, excluding the corrosion allowance
- **t-previous** – The thickness measured at the last inspection
- **One-Quarter Corrosion Rate Life** – One-fourth of the calculated remaining life
- **One-Half Corrosion Rate Life** – One-half of the calculated remaining life

Procedures

1.1 Pressure Vessels: Vessel Installation and Baseline Inspection

Pressure vessels shall be inspected by an Authorized Inspector at the time of installation. The inspection should include the following:

- Verify nameplate information is correct per the manufacturer's data reports and design requirements
- Review the materials of construction and potential for corrosion given the vessel's intended service
- Verify equipment is installed correctly, supports are adequate and secured, external attachments such as ladders and platforms are secured, insulation is properly installed and the pressure vessel is clean and dry
- Verify pressure-relieving devices satisfy design requirements (correct device type and correct set pressure) and are adequately installed and supported

Internal inspection of a new pressure vessel is not required, provided its documentation demonstrates that the pressure vessel complies with the design requirements.

Within one year of placing a pressure vessel into service, baseline thickness measurements with drawings showing the CML's should be performed by an Inspection Team member.

A pressure vessel being considered for a service different than what it was originally designed for shall be thoroughly inspected and metallurgically reviewed for the new conditions before being placed into service. The maximum operating pressure and temperature and the period of operation until its next inspection shall be established for the new service conditions before the pressure vessel is placed into service.

1.2 Pressure Vessels: Inspection Plans

The inspection plan for a pressure vessel shall consider the corrosion rate expected for the intended service. The plan shall be reviewed by an Authorized Inspector or Targa MI/Corrosion Specialist if the IOW changes, as captured by the site's MOC procedures.

Inspection frequencies shall be established in accordance with the applicable API or NBIC standard or recommended practice.

1.3 Pressure Vessels: Inspection and Testing Techniques

Visual inspection and intrusive or non-intrusive NDE methods shall be established based upon the applicable API or NBIC standard or recommended practice.

NDE methods of adequate sensitivity shall be used for detecting, sizing, and characterizing anomalies.

Selection of NDE methods shall be based on the requirements of applicable codes or specifications. For non-prescriptive NDE applications, NDE selection criteria should include:

- Safety considerations
- Inspection effectiveness
- Screening versus local area inspection techniques
- Intrusive or non-intrusive applications
- Repeatability

Testing techniques may also be necessary to verify material properties. Techniques used may include positive materials identification (PMI), hardness testing, fracture toughness testing, creep testing, microscopy, and replication.

An Authorized Inspector will review and make calculations as to the condition of the equipment being tested.

1.4 Pressure Vessels: Risk-Based Inspection (RBI) Plans

An RBI assessment may be used to determine inspection plans and schedules.

An RBI assessment requires the active participation of a multi-disciplinary team, including representatives from the following disciplines: inspection, metallurgy, engineering, and operations. The discipline representatives must be thoroughly knowledgeable and experienced on the service of the pressure vessel being analyzed.

An RBI assessment must include a systematic evaluation of the impact of a failure. With the guidance of the multi-disciplinary team stated above, the failure frequency evaluation shall consider:

- All forms of damage per API RP 571 (Damage Mechanisms) that could reasonably be expected to affect a piece of equipment in any particular service
- Effectiveness of the inspection practices, tools, and techniques utilized for finding the expected and potential damage mechanisms
- Effectiveness of corrosion monitoring and control programs
- Materials of construction
- Pressure vessel design and operating conditions
- Effectiveness of corrosion monitoring and control programs.
- Quality of maintenance activities and programs

- Equipment failure history and data

The failure consequence evaluation shall consider:

- Process fluid properties and operating conditions
- Potential for flammability, explosive, toxic, and environmental effects

Review and approval of RBI plans shall be performed:

- At an interval not to exceed 10 years
- For any change in the identified damage mechanisms and rates
- Whenever a major change to the process conditions occurs
- For any repairs or modifications made to existing equipment
- For any new equipment installed since the last review

Assumptions and criteria for assigning and/or evaluating probability of damage in RBI shall be documented. Known failures and anomalies shall be reviewed and, where appropriate, evaluated using RBI methodology to assess equipment risk level.

1.5 Pressure Vessels: Internal Inspection

An internal inspection shall consist of, but not be limited to, a thorough visual examination of internal surfaces, nozzle attachments, etc., supplemented by non-destructive examinations as required by the inspection plan for identification of specific damage mechanisms and as required for evaluation of any inspection findings.

Internal inspections shall be conducted for any equipment that is capable of physically being entered safely. Equipment design may make it physically impossible to perform an internal inspection safely and adequately. In lieu of an internal inspection, at the discretion of the Authorized Inspector, an On-Stream Inspection can be conducted as outlined in Section 1.10.

Pressure vessels out of service for an extended period of time should be inspected prior to being returned to service. The inspection technique shall consider the period of time the vessel has been out of service and any preservation steps that may have been taken when the vessel was removed from service.

Unless an RBI has been completed, the maximum interval between internal or On-Stream Inspections shall be one-half the estimated remaining corrosion-rate life of the pressure vessel or 10 years, whichever is less. In cases where the remaining life is estimated to be less than 4 years, the internal inspection interval may be the full remaining life of the vessel up to a maximum of 2 years.

1.6 Pressure Vessels: External Inspection

External inspections include a complete visual examination of all accessible areas of the equipment, including such items as foundation and supports, anchor bolts, concrete or steel supports, guy wires, nozzles and sprinklers, grounding connections, protective coatings and insulation, and external metal surfaces. Other non-destructive examination techniques may be required within the limitations of NDE instruments. Consideration should also be given as to whether the examination technique can satisfactorily detect potential damage.

For Idled, Out of Service, or Decommissioned equipment located in a process area; appropriate external inspections should be conducted to ensure that deterioration of insulation, vessel supports, and other pertinences do not degrade to the point where the equipment becomes hazardous to personnel. Pressure vessels out of service for an extended period of time shall be inspected prior to being returned to service.

Unless an RBI has been completed, the maximum interval between External Visual Inspections shall be one-half the estimated remaining corrosion-rate life of the pressure vessel or 5 years, whichever is less. In cases where the remaining life is estimated to be less than 4 years, the internal inspection interval may be the full remaining life of the vessel up to a maximum of 2 years.

1.7 Pressure Vessels: Thickness Examination

Ultrasonic thickness examinations shall be conducted to assess fitness-for-service and remaining life. A representative number of measurements must be taken at designated CMLs to include all major components and nozzles to establish general and localized corrosion rates.

CMLs may be eliminated, or the number significantly reduced, on major components in non-corrosive service. In circumstances where CMLs will be substantially reduced or eliminated, a Targa MI/Corrosion Specialist should be consulted. Justification and acceptance of risk for the CML reduction, or elimination, shall be documented by an Authorized Inspector, Targa MI/Corrosion Specialist, Engineer, and Area Manager.

Unless an RBI has been completed, the maximum interval between Thickness Examination Inspections shall be one-half the estimated remaining corrosion-rate life of the pressure vessel or 10 years, whichever is less. In cases where the remaining life is estimated to be less than 4 years, the internal inspection interval may be the full remaining life of the vessel up to a maximum of 2 years.

1.8 Pressure Vessels: Exclusions

The following vessels shall be excluded from requirements of API 510 inspections:

- Pressure vessels in air or nitrogen service.
- Vessels not containing a hazardous chemical, Category 1 flammable gas or a flammable liquid (flashpoint < 100°F) as defined per OSHA 1910.119.
- Pump Seal Pots (API-510 Annex-A.B.3)
- Inline/canister type lube oil/gas filters/strainers. (API-510 Annex-A.B.5)
- API-510 pressure vessels utilized as storage or makeup tanks containing non-corrosive liquids operating ≤15 PSIG and having proper overpressure protection to not exceed 15 PSIG.
- Other Pressure Vessels considered "excluded" as defined in API 510 Annex-A.
- Note: Pressure vessels that are considered ancillary equipment on equipment packages or skids, that are not in the process stream such as oil, air, and coolant systems. Pressure vessels that could incidentally be exposed to the process in an abnormal operating condition shall comply with API 510 inspection requirements.
- BAHX's *except* as defined in section 1.9.

1.9 Brazed Aluminum Heat Exchangers (BAHX)

Targa operates BAHX's in clean, non-corrosive, and dehydrated processes which have minimal susceptibility to damage mechanisms identifiable by onstream NDE methods.

"Brazed aluminium plate-fin heat exchangers are designed for operation with non-corrosive fluids… In general, mercury will not react with aluminium unless it is allowed to exist in contact with the heat exchanger in its liquid state and there is water present… Aluminium plate-fin heat exchangers will generally not suffer to any structurally appreciable extent from atmospheric corrosion to the external surfaces of the core, considering the internal process streams to be sealed/protected from the atmospheric/environmental conditions. Slight cosmetic corrosion may result if the exchangers are left outside in a humid environment with temperature changes that result in condensation of the humidity on the aluminium surfaces." – ALPEMA

BAHX's shall undergo annual Infrared Thermography (IRT) (FLIR Camera) survey for leaks.

BAHX's shall undergo an API-510 external visual survey every 5 years.

Targa does not operate BAHX's in fields known to have high levels of mercury per the '74th GPA Convention – Measurement of Mercury in Natural Gas Streams' document. For units operating in fields known to have high mercury levels, an engineering evaluation should be conducted to determine if additional protective measures, such as mercury guard beds or mercury tolerant BAHX construction, are warranted.

1.10 Pressure Vessels: CUI Inspection

Carbon steel and low alloy insulated equipment operating either in intermittent service or between the temperatures of 10°F – 350°F is deemed susceptible to CUI. Austenitic stainless steel (Type 300 series) insulated equipment is deemed susceptible to cracking under insulation between the temperatures of 120°F – 400°F. The inspection plan for equipment susceptible to CUI shall include activities to identify and monitor CUI.

1.11 Pressure Vessels: On-Stream Inspection

The Authorized Inspector shall review the service history and results of past inspections to determine the applicability of an On-Stream Inspection. An On-Stream Inspection can be done in lieu of internal inspections in the following situations:

a) Pressure vessel size or configuration makes vessel entry for internal inspection physically impossible. Pressure vessels with an inside diameter less than 30 in. or with manways/nozzles less than 18 in nominal are considered inaccessible and eligible for On-Stream Inspection, or;
b) If pressure vessel is internally accessible and exhibits all the following characteristics:
    - General corrosion rate < 0.005 in per year
    - Remaining life > 10 years
    - Corrosive character of the contents, including trace elements, has been established by at least five years of the same or similar service
    - No questionable conditions were identified during previous external inspection
    - Operating temperature does not exceed the lower temperature limits for the creep rupture range of the pressure vessel material referenced in API-579/ASME FFS, Part 4, Table 4.1
    - Not subject to environmental cracking or hydrogen damage from the fluid being handled
    - Non-integrally bonded liner such as strip or plate lining is not installed

The On-Stream Inspection shall consist of a visual external inspection supplemented by a thickness examination and/or appropriate NDE to externally assess the integrity of the equipment. Adequate access must be given to all parts of the vessel to allow a detailed assessment of integrity. Inspection from hand-holes, nozzles, and/or manways should be considered to supplement the On-Stream Inspection.

Unless an RBI has been completed, the maximum interval between On-Stream Inspections shall be one-half the estimated remaining corrosion-rate life of the pressure vessel or 10 years, whichever is less. In cases where the remaining life is estimated to be less than 4 years, the internal inspection interval may be the full remaining life of the vessel up to a maximum of 2 years.

1.12 Pressure Vessels: Specific Damage Mechanisms

- CUF – Vessel Skirts: Vessel skirts subject to CUF should be inspected to determine skirt integrity. This corrosion mechanism has similar features and characteristics to CUI.
- Wet H2S Cracking – Equipment exposed to “wet H2S” should be inspected for cracking.

1.13 Pressure Vessels: Inspection Frequencies

When conditions such as, but not limited to, bulging, sagging, hydrogen blistering, environmental cracking, creep, fatigue, hydrogen attack, or erosion/corrosion is detected or suspected, the vessel will be evaluated and documented that it is fit to continue in its current service. The intervals between inspections shall be reviewed by the Authorized Inspector and appropriate changes be made to inspection frequencies if needed.

For a large vessel where two or more zones are determined to have different corrosion rates, each zone may be treated independently regarding the interval between inspections.

Pressure vessels in corrosive service may have inspection interval frequencies that exceed API guidelines.

1.14 Pressure Vessels: Idled, Out of Service, or Decommissioned Pressure Vessel Inspections

For Pressure Vessels that are Idled, Out of Service, or Decommissioned and still located in a process area; appropriate external inspections should be performed every 5 years to make sure that deterioration of insulation, vessel supports, and other pertinences do not deteriorate to the point where they become a hazard to personnel. Pressure Vessels that are relocated to a scrap pile or boneyard do not require Idled, Out of Service, or Decommissioned External Visual inspections.
When returning a vessel to service, API 510 External Visual Inspection cycle shall resume from the last conducted API 510 External Visual Inspection date.

1.15 Pressure Vessels: Inspection Techniques/Methodology

Non-destructive inspection techniques shall be performed in accordance with applicable ASME codes.

Thickness measurements that vary by more than 0.020” or result in calculated corrosion rates greater than 5 mils/year (MPY), UT testing equipment shall be shutdown, recalibrated, and the thickness reading verified before entering in inspection record.

1.16 Pressure Vessels: Repair and Alteration Procedures

Repairs shall be in accordance with applicable ASME, NBIC, API, and jurisdictional codes.

All repair and alteration work shall be authorized by an Authorized Inspector and reviewed by an engineer before the work is started.

1.17 Pressure Vessels: Rerating Procedure

Rerating shall be in accordance with the applicable ASME / NBIC and jurisdictional codes.

1.18 Pressure Vessels: Records

Reports of any inspection of pressure vessel inspections shall be retained as long as the piece of equipment is owned by Targa.

Inspection forms shall be used to record inspection results when a piece of equipment is internally or externally inspected. This report should have the date of the inspection and the name of the inspector.

Equipment file records should include:

- Data Records
- Mechanical Drawings
- Non-Destructive Testing Records
- Ultrasonic Thickness Records
- Internal/External Inspection Reports
- Repair/Alteration Records

2. Fired Boilers and Heaters

References

- API RP 573 – Inspection of Fired Boilers and Heaters
- ASME Boiler and Pressure Vessel Code, Section 1, “Power Boilers”
- API Standard 530 – Calculation of Heater Tube Thickness in Petroleum Refineries
- National Board Inspection Code (NBIC), ANSI NB-23

Definitions

- **Fired Boiler** – A power boiler generating steam at a pressure above 15 PSIG or a high pressure, high temperature water boiler operating at pressures above 160 PSIG and/or temperatures exceeding 250°F
- **Fired Heater** – A heat transfer apparatus that heats process gases or liquids by a combustion product. Fired heaters include direct-fired regenerative gas heaters, glycol reboilers, heat medium heaters, and amine reboilers.
  In this context, fired heaters exclude flares, vapor combustor units, thermal oxidizers, incinerators, and regenerative thermal oxidizers, as those units do not service process gases or liquids.

Procedures

2.1 Fired Heaters: Initial Inspection

An internal inspection should be completed within the first year of service to establish a baseline.

2.2 Fired Gas Heaters: Inspection Intervals

The period between internal inspection shall be the lesser of one half the estimated remaining life of the fired gas heater tubes or three years. The fired gas heater estimated remaining life shall be the lesser of one half the tube wall estimated remaining corrosion-rate life or the stress rupture half-life per API calculations.

Each fired gas heater with at least three years of service shall be given a visual external inspection, preferably while in operation, annually. Infrared thermography may be used to identify refractory damage.

Inspections shall be performed by an Authorized Inspector.

2.3 Fired Liquid Heaters: Inspection Intervals

The period between internal inspection shall be the lesser of one half the estimated remaining life of the fired liquid heater tubes or ten years. The fired liquid heater estimated remaining life shall be the lesser of one half the tube wall estimated remaining corrosion-rate life or the stress rupture half-life per API calculations.

Each fired liquid heater with at least three years of service shall be given a visual external inspection, preferably while in operation, annually.

Inspections shall be performed by an Authorized Inspector.

2.4 Fired Heaters: Inspection and Testing

Inspection of the fired heater tubes during internal inspections should include:

- Ultrasonic thickness measurements at assigned CML's
- Dimensional checks for significant high temperature creep damage (localized bulging or excessive diametrical growth)
- Hardness testing in areas of suspect of overheating
- In-situ metallography (in place) or destructive sampling where specific damage mechanisms are suspected
- Review for localized "hot spots" and verification of installed tube skin thermocouples

The burners should be visually inspected to include:

- Condition of the pilot, ignitor tip, and positioner
- Burner tips/assemblies (e.g. fouling, deterioration, bulging, out of roundness, evidence of improper burning, pitting or erosion)
- Burner tiles (secure, evidence of cracking, uniformity around the burner)

The development and execution of inspection plans for fired heaters should reflect guidance within API RP 573.

2.5 Fired Boilers: Inspection Intervals / Inspection and Testing

Boilers shall be inspected per the requirements of the National Board Inspection Code NB-23 and any applicable jurisdictional requirements.

The development and execution of inspection plans for fired boilers should reflect guidance within API RP 573.

2.6 Fired Boilers: Special Inspection Considerations

Fired boilers and heaters with the potential of toxic fuel/process fluids may incur inspections at in increased frequency.

2.7 Boilers & Heaters: Idled, Out of Service, or Decommissioned Inspections

For Boilers & Heaters that are Idled, Out of Service, or Decommissioned and still located in a process area; appropriate external inspections should be performed every 5 years to make sure that deterioration of insulation, equipment supports, and other pertinences do not deteriorate to the point where they become a hazard to personnel. Boilers & Heaters that are relocated to a scrap pile or boneyard do not require Idled, Out of Service, or Decommissioned External Visual inspections. When returning a Boilers or Heater to service, API External Visual Inspection cycle shall resume from the last conducted API External Visual Inspection date.

3. Atmospheric Storage Tanks

References

- API Std 653 – Tank Inspections, Repair, Alteration, and Reconstruction
- API 12F – Specification for Shop Welded Tanks for Storage of Production Liquids
- API Std 650 – Welded Steel Tanks for Oil Storage
- API Std 620 – Design and Construction of Large, Welded Low-Pressure Storage Tanks
- API RP 575 – Inspection of Existing Atmospheric and Low-Pressure Storage Tanks

Definitions

- **Atmospheric Storage Tank (AST)** – Containers larger than 55-gal designed to store a liquid product
- **Magnetic Flux Leakage/Exclusion (MFL/MFE)** – An NDE technique that uses electromagnetism to inspect for flaws or material degradation in steel structures (e.g. atmospheric storage tank floors)
  Spill Prevention Control and Countermeasure (SPCC) Plan – Environmental document establishing requirements for oil spill prevention, preparedness, and response

Procedures

3.1 Field-Erected AST's

Due to their larger size, field-erected AST's are typically subjected to higher hydrostatic pressures and constructed to API 650 standards with floor and shell thicknesses that vary based on anticipated hydrostatic pressure and properties of the commodity stored in the AST. Accordingly, all inspections shall be in accordance with API Standard 653.

3.2 Field-Erected AST's: Inspection Plan

When a national or local code regulates the inspection of AST's, that code shall govern and be covered by a site-specific procedure.

An inspection plan shall be developed for each AST. The plan shall list the design basis and retirement criteria for all components, describe the extent of inspection to be conducted during both the external and internal phases, list the inspection priority, and list both last inspection and future inspection dates. The inspection plan may also indicate all locations for inspection, testing, and data gathering on an appropriate sketch.

The extent of the external plan defined in the inspection plan shall address, but not be limited to, the following areas and components of the AST:

- Foundation
- Shell

- Roof
- Peripheral Tank Attachments
- Nozzles and Pipe Connections
- Manways
- Protective Coatings
- Grounding

The extent of internal inspection defined in the inspection plan shall address, but not be limited to, the following areas and components of the AST:

- Shell
- Bottom
- Roof
- Internals and Auxiliary Equipment
- Protective Coatings
- Vents

3.3 Field-Erected AST's: Inspection Intervals

The interval between inspections of a tank (both internal and external) should be determined by its service history unless special reasons indicate that an earlier inspection must be made. A history of the service of a given tank in similar service (preferably at the same site) may be utilized to establish inspection frequencies commensurate with the corrosion rate of the tank. On-stream, nondestructive examination methods shall be considered when establishing inspection frequencies. The following inspection and integrity testing activities shall be performed for each field-erected AST:
Baseline Inspection: All field erected ASTs shall have a baseline inspection performed as part of the implementation of this plan. In the event an API 653 inspection has not been performed within the previous 10 years, the AST shall be inspected in accordance with API 653 within 12 months of the baseline inspection.

- Monthly In-Service External Visual Inspections: In-service monthly inspections can be done by an Authorized Inspector or person knowledgeable of the storage facility operations, the tank, and the characteristic of the product stored. The inspection shall check for leaks, shell distortion, and signs of settlement, corrosion, and the condition of the foundation, paint coatings, insulations systems, and appurtenances.
- Scheduled API 653 External Inspections: Inspection to be completed by an Authorized Inspector in accordance with the requirements of API 653 at an interval not exceeding 5 years or ¼ life unless allowed by API 653. The inspection shall cover, as a minimum, the applicable checklist items of API 653 Appendix C.1.
- Scheduled API 653 Internal Inspections: Inspection to be completed by an Authorized Inspector in accordance with the requirements of API 653 at an interval not exceeding ten years unless the tank has one or more leak prevention, detection, corrosion mitigation safeguards as outlined in API 653. Internal inspections consist of visual and ultrasonic thickness measurements of the tank internal surfaces and shall cover, as a minimum, the

applicable checklist items in API 653 Appendix C.2. MFL/MFE examination of tank bottom floors should be considered for a more extensive inspection.

3.4 Field-Erected AST's: Reporting

For each inspection performed, a written report based on the parameters of the inspection checklist should be prepared and filed. These inspection reports, along with the inspector's recommendations and documentations of disposition, shall be maintained by the owner/operator for the life of the tank. Local jurisdictions may have additional reporting and record keeping requirements. Reports shall include the following information:

- Inspection Date
- Inspection Type (external or internal)
- Scope of inspection, including areas not inspected
- Description of the tank (tag/identifier, size, capacity, etc.)
- List of components inspected and condition
- Inspection methods and tests used
- Corrosion rate
- Settlement survey measurements and analysis, if performed
- Recommendations
- Name of inspector and company information
- Drawings, photographs, NDE reports and other pertinent information

3.5 Shop-Erected AST's: Inspection Intervals

Shop Erected Tanks constructed to API 12F or UL-142 (or other applicable UL-specifications) shall be inspected per the facility's SPCC plan.

4. Vent and Relief Systems

References

- API RP 576 – Inspection of Pressure-Relieving Devices
- API Std 510 – Pressure Vessel Inspection Code
- ASME Boiler and Pressure Vessel Code, Section VIII
- National Board of Boilers and Pressure Vessels Inspection Code (NBIC)
- State Boiler Laws
- OSHA 29 CFR 1910.119

Definitions

- **Cyclic Service** – Includes services immediately upstream, downstream, or on skid of reciprocating compressors and pumps where vibration or pulsation can affect performance of the relief valve
- **General Service** – Relief Devices not in Corrosive, Cyclic, or Boiler Service
- **Spring-Loaded PSV** – Relieve Valve of Conventional, Pilot, Balanced Bellows type that utilized a compressed spring to hold the valve seat closed below the set pressure
- **Pin-Actuated Relief Device** - A non-reclosing pressure-relief device actuated by static pressure and designed to function by buckling or breaking a pin that holds a piston or a plug in place
- **Pressure Relief Device** – Devices used to protect equipment and personnel by automatically opening at a predetermined pressure and preventing the adverse consequences of excessive pressures in pressure-containing equipment. Common types are spring-loaded pressure relief valves, pilot-operated pressure relief valves, pin-actuated relief device, pressure and/or vacuum vent valves, and rupture disks
- **Vacuum/Weighted Relief Device** – Devices primarily utilizing weighted/gravitational force for operation. These are typically hinged devices that have a hatch of sufficient weight to open at the needed set pressure/vacuum, e.g. vacuum breakers & thief hatches.
- **Rupture Disc** – A non-reclosing pressure relief device actuated by the static differential pressure between the inlet and outlet of the device and designed to function by the bursting of a rupture disc; may be used in conjunction with a safety-relief valve to protect the pressure relief valve from corrosive service

Procedures

4.1 Vent and Relief Systems: Inspection Intervals

All pressure relief devices shall be inspected and tested at intervals defined by applicable inspection codes and jurisdictional requirements. Unless otherwise defined in an RBI program, the following tables specifies inspection frequency:

General Service

Device	Pop/Lift-Test Frequency	Inspection Frequency
Spring-Loaded Relief Devices	Once Every 5 Years*	Once Every 10 Years
Vacuum/Weighted Relief Devices	Once Every 5 Years*	N/A
Rupture Discs & Pin Actuated Relief Devices	N/A; Rupture Discs are to be replaced when removed for inspection, Pin Actuated Relief Devices visual inspection	Once Every 10 Years

Corrosive/Cyclic Service

Device	Pop/Lift-Test Frequency	Inspection Frequency
Spring-Loaded Relief Devices	Once Every 2 Years	Once Every 4 Years
Vacuum/Weighted Relief Devices	Once Every 2 Years	N/A
Rupture Discs & Pin Actuated Relief Devices	N/A; Rupture Discs are to be replaced when removed for inspection, Pin Actuated Relief Devices visual inspection	Once Every 4 Years

Boilers

Device	Pop/Lift-Test Frequency	Inspection Frequency
Spring-Loaded Relief Devices	Per Jurisdictional Rules (typically annually)	Once Every 4 Years if not Jurisdictionally Defined
Vacuum/Weighted Relief Devices	Per Jurisdictional Rules (typically annually)	N/A
Rupture Discs & Pin Actuated Relief Devices	N/A; Rupture Discs are to be replaced when removed for inspection, Pin Actuated Relief Devices visual inspection	Once Every 4 Years if not Jurisdictionally Defined

*Upon written request, Targa's Mechanical Integrity may furnish written approval to extend the pop/lift-test frequency to 10 years for relief devices located in services with high reliability (minimal premature failures) and/or minimal risk/exposure if a failure were to occur.

4.2 Relief Devices: Inspection and Testing

Pressure relieving devices shall be inspected and tested in accordance with the guidelines established in API RP 576 and API Std 510. For boilers and where required by law, the relief valve shall be set, repaired, inspected, and maintained by a shop with a National Board VR stamp.

4.3 Visual On-Stream Inspections

Visual On-Stream inspections should accompany relief device pop/lift-tests and inspections.

Visual On-Stream inspections of pressure relieving devices should:

- Review the adequacy and integrity of the device's support/bracing
- Review the atmospheric tailpipe is vented to a safe location and, where feasible, includes a low point drain weephole (where applicable)
- Relief valve discharge lines should be inspected for correct sloping towards the header (where applicable)
- Review the device's physical and operating condition and ensure that it satisfies the requirements for its service
- Detect and remove/resolve obstructions (closed block valves, check valves, leaking devices, deterioration, etc.) on inlet and outlet piping, and remote sensing lines (if applicable).
- Review valve car seals are in place
- Inspect associated piping, fittings, and welds for cracks and corrosion

4.4 Pop/Lift Testing

In-line pop/lift-testing of pressure-relief devices is acceptable. If adjustments to the relief device are required, they should be done by a shop with a National Board VR stamp. A retest is required and shall be documented post any adjustments or testing. Valves unable to be repaired shall be replaced with a suitable calibrated and certified valve.

The set pressure tolerances, plus or minus, of Spring-Loaded Relief Devices shall not exceed 2 PSIG for pressures up to and including 70 PSIG and 3% for pressures above 70 PSIG. Valves not passing the pop/lift-tests shall be reset and retested. If the Spring-Loaded Relief Device fails the second test, the device shall be repaired or replaced with a suitable, successfully tested, calibrated, and certified valve.

If a Spring-Loaded Relief Device prematurely opens < 30% of set pressure or fails to open at 130% of set pressure the test is considered failed and the device shall be repaired or replaced with a suitable, successfully tested, calibrated, and certified valve.

4.5 Pressure Relief Device Inspections

Visual On-Stream inspections and pop/lift-tests should accompany relief device inspections.

Inspections of pressure relieving devices should:

- Remove relief device from service and piping for inspection
- Perform an “As-Received” pop/lift-test
- Inspect inlet and outlet piping for corrosion, indications of thinning, and deposits that could interfere with device operation
- Inspect for valve and components for cleanliness, wear, or damage; disassembling as required
- Clean, repair/replace parts as required and reassembled in accordance with the manufacturer’s instructions
- Relief device adjusted and pop/lift tested ensuring valve will relieve at the required CDTP

In potential fouling services, where block valves are closed to enable removal of relief devices from equipment during operation, profile radiography should be considered for piping upstream or downstream of pressure-relief valves looking for locations where potential fouling deposits may collect that could restrict flow or cause corrosion under deposits.

4.6 Relief Devices: Post Relief Events

A visual inspection that includes a check for leakage, vibration, and/or damage (e.g. loose fasteners, insulation, missing rain caps, deformation of components, etc.) should follow each operation of a pressure-relief device. Operating personnel assigned to the process unit may make these inspections provided they are experienced to recognize any leakage or vibration damage. For pressure-relieving devices in potentially fouling services, consideration should be given to servicing the pressure-relieving device as soon as possible.

If a Spring-Loaded or Vacuum/Weighted relief device lifts and fails to reseat, the device should be removed from service and overhauled or replaced.

4.7 Relief Devices: Rupture Disks

Inspection of Rupture Disks should include the removal and visual inspection of the Disk.

Rupture Disks should be replaced when removed from the rupture disk holder for inspection as the integrity or remaining useful service life of the disk cannot be determined by visual or mechanical inspection.

4.8 Relief Devices: Pin-Actuated

Pin-Actuated relief devices are similar in function as that of a rupture disk as they are a non-resetting relief device. Upon buckling or breaking of the pin, the piston or plug instantly moves to the full open position.

Pin-Actuated relief devices should be visually inspected at Pop/Lift-Test intervals as they are a non-resetting relief devices.

5. Instrumentation & Controls (I&C): General Control Systems

References

- API RP 553 Refinery Valves and Accessories for Control and Safety Instrumented Systems (Section 6.4 Inspection and Testing)
- API RP 556 Instrumentation, Control, and Protective Systems for Gas Fired Heaters (Section 3.4.6.1 Safety Shutoff Valves)
- NFPA 87 Recommended Practice for Fluid Heaters (Chapter 7.5 Inspection, Testing, and Maintenance)
- ASME CSD-1 Controls and Safety Devices for Automatically Fired Boilers < 12.5 MMBtu/hour (Part CM Testing and Maintenance)
- NFPA 85 Boiler and Combustion Systems Hazards Code (Chapter 4.4.1.3 Maintenance, Inspection, Training)
- ANSI/ISA-84.00.01 Part 1 Safety Instrumented Systems for the Process Industry (Section 16.3 Proof Testing and Inspection)

Definitions

- **Alarms** – Alarms inform operators that a possible dangerous situation is developing or has occurred, leaving the response action up to the operator.
- **General Control Systems/Components** – Input devices, final elements, and controllers that impact a process variable or process equipment. *Excludes* Emergency Shutdown (ESD) Devices, Safety Instrumented Systems (SIS), Flame and Boiler Safety, Fixed Gas and Fire devices, Static Ground Verification Systems/Components and logic solvers described elsewhere in this document. *Includes* devices that initiate alarms and local or process unit shutdowns.
- **Final Elements** – A device that is acted on by a controller to impact a process variable or process equipment.
- **Input Devices** – Devices that measure a process variable and electronically transmit the data to a controller. *Includes* discrete (e.g. switch) and analog (e.g. transmitter) input devices. An analog signal is continuously monitored by a controller; a switch device is monitored or known to operate only during an activation event
- **Verification** – Documented method to determine if an input device, final element, or controller functionality is acceptable.

Procedures

5.2 General Control Systems: Verification/Testing

The General Control Systems category includes components that are part of the 'control/operating system.'

General Control Systems/Components shall have a preventative maintenance plan.

5.3 General Control Systems: Verification Frequency

All instrumentation and control devices shall be verified/tested at intervals defined by applicable inspection codes and jurisdictional requirements. Otherwise, the following tables in this section specifies verification/testing frequency.

Equipment	Examples	Frequency
Discrete Input Devices	Pressure, Differential Pressure, Temperature, Level, and Flow Switches	Every 2 Years, Not to Exceed 30 Months
Analog Input Devices	Pressure, Differential Pressure, Temperature, Level, Flow, and Speed Transmitters	Every 5 Years
Final Elements	Control Valves, Dump Valves, , Solenoids, and Actuated On/Off Valves	Every 5 Years

6. Instrumentation & Controls (I&C): Emergency Shutdown (ESD) Systems

References

- API RP 553 Refinery Valves and Accessories for Control and Safety Instrumented Systems (Section 6.4 Inspection and Testing)
- API RP 556 Instrumentation, Control, and Protective Systems for Gas Fired Heaters (Section 3.4.6.1 Safety Shutoff Valves)
- NFPA 87 Recommended Practice for Fluid Heaters (Chapter 7.5 Inspection, Testing, and Maintenance)
- ASME CSD-1 Controls and Safety Devices for Automatically Fired Boilers < 12.5 MMBtu/hour (Part CM Testing and Maintenance)
- API STD 2350 Overfill Protection for Storage Tanks in Petroleum Facilities (Section 4.5.5 Testing, Inspection, and Maintenance OPS)
- NFPA 85 Boiler and Combustion Systems Hazards Code (Chapter 4.4.1.3 Maintenance, Inspection, Training)
- ANSI/ISA-84.00.01 Part 1 Safety Instrumented Systems for the Process Industry (Section 16.3 Proof Testing and Inspection)

Definitions

- **Emergency Shutdown (ESD) System Components** – Input devices, final elements, and controllers that either *cause* or *are affected by* an emergency shutdown (ESD).
- **Safety Instrumented System (SIS) Components** – Input devices, final elements, and controllers specified per ISA-84 that interact for the singular purpose of taking the process to a safe state when pre-determined conditions are violated.
- **Static Ground Verification (SGV) System Components** – Input devices and controllers that continuously and automatically monitor the earthing connection during loading operations and final elements that are affected when the earth connection is broken.
- **Boiler Safety System Components** – Input devices, final elements, and controllers directly associated with managing fired equipment and/or boilers, including stack/process temperature measurement, combustion air and pilot/burner gas shutoff and blowdown valves, flame detection, and fuel pressure measurement.
- **Gas, Fire, and Flame System (GFF) Components** – Input devices entailing gas and flame detection, including fixed, permanent, and ambient smoke, fire, LEL, and/or toxic gas detectors. Controllers and final elements that *respond to* or are *affected by* gas and fire detection, including horns/strobes, exhaust fans, and deluge systems.

Procedures

6.1 Emergency Shutdown (ESD) Systems: Verification/Testing

The ESD Systems category applies to:

- Emergency Shutdown (ESD) System Components
- Safety Instrumented System (SIS) Components
- Static Ground Verification (SGV) System Components
- Boiler Safety System Components, and
- Gas, Fire, and Flame (GFF) System Components
- Horns
- Strobes

General Control Systems/Components shall have a preventative maintenance plan.

6.2 Safety Instrumented Systems (SIS)

This category includes components that are part of a 'safety instrumented system.' These systems follow Safety Integrity Levels (SIL) established by industry standards; their respective SIL studies provide the testing frequency of the critical instrumented safety functions to achieve their specified SIL design level. Higher testing frequencies correlate to higher safety shutdown system integrity.

6.3 Gas, Fire, and Flame Systems (GFF)

This category includes components that are part of a 'gas and fire system.' Hydrocarbon gas detectors detect hydrocarbon gases at or below the lower explosive limit (LEL) and are installed at various locations within facilities to warn of large releases of flammable hydrocarbon gases. LEL detectors may be in lighter-than-air or heavier-than-air service. The gas and fire system check shall include verification of correctly operating audio or visual alarms (horns, lights, etc.) associated with their respective system.

6.4 ESD, SIS, SGV, and GFF: Verification Frequency

All ESD Systems devices shall be verified/tested at intervals defined by applicable inspection codes and jurisdictional requirements. Otherwise, the following tables in this section specifies verification/testing frequency.

Equipment	Examples	Frequency
Discrete Input Devices	Pressure, Differential Pressure, Temperature, Level, and Flow Switches; ESD Pushbuttons	Annually, Not to Exceed 15 Months
Analog Input Devices	Pressure, Differential Pressure, Temperature, Level, and Flow, Transmitters	
Final Elements	Actuated On/Off Valves, Control Valves, Solenoids, Deluge System, and Exhaust Fans	
Static Ground Verification (SGV) Systems	Groundhog Grounding Systems	
Horns	Horns	
Strobes	Strobes	
Logic Solvers/Controllers	Logic Solvers, PLC's, DCS's, and Burner Management Systems	
Gas Detectors	Fixed, Permanent, Ambient Point and Open-Path LEL Detectors	Quarterly
Toxic Gas Detectors	Fixed, Permanent, Ambient H2S Detectors	
Flame Detectors/Fire Eyes	Area or Enclosure UV and UV/IR Optical Fire Detectors	Semi-Annual
Smoke Detectors	Fixed, Permanent, Ambient Smoke Detectors	

6.5 Boiler Safety Systems: Verification Frequency

Equipment	Examples	Frequency
Discrete Input Devices	Pressure, Differential Pressure, Temperature, Level, and Flow Switches	Per Jurisdictional Regulations or Annually
Analog Input Devices	Pressure, Differential Pressure, Temperature, Level, and Flow Transmitters	
Final Control Element	Actuated On/Off Valves and Solenoids	
Logic Solvers	Logic Solvers, PLC's, and Burner Management Systems	
Toxic Gas Detectors	Fixed, Permanent, Ambient H2S Detectors	
Fire Detectors	Area or Enclosure UV and UV/IR Optical Fire Detectors	
Smoke Detectors	Fixed, Permanent, Ambient Smoke Detectors	

7. Piping Systems

References

- API RP 574 – Inspection Practices for Piping System Components
- API Std 570 – Piping Inspection Code – In-Service Inspection, Repair, and Alteration of Piping Systems
- API RP 580 – Risk Based Inspection
- API RP 577 – Welding Inspection and Metallurgy
- ASME B31G – Manual for Determining the Remaining Strength of Corroded Pipelines
- ASME B31.3 – Process Piping
- API 579-1 / ASME FFS-1 – Fitness for Service
- API RP 574 – Inspection Practices for Piping System Components
- API Std 570 – Piping Inspection Code – In-Service Inspection, Repair, and Alteration of Piping Systems
- API RP 580 – Risk Based Inspection
- API RP 577 – Welding Inspection and Metallurgy
- ASME B31G – Manual for Determining the Remaining Strength of Corroded Pipelines
- ASME B31.3 – Process Piping
- API 579-1 / ASME FFS-1 – Fitness for Service

Definitions

- **Dead legs** – Components of a piping system that normally have little or no significant flow. Dead legs also include piping that is no longer in use but still connected to the process.
- **Authorized Inspector** – An inspector who is qualified and certified to perform inspections as defined by API 570
- **Injection Point** – A location in a piping system where chemical or wash water is injected into the main process stream
- **Alloy Break Point** – This is a location in a piping circuit where the material changes to a more corrosion-resistant alloy
- **Small Bore Piping (SBP)** – All piping equal to and smaller than 2” nominal diameter
- **Touch Points** – Location where piping rests on objects creating a potential for corrosion.
- **Welded Trunnion Support** – A piece of piping that is welded directly to a piping circuit extending over a structure solely to support the vertical weight of the piping
- **Corrosion Circuit** – A system of piping of similar metallurgy where process conditions or changes are expected to affect corrosion rates in all parts of the circuit in a similar manner
- **Vessel Trim** – Small diameter piping used usually in conjunction with process instrumentation, attached to vessels or distillation columns
- **AUBT** – Automated Ultrasonic Backscatter Technique
- **HTHA** – High Temperature Hydrogen Attack
- **UTSW** – Ultrasonic Shear Wave Technique

- **Permanent Repair** – Repairs made that restore the piping to original integrity
- **Temporary Repair** – Repair made to a leaking or weakened piping system in order to restore sufficient integrity to continue safe operation until a permanent repair can be made within an acceptable time period
- **Category D Piping** – A fluid service that all the following apply:
  - The fluid is nonflammable, nontoxic, and not damaging to human tissues
  - The design pressure does not exceed 150 PSIG
  - The design temperature does not exceed 366°F
  - The fluid temperature is not less than -20°F

Procedures

7.1 Piping Systems: Inspection Intervals

Piping systems inspection intervals are to be in accordance with API Std 570.

For Class 1, 2, and 3 piping, the period between thickness measurements for CML's or circuits should not exceed one-half the remaining life or the maximum intervals recommended in the table below, whichever is less. Whenever the remaining life is less than four years, the inspection interval may be the full remaining life up to a maximum of two years.

Type of Circuit	Thickness Measurements	Visual External
Class 1	5 years	5 years
Class 2	10 years	5 years
Class 3	10 years	10 years
Class 4	None*	None*
Injection Points	3 years	By class
Soil to Air Interfaces	None	By class
*Note: Does not exclude Dead leg inspections		

7.2 Piping Systems: Internal Visual Inspection

When possible and practical, internal visual inspections should be conducted if a pipe segment fails and internal surfaces are open for visual inspection. Where failure mechanisms are not apparent, the failed section of pipe should be inspected by a metallurgical lab to determine the root cause of the failure.

7.3 Piping Systems: External Visual Inspection

An external visual inspection shall be performed on API 570 piping systems to determine the condition of the outside of the piping, insulation system, painting and coating systems, foundations and supports, pipe hangers, and associated hardware. Observations should also be made for signs of erosion/corrosion, misalignment, vibration, and leakage.

7.4 Piping Systems: Thickness Measurement Inspection

A thickness measurement inspection shall be performed at CML's to determine the condition and remaining thickness of the piping components. An Authorized Inspector will review and make calculations as to the condition of the piping being tested.

7.5 Piping Systems: Piping Expansion and or Movement

Lines with significant movements, such as those resulting from liquid hammer, liquid slugging in vapor lines, or abnormal thermal expansion, shall be inspected for damage and assessed by engineering and/or an Authorized Inspector. Periodic examination of weld seams for fatigue cracking may be required.

7.6 Piping Systems: CUI Inspection

API 570 addresses CUI and outlines the systems and locations most susceptible to CUI. Insulated piping operating either in intermittent service or between the temperatures of 10°F – 350°F are deemed susceptible to CUI. Austenitic stainless steel (Type 300 series) insulated equipment is deemed susceptible to cracking under insulation at 140°F – 400°F. The inspection plan for these piping systems susceptible to CUI shall have activities to identify and monitor CUI.

7.7 Piping Systems: Buried Piping Inspection

Buried piping on API 570 piping systems shall be inspected to determine its external surface condition. This interval and extent of inspection shall be based on the corrosion rate information obtained by the following methods:

- Inspection of piping during maintenance activities on connecting piping of similar material
- Inspection of representative portions of the piping
- Inspection of buried piping in similar circumstances
- Cathodic protection surveys

7.8 Piping Systems: Idled, Out of Service, or Decommissioned Piping Inspections

External Inspections

For piping systems that are Idled, Out of Service, or Decommissioned and still located in a process area; appropriate external inspections should be performed every 5 years to make sure that deterioration of insulation, supports, and other pertinences do not deteriorate to the point where they become a hazard to personnel.

When returning piping systems to service, API 570 External Visual Inspection cycle shall resume from the last conducted API 570 External Visual Inspection date.

Underground Piping Inspections

Cathodic protection & associated inspections should be maintained for OOS underground piping systems that are not Decommissioned which could be returned to service.

7.9 Piping Systems: Special Emphasis Inspection Areas:

Touch Points

Touch points should receive a close visual examination during external inspections. Touch points can be subject to crevice corrosion and fretting depending on their design. Enhanced NDE techniques may be necessary to define the extent of corrosion damage when corrosion is observed. Touch points should be identified on the piping isometric inspection drawing to aid in locating touch points and documenting inspection results.

Welded Trunnion Supports

Trunnion locations should receive enhanced examination depending upon their design and the process conditions of the line. Trunnions constructed from open-ended pipe can trap water, depending on their orientation, which can cause internal corrosion of the support and/or external corrosion of the attached pipe. Internal corrosion of the process pipe can occur on hot pipe from the chilling effect of a support. In some services, the cooling can be sufficient to cause condensation of water/corrosive on the inside of the pipe which can cause severe corrosion. Other damage mechanisms such as CUI and fatigue cracking are also possible at these locations. Piping isometric inspection drawings should identify trunnion support locations to aid in their inspection and documenting results. Each trunnion location should be considered a CML or its own circuit with the inspection database.

Injection Points

The inspection of injection points entails detailed examination of the primary process piping at the injection location and immediately downstream. Injection points are locations where relatively small quantities of material are injected into process streams to control chemistry or other process variables but may cause corrosion or other forms of damage. Examples include the injection of amines, corrosion inhibitors and neutralizers, antifoulants, caustic, perchloroethylene, and wash water. If the

injection points are subject to accelerated or localized corrosion from normal or abnormal operating conditions they should be defined as a separate circuit and listed as injection point circuits within the inspection database.

Soil-to-Air (Concrete-to-Air) Interfaces

A visual inspection should be conducted on all soil-to-air piping interfaces while the 5-year NDT is being conducted on that piping section. During this visual inspection, a Cathodic Protection survey should be conducted to verify the pipe is being properly protected. If any corrosion or lack of cathodic protection is detected, then a CML will be identified in these locations for subsequent inspection using appropriate ultrasonic techniques. Corrosion is typically most severe just below the interface of the soil.

Dead leg and Stagnant Zones

Dead leg and stagnant sections of pipe shall be inspected. The corrosion rate in dead legs and stagnant zones can vary significantly from adjacent active piping. For process streams where ammonium salts can be present, corrosion can occur in the area of the dead leg where the metal is at the salting or dew point temperature. Additionally, water and deposits can collect in dead legs which can lead to under deposit corrosion, corrosion from absorbed contaminants, or failure from freezing. Dead leg and stagnant zones should be identified on drawings with at least one CML.

High Temperature Hydrogen Attack (HTHA)

Carbon steel and C-1/2Mo exposed to hydrogen partial pressures and temperatures exceeding the carbon steel “Nelson” curve depicted in API RP 941 are considered susceptible to HTHA. 1-1/4Cr-1/2Mo and 2-1/4Cr-1Mo exposed to operating conditions exceeding their curves depicted in API RP 941 are considered susceptible to HTHA as well. Piping considered susceptible to HTHA shall have an inspection plan to identify and monitor the steel for HTHA. One inspection technique for identifying HTHA is automated ultrasonic backscatter (AUBT). Ultrasonic attenuation shall not be solely used.

Auxiliary Piping

Small-bore piping (SBP) associated with pressure vessels and rotating equipment in primary process service should be inspected in accordance with its primary service classification.

SBP that is secondary process piping has different minimum requirements depending upon service classification. Inspection of Class 3 secondary SBP is optional. SBP dead legs (such as level bridles) in Class 3 and Class 4 systems are inspected where corrosion is possible or has occurred.

Profile RT is the recommended method for thickness measurements on SBP. Insulation stripping and radiography are the preferred inspection methods for insulated SBP.

Vents / Drains

Vents and drains should be identified on the piping isometric inspection drawing with a CML. Vents and drains are similar to dead legs in that they are susceptible to mechanisms promoted by stagnant conditions, dew point of corrosive materials, etc. In addition, the vents tend to be more prone to CUI due to the inherent break in insulation and to their orientation. Vents and drains can be visually inspected or, at the discretion of the Authorized Inspector if internal corrosion is of concern inspected using X-ray.

Critical Check Valves

Critical check valves that are specifically identified on a hazard analysis should be visually and internally inspected when the line is out of service and cleaned for other maintenance activities to ensure that they will stop flow reversals. The normal visual inspection method should include:

- Checking to ensure that the flapper is free to move, as required, without excessive looseness from wear
- The flapper stop should not have excessive wear. This will minimize the likelihood that the flapper will move past the top dead center position and remain in an open position when the check valve is mounted in a vertical position.
- The flapper nut should be secured to the flapper bolt to avoid backing off in service.

Expansion Joints

Expansion joints should be inspected during operation and prior to shutdown, while the associated process is down, and finally shortly after startup. While in operation, the “hot” settings and position of connected pipe supports/guides and the expansion joint should be recorded. Comparing measurements obtained prior to unit shutdown and after startup allows for changes to be identified and subsequently reviewed. In addition, the joint and attached piping should be visually examined for alignment, distortion, cracks and leaks during maintenance outages, additional inspection activities may be performed. The “cold” position and settings should be recorded and compared to previous “cold” and “hot” measurements.

Any external coverings should be removed to facilitate visual inspection. Metallic bellows may be examined with dye penetrant, eddy current and ultrasonic examination for cracking. Cracks can occur in convolutions, at piping attachment fillet welds, and on any internal liner attachment welds. Thinning and pitting can occur in some services and should be examined during internal inspections.

Screwed Piping

Screwed piping can be susceptible to premature failure from corrosion of threads and fatigue failure at thread roots. Appropriate inspection techniques should be employed for inspecting screwed piping systems.

7.10 Piping Systems: Piping Service Classes

All process piping systems shall be categorized into one of four classifications in accordance with API 570. The categories are based on potential consequences of failure if loss of containment should occur. In general, higher classification requires more extensive inspection at shorter intervals.

Class 1 includes services with the highest potential of resulting in immediate emergency if a leak were to occur, including:

- Flammable services that may auto refrigerate and lead to brittle fracture
- Pressurized services that may rapidly vaporize during releases, creating vapors that may collect and form an explosive mixture, such as C2, C3 and C4 streams (LPG)
- Hydrogen Sulfide greater than 3% weight in a gaseous stream
- Anhydrous hydrogen chloride
- Hydrofluoric acid
- Piping over or adjacent to water and piping over public throughways

Class 2 includes unit process piping and select off-site piping not listed in the other classes, including:

- On-site hydrocarbons that will slowly vaporize during release
- Hydrogen, fuel gas, and natural gas
- On-site strong acids and caustics

Class 3 includes flammables that do not significantly vaporize and are not in a high activity area. Examples are on-site hydrocarbons that do not significantly vaporize and distillates.

Class 4 categorizes services that are essentially nonflammable and nontoxic, including steam, steam condensate, air, nitrogen, oil, category D service piping, and water, including boiler feed water.

7.11 Piping Systems: Risk-Based Inspection Plans

An RBI assessment may be used to determine inspection plans and schedules.

An RBI assessment requires the active participation of a multi-disciplinary team, including representatives from the following disciplines: inspection, metallurgy, engineering, and operations. The discipline representatives must be knowledgeable and experienced on the service of the piping being analyzed.

An RBI assessment must include a systematic evaluation of the impact of a failure. With the guidance of the multi-disciplinary team stated above, the failure frequency evaluation shall consider:

- All forms of damage per API RP 571 (Damage Mechanisms) that could reasonably be expected to affect the piping
- Effectiveness of inspection practices, tools, and techniques utilized for finding the expected and potential damage mechanisms

- Effectiveness of corrosion monitoring and control programs
- Materials of construction
- Piping design and operating conditions
- Effectiveness of corrosion monitoring and control programs.
- Quality of maintenance activities and programs
- Piping failure history and data

The failure consequence evaluation shall consider:

- Process fluid properties and operating conditions
- Potential for flammability, explosive, toxic, and environmental effects

Review and approval of RBI plans shall be performed:

- At an interval not to exceed 10 years
- For any change in the identified damage mechanisms and rates
- Whenever a major change to the process conditions occurs
- For any repairs or modifications made to existing piping
- For any new piping installed since the last review

Assumptions and criteria for assigning and/or evaluating probability of damage in RBI shall be documented. Known failures and anomalies shall be reviewed and, where appropriate, evaluated using RBI methodology to assess equipment risk level.

7.12 Piping Systems: Piping Isometric Drawings

Isometric drawings should:

- Typically start and terminate at a fixed piece of equipment, such as vessel, heat exchanger, pump, etc. At heat exchangers, the drawing should show if the line enters or leaves the shell or tube side. Identify the line, sheet number and continuation points
- Identify location of vents, drains, injection points, valves, reducers, and air/soil interface locations
- Identify CML locations, spatial orientation, and the identification number of each CML point

Isometric drawings are not required for services listed as Class 4 piping.

7.13 Condition Circuits

Condition Circuits are systems of piping of similar metallurgy where process conditions are similar, and where process changes are expected to affect corrosion rates in all parts of the circuit in a similar manner.

Piping in each process unit shall be grouped into corrosion circuits; a circuit can contain one or more lines. Each circuit shall be assigned a circuit designation and an estimated corrosion rate shown in x.xxx mils per year (MPY). The material of construction shall be identified.

The identification code of CML's on different inspection line drawings shall include the line and CML number and must be such as to allow comparison of measurements obtained on all lines in the same corrosion circuit, rather than be limited to comparing thickness on the same drawing.

Where deterioration of material in the corrosion circuit is by a mechanism other than reduction in wall thickness (i.e. creep, environmental cracking, hydrogen attack, etc.), this finding should be highlighted by means of comments in the circuit to allow for a more meaningful inspection.

7.14 Condition Monitoring Locations (CML's)

CML's are specific areas along the piping circuit where inspection is to be made. The selection of CML's shall consider the potential for localized corrosion and service specific corrosion. Specific suggestions for locating and monitoring of CML's are described in detail in API 570.

CML's intended to monitor corrosion on small connections, dead legs, injection points, and vessel trim, should be specific to each location, and shall be in sufficient numbers to give a reliable indication of corrosion rates which could be uniform or localized.

The number and location of CML's should reflect the potential hazard and consequences of failure, corrosion rates anticipated in the circuit, and the size of installation being inspected.

7.15 Inspection Interval

The maximum recommended inspection frequencies shall be established in accordance API STD-570.

7.16 Inspection Technique

- The method of inspection should reflect the expected mode of deterioration in the corrosion circuit.
- Visual inspection of piping shall be in accordance with the recommendations of API STD-570.
- Thickness measurements shall be obtained by UT or equivalent method, depending on the type of anticipated corrosion, line size and operating temperature.
- Thickness measurements entered into inspection records shall indicate the inspection technique used: i.e. straight beam, echo to echo, guided wave etc.
- Thickness measurements that vary by more than 0.020” or result in calculated corrosion rates greater than 5 mils/year (MPY), UT testing equipment shall be shutdown, recalibrated, and the thickness reading verified before entering in inspection record.
- Stainless steel lines usually fail by various cracking mechanisms and not by a loss in thickness. Acoustic emission testing, PT examination or RT examination of welds for cracking may be a more effective inspection method and should be considered.
- Annual surveys of the pipe to soil potentials should be carried out to confirm the level of cathodic protection. Where cathodic protection is shown to be inadequate, spot excavation of the lines for external inspection may be necessary.

7.17 Inspection of Miscellaneous Piping Systems

Injection Points should be treated as corrosion circuits separate from the main piping system. Inspection drawings should identify fluid being injected, show if there is a quill, and show the direction of quill opening. The location and number of CMLs, and scope and frequency of inspection should be per API 570.

7.18 Retirement Thickness of Piping

The retirement thickness of lines shall be calculated with each circuit’s design parameters.

7.19 Temporary Repairs

This section applies to either welded or non-welded piping systems, in services other than Category D per ASME B31.3 (see definitions), which involve clamps or other methods that are considered temporary in nature per API 570. Other methods include, but are not limited to, wire wraps of flange joints, external lap patches, fiberglass wraps, etc.

All repairs shall be approved by engineering or an Authorized Inspector. All non-Category D temporary piping repairs will be documented based on data collected, type of repair, location, design parameters, etc.

Temporary repair condition will be monitored on a frequency established by the Inspector until the permanent repair is completed. The re-inspection interval will be based on the type of repair made and service (judgment evaluation of likelihood and consequence of failure).

7.20 Permanent Repairs and Alterations

ASME B31.3 and API RP 577 shall be followed for in-service repairs and alterations.

7.21 Piping Systems: Special Inspection Considerations

Piping circuits exposed to toxic or hazardous processes may incur inspections at in increased frequency that piping in a clean service.

8. Rotating Equipment

Visual inspections shall be conducted routinely on rotating equipment identified as being in critical service, examples of which include:

- Inlet, Flash Gas, and Residue Reciprocating Compressors
- Refrigerant Screw Compressors
- NGL Pipeline Centrifugal Pumps
- Turboexpanders

Fluid levels should be verified and guards, mechanical connections, and drivers should be inspected to verify they are in satisfactory condition. Critical rotating equipment shall have a preventative maintenance plan. PDM (Predictive Maintenance) measures may be used to assist with determining maintenance frequencies, which may or may not vary from OEM's recommendations. PDM methods may include vibration monitoring, routine oil analyses, and data trending to monitor the condition of the equipment.

9. Guyed Equipment

Visual inspections should be conducted routinely equipment employing Guyed Wires. Guyed equipment should have a preventative maintenance plan.

Equipment should be checked for:

- Missing, loose, hardware
- Rubbing, chaffing, or sagging of guyed wires
- Damaged structural components
- Broken welds
- Corrosion

VII. RECORDS

Permanent records of mechanical integrity inspection, testing, and findings shall be readily available and secured against loss. Records shall be maintained for the life of the equipment. Inspection/test documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

During the execution of inspection or preventative maintenance, if the process equipment is discovered to have deficiencies outside acceptable operational limits, the deficiencies will be corrected before normal operation resumes or in a safe and timely manner when necessary means are taken to assure safe operation.

At the completion of an equipment inspection, the Authorized Inspector will be responsible for creating follow-up corrective actions to address deficiencies.

VIII. DEFERRALS OF INSPECTIONS

Targa's Area Manager shall review all requests to defer an inspection defined in this Mechanical Integrity Program prior to the inspection due date for his or her respective region. Approval of inspection deferrals should be completed utilizing the same process as CPA Action Item Deviations and comply with applicable API deferral processes. Management can recommend accepting the proposed deferral with or without other qualifications or recommend against the deferral when the inspection plan to manage the risk is inadequate.

Deferrals to risk-based inspection plans should not be viewed in the same manner as deferrals to rule-based inspection plans as risk-based plans have accounted for risk within their development.

IX. APPENDICES

A. Implementation

Assign Team Roles

Team roles should be assigned per the Responsibilities section of his document.

Identify MI-Covered Equipment

Area engineering and the identified Inspection Team should systematically identify and characterize MI-covered equipment located at the PSM facility that requires regular testing/inspection categorized as follows:

1. Pressure Vessels
2. Fired Boilers and Heaters
3. Atmospheric Storage Tanks
4. Vent and Relief Systems
5. General Instrument and Controls
6. Emergency Shutdown (ESD) Devices
7. Rotating Equipment

Piping circuits and components are typically identified and characterized by member(s) of the Inspection Team that specialize in piping mechanical integrity testing, with consultation with an Authorized Inspector as required.

Identify Mechanical Integrity Requirements

The MI requirements for each equipment category are identified in the equipment-specific procedures of this plan. The Inspection Team should review the requirements and gather information for equipment identified within each category.

Execute Inspection Plans and Schedules

Leveraging EAM and IDMS functionality when available, the Inspection Team shall execute inspection and testing for MI-covered equipment per the schedules and requirements defined herein.

Step	Action	Comments
1	Identify Potential Damage Mechanism(s)	Determined from (1) past inspection history; (2) similar service experience, (3) subject matter expert opinion, and (4) industry data/literature.
2	Internal inspection required by jurisdiction?	Local jurisdiction requirements may require internal inspection of pressure vessels, boiler components, steam generators, etc.
2A	Internal inspection required.	Perform internal inspection in accordance with jurisdictional requirements.
3	Equipment design allows for internal entry?	Equipment design may make it physically impossible to perform an internal inspection. Pressure vessels with a small inside diameter less than 30 in. or with manways less than 18 in. are inaccessible and may be eligible for On-Stream Inspection.
3A	Consider "hand-hole" in addition to On-Stream Inspection.	Inspection from hand-holes, nozzles, and/or manways should be considered to supplement the On-Stream Inspection. Mirrors, borescopes, and cameras can aid in visual inspection.
4	Is equipment subject to a localized damage mechanism?	Localized damage mechanisms include, but are not limited to, localized corrosion, cracking, and pitting.
5A	Previous Effective Internal Inspection?	The previous internal inspection must have identified the localized damage mechanism and fully documented the damaged locations.
5B	Are the requirements of API 510 Section 6.5.2.1 (b) satisfied?	API 510 Section 6.5.2.1 (b)*
6	Effective external inspection monitoring possible?	Can the localized damage mechanism(s) found through 5A above be effectively monitored using external inspection techniques?
7	Internal inspection NOT required (on-stream only).	An On-Stream Inspection plan must be developed and documented on the Targa Pressure Vessel Inspection Report Form.
8	Internal inspection required.	An internal inspection plan must be developed and documented on the Targa Pressure Vessel Inspection Form.

*API 6.5.2.1 (b): when vessel entry for internal inspection is physically possible and all of the following conditions are met:

1) the general corrosion rate of a vessel is known to be less than 0.005 in. (0.125 mm) per year;
2) the vessel remaining life is greater than 10 years;
3) the corrosive character of the contents, including the effect of trace components, has been established by at least five years of the same or similar service;
4) no questionable condition is discovered during the external inspection;
5) the operating temperature of the steel vessel shell does not exceed the lower temperature limits for the creep rupture range of the vessel material referenced in API 579-1/ASME FFS, Part 4, Table 4.1;
6) the vessel is not subject to environmental cracking or hydrogen damage from the fluid being handled;
7) the vessel does not have a non-integrally bonded liner such as strip lining or plate lining.

ENSOLUM

APPENDIX C
WASTE MANAGEMENT PLAN FOR NEW MEXICO

Targa Resources

Waste Management Plan
New Mexico

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APPENDICES

1. Purpose

1.1 The proper management of wastes generated by Targa Resources LLC (Targa) and its subsidiaries is necessary for compliance with environmental regulations. Properly managed waste reduces the company's operating costs and minimizes potential liabilities. Questions regarding this Waste Management Plan (Plan) should be directed to the local Environmental, Safety and Health (ES&H) specialist.

1.2 This Plan is intended to provide a system for the identification, classification, minimization, handling and disposal of wastes generated by Targa midstream operations in southeast New Mexico, and to ensure documentation of management from generation to final disposal. Guidelines for preferred methods of managing each type of waste are provided. However, if there is a waste that is generated and is not specifically identified in this Plan, please contact the local ES&H Specialist for assistance. Consistent waste management practices are essential to maintaining compliance with environmental regulations, minimizing waste generated to the extent possible, and protecting human health and the environment.

2. Scope

2.1 This Plan covers routine separation, handling, packaging, manifesting and disposal of waste typically generated by Targa midstream operations in the Northern Delaware Basin / southeast New Mexico operating area. The Plan is not intended to be an exhaustive reference source but a guide to Targa waste management best practices.

3. Regulatory Authority

3.1 In the U.S., the Environmental Protection Agency (EPA) regulates and oversees waste management regulations. States may have their own waste management regulations and have one or more agencies that oversee the implementation of the federal and state regulations.

Federal Rules: The Resource Conservation and Recovery Act (RCRA) regulates solid waste management activities. Collectively, RCRA includes:

- Solid Waste Disposal Act of 1965
- Resource Conservation and Recovery Act of 1976
- Used Oil Recycling Act of 1980
- Hazardous and Solid Waste Amendments of 1984
- Parts of Superfund Amendments and Reauthorization Act of 1986
- Federal Facility Compliance Act of 1992
- Land Disposal Program Flexibility Act of 1996

There are three major parts to RCRA:

- Subtitle C: Regulates Hazardous Waste "from cradle to grave" (40 CFR 260 – 279)
- Subtitle D: Regulates Non-hazardous Solid Waste (40 CFR 239 – 258)
- Subtitle I: Regulates Underground Storage Tanks (USTs) holding petroleum products or hazardous substances (40 CFR 280 – 282)

Applicable State Codes:
New Mexico Administrative Codes: 19 NMAC §15.35 and 20 NMAC 4.1, 9.2

Table 1 lists the state programs and their respective waste jurisdictions in the state of New Mexico.

Table 1. New Mexico State Programs

State	Type of Waste	Jurisdictional Agency	Link to Website
	Hazardous Waste	New Mexico Environment Department Hazardous Waste Bureau	https://www.env.nm.gov/hazardous-waste/
	Industrial Solid Waste	New Mexico Environment Department Solid Waste Bureau	https://www.env.nm.gov/solid-waste
	Oil and Gas E&P (Exempt) Waste	State of New Mexico Oil Conservation Division	19.15.35 NMAC - Waste Disposal https://www.srca.nm.gov/parts/title19/19.015.0035.html
	Naturally Occurring Radioactive Material (NORM)	State of New Mexico Oil Conservation Division	https://www.env.nm.gov/rcb/naturally-occurring-radioactive-material/

4. Waste Identification and Classification

4.1 The proper identification and classification of waste is the first step in proper waste management. Waste regulations, both federal and state, tend to categorize and regulate waste based on its "point of generation". Targa generates solid wastes, including hazardous wastes, industrial non-hazardous waste, universal wastes, used oil, and other wastes such as Naturally Occurring Radioactive Material (NORM), asbestos, and RCRA exempt oil and gas wastes. These types of waste are not exclusive as Targa may generate wastes not listed in this Plan.

Solid wastes (defined at 40 CFR 261.2) that are typically generated at Targa facilities can generally be divided into the following categories:

- Hazardous Waste
  - Listed Hazardous Waste
  - Characteristic Hazardous Waste
  - Universal Waste
  - Used oil, caustics (if not recycled)

- Nonhazardous Waste
  - General Refuse
  - Nonhazardous Industrial Waste

- Special Waste
  - Oil and Gas Waste
    - Exempt Waste
    - Non-exempt Waste
  - Asbestos Containing Materials (ACM)
  - Naturally Occurring Radioactive Material (NORM)

For each waste stream generated, it is Targa's best practice to conduct a waste determination by properly characterizing and profiling the waste. Refer to **Appendix A** for the Targa Waste Guides for specific waste streams generated at Targa locations. Profiling may include collecting samples for laboratory analysis, using Safety Data Sheets (SDS) and/or process knowledge. Profiles for routine waste streams should be updated annually and typically are required by waste disposal facilities. Documentation of waste determination must be retained in files onsite or at the nearest field office for **a minimum of three years**.

4.2 **Hazardous Waste**

A hazardous waste is one that may pose a substantial hazard to human health or the environment when improperly disposed. To decide if a waste is hazardous, a hazardous waste determination must be made based on the characteristics of the waste. It is important to know which wastes are hazardous due to special handling

requirements. A common example of potentially hazardous waste generated at a Targa site is unused oil-based paint and paint solvents.

The RCRA regulations at 40 CFR §262.11 require that any person who produces or generates a waste must make an accurate determination as to whether that waste is hazardous. In doing so, §262.11 presents the steps in the hazardous waste determination process:

- Is the waste a "solid waste"?
  (It is important to note that the definition of solid waste is not limited to wastes that are physically solid. Many solid wastes are liquid, semi-solid, or contained gaseous material. Solid wastes are generally materials that are discarded).
- Is the waste specifically excluded from the RCRA regulations?
  (i.e., includes E&P exclusion)
- Is the waste a "listed" hazardous waste?
- Does the waste exhibit a characteristic of hazardous waste?

Listed Hazardous Waste

If a solid waste is not excluded in 40 CFR 261.4(b), it is a Hazardous Waste if it falls on one of the four hazardous waste lists in 40 CFR 261.31-261.33. These lists (F, K, U and P) identify specific chemicals and industrial processes from which wastes are considered hazardous. Wastes that appear on these lists have a designated identification number and must be handled as hazardous wastes. Refer to Appendix D for more information.

Characteristic Hazardous Wastes - If a solid waste is not excluded in 40 CFR 261.4(b), it is a Hazardous Waste if it exhibits one or more of the following characteristics: Ignitability, Corrosivity, Reactivity and Toxicity. Refer to Appendix D for more information.

In New Mexico, Targa facilities that generate hazardous waste are classified as Very Small Quantity Generators (VSQG), Small Quantity Generators (SQG) or Large Quantity Generators (LQG) based on the amount of hazardous waste generated on a monthly basis. All SQG and LQG facilities must obtain an EPA Generator Number, usually through the state environmental regulatory agency. Targa facilities that generate hazardous waste are usually classified as VSQGs due to the small quantities of hazardous waste generated (generally, less than 220 pounds hazardous waste per month per month). **Appendix D** contains detailed guidance on the management of hazardous waste at a VSQG facility.

A facility may experience a planned or unplanned episodic hazardous waste generation event. It is important to involve ES&H Specialist to consider any events that may potentially result in generation of a hazardous waste above the monthly VSQG threshold so that appropriate agency notifications may be completed. VSQGs may maintain their existing generator category for hazardous waste

generated during an episodic event provided that the generator complies with all specified conditions.

Universal Waste

A sub-category of hazardous waste is **Universal Waste**. This category was designated in an attempt to reduce the amount of hazardous waste collected in the municipal waste stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. Universal Wastes in New Mexico include batteries (other than alkaline), pesticides, mercury containing devices, some mercury containing lamps (fluorescent bulbs), and hazardous waste aerosol cans. Refer to the Waste Management Guides in **Appendix A** for specific information. Facilities that produce less than 220 pounds (lbs) of universal waste per month have the option of handling those wastes under the universal waste regulations or as hazardous waste from a VSQG.

In New Mexico, a handler of universal waste may puncture aerosol cans containing hazardous waste to remove and collect the contents of the aerosol cans provided the handler complies with certain provisions, including characterizing the contents and manages the waste accordingly. More information on Universal Waste can be found at 20.4.1 NMAC or EPA Universal Waste website.

Used Oil

Used oil means any oil refined from crude oil, or any synthetic oil, that has been used, and as a result of such use, is contaminated by physical or chemical impurities. (40 CFR 279.1). If managed properly, used oil is almost always recycled. The regulations pertaining to used oil are found at 40 CFR 279.

Used Oil Generator Requirements

A used oil generator is any one whose act or process produces used oil or whose act first causes used oil to become subject to regulation (40 CFR 279.20(a)). EPA presumes that used oil is to be recycled unless a used oil handler disposes of used oil or sends used oil for disposal (40 CFR 279.10(a)). However, used oil containing more than 1,000 ppm total halogens (i.e., old transformer oil) is presumed to be a hazardous waste because it has been mixed with listed halogenated hazardous waste (40 CFR 279.10(b)(1)(ii). Used oil must be tested for halogen content to determine if it must be managed as a hazardous waste. Mixtures of used oil and Listed Hazardous Waste must be managed as a hazardous waste and counted toward the generator's monthly limit. However, mixtures of used oil and VSQG hazardous waste regulated under 40 CFR 261.5 are subject to regulation as used oil. (40 CFR 279.10(b)(3))

Used Oil Storage

Used oil must be stored in an appropriate tank or other container. The container must be closed except when adding or removing oil. Containers and tanks used to store used oil at generator facilities must be in good condition (no severe rusting, structural defects, or deterioration) and have no visible leaks. Appropriate controls

must be used to prevent overflows or spills (i.e., bermed containments or barrels inside spill packs). Used oil storage is subject to SPCC plan provisions. The container and fill pipes must be labeled "Used Oil". (40 CFR 279.22)

Used Oil Transport

Used oil must be transported off-site only by transporters with EPA Identification numbers unless self transportation of small quantities (<55 gal) or a tolling agreement is in place whereby the used oil is recycled and returned back to the generator. (See 40 CFR 279.24 for details)

4.3 Non-Hazardous Waste

In general, solid waste not characterized as hazardous is considered non-hazardous waste. Non-hazardous waste generated at Targa facilities fall into the following three categories: general refuse (municipal solid waste), non-hazardous industrial waste, and sometimes special waste.

Nonhazardous General Refuse

General refuse includes routine office refuse items such as paper, plastics, cans, glass, wooden pallets, etc. General refuse that cannot be recycled is hauled off-site and properly disposed of at a permitted city or county landfill under contract with a licensed waste transporter. Sewage is also classified as municipal/domestic solid waste unless impacted with hazardous materials. Sewage includes both grey water and septic waste generated at office buildings.

Nonhazardous Industrial Solid Waste

Nonhazardous Industrial Solid Wastes are wastes that are generated by various industrial processes deemed to require special handling and may include:

- Unusable industrial or chemical products
- Solid waste generated by the release of an industrial product to the environment
- Solid waste generated by a manufacturing or industrial process
- Solid wastes uniquely associated with the exploration of oil and gas

The term does not include waste regulated as hazardous waste. Examples of Nonhazardous Industrial Waste may include:

- Air pollution control residues
- Blasting media and other abrasives used to remove surface coatings
- Cooling tower waters and other cooling process related wastes
- Industrial sludges and industrial mud trap residues
- Industrial wastewater treatment plant sludge
- Lab related wastes, including lab packs
- Petroleum contaminated soil and debris
- Miscellaneous chemical spill residue, primarily non-fuel related
- Oil filters meeting the requirements of 40 CFR 261.4(b)(13)

4.4 Special Waste

When EPA proposed regulations for managing hazardous waste under Subtitle C of RCRA, the agency deferred hazardous waste requirements for six categories of waste—which EPA termed "special wastes"—until further study and assessment could be completed to determine their risk to human health and the environment. These wastes typically are generated in large volumes and, at the time, were believed to possess less risk to human health and the environment than the wastes being identified for regulation as hazardous waste. Special wastes are not hazardous but because of their nature, require special handling aside from that given to general refuse. Special waste is described further in 20.9.8 NMAC and NMED special waste guidance: https://www.env.nm.gov/wp-content/uploads/sites/24/2018/05/Special-Waste-Management-Information.docx

Oil and Gas Exploration and Production Waste (E&P)

E&P wastes are excluded or exempt from federal regulation and as a result are generally regulated by the states. It is a category of Special Waste. In 1980, Congress specifically exempted from Subtitle C (RCRA hazardous waste) regulation drilling fluids, produced water, and other wastes associated with the exploration, development, or production of crude oil or natural gas. According to EPA, the term "other wastes associated" includes waste materials intrinsically derived from primary field operations associated with the exploration, development, or production of crude oil or natural gas and the phrase "intrinsically derived from primary field operations" was intended to distinguish exploration, development and production operations from transportation and manufacturing operations. This is called the Bentson Amendment found at CFR §261.4(b)(5). In 1988, EPA published a list of wastes that were determined to be either exempt or non-exempt from RCRA Subtitle C regulation as hazardous waste. These wastes are considered solid wastes but are NOT hazardous wastes, and include a large portion of gas processing wastes generated at Targa facilities. It is important to note that E&P exempt wastes may have hazardous properties that require proper management, special health and safety considerations, and may be subject to DOT regulation.

The following rule of thumb can be used to determine if an E&P-related waste is exempt or non-exempt from federal regulation:

- Has the waste come from down-hole (i.e., was it brought to the surface during oil and gas E&P operations)?

- Has the waste otherwise been generated by contact with the oil and gas production stream during the removal of produced water or other contaminants from the product?

If the answer to either question is yes, then the waste is likely considered to be an Exempt E&P waste.

The EPA has developed lists of exempt and non-exempt oilfield wastes that, while not comprehensive, provide examples of the types of wastes that fall under these

categories (see **Appendix C**). Additionally, two flow charts to assist in waste determination for exempt and non-exempt wastes are provided in **Appendix C**.

Note that if the waste is non-exempt, a hazardous waste determination should be performed.

Asbestos Containing Materials (ACM)

It should be determined if the asbestos waste is regulated or non-regulated as defined in 40 CFR Part 61 Section 141. Regulated ACM contains greater than 1 percent asbestos and non-regulated ACM contains less than 1 percent asbestos, according to laboratory analysis. In 1990, the EPA revised the National Emission Standards for Hazardous Air Pollutants (NESHAP) to include asbestos. The New Mexico State Legislature adopted the NESHAP regulations (20 NMAC 2.78) for asbestos control in New Mexico. Targa facilities may occasionally generate ACM during pipe repair activities, renovations, or demolition. A survey for ACM and testing should be performed to confirm presence, particularly in older structures. Targa employees do not handle asbestos. Trained contractors licensed by the New Mexico Construction Industries Division will be used to make necessary notifications, properly remove, and transport waste to a facility approved for asbestos disposal.

Naturally Occurring Radioactive Material (NORM)

NORM is a special class of waste that contains naturally occurring radioactive material. During production of hydrocarbons, associated waters carry radioactive isotopes to the surface where they can precipitate out of solution and accumulate in scale or sludge inside casing, pipes, tanks, or other processing equipment. When the level of NORM is above a specified regulatory limit (typically when a maximum radiation exposure reading at any accessible point does exceeds 50 microroentgens per hour (mR/hr) including background radiation levels), the waste is considered regulated NORM waste and special precautions and waste disposal practices must be followed. Regulated NORM radiation levels are specified in Section 20.3.14.1403 NMAC. Waste with NORM levels below regulatory limits can usually be treated as exempt. Unless otherwise exempted under the provisions of 20.3.14.1403, the possession, use, transfer, transport, storage and disposal of regulated NORM must be licensed by the Department. Refer to the Targa NORM Management Plan (Targa NORM Management Plan_FINAL SEPT 2021.pdf) for instructions regarding identification and management of waste containing NORM.

Electronic Waste

Electronic waste consists of any broken or unwanted electrical or electronic appliance. In Targa operations, this type of waste typically includes computers and computer monitors, printers, televisions, video equipment, mobile phones, and fax machines. Electronic waste is a concern largely due to the potential toxicity of some of the substances contained in the waste if processed improperly. Electronic waste may be considered hazardous and therefore may be subject to the universal hazardous waste or hazardous waste regulations. New Mexico offers electronic

recycling programs. More information about electronic waste can be found on EPA's Sustainable Management of Electronics website. Contact the ES&H Specialist or Targa's IT Department for more information.

5. Waste Minimization

5.1 Waste minimization is any change to the waste generation and management process that reduces the volume or hazardous constituents of a waste. It may include a variety of methods including:

- Using a less hazardous product;
- Controlling inventory to the lowest amounts needed;
- Re-use of waste as part of makeup constituents;
- Good housekeeping;
- Proper equipment maintenance and replacement; and
- Careful selection of subcontractors.

5.2 Waste minimization should follow the Waste Management Hierarchy endorsed in the federal Pollution Prevention Act of 1990. The overriding principle of the hierarchy is the reduction, if not elimination, of both the volume and toxicity of waste that is introduced into the environment. The hierarchy, from most desirable to least desirable, is as follows:

A. Source reduction (most desirable)
B. Recycling
C. Treatment
D. Disposal (least desirable)

Source Reduction

Source reduction reduces or avoids the generation of waste by installing equipment or implementing procedures. Substantial cost and liability reduction can be realized because wastes that are not generated do not have to be managed or disposed.

Recycling

When source reduction is cost prohibitive or not technologically feasible, opportunities in recycling should be considered. Recycling is the process of extracting further utility out of a material. As an example, metals can be extracted from used batteries to make new batteries or other products. Recycling can also involve the use or reuse of a waste as a feedstock in an industrial process. Recycling helps to preserve raw materials and reduces the amount of material that requires disposal such as the use of produced water in enhanced recovery projects or reclamation of oil-based drilling fluid, solvents, metals, filters and coolants.

Treatment
Treatment is a method, technique or process that changes the waste to render it less hazardous. Less hazardous waste can be more recyclable, safer to transport or store or even less expensive to dispose. Note that treatment does not prevent the creation of pollutants. Treatment involves changing the nature of the waste or reducing or eliminating the pollutants in a waste. Treatment of a waste typically requires a permit.

Disposal
Disposal involves processes that discharge, inject, bury, or place wastes on or below the land or water surface. Disposal is the least desirable option due to the potential harm to the environment and the resulting financial liability, if disposed of improperly. Disposal of a waste typically requires a permit.

5.3 Specific opportunities for minimizing waste include:

- Identification of re-use or recycling opportunities for produced water and hydrostatic testing waters;
- Using bulk containers rather than drums;
- Ensuring that contractors manage and remove their own wastes;
- Recycling engine oil or mixing it with crude oil or condensate to be sold;
- Reducing engine oil and glycol replacement intervals to optimal; and
- Recycling wastes such as paper, cans, bottles, batteries, computers, scrap metal, tires, etc.

5.4 Minimization opportunities pertaining to each waste stream are listed on the Waste Management Guides in **Appendix A**. For further assistance with waste minimization, contact the ES&H Specialist.

6. Waste Handling and Storage

6.1 The proper handling and storage of waste is essential to ensuring protection of human health and the environment, while minimizing company liability. The following guidelines identify proper waste handling and storage practices to be employed by personnel at all Targa locations:

A. The proper personal protective equipment (PPE) should always be worn when handling waste. Refer to the Safety Data Sheet (SDS), if available, and Targa's PPE Program (28 – Personal Protective Equipment(PPE).docx) for additional information.

B. Implement good housekeeping measures to minimally impact the operating area and maintain a well-kept appearance at all company facilities.

C. Waste should always be segregated and stored according to its waste classification. Never mix exempt or non-hazardous wastes with hazardous wastes as this could not only result in an unfavorable physical reaction, but could also result in a reclassification of the waste (e.g., mixing an exempt waste with a non-exempt hazardous waste may result in the mixture being classified as non-exempt hazardous waste).

D. Waste containers should always be labeled with their content and periodically checked for leaks or other integrity problems. More information on labeling can be found in Targa's Hazard Communication Program (19 - Hazard Communication.doc)

E. Example waste labels are included in **Appendix E**.

F. A designated storage area should be established for waste storage. The time period that waste is stored should always be kept to a minimum, especially with hazardous waste. As per Targa's best management practices, hazardous waste shall not be stored onsite for more than 90 days without Area Supervisor/Manager approval and consultation with the local ES&H Specialist to ensure notifications are performed if required. Hazardous waste storage procedures are included in **Appendix D**.

7. Waste Disposal and Recycling

Waste disposal generally is the discharge, deposition, injection, or placement of any waste into or on land, water, or air. In the waste management hierarchy, disposal is the least preferred waste management option because it also involves the greatest potential liability. Waste reuse and recycling options should be continually evaluated. The following are methods of disposal that are acceptable if a waste cannot be eliminated, reduced or recycled:

Landfilling and Surface Waste Management

Landfilling of wastes must be done at a permitted and Targa-approved landfill. Landfills are permitted to accept specific wastes, and sampling may be required to profile a waste stream and obtain disposal approval at the landfill.

Refer to the Waste Management Guides in **Appendix A** or contact the ES&H Specialist for more information.

Injection

A common method to dispose of certain wastes is through permitted Underground Injection Control (UIC) wells. UIC wells are classified as to the type of waste that the wells are allowed to accept. UIC wells must be permitted prior to the disposal of the waste. In New Mexico, fluids such as produced water or other oil and gas wastes may be permitted by NMOCD most often at Class II commercial UIC wells.

Permits will specify fluids allowed, daily pressures, volumes, and other operational conditions. Targa currently operates Class II UIC wells at Eunice, Monument and Red Hills Gas Plants.

Incineration

Incineration is a technique used for the destruction of wastes (typically hazardous waste) through a thermal process. Only permitted and Targa-approved incineration facilities should be utilized.

Other Disposal Methods

Other disposal methods such as road spreading, landfarming, on-site incineration and on-site burial may be allowed in some areas if specific criteria and procedures are met. Consult with the appropriate regulatory agency and the area ES&H representative if these or other alternative disposal methods are being considered.

Waste Transport

Waste transport and disposal liability extends to Targa as the operating company which generates and handles the waste. Targa is responsible for its waste from cradle to grave. Therefore, Targa personnel is responsible for ensuring proper waste transportation and disposal practices.

Listed below are a few of the requirements for transporting waste in New Mexico. Various scenarios and waste classifications affect transportation requirements. It is important to make all efforts to verify that the selected waste disposal facility will accept waste prior to its transport. Waste profiling and/or sampling may be necessary. Consult an ES&H representative for assistance as needed.

An approved Form C-133 must be obtained prior to transporting produced water, drilling fluids or liquid oilfield waste in New Mexico. A copy of the form must be maintained in the cab of the transportation vehicle.

Waste Facility Selection

When disposing of waste at a third-party facility, good business practices dictate that regulatory compliant, financially sound, and economically stable facilities that are well operated are utilized. Some facilities that do not meet Targa standards may be restricted from use. Prior to selecting a waste disposal/treatment facility, the following practices should be followed:

1. Contact the appropriate ES&H Specialist and provide sufficient advance notice of interest in a facility or the need to dispose of a waste.
2. The corporate ES&H team will be notified to conduct basic facility due diligence which may include:
    - Check for appropriate permits
    - Assess basic compliance information through public database or similar
    - Order CHWMEG audit report if available to assess risk
    - Determine if there are any violations, violation type and significance

- Determine if the violations have been corrected. Speak with regulatory agencies as needed
- Verify facility has insurance, bonding, etc.
- Perform site visit and cursory inspection to check for visible concerns
- Confirm disposition of waste after it arrives at facility (is the waste treated, landfilled, shipped to another facility, etc.)

3. ES&H will review findings with associated operational group management and determine if Targa should proceed with using facility.
4. Waste Services Agreement (WSA) may be negotiated with appropriate contract terms and conditions.
5. Waste facility should receive formal approval prior to facility use or as otherwise decided by ES&H and operational group management. The facility should be reevaluated approximately every five years (may be adjusted based on available information or changes to the facility).

Targa ES&H personnel or their consultants may periodically review or obtain publicly available records of disposal sites for compliance and operational condition. Before disposal or recycling of Industrial or E&P Exempt Waste, appropriate contracts should be in place with waste haulers and waste disposal/recycling facilities. For assistance contact ES&H or Legal Department.

Some waste disposal facilities in the New Mexico may require waste profile or sampling prior to the acceptance of waste. ES&H can correspond with the disposal facility to obtain any necessary approvals.

8. Waste Tracking

8.1 Accurate and comprehensive records related to waste generation, storage, transportation/shipment and disposal must be kept on site, or at the nearest area or field office for 3 years. Refer to Targa's Information and Records Management Policy and Records Retention Schedule for specific guidance.

8.2 Generators of Industrial and E&P Waste transported offsite for disposal or recycling must maintain an invoice, bill, delivery ticket or other such record (signed by the transporter) as necessary to document the following:

A. The date of the transport;
B. The identification of the waste generator;
C. The identification of the waste transporter;
D. The location of the waste pickup site;
E. The type and volume of waste; and
F. The name and location of the treatment or disposal site.

8.3 Hazardous waste generated at Small Quantity Generator and Large Quantity Generator facilities requires a specific Hazardous Waste Manifest for shipment.

Although not required by law, it is recommended that hazardous waste from a Very Small Quantity Generator also be shipped with a Hazardous Waste Manifest. Refer to **Appendix D** for more information.

8.4 Other wastes may simply require shipping manifests, delivery tickets, etc. Refer to **Appendix A** – Waste Management Guides for shipping and manifest requirements for a particular waste.

8.5 Only trained Targa employees shall sign hazardous waste manifests in accordance with Department of Transportation (DOT) 49 CFR 172, Subpart H. Non-hazardous waste manifests shall only be signed by a Targa employee or a Targa designated representative. Signatures on non-hazardous waste manifests are not subject to the requirements of 49 CFR 172, Subpart H. Operations should verify that contractors understand the proper management and signing of waste manifests.

9. Waste Reporting

E&P waste reporting to regulatory agencies is not required in New Mexico except for produced water disposal or injection. Targa operated injection wells shall keep accurate records and shall report monthly to the New Mexico Oil and Gas Division gas or fluid volumes injected, stored or produced as required on the appropriate form.

Hazardous Waste
Federal regulations require LQGs (>2,200 lbs of hazardous waste generated in any calendar month) to submit a report every two years regarding the nature, quantities and disposition of hazardous waste generated at their facility. Large quantity hazardous waste generation is not typically expected in New Mexico.

10. Waste Management Guides

Appendix A contains individual waste management guides. The guides present information and data for wastes that may be generated and should be used accordingly. Particular attention should be given to the handling/storage guidance, recordkeeping requirements, and opportunities for waste minimization. If questions still arise after reviewing a particular Waste Management Guide, contact the ES&H Specialist.

11. Approved Waste Disposal/Recycling Vendors

11.1 A list of Targa approved disposal and recycling vendors and facilities in New Mexico are listed in **Appendix B.**

12.1 If a new facility needs to be added to this list, please contact the local ES&H representative and follow the Waste Disposal guidance provided in Section 7.2.

11.2 If not previously established, always confirm what wastes the disposal or recycling facility will accept before transporting the waste.

12. Document Management

12.1 This Waste Management Plan will be kept at the appropriate field and/or regional Targa offices.

12.2 The following documentation forms, information, and data will be retained in Targa field and/or regional office files for no less than three years in accordance with the Targa Information and Records Management Policy and Records Retention Schedule Targa IRM Policy v1.pdf and Targa Records Retention Schedule:

A. Waste transport and shipping records (waste logs, waste manifests, shipping manifests, bills of lading, delivery tickets, etc.)

B. Lab analysis and associated information and data

C. Regulatory agency correspondence related to waste

13. References

13.1 EPA Federal Regulations

A. Resource Conservation Recovery Act (RCRA)

B. Comprehensive Environmental Response, Compensation and Recovery Act (CERCLA)

C. Hazardous and Solid Waste Amendments (HSWA)

D. Pollution Prevention Act (PPA)

13.2 New Mexico Regulations

A. New Mexico Administrative Code (NMAC) Title 19 Chapter 15 Part 34 – Natural Resources and Wildlife – Waste Disposal

B. New Mexico Administrative Code (NMAC) Title 19 Chapter 15 Part 34 – Natural Resources and Wildlife – Produced Water, Drilling Fluids and Liquid Oilfield Waste

C. New Mexico Administrative Code (NMAC) Title 19 Chapter 15 Part 34 – Natural Resources and Wildlife – Surface Waste Management Facilities

D. New Mexico Administrative Code (NMAC) Title 20 – Environmental Protection – Hazardous Waste Regulations

E. New Mexico Administrative Code (NMAC) Title 20 – Environmental Protection – NORM in the Oil and Gas Industry

13.3 Industry Standards

A. EPA, Office of Solid Waste, EPA530-K-01-004: *Exemption of Oil and Gas Exploration and Production Wastes from Federal Hazardous Waste, Regulations (2002)*

B. API E5 Environmental Guidance Document, Second Edition: *Waste Management in Exploration and Production Operations (1997)*

Appendix A

Targa New Mexico Waste Guides

List of Gas Processing and Pipeline Wastes
Absorbents - Spent (mol sieve, alumina, charcoal, silica gel, etc.)
Caustics - spent
Aerosol Cans - Spent (degreasers, WD-40, spray paint, lubricants, etc.)
Amine - Spent
Antifreeze - Spent
Asbestos Containing Material (ACM) - Friable and Non-Friable
Batteries - Alkaline
Batteries - Lead Acid, Lithium, Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (Ni-MH)
Blowdown Waste
Chemicals - Spent and Unused - Hazardous
Chemicals - Spent and Unused Non-Hazardous
Concrete (Demolition Foundations)
Electronic Waste (computer monitors, laptops, etc.)
Empty Drums and Bulk Containers
Filters - amine, glycol, coalescing
Filters - used oil and fuel
Filters - produced water
Filters - air
Fluorescent Lamps and Bulbs - Broken and Intact
Freon and other refrigerants
General Refuse (trash, food waste)
Glycol - Ethylene Based - Spent and Unused
Insulation Materials (non-asbestos)
Ink and Toner Waste
Iron Sulfide, Iron Sponge
Lubricating Oils and Hydraulic Oils
Medical Waste
Mercury and Mercury Containing Equipment
Naturally Occurring Radioactive Material (NORM)
Oil Contaminated Debris (oily rags, oil pads, booms, etc.)
Paint - Unused

Pallets (Wooden)
Paraffin
Pigging Waste - Gathering Lines In Primary Field Operations
Polychlorinated Biphenyl (PCB) Containing Equipment (Transformers)
Pressurized Cylinders (fire extinguishers, calibration gas, etc.)
Produced Solids
Produced Water
Sandblast Media
Scrap Metal (pipe, vessels)
Septic Waste
Soil Contaminated with Chemical or Lube Oil
Soil Contaminated with Condensate or Produced Water
Solvents - Spent
Tank Bottoms
Tires - Used

Absorbents – Spent (mol sieve, alumina, charcoal, silica gel, etc.)	
Waste Generation Description	Spent absorbents from dehydration units, sweetening units, hydrocarbon removal processes and used in removing impurities from process fluids.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction.
Handling/Storage	Waste intended for recycling or landfill must be drained of all liquids and dried. Containerize liquids and absorbent in separate rain-proof, and leak proof containers. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release. Fluids typically incorporated into wastewater disposal system. Mol sieve – cool and hydrate in ambient air for 24 hrs; Charcoal, Alumina, Silica gel - allow to dry for 48 hrs and store in properly labeled container prior to disposal.
Labeling	Label with contents. For example “Spent Absorbents”. Note charcoal dust may be explosive and must have Spontaneously Combustible placard. Shipping description: Charcoal, 4.2 NA 1361, III
Required Sampling/Analysis[1] for Classification Status	Process knowledge; typically sampling not required however OCD permitted facility may have specific sampling requirements.
Required Logs, Manifests, Notifications	Bill of Lading or equivalent.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill.
Recycling	Recycle containerized liquid and spent absorbent material at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Change out absorbent material only as often as required. Ensure preventive maintenance and good housekeeping to prevent spills and leaks.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Caustics – Spent	
Waste Generation Description	Spent caustics that have been used in gas treatment and processing operations (remove or treat acidic impurities in liquid hydrocarbon streams).
Classification	Spent caustics used in gas treatment and processing are typically exempt E&P; however can be hazardous if mismanaged.
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53.
Handling/Storage	Containerize spent caustics in storage vessels such as sump or storage tank prior to disposal.
Labeling	Label with contents. For example “Spent Caustics”. Hazardous characteristics (i.e., corrosive) requires DOT labeling and marking.
Required Sampling/Analysis[1] for Classification Status	Process knowledge. May test for RCI. Retain copies of shipping documentation, information on volume, waste type, shipment dates, transporter, and final disposition.
Required Logs, Manifests, Notifications	Bill of Lading for recycled; uniform hazardous waste manifest if hazardous waste. Retain copies of shipping documentation, information on volume, waste type, shipment dates, transporter, analytical/SDS, and final disposition.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill or approved subsurface injection facility (non-hazardous). Dispose at RCRA TSDF for hazardous.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Use as little caustic solution as practical to perform necessary work. Return unused solution to vendor, if possible.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Aerosol Cans – Spent (degreasers, WD-40, spray paint, lubricants, etc.)	
Waste Generation Description	Propellant-spent aerosol cans still containing lubricants, degreasers, and spray paint.
Classification	Hazardous (Hazardous-Universal in New Mexico). Non-Hazardous, if can is empty of product.
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. May meet the requirements for hazardous waste as defined by 40 CFR 261 and may be managed as universal waste.
Handling/Storage	Containerize spent aerosol cans that are classified as hazardous waste in rain-proof and leak-proof containers that are compatible with the chemicals stored therein. Keep containers closed when not in use. Store containers in designated hazardous waste storage areas that reduce the potential for release. If hazardous, store for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1,000 mg) per month of hazardous waste, the storage time limit may change. **Aerosol cans that are empty of all product and propellant can be treated as scrap metal (see Waste Guide Sheet for Scrap Metal).** Contact EHS Department for assistance.
Labeling	If hazardous waste, label as "Hazardous Waste" with contents, generator name and accumulation start date (label as "Universal Waste-Spent Aerosols"). If non-hazardous, labeling is typically not required.
Required Sampling/Analysis[1] for Classification Status	Typically none. If aerosol can puncture device used to accumulate aerosol can contents then test TCLP VOCs to characterize waste.
Required Logs, Manifests, Notifications	Uniform Hazardous Waste Manifest if waste is classified as hazardous. If non-hazardous, a Bill of Lading or Non-Hazardous Waste Manifest. Retain copies of shipping documentation, information on volume, waste type, shipment dates, transporter, and final disposition.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	If hazardous, dispose of at an approved hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Purchase aerosols on an as needed basis. Attempt to empty cans of all product and propellant and recycle the empty cans.
Regulatory Reference	40 CFR 261, 20.4.1 NMAC, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Amine – Spent	
Waste Generation Description	Chemical used to dehydrate and remove acid gases from natural gas stream. May include amine sludge material.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53, when used in gas sweetening processes. NMOCD jurisdiction. May be classified as hazardous if mismanaged.
Handling/Storage	Containerize spent amines in rain-proof and leak-proof containers that are compatible with basic materials. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Spent Amines” or “Amine Sludge”.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or equivalent. Retain copies of shipping documentation, information on volume, waste type, shipment dates, transporter, and final disposition.
Transportation	Waste must be transported by an authorized and certified transporter. Offsite shipment of monoethanolamine or diethanolamine require DOT hazardous labeling and shipping documentation.
Disposal	Dispose of at an approved subsurface injection facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Use as little amine as practical to perform necessary work. Utilize an amine filter to extend life and maintain efficiency.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Antifreeze - Spent	
Waste Generation Description	Chemical used in the cooling systems of combustion engines. Used antifreeze contains a mixture of ethylene glycol and water used as a heat transfer medium in internal combustion gas compressor engines.
Classification	Non-Hazardous (potentially hazardous in New Mexico based on lab analysis)
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the requirements for hazardous waste as defined by 40 CFR 261 unless laboratory analysis confirms presence of hazardous materials above regulatory thresholds.
Handling/Storage	Containerize spent antifreeze in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas unless antifreeze is classified as hazardous. If hazardous, store for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact EHS Department for assistance.
Labeling	Label as "Non-Hazardous – Antifreeze" if non-hazardous. If classified as hazardous, label as "Hazardous Waste". Include contents, generator information and accumulation start date on label.
Required Sampling/Analysis[1] for Classification Status	TCLP metals and VOCs analysis of a representative sample required to confirm if spent antifreeze is hazardous.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest if non-hazardous. Uniform Hazardous Waste Manifest if hazardous. Retain copies of shipping documentation, information on volume, waste type, shipment dates, transporter, and final disposition.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	If non-hazardous, dispose of at an approved non-hazardous waste landfill. If hazardous, dispose of at an approved hazardous waste landfill.
Recycling	Recycle at an approved recycling facility. Recycling or reclamation, is the preferred method of disposal.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize a less toxic substitute for ethylene glycol, if possible (e.g. propylene glycol). Recycling or reclamation, is the preferred method of disposal.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Asbestos Containing Material (ACM) - Friable and Non-Friable	
Waste Generation Description	Insulating material found on pipes, compressors, and boilers, and contained in some ceiling tiles, floor tiles and gaskets. Friable asbestos material - when crushed by hand crumbles and emits asbestos dust particles. Non-Friable asbestos material - cannot be easily pulverized or reduced to a powder. ACM poses serious health risks when inhaled.
Classification	ACM is considered a Special category waste. Non-Hazardous in non-friable form but Hazardous if friable and is open to air circulation. ACM categories for > 1% asbestos considered as "Regulated Asbestos Containing Material (RACM)"
Classification Basis	Special category wastes regulated under the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP). Regulated asbestos containing material (RACM) consists of friable asbestos (crushable by hand pressure) or non-friable asbestos containing greater than 1% asbestos based on laboratory analysis.
Handling/Storage	Do not cut or abrade non-friable asbestos. Waste pipes containing asbestos are stored separately for disposal. Friable asbestos must be contained and handled only by certified asbestos personnel.
Labeling	"CAUTION; Contains Asbestos Fibers; Avoid Opening Or Breaking Container; Breathing Asbestos Is Hazardous To Your Health"
Required Sampling/Analysis[1] for Classification Status	Contact EHS Department to coordinate sampling of materials which are suspected to contain asbestos. Asbestos presence is determined by polarized light microscopy of a small sample of suspected material. Small samples can be obtained by punching a small hole in insulation covering. Standing upwind, a small sample equivalent to a cigarette filter in size should be put in double layers of zip lock bags and to certified lab. The hole should be recovered with duct tape, or putty.
Required Logs, Manifests, Notifications	Regulated asbestos waste must be manifested using a Special Waste Manifest (per 20.9.8.19 NMAC)
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Contact qualified Asbestos Abatement Contractor for removal and disposal options. 1) Dispose of in an ACM permitted landfill; 2) Confirm the waste and disposal site are approved; and 3) Keep copies of all notifications, manifests, and analytical results.
Recycling	Not applicable.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Purchase asbestos-free products and equipment. Maintain areas to prevent friable asbestos from becoming exposed.

Regulatory Reference	National Emission Standards for Hazardous Air Pollutants 40 CFR Part 61, Subpart M. Solid Waste Act and the New Mexico Solid Waste Rules, 20.9.2 – 20.9.10 NMAC.

[1] Contact ES&H for assistance with conducting sampling and analysis.

Batteries – Alkaline	
Waste Generation Description	Typical alkaline batteries used in flashlights, radios, and other electronic devices and small appliances
Classification	Non-hazardous
Classification Basis	Does not meet the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	May be placed directly into trash receptacles as domestic refuse. Any leaking batteries should be placed in secure, non-leaking containers before disposal.
Labeling	Typically none.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	None.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Check into possible collection and recycling options locally.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize rechargeable batteries when possible. Purchase long-life batteries to decrease the number needed.
Regulatory Reference	40 CFR 261 and 273

[1] Contact ES&H for assistance with conducting sampling and analysis.

Batteries – Lead Acid, Lithium, Nickel Cadmium (Ni-Cd), and Nickel Metal Hydride (Ni-MH)	
Waste Generation Description	Lead acid batteries used in electrical and mechanical applications. Ni-Cd, Lithium and other rechargeable batteries in radios, computers, cell phones, etc.
Classification	Hazardous - Universal
Classification Basis	Regulated as hazardous under the US EPA Universal Waste Rule.
Handling/Storage	All spent batteries as described above should be managed as universal waste. Store spent batteries in rainproof, leak-proof containers that are compatible with the types of batteries stored therein. Store batteries for no more than one year in a designated storage area.
Labeling	"Universal Waste-Batteries" and date of initial accumulation.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Typically none unless facility accumulates >11,000 lbs of Universal Waste
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Return to vendor for exchange or to universal waste handler facility.
Recycling	Recycle at an approved recycling facility. Many retail electronic stores will accept Lithium, Ni-Cd and Ni-MH batteries.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize rechargeable batteries when possible. Purchase long-life batteries to decrease the number needed. Recycling is the preferred method of disposal. Send to universal waste destination facility or return to vendor if possible.
Regulatory Reference	40 CFR 273, 20.4.1 NMAC

[1] Contact ES&H for assistance with conducting sampling and analysis.

Blowdown Waste	
Waste Generation Description	Boiler water blowdown from water treatment process.
Classification	Non-exempt, typically non-hazardous.
Classification Basis	Non-exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction.
Handling/Storage	Containerize waste fluids in rain-proof and leak-proof containers that are compatible with the material stored within. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Blowdown Waste”.
Required Sampling/Analysis[1] for Classification Status	Typically none. For disposal well, this waste should be sampled for TCLP metals and VOCs to characterize the waste. If generator can show by knowledge of process and chemicals used in the process that the waste is non-hazardous, testing is not required.
Required Logs, Manifests, Notifications	Bill of Lading. Maintain records per Class II injection well or NPDES permit.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved subsurface injection facility. Discharge only if permitted by NPDES industrial wastewater discharge permit.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years. Maintain records per Class II injection well or NPDES permit.
Waste Minimization Best Practices	None at this time.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Chemicals – Spent and Unused - Hazardous	
Waste Generation Description	Spent hazardous chemicals used by a facility or unused chemicals still in a condition to be used as originally intended but has no further function at a facility.
Classification	Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Meets the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Containerize spent chemicals in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated hazardous waste storage areas that reduce the potential for release. Store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact EHS Department for assistance.
Labeling	Label as "Hazardous Waste". Include contents (type of spent chemical), generator information and accumulation start date on label.
Required Sampling/Analysis[1] for Classification Status	SDS or lab analysis for TCLP VOCs or metals depending on type of chemical to make hazardous determination.
Required Logs, Manifests, Notifications	Uniform Hazardous Waste Manifest
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office indefinitely.
Waste Minimization Best Practices	If possible, return unused chemicals to vendor. Use chemical completely before removing from the system to reduce the amount of waste produced. Use non-hazardous products whenever possible. Recycling is the preferred method of disposal.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Chemicals – Spent and Unused - Non-Hazardous	
Waste Generation Description	Spent non-hazardous chemicals used by a facility or unused chemicals still in a condition to be used as originally intended but has no further function at a facility.
Classification	Non-Hazardous
Classification Basis	Does not meet the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Containerize spent chemicals in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label as non-hazardous with the type of spent chemicals.
Required Sampling/Analysis[1] for Classification Status	SDS or lab analysis for TCLP VOCs or metals depending on type of chemical to make hazardous determination.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	If possible, return unused chemicals to vendor. Use chemical completely before removing from the system to reduce the amount of waste produced.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Concrete (Demolition Foundations)	
Waste Generation Description	Used concrete resulting from the demolition of foundations found on site.
Classification	Non-Hazardous
Classification Basis	Does not meet the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Store in designated non-hazardous waste storage areas.
Labeling	None
Required Sampling/Analysis[1] for Classification Status	Typically none unless there is a potential for contamination (such as used oils, solvents, PCBs).
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill).
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Crush uncontaminated concrete for reuse as aggregate. Use other materials such as high-density polyethylene liners rather than concrete.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Electronic Waste (computer monitors, laptops etc.)	
Waste Generation Description	Computer monitors, PC, keyboards, disk drives, network routers, etc.
Classification	Non-hazardous but potentially hazardous if hazardous waste characteristics are present.
Classification Basis	Classification dependent on waste characteristics under 40 CFR 261.
Handling/Storage	Electronic waste generated onsite can be managed as non-hazardous waste, in most cases. Some states place limits on the amount of electronic waste that is generated before it becomes hazardous waste. Store electronic waste indoors in a manner as to prevent breakage. Contact IT for more information.
Labeling	Label as non-hazardous with contents. For example "Electronic Waste"
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Contact IT Department for New Mexico specific requirements.
Recycling	Contact IT Department for New Mexico specific requirements. Recycling is the preferred method of disposal via designated e-waste recycling programs.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Do not dispose of obsolete electronic waste in the trash. Recycling is the preferred method of disposal via designated e-waste recycling programs.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Empty Drums and Bulk Containers	
Waste Generation Description	Metal and plastic drums and similar, returnable, bulk containers of various sizes, sorted by chemical when possible.
Classification	Non-Hazardous
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Store empty drums and containers in a designated drum storage area. Ensure that all drums and containers are properly sealed. Drums and containers previously containing hazardous materials are considered empty when there is less than one inch of residue remaining (must meet "RCRA Empty" requirements).
Labeling	Label as "Empty"; indicate previous contents.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility. Drums and containers to be recycled must be completely empty of all residue.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years. Keep records of how and when the containers were cleaned, stored, and disposed of.
Waste Minimization Best Practices	Purchase materials in returnable or recyclable drums and containers. Purchase materials in bulk to decrease the amount of empty containers or drums generated. Require that vendors pick up all empty drums and containers as a contract condition.
Regulatory Reference	40 CFR 261.7

[1] Contact ES&H for assistance with conducting sampling and analysis.

Filters – Amine, Glycol, Coalescing	
Waste Generation Description	Spent filters from dehydration units, sweetening units, hydrocarbon removal processes and used in removing impurities from process fluids.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. Does NOT include compressor oil filters which are Non-Exempt.
Handling/Storage	Filters intended for recycling or landfill must be drained of all liquids prior to disposal. Containerize liquids and filters in separate rain-proof, and leak proof containers that are compatible with material stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Drained Filters”.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill .
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Change filters only when necessary. When handling filters, take precautions to prevent liquid spilling. Recycle drained fluids by introducing them back into the production system, if possible.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Filters – used oil and fuel	
Waste Generation Description	Filter material used in a process unit or compressor that removes solid contaminants from water and oil. These filters do NOT come into direct contact with the gas processing stream. Non-terne plated; terne is an alloy of tin and lead used to plate filters. These filters are from internal combustion engines used to filter oil.
Classification	Non-Exempt
Classification Basis	Non-exempt under EPA Regulatory Determination Federal Register Vol. 58, No 53, but may be classified as Hazardous if mismanaged. Note that oil and fuel filters generated via any vehicle maintenance are classified as Non-Exempt. Contact ES&H for more information.
Handling/Storage	Used oil and fuel filters must be "hot drained" to remove all contents, by puncturing a hole in the filter and allowing to drain for 12-24 hours. Containerize used oil or fuel in 55-gallon drums and manage according to state and federal guidelines. Mixing of used oil and used fuel is prohibited. Once drained, the used filters are required to be containerized within rainproof, leak-proof, closed containers and stored within designated non-hazardous waste storage areas prior to removal from facility. Filters that have not been "hot drained" may be considered hazardous waste.
Labeling	Label with contents. For example "Used Filters"
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill,
Recycling	Recycle containerized liquid and/or drained filter at an approved recycling facility. Properly drained oil filters can be recycled as scrap metal and are exempt from most hazardous waste regulations.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Change filters only when necessary. When handling filters, take precautions to prevent spilling. Recycle drained fluids by introducing them back into the system, if possible.
Regulatory Reference	40 CFR 261.4(b)(13) and 40 CFR 279

[1] Contact ES&H for assistance with conducting sampling and analysis.

Filters – Produced Water	
Waste Generation Description	Wound string cartridge filters for filtering produced water.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction.
Handling/Storage	Filters intended for recycling or landfill must be drained of all liquids prior to disposal. Containerize filters and place in designated non-hazardous waste storage areas such as recycling bins, trash receptacles or dumpsters.
Labeling	Typically none.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Change filters only as often as required. When handling filters, take precautions to prevent liquid spilling. Recycle drained fluids by introducing them back into the produced water system, if possible.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Filters – air	
Waste Generation Description	Filters from various mechanical equipment used to remove solid contaminants from the air.
Classification	Non-Hazardous
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Place air filters in recycling bins, trash receptacles or dumpster. Store separately from oil, sock, glycol, or other filters to avoid contamination, testing and permitting requirements.
Labeling	Typically none.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Clean and reuse filters as practical. Recycling is the preferred method of disposal.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Fluorescent Lamps and Bulbs - Broken and Intact	
Waste Generation Description	Fluorescent light bulbs and lamps are used in office buildings and facilities to provide lighting in offices and other work areas. May contain mercury and/or PCBs in their ballasts.
Classification	Hazardous - Universal
Classification Basis	Regulated as hazardous under the US EPA Universal Waste Rule.
Handling/Storage	All fluorescent lamps and bulbs generated onsite should be managed as universal waste. Store bulbs (broken and intact) in a structurally sound container such as a cardboard box. The container is required to remain closed when not in use. Store bulbs for no more than one year in a designated storage area.
Labeling	"Universal Waste – Spent Bulbs/Lamps" and date of initial accumulation.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Typically none unless facility accumulates >11,000 lbs of Universal Waste
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved universal waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Change lamps and bulbs when necessary. Recycle spent lamps and bulbs. Utilize "long-life" lamps and bulbs.
Regulatory Reference	40 CFR 273, 20.4.1 NMAC

[1] Contact ES&H for assistance with conducting sampling and analysis.

Freon and Other Refrigerants	
Waste Generation Description	Waste freon and refrigerants generated from air conditioning maintenance activities and from laboratory tests such as IR analysis.
Classification	Non-Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Containerize spent freon and other refrigerants in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label as non-hazardous with contents. For example "Non-Hazardous - Spent Freon".
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Not applicable.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Use chemical completely before removing from the system to reduce the amount of waste produced. Recycle all used freon and refrigerants.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

General Refuse (trash, food waste)	
Waste Generation Description	General office trash, paper, cardboard, plastic containers, glass, food waste, etc.
Classification	Municipal Solid Waste
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261 but may be classified as hazardous if mismanaged.
Handling/Storage	Do not mix with material that is contaminated or may be hazardous. Place refuse in trash receptacle if not recycled.
Labeling	None
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Typically none.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved municipal solid waste waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Purchase items in bulk to reduce packing waste. Utilize reusable items such as cups, plates and utensils. Compost food waste and other biodegradable materials to reduce waste. Utilize recycling bins for paper, plastic, glass and cardboard waste.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Glycol – Ethylene Based – Spent	
Waste Generation Description	Chemical used in dehydration units for removal of water from the gas stream. Includes ethylene glycol, triethylene glycol and diethylene glycol.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. May be hazardous is mismanaged.
Handling/Storage	Containerize spent and unused glycol in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example "Spent Glycol".
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter. DOT placarding and shipping documentation required for offsite shipment.
Disposal	Dispose of at an approved E&P exempt waste landfill or approved subsurface injection facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Optimize circulation rates on glycol pumps. Regenerate glycol for reuse or send to a recycling facility.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Ink and Toner Waste	
Waste Generation Description	Used ink and toner cartridges.
Classification	Non-Hazardous
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Containerize and store in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label as non-hazardous with contents. For example, "Non-Hazardous Waste – Ink and Toner Waste".
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Contact IT Department for New Mexico specific requirements.
Recycling	Contact IT Department for New Mexico specific requirements. Recycling is the preferred method of disposal via designated e-waste recycling programs.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Recycling is the preferred method of disposal via designated e-waste recycling programs.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Insulation Materials (non-asbestos)	
Waste Generation Description	Insulation that does not contain asbestos material.
Classification	Non-Hazardous
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261
Handling/Storage	Containerize and store in designated non-hazardous waste storage areas such as recycling bins, trash receptacles or dumpsters.
Labeling	Label as non-hazardous with contents. For example, "Non-Hazardous Waste – Insulation Material".
Required Sampling/Analysis[1] for Classification Status	Typically none. However, analysis may be necessary to confirm the absence of asbestos.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Keep covered and protected to minimize degradation. Reuse at other facilities/equipment. Recycle, if possible.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Iron Sulfide, Iron Sponge	
Waste Generation Description	Waste material, usually in the form of scale or sludge, generated from sour gas processing and pipeline pigging operations.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. May be classified as Hazardous if mismanaged.
Handling/Storage	Containerize in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release. Waste must be dry (no free liquid) before sending to disposal.
Labeling	Label with contents. For example “Iron Sulfide Waste”.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill.
Recycling	Not applicable.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Consider alternative methods of removing hydrogen sulfide from gas stream. Treat production streams with biocide or scale inhibitor to reduce iron sulfide formation.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Lubricating Oils and Hydraulic Oils- Used	
Waste Generation Description	Used lubrication or hydraulic oil that originates from diesel and natural gas fired engines and from hydraulic equipment. Includes oil refined from crude oil, or synthetic oil, that has been used and as a result is contaminated by physical or chemical impurities.
Classification	Non-Hazardous when managed in accordance with used oil regulations.
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261. However, if used oil is not recycled, generator must provide analytical proof that the waste is not hazardous prior to disposal.
Handling/Storage	Containerize in rain-proof and leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release. Used oil stored onsite must comply with applicable requirements of 40 CFR 112 Spill Control and Countermeasures Plan.
Labeling	Label as non-hazardous with contents. For Example “Non-Hazardous- Used Oil”.
Required Sampling/Analysis[1] for Classification Status	Typically none, as long as used oils are recycled. Recycler may have specific testing requirements (such as total halogen) prior to accepting used oil. No testing required when combined with scrubber oil or condensate for sale if contracts allow.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter. Shipments of used oil of 55 gallons or less may be transported by the generator in their own vehicles, without obtaining an EPA identification number. An EPA registered transporter must be used for shipments of more than 55 gallons. Generators transporting more than 55 gallons must obtain an EPA identification number and comply with requirements of 40 CFR 279 Subpart E.
Disposal	Combine with scrubber oil or condensate for sale or ship to permitted used oil recycler. Do not mix used oil with material that may be hazardous.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Provide preventative maintenance to reduce leaks and drips. Inspect tanks or containers on a regular basis for leaks or spills and to confirm that storage units are in good condition. Recycle.
Regulatory Reference	40 CFR 261, 40 CFR 279

[1] Contact ES&H for assistance with conducting sampling and analysis.

Medical Waste	
Waste Generation Description	Solid and liquid waste composed of or contaminated with blood, vomit, other bodily fluids, animal or human waste, biological waste, pathological waste, or sharps (needles and blades).
Classification	Non-Hazardous or biohazardous waste
Classification Basis	Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Place sharps in a rigid, leak- and puncture-resistant container with a lid. Keep the lid closed when not in use. Place other medical wastes in a DOT- or ASTM-rated plastic bag (commonly referred to as a "red bag"), if available. Otherwise, use a sturdy, sealable plastic bag. Place the bags in a sturdy box or other sealed container. See 49 CFR 173.197). If the waste contains flowing (free) liquids, including liquids in a container, place absorbent material in the bag along with the waste. Use enough absorbent material to absorb 150% of the volume of the liquids in the waste. Seal all seams in the box after adding waste. Store medical waste in a dry, secure area.
Labeling	Label the outer container as “Non-Hazardous Medical Waste" or " Non-Hazardous Medical Waste - Sharps" or “biomedical waste” if infectious, with a description of the contents.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Non-Hazardous Waste Manifest. Regulated medical waste is defined by DOT as a hazardous material.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Medical waste should always be disposed of through the use of an approved medical waste disposal service, if available. If such a service is not available, the waste should be taken to the nearest clinic or hospital for disposal. Ultimate disposal in an approved non-hazardous waste landfill.
Recycling	Not applicable.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Not applicable.
Regulatory Reference	40 CFR 261, 20 NMAC 9.8.13

[1] Contact ES&H for assistance with conducting sampling and analysis.

Mercury and Mercury Containing Equipment	
Waste Generation Description	Equipment such as thermostats, barometers, manometers, level switches, flow meters, temperature and pressure gauges, and mercury switches that contain mercury and any free mercury recovered from the aforementioned equipment.
Classification	Elemental Mercury – Hazardous Mercury Containing Equipment – Hazardous - Universal
Classification Basis	Elemental mercury waste is regulated as hazardous under 40 CFR Part 261. Mercury containing equipment is regulated as universal hazardous waste under 40 CFR Part 273 - US EPA Universal Waste Rule.
Handling/Storage	All free mercury collected from spills or leaking equipment is required to be managed as hazardous waste. Containerize free mercury in leak-proof containers that are compatible with chemicals stored therein. Keep containers closed when not in use. Store containers in designated hazardous waste storage areas that reduce the potential for release. Store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact EHS Department for assistance. Mercury containing equipment generated onsite should be managed as universal waste. Store for no more than one year in a designated storage area in a manner that will prevent spillage, damage or breakage.
Labeling	Label free mercury as “Hazardous Waste”. Include contents, generator information and accumulation start date on label. Mercury carries D009 characteristic hazardous waste code. Label mercury containing equipment as “Universal Waste- Mercury Containing Equipment” and date of initial accumulation.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Uniform Hazardous Waste Manifest for free mercury. No manifesting typically needed for mercury containing equipment unless facility accumulates >11,000 lbs of Universal Waste.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of elemental mercury at an approved hazardous waste landfill. Dispose of mercury containing equipment at an approved universal waste landfill.
Recycling	Recycle at an approved recycling facility.

Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years (maintain indefinitely if waste is classified as hazardous waste)
Waste Minimization Best Practices	Replace mercury manometers, level switches, flow meters and gas meters with electronic (digital) instruments.
Regulatory Reference	40 CFR 261 and 273, 20.4.1 NMAC

[1] Contact ES&H for assistance with conducting sampling and analysis.

Naturally Occurring Radioactive Material (NORM)	
Waste Generation Description	Material such as pipe scale, produced sand/clay, tank/vessel bottoms, filter media, etc. that exhibit gamma radioactivity above background levels.
Classification	Special Waste
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53, but may be classified as hazardous if mismanaged or contaminated with non-exempt waste.
Handling/Storage	Do not cut, weld, burn, or rattle NORM contaminated materials or equipment without proper personal protective equipment. Place in designated drums or tanks of good integrity. Keep containers closed when not in use. Fence or rope off and label areas where NORM contaminated material is stored. Access to storage area should be limited to as few personnel as possible. Refer to the Targa NORM Management Plan for more information, surveying, and handling by licensed contractors.
Labeling	If equipment or waste has NORM levels above 50 µR/hr, label with "NORM" by securely attaching a clearly visible waterproof tag or marking with a legible waterproof paint or ink.
Required Sampling/Analysis[1] for Classification Status	Laboratory analysis required for NORM contaminated waste. Refer to the Targa NORM Program for more information.
Required Logs, Manifests, Notifications	Bill of Lading.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Depending on the laboratory analysis, NORM waste must be disposed of at an approved NORM disposal facility or E&P exempt waste landfill. Refer to the Targa NORM Program for more information.
Recycling	Not applicable.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Use scale inhibitors where NORM scale accumulates. Segregate and isolate NORM contaminated waste.
Regulatory Reference	40 CFR 261, 20.3.14.1403 NMAC, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Oil Contaminated Debris (oily rags, oil pads and booms etc.)	
Waste Generation Description	Oily rags, oil pads and booms generated from equipment maintenance and spill response procedures.
Classification	Typically Non-Hazardous.
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53, but may be classified as hazardous if mismanaged or contaminated with hazardous waste.
Handling/Storage	Waste must be drained of all liquids. Containerize liquids in drums. Deposit oil contaminated debris in rain-proof, leak-proof containers. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release. Store oily rags in containers marked for oily rags only. Keep cover of container secure when not transferring material. Do not mix with material that may be hazardous.
Labeling	Label with contents. For example “Oil Contaminated Debris” or “Oily Rags” (if separated).
Required Sampling/Analysis[1] for Classification Status	Typically none. Recycler may have specific testing requirements.
Required Logs, Manifests, Notifications	Bill of Lading for recycle. If non-hazardous, no shipping requirements. If hazardous, contact ES&H.
Transportation	Waste must be transported by an authorized and certified transporter. Use a contractor to supply clean rags and pick up used rags.
Disposal	Contract with a company to recycle used rags or ship to permitted disposal facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Maintain equipment and facilities to prevent drips, leaks and spills which would require cleanup. Reuse or recycle whenever possible. Keep separate from other wastes.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Paint - Unused	
Waste Generation Description	Any unused portion of paint, thinner, solvent and other paint related compounds which can no longer serve a useful purpose. Surplus paint which can be used for other jobs is not considered waste paint.
Classification	Hazardous (possibly non-hazardous if paint is water-based)
Classification Basis	Non- Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Meets the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Painting wastes shall be kept in the original containers with tight fitting lids and separate from other wastes. Water based paints and containers may be disposed of as non-hazardous. If paint waste is oil-based, keep in designated hazardous waste storage area. Store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact ES&H for assistance.
Labeling	Label as “Hazardous Waste”. Include contents, generator information and accumulation start date on label.
Required Sampling/Analysis[1] for Classification Status	Typically none. Use SDS information to make hazardous determination.
Required Logs, Manifests, Notifications	Uniform Hazardous Waste Manifest
Transportation	Waste must be transported by an authorized transporter.
Disposal	Empty containers may be disposed of in permitted landfills. Non-empty containers, if characteristically hazardous, must be sent to a permitted hazardous waste disposal facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years (indefinitely if waste is hazardous).
Waste Minimization Best Practices	Paint equipment only when necessary and purchase paint in the quantities needed to reduce waste. Use all paint before it becomes unusable. Use surplus paint to another location. Ensure that paint containers are completely empty and dried. Recycling is the preferred method of disposal.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Pallets (Wooden)	
Waste Generation Description	Wooden frame used for transport of multiple or large containers to the field.
Classification	Non-Hazardous
Classification Basis	Does not meet the requirements for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Store in designated non-hazardous waste storage areas. May be placed directly into recycling bins or trash receptacles, if uncontaminated.
Labeling	None
Required Sampling/Analysis[1] for Classification Status	Typically none. However, if material appears contaminated, or is creosote treated wood, waste classification determination may be required (i.e. analytical testing).
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize recycled plastic pallets which have a longer life than wooden pallets. Reuse pallets or return pallets to vendor.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Paraffin	
Waste Generation Description	Solid wax substance removed from gas gathering and production pipelines.
Classification	Exempt E&P if derived from gas gathering and/or production pipelines. Paraffin is considered non-exempt if removed from gas transportation lines (downstream of gas processing plant).
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53 when associated with gas gathering and/or production pipelines.
Handling/Storage	Containerize paraffins in rain-proof and leak-proof containers that are compatible with material stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Used Paraffins”.
Required Sampling/Analysis[1] for Classification Status	Typically none. Note paraffin may exhibit elevated organic constituents or low flash point. If non-exempt, TCLP or RCI analysis may be required.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill (solids) or approved subsurface injection facility. If hazardous or non-exempt, contact ES&H.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Collect solidified paraffin solids in tanks, mix with paraffin solvent and recycle back into the production stream.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Pigging Waste – Gathering Lines In Primary Field Operations	
Waste Generation Description	Pigging wastes from gas gathering lines in primary field operations.
Classification	Exempt E&P if derived from gas gathering and/or production pipelines. Pigging waste is considered non-exempt if removed from gas transportation lines (downstream of gas processing plant).
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. May be classified as hazardous if mismanaged.
Handling/Storage	Containerize spent pigging waste in rain-proof and leak-proof containers that are compatible with waste stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Pigging Waste”
Required Sampling/Analysis[1] for Classification Status	Typically none. If non-exempt, TCLP and RCI analysis may be required.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill or approved subsurface injection facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Reuse pigs and reclaim waste whenever possible. Reduce accumulation of paraffin, hydrates, and scale.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Polychlorinated Biphenyl (PCB) Containing Equipment	
Waste Generation Description	PCB was used as dielectric fluid in older transformers, capacitors, other electrical equipment, and some hydraulic fluids, heating oils, and lube oils.
Classification	Spent PCB oil: Hazardous Drained equipment: Non-Hazardous
Classification Basis	PCB contaminated wastes are regulated under the EPA Toxic Substance Control Act 40 CFR Part 761. Transformers with PCB concentrations of 50 ppm or more are subject to stringent handling, storage, and disposal regulations.
Handling/Storage	Equipment intended for recycling or landfill must be drained of all liquids. Containerize PCB-containing liquids in rain-proof and leak proof containers that are compatible with chemicals stored therein. Store containers of PCB-containing liquids in designated hazardous waste storage areas that reduce the potential for release. Store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact EHS Department for assistance. The equipment, once properly drained and decommissioned, is managed as scrap metal.
Labeling	Label PCB oil as hazardous with contents. For example “Hazardous - PCB Oil”.
Required Sampling/Analysis[1] for Classification Status	Analysis to determine PCB concentration and total halogens required for disposal.
Required Logs, Manifests, Notifications	PCB concentrations less than or equal to 50 ppm do not require a manifest. PCB concentrations greater than or equal to 50 ppm require a Uniform Hazardous Waste Manifest. Notification of PCB containing transformers are required using EPA form 7720-12.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	PCB liquid requires approved EPA permitted hazardous waste landfill/incinerator. Disposal of PCB drained transformers must comply with 40 CFR 761.60 and utilize an EPA approved chemical waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Do not use PCB containing oils; recycle transformers.
Regulatory Reference	40 CFR Part 761

[1] Contact ES&H for assistance with conducting sampling and analysis.

Pressurized Cylinders (fire extinguishers, calibration gas, etc.)	
Waste Generation Description	Pressurized cylinders that can no longer be used and are to be decommissioned.
Classification	Non-Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Completely discharge and depressurize cylinders prior to storage. Containerize and store in designated non-hazardous waste storage areas that reduce the potential for release. Cylinders that are empty of all product and propellant can be treated as scrap metal (see Waste Guide Sheet for Scrap Metal).
Labeling	Label as non-hazardous with contents. For example, "Non-Hazardous Waste – Used Pressurized Cylinders".
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill. Typically cylinders should be depressurized and rendered no longer usable prior to landfill disposal. Verify with disposal facility.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Recharge or recycle all used pressurized cylinders, if possible.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Produced Solids	
Waste Generation Description	Sediments/sand/sludge/salt removed from the bottoms of tanks or vessels in gas processing operations when periodically cleaned out.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53, but may be classified as Hazardous if mismanaged. NMOCD jurisdiction. If waste material contains NORM, it must be treated as NORM waste.
Handling/Storage	Containerize in rain-proof and leak-proof containers that are compatible with waste stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example “Produced Solids”
Required Sampling/Analysis[1] for Classification Status	Check for NORM before sending to disposal facility.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill or approved subsurface injection facility. Refer to NORM disposal requirements if waste contains NORM.
Recycling	Recycle at an approved recycling facility. Road spreading may be an option in some areas. Contact ES&H for more information.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Keep turbulent flow in tank to prevent sedimentation. Add appropriate chemical agents to reduce tank accumulation.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Produced Water	
Waste Generation Description	Water collected during the process of extracting and dewatering oil and gas.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction.
Handling/Storage	Containerize in rain-proof and leak proof containers or tanks that are compatible with waste stored therein. Keep containers closed when not in use. Tanks and containers should be constructed to reduce the potential for release.
Labeling	Label with contents. For example "Produced Water".
Required Sampling/Analysis[1] for Classification Status	Typically none. Typically contains hydrocarbons and elevated levels of chlorides.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of in an approved Class II injection Well. Contact the ES&H for more information.
Recycling	Recycling/treatment options may be available in some areas. Contact ES&H for more information.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years. Maintain records in accordance with injection well permit.
Waste Minimization Best Practices	Use produced water for frac water, if possible. Optimize production rates to minimize the influx of water.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Sandblast Media - spent	
Waste Generation Description	Paint chips, dust, sand, and other residue generated by the removal of paint with blasting media.
Classification	Non-Hazardous (but potentially hazardous depending on the type of paint being removed such as potential lead based paint)
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. May contain components that meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Containerize sandblast media waste in rain-proof and leak-proof containers that are compatible with waste stored therein. Keep containers closed when not in use. Store containers in designated non-hazardous waste storage areas that reduce the potential for release. If waste is classified as hazardous, store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact ES&H for assistance.
Labeling	If non-hazardous, label contents. For example, "Non-Hazardous Waste – Sandblast Media". If hazardous, label as "Hazardous Waste". Include contents, generator information and accumulation start date on label.
Required Sampling/Analysis[1] for Classification Status	TCLP metals may be required to determine if waste is hazardous.
Required Logs, Manifests, Notifications	Non-Hazardous - Bill of Lading or Non-Hazardous Waste Manifest. Hazardous - Uniform Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Non-Hazardous – Dispose of at an approved non-hazardous waste landfill or recycle. Hazardous - Dispose of at an approved hazardous waste landfill. Disposal of sandblast media used by a contractor remains the responsibility of that contractor.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize alternative methods to reduce unnecessary sandblasting such as paint that does not require sandblast preparation or cathodic protection rather than paint. Do not use lead-based paint. Ensure that sandblasting grit does not contain metals or other contaminants.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Scrap Metal (pipe, vessels)	
Waste Generation Description	Used metallic equipment, tanks, piping and other materials that is not contaminated.
Classification	Non-Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Handle to prevent uncontrolled leakage of liquids. Stockpile in scrap yard only on impervious surface if contaminants are suspected. Seal off pipe ends if material contains NORM, segregate from other scrap metal, and store with other NORM contaminated materials.
Labeling	Typically none. Label NORM scrap as necessary.
Required Sampling/Analysis[1] for Classification Status	If material appears contaminated or scale is present, a waste classification determination may be required (i.e. analytical testing). Test all equipment, piping, and tubulars for NORM prior to salvage. If positive for NORM, manage as NORM-contaminated material.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill. Refer to NORM disposal requirements if NORM is present.
Recycling	Recycle at an approved recycling facility (scrap metal dealer). Most scrap metal dealers will not accept metal contaminated with NORM.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	If clean, re-use for structural steel. Send to a recycling facility.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Septic Waste	
Waste Generation Description	Water and human waste from toilets, bathrooms and/or kitchens.
Classification	Municipal/Domestic Solid Waste
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the criteria for hazardous waste as defined by 40 CFR 261, but may be hazardous if mixed with hazardous waste streams such as chemicals or solvents.
Handling/Storage	Flush only domestic wastes down the drains, never hazardous wastes or process waste waters. Handle in manner that minimizes worker exposure and employ adequate sanitary procedures. In remote locations without a sewer system, wastes should be directed to either a portable septic system or leak-proof container. Wastes are then shipped off site for disposal.
Labeling	None
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Typically none. Permit septic systems through local authorities.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	As long as the waste consists of only domestic sewage the waste should drain to the septic system or local sewage system, if available. Containerized septic waste should be disposed of at an approved sewage treatment facility or municipal waste landfill.
Recycling	Not applicable.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Minimize water usage.
Regulatory Reference	40 CFR 261

[1] Contact ES&H for assistance with conducting sampling and analysis.

Soil Contaminated with Chemical or Lube Oil	
Waste Generation Description	Chemical or lube oil contaminated soils resulting from spills, leaks and other operational upsets.
Classification	Non-Hazardous (but potentially hazardous depending on contaminants)
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. May contain components that meet the criteria for hazardous waste as defined by 40 CFR 261.
Handling/Storage	Drain any excess chemical or lube oil from the soil. Containerize both the liquid and soil within separate rainproof, leak-proof containers. Keep containers closed when not in use and store in designated non-hazardous waste storage areas that reduce the potential for release. If classified as hazardous, store hazardous waste for no more than 90 days as per Targa best practice. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact EHS Department for assistance.
Labeling	If non-hazardous, label contents. For example, "Non-Hazardous Lube Oil Contaminated Soil". If hazardous, label as "Hazardous Waste". Include contents, generator information and accumulation start date on label.
Required Sampling/Analysis[1] for Classification Status	Soil contaminated with chemicals or lube oil may be hazardous. Analysis is required to confirm waste classification. RCRA 8 Metals and TPH analysis typically required.
Required Logs, Manifests, Notifications	Non-Hazardous - Bill of Lading or Non-Hazardous Waste Manifest Hazardous - Uniform Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Non-Hazardous – Dispose of at an approved non-hazardous waste landfill Hazardous - Dispose of at an approved hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize secondary containment to prevent further contamination. Recover free liquids and recycle.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Soil Contaminated with Chemical or Lube Oil	
Waste Generation Description	Chemical or lube oil contaminated soils resulting from spills, leaks and other operational upsets.
Classification	Typically Non-Hazardous; however could be Hazardous depending on chemical (check SDS, confirm with sample if in question).
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. May contain components that meet the criteria for hazardous waste as defined by 40 CFR 261 and 30 TAC 335 Subchapter R – Waste Classification.
Handling/Storage	Drain any excess chemical or lube oil from the soil. Containerize both the liquid and soil within separate rainproof, non-leaking containers. Keep containers closed when not in use and store in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Typically label as non-hazardous with contents. For example, "Chemical Contaminated Soil – Non-Hazardous".
Required Sampling/Analysis[1] for Classification Status	Typically sample for TPH, TCLP-VOCs. Include sampling for TCLP-RCRA 8 metals if soil is contaminated with used lube oil to confirm non-hazardous. Verify sampling requirements with disposal facility.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest. Hazardous waste manifest if determined to be hazardous.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Approved Class I non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility for a minimum of three years.
Waste Minimization Best Practices	Utilize secondary containment to prevent further contamination. Recover free liquids and recycle.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93 30 TAC 335 Subchapter R

[1] Contact ES&H for assistance with conducting sampling and analysis.

Soil Contaminated with Condensate or Produced Water	
Waste Generation Description	Condensate or produced water contaminated soils resulting from spills, leaks or operational upsets.
Classification	Exempt E&P
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. May be classified as Hazardous if mismanaged.
Handling/Storage	Drain any excess oil or produced water from the soil. Containerize both the liquid and soil within separate rainproof, leak-proof containers. Keep containers closed when not in use and store in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example, “Crude Oil Contaminated Soil”.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill .
Recycling	Recycle at an approved recycling facility.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Utilize secondary containment to prevent further contamination. Recover free liquids and recycle. When possible, remediate impacted soil in-situ or in a landfarm (may require permitting).
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Solvents – Spent	
Waste Generation Description	Solvents used for cleaning/maintenance including paint thinners, varsol, degreasers, methyl ethyl ketone (MEK), toluene, xylene, etc.
Classification	Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53; and meet the criteria for hazardous waste as defined by 40 CFR 261. Exhibits hazardous characteristics. Spent halogenated and non-halogenated solvents may be identified as listed hazardous wastes (see F-list, K-list, P-list, U-list).
Handling/Storage	Containerize in rainproof, leak-proof containers that are compatible with the solvents contained therein. Keep containers closed when not in use and store in designated hazardous waste storage areas that reduce the potential for release. Store hazardous waste for no more than 90 days as per Targa policy. If you exceed 2204.6 pounds (1000 Kg) per month of hazardous waste, the storage time limit may change. Contact ES&H Department for assistance.
Labeling	Label as "Hazardous Waste". Include contents (type of solvent), generator information and accumulation start date on label. Confirm if the hazardous waste specifically identified as a listed hazardous waste (F-list, K-list, P-list, U-list). Include any listed or characteristic waste codes on label.
Required Sampling/Analysis[1] for Classification Status	Some solvents may be non-hazardous. Refer to the material safety data sheet (SDS) to confirm waste classification. Analysis of TCLP and RCI.
Required Logs, Manifests, Notifications	Uniform Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved hazardous waste landfill.
Recycling	Recycle at an approved recycling facility. Utilize company such as Safety Kleen for parts washer equipment maintenance and regeneration of solvents utilizing closed loop systems.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office indefinitely.
Waste Minimization Best Practices	Utilize biodegradable water-based solvents or soap cleaners whenever possible. Use all solvent before it becomes unusable. Recycle into the production system if solvent is petroleum-based. Utilize company such as Safety Kleen for parts washer equipment maintenance and regeneration of solvents utilizing closed loop systems.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Tank Bottoms	
Waste Generation Description	Tank bottoms/basic sediments are solids and emulsified fluids that settle out in storage tanks and process vessels.
Classification	Exempt E&P (gas processing)
Classification Basis	Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. NMOCD jurisdiction. May be classified as hazardous if mismanaged. If waste material contains NORM, it must be treated as NORM waste.
Handling/Storage	Containerize in rainproof, leak-proof containers. Keep containers closed when not in use and store in designated non-hazardous waste storage areas that reduce the potential for release.
Labeling	Label with contents. For example, “Tank Bottoms”.
Required Sampling/Analysis[1] for Classification Status	Check for NORM before sending to disposal facility.
Required Logs, Manifests, Notifications	Bill of Lading
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved E&P exempt waste landfill or approved subsurface injection facility. Refer to NORM disposal requirements if waste contains NORM.
Recycling	Recycle at an approved recycling facility. Contact ES&H for more information.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Keep turbulent flow in tank to prevent sedimentation whenever possible. Run tank bottoms through heater treater periodically. Keep a gas blanket on tanks to reduce formation of iron oxides. Reduce the number of tanks by consolidating produced fluid storage facilities.
Regulatory Reference	40 CFR 261, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Tires - Used	
Waste Generation Description	Worn tires from trucks and other vehicles.
Classification	Non-Hazardous
Classification Basis	Non-Exempt for oil and gas production under EPA Regulatory Determination Federal Register Vol. 58, No 53. Does not meet the requirements for hazardous waste as defined by 40 CFR 261
Handling/Storage	Store in designated non-hazardous waste storage areas.
Labeling	Typically none.
Required Sampling/Analysis[1] for Classification Status	Typically none.
Required Logs, Manifests, Notifications	Bill of Lading or Non-Hazardous Waste Manifest.
Transportation	Waste must be transported by an authorized and certified transporter.
Disposal	Dispose of at an approved non-hazardous waste landfill.
Recycling	Recycle at an approved recycling facility. Recycling is the preferred method of disposal. Refer to NMED Tire Management Program.
Recordkeeping	Maintain all logs, manifests and waste documentation at the facility or nearest office for a minimum of three years.
Waste Minimization Best Practices	Rotate tires, maintain proper inflation pressure and align regularly. Recycling is the preferred method of disposal. Refer to NMED Tire Management Program.
Regulatory Reference	40 CFR 261.4, EPA Regulatory Determination FR Vol. 58, No 53 3/22/93

[1] Contact ES&H for assistance with conducting sampling and analysis.

Appendix B

Approved Waste Disposal and Recycling Vendors

Impacted Soil and Debris				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Soil impacted with lube oils, certain chemicals, produced water and other residual wastes, Impacted PPE, rags, pads, booms, etc.	Nest Sustainable Solutions LLC. - Northern Delaware Basin Landfill	2029 W. NM Hwy 128 Jal, NM 88252	505-231-1071	Approved
	Lea Land Landfill	MM 64 Hwy 62/180 Carlsbad, NM 88220	(575) 887-4048	Approved
	R360 Environmental Solutions, LLC - Halfway	4507 W Carlsbad Hwy Hobbs, NM 88240	(575) 393-1079	Pending
	Sandpoint Landfill	164 Landfill Road Carlsbad, NM 88220	(575) 499-4300	Pending
	Sundance Services Inc. - Parabo Disposal Facility	42 Sundance Lane Eunice, NM 88231	(575) 394-2511	Approved
Waste classification profiling normally completed prior to facility acceptance – contact ESH				
Drilling & Production Waste (Exempt E&P Waste)				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Drilling fluid, drilling mud solids/cuttings, produced solids, tank bottoms, crude oil/natural gas impacted soils from spills, spent absorbents, used non-DOT pigging devices, etc.	Republic Services – Charter Landfill	Odessa, TX 79769	(432) 381-6726	Approved
	Lea Land Landfill	MM 64 Hwy 62/180 Carlsbad, NM 88220	(575) 887-4048	Approved
	Gandy Marley Landfill	7200 US Highway 380 Roswell, NM 88202	(575) 347-0434	Approved
	R360 Environmental Solutions, LLC - Red Bluff	5053 US Hwy 285 Orla, TX 79770	(432) 448-4239	Approved
	R360 Environmental Solutions, LLC - Halfway	4507 W Carlsbad Hwy Hobbs, NM 88240	(575) 393-1079	Pending
	Nest Sustainable Solutions LLC. - Northern Delaware Basin Landfill	2029 W. NM Hwy 128 Jal, NM 88252	(505) 231-1071	Approved
	Sundance Services Inc. - Parabo Disposal Facility	42 Sundance Lane Eunice, NM 88231	(575) 394-2511	Approved
Waste classification profiling normally required prior to facility acceptance. Some fluids qualify for recycling – contact ESH for assistance.				
Filters				
Filter Type	**Disposal/Recycling Facility**	**Location**	**Phone Number**	**Targa Review**
Amine, oil, fuel, glycol, produced water, air filters	Gandy Marley Landfill	7200 US Highway 380 Roswell, NM 88202	(575) 347-0434	Approved
	Clean Harbors - Thermo Fluids	835 Tower Dr. Suite 5 Odessa, TX 79763	(800) 350-7565	Approved
Filters typically need to be drained of all fluids prior to transport. Check with ESH to verify specific requirements for each facility.				

Fluorescent Lamps and Bulbs				
Waste Type	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Fluorescent light bulbs and lamps	Sandpoint Landfill	164 Landfill Road Carlsbad, NM 88220	(575) 499-4300	Pending
Contact ESH for assistance in selecting an approved recycler.				
General Refuse				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Plant Trash	Lea County Landfill	3219 E. State Rd 176, Eunice, NM 88231	(575) 394-9109	Pending
	Sandpoint Landfill	164 Landfill Road Carlsbad, NM 88220	(575) 499-4300	Pending
Aluminum and tin cans, plastic and glass bottles, cardboard, paper, etc., should all be separated for recycling when possible. Check with ESH to identify the nearest approved recycling facility.				
Hazardous Waste				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
If hazardous waste is suspected, contact ESH for assistance	Clean Harbors - Safety Kleen	10607 W County Rd 127 Odessa, TX 79765	(432) 563-2305	Approved
Contact ESH for a complete listing of approved hazardous waste disposal facilities.				
Medical Waste				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	
Bandages, bloody rags, etc.	Contact ESH			
Non-Hazardous (Industrial) Waste				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Empty aerosol cans, concrete, empty drums, pallets, toner cartridges, pressurized cylinders, V-belts, non-asbestos insulation, used DOT pigging devices, spark plugs, thread protectors, tires, etc.	Republic Services – Charter Landfill	12035 W. Murphy Odessa, TX 79769	(432) 381-6726	Approved
	Gandy Marley Landfill	7200 US Highway 380 Roswell, NM 88202	(575) 347-0434	Approved
	Sundance Services Inc. - Parabo Disposal Facility	42 Sundance Lane Eunice, NM 88231	(575) 394-2511	Approved
NORM				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
NORM Waste	Federal NORM Services	818 East Broadway Andrews, TX 79714	(432) 523-3320	Approved
Activity levels need to be verified prior to transport and disposal. Contact ESH for assistance in selecting an approved facility.				

Produced Water Disposal				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Produced water, blowdown/ swabbing waste, workover & completion fluids, spent acid	Milestone ES - Battle Axe SWD	1290 NM Highway 128, Jal, NM 88252	(575) 214-6800	Approved
	Water Energy Services - Christmas SWD	32.36921, -103.16687	(844) 861-1991	Pending
	H&M Disposal - Mayme W Graham #001	33.02645, -103.3112		Pending
	Judah Oil LLC. - Mile Marker 5 SWD	MM 5 NM HWY 285, Malaga, NM 88263	575-748-4730	Approved
Contact ESH for assistance in selecting an approved facility.				
Scrap Metal Recycling				
Wastes Accepted	**Recycling Facility**	**Location**	**Phone Number**	**Targa Review**
Scrap metal, wire, wire rope, cable, empty drums	Artesia Metals, Inc.	300 East Richey Ave. Artesia, NM 88210	(575) 746-2412	Pending
	Hobbs Iron and Metal	920 S Grimes St, Hobbs, NM 88240	(575) 393-1726	Pending
Solvents				
Wastes Accepted	**Disposal Facility**	**Location**	**Phone Number**	**Targa Review**
Waste solvents	Clean Harbors - Safety Kleen	10607 W County Rd 127 Odessa, TX 79765	(432) 563-2305	Approved
Used Lube Oil				
Wastes Accepted	**Recycling Company**	**Location**	**Phone Number**	**Targa Review**
Used lube oils	Clean Harbors - Safety Kleen	10607 W County Rd 127 Odessa, TX 79765	(432) 563-2305	Approved

Appendix C

EPA Lists of Exempt and Non-Exempt Oilfield Wastes

EXEMPT OILFIELD WASTES *(i.e., exempt from hazardous waste regulations, but not exempt from other waste regulations)*

- Activated charcoal filter media
- Basic sediment and water (BS&W) – see Tank Bottoms
- Caustics, if used as drilling fluid additives or for gas treatment
- Condensate
- Cement slurry returns from the well and cement cuttings (unused cement slurries would be non-exempt)
- Cooling tower blowdown
- Debris, crude oil soaked or stained
- Deposits removed from piping and equipment prior to transportation (e.g., pipe scale, hydrocarbon solids, hydrates, and other deposits)
- Drilling cuttings/solids
- Drilling fluids
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Gas dehydration wastes:
  a. Glycol-based compounds
  b. Glycol filters (see process filters), filter media, and backwash
  c. Molecular sieves
- Gas plant sweetening wastes for sulfur removal:
  a. Amines (including amine reclaimer bottoms)
  b. Amine filters (see process filters), amine filter media and backwash
  c. Amine sludge, precipitated
  d. Iron sponge (and iron sulfide scale)
  e. Hydrogen sulfide scrubber liquid and sludge
- Gases removed from the production stream (e.g., H2S, CO2, and VOCs)
- Hydrotest water from natural gas gathering line
- Liquid hydrocarbons removed from the production stream but not from oil refining
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Oil (weathered)
- Paraffin
- Pigging wastes from producer operated gathering lines
- Pit sludges and impacted bottoms from storage or disposal of exempt wastes
- Process filters
- Produced sand
- Produced water
- Produced water constituents removed before disposal (injection or other disposal)
- Produced-water-impacted soil
- Produced water filters (see Process filters)
- Soils, crude oil-impacted
- Sulfacheck/Chemsweet waste
- Tank bottoms and basic sediment and water (BS&W) from: storage facilities that hold product and exempt waste (including accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments).
- VOCs from exempt wastes in reserve pits or impoundments or production equipment

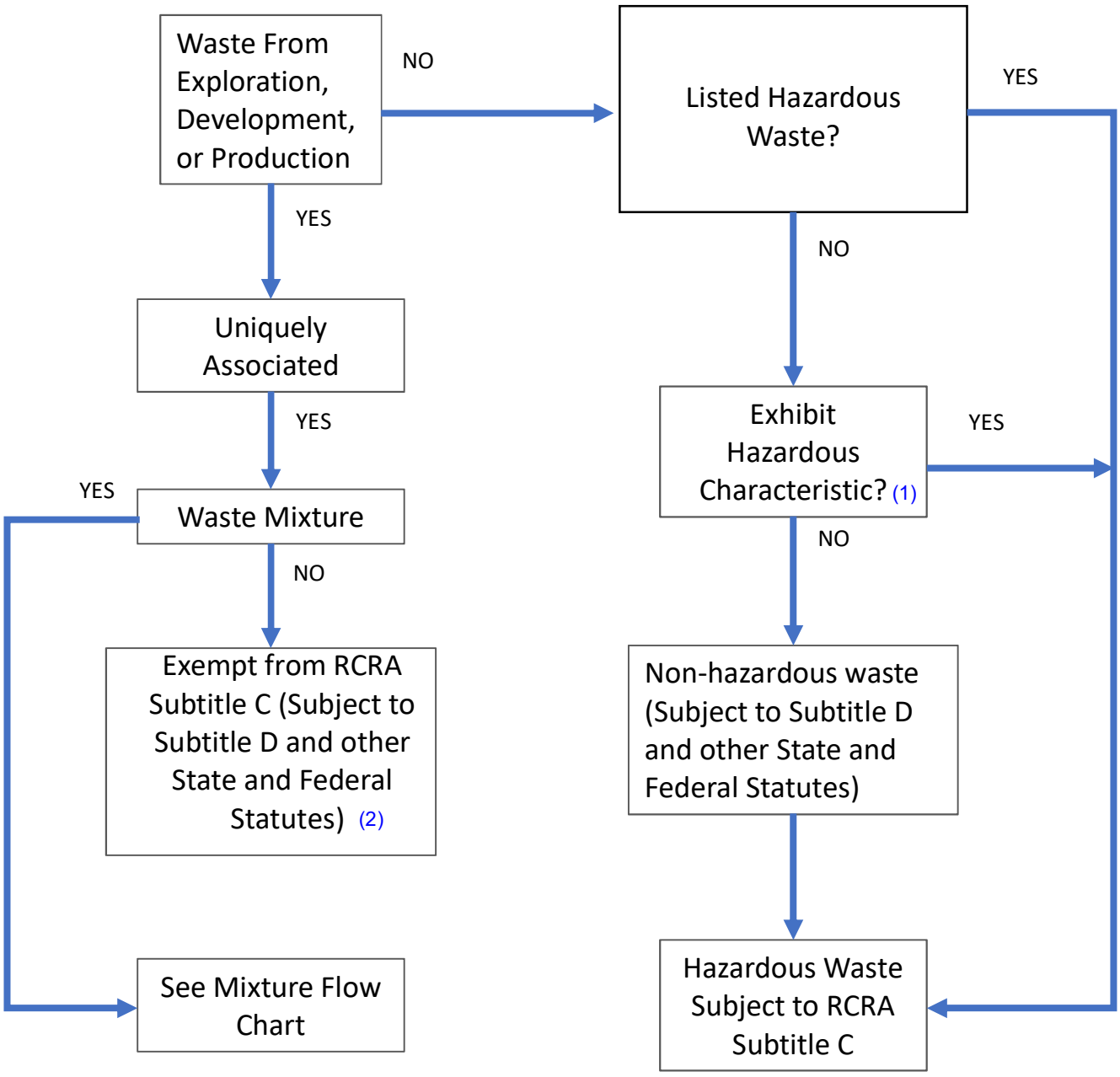
- Waste crude oil from primary field operations and production
- Well completion, treatment, and stimulation, and packing fluids
- Workover wastes (e.g., blowdown, swabbing and bailing wastes)

NON-EXEMPT OILFIELD WASTES

Although the wastes listed below are not exempt from RCRA Subtitle C, they are not necessarily hazardous or necessarily subject to hazardous waste regulation. By using process knowledge or laboratory testing, the waste characteristics can be determined to ensure proper management of these waste streams.

- Batteries: lead acid
- Batteries: nickel-cadmium
- Boiler cleaning wastes
- Boiler refractory bricks
- Caustic or acid cleaners
- Chemicals, surplus
- Chemicals, unusable (including waste acids)
- Compressor oil, filters, and blowdown waste
- Debris, lube oil impacted
- Drilling fluids, unused
- Drums/containers, containing chemicals
- Drums/containers, containing lubricating oil
- Drums, empty (and drum rinsate)
- Filters, lubrication oil (used)
- Gas plant cooling tower cleaning wastes
- Hydraulic fluids, used
- Incinerator ash
- Laboratory wastes
- Mercury
- Methanol, unused
- Oil, equipment lubricating (used)
- Paint and paint wastes
- Pesticide and herbicide wastes
- Pipe dope, unused
- Radioactive tracer wastes
- Refinery wastes
- Sandblast media
- Scrap metal
- Soil, chemical-impacted (including spilled chemicals)
- Soil, lube oil-impacted
- Soil, mercury-impacted
- Solvents, spent (including waste solvents)
- Thread protectors, pipe dope impacted
- Vacuum truck rinsate (from tanks containing nonexempt waste)
- Waste in transportation pipeline related pits
- Well completion, treatment and stimulation fluids, unused

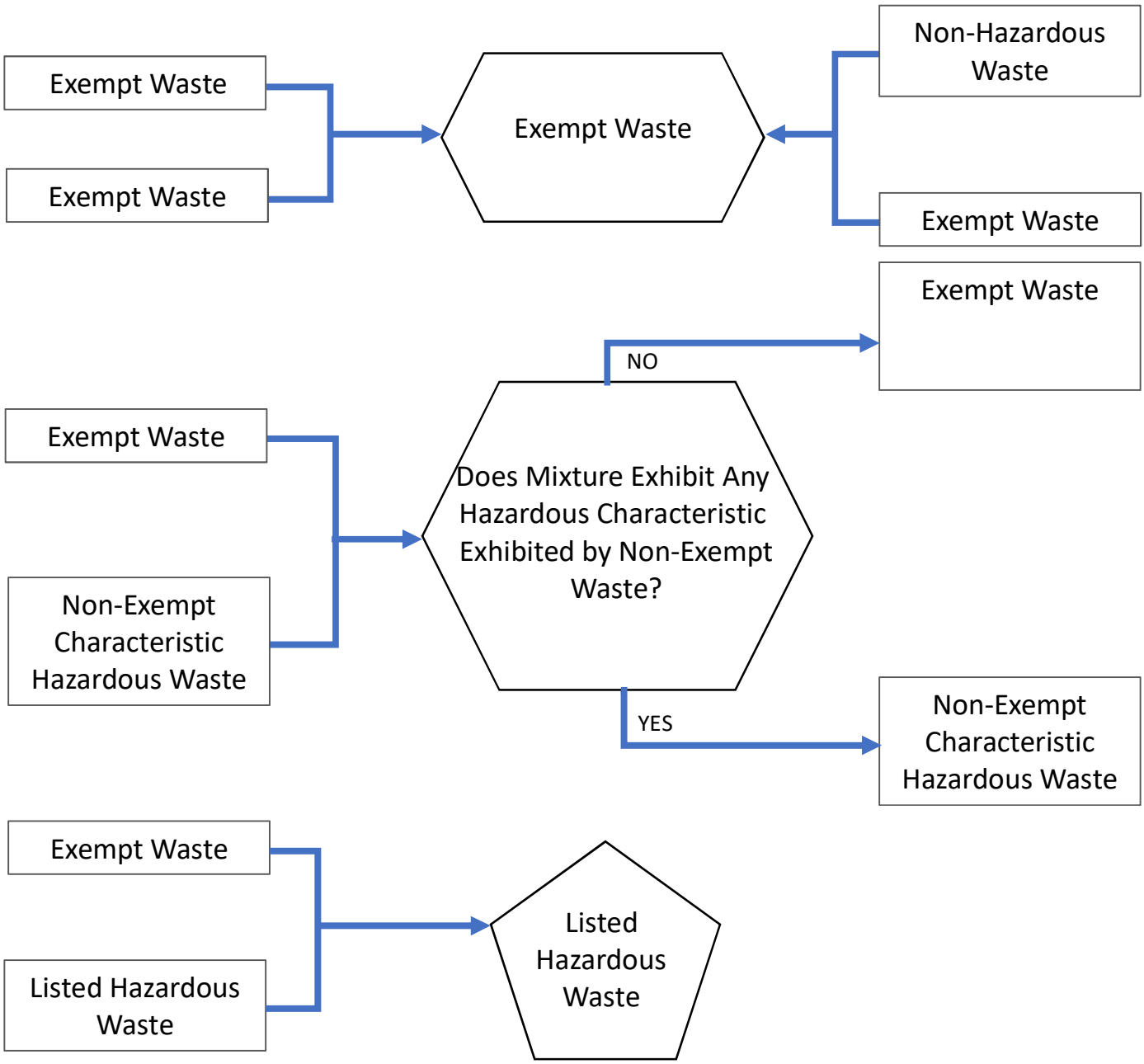
EXEMPT / NON-EXEMPT
WASTE DETERMINATION FLOW CHART



(1) Hazardous characteristic must be determined by Toxic Characteristic Leachate Procedure (TCLP) in laboratory

(2) If waste is determined to be exempt E&P, the waste may still have hazardous properties requiring special handling or other H&S considerations, and may still be a hazardous material subject to DOT regulations

MIXING OIL AND GAS WASTES
FLOW CHART



Appendix D

Hazardous Waste Guidance for Very Small Quantity Generators (VSQG)

The following contains general guidance on hazardous waste generated at Very Small Quantity Generator (VSQG) facilities based on U.S. EPA Federal and NM state regulations. **Note: The following regulations may not apply to Universal Hazardous Waste. For guidelines on handling Universal Hazardous Waste, refer to the individual waste guide sheets, or contact the ES&H Specialist.**

I. HAZARDOUS WASTE

A solid waste is considered as hazardous waste if it meets certain requirements discussed in the subsections below. Hazardous waste is a waste that may pose a substantial hazard to human health or the environment when improperly disposed.

II. CHARACTERISTIC HAZARDOUS WASTE

A waste may be a Hazardous Waste if it exhibits one or more of the following characteristics:

- **Ignitability:** A waste is considered an ignitable waste if it has a flash point of less than 140 degrees Fahrenheit.
- **Reactivity:** A waste is a reactive hazardous waste if it reacts violently with water, is normally unstable, generates toxic gases when exposed to water or corrosive materials, or is capable of detonation or explosion when exposed to heat or flame.
- **Corrosivity:** A waste is a corrosive hazardous waste if it has a pH of less than or equal to 2 or greater than or equal to 12.5.
- **Toxicity:** A waste is a toxic hazardous waste if it meets or exceeds a certain concentration of pesticides or herbicides, heavy metals, or organics, as determined by the Toxicity Characteristic Leaching Procedure (TCLP) test.

III. LISTED HAZARDOUS WASTES

If a waste is not characteristically hazardous it may be "listed." Four hazardous waste lists exist. The lists can be found in 40 CFR 261 and name specific chemicals and industrial processes from which wastes are considered hazardous. Wastes that appear on these lists have a designated identification number and must be handled as hazardous wastes.

EPA Listed Hazardous Waste Code	Examples
F-List: Non-specific sources	Wastes from generic industrial processes (e.g., halogenated solvents used in degreasing).

EPA Listed Hazardous Waste Code	Examples
K-List: Specific sources	Wastes from specific sources (e.g., wastewater treatment sludge from the production of chlordane).
U-List: Commercial Chemical Products*	Toxic wastes (e.g., cyclohexane)
P-List: Commercial Chemical Products*	Acutely hazardous wastes (e.g., arsenic acid)

IV. MIXTURE RULE

Mixing non-hazardous waste with hazardous can possibly lead to the entire mixture being classified as hazardous. Mixing these wastes increases the volume that must be handled, stored, transported, and disposed of as hazardous waste. The following rules apply:

1. Any material or waste mixed with a listed hazardous waste is a hazardous waste (with few exceptions).
2. When a characteristic hazardous waste is mixed with other materials or waste, the resulting mixture is hazardous only if the characteristic is still present.
3. Mixing to achieve non-hazardous status is not allowed with the exception of elementary neutralization of an acid or base in the container that a waste was generated.

V. GENERATOR CATEGORIES AND STORAGE OF HAZARDOUS WASTE

The amount of time that a waste may be stored depends on the quantity of hazardous waste generated. Three generator categories exist:

Waste Generator Category	Limit of Hazardous Waste Generated*	Storage Time Limit*
Very Small Quantity Generator (VSQG)	Less than 220 lbs (100 kg)/month (about half of a 55-gallon drum of liquid)	No storage time limit required by regulation. Targa best practice is < 90 days.
Small Quantity Generator (SQG)	More than 220 lbs (100 kg)/month but less than 2200 lbs (1000kg)/month	Up to 180 days from the date a waste is initially placed in a container. Targa best practice is < 90 days.
Large Quantity Generator (LQG)	More than 2200 lbs (1000 kg)/month (about five 55-gallon drums of liquid)	Up to 90 days from the date a waste is initially placed in a container.

* Please consult ES&H Dept. to ensure appropriate agency notifications are performed in advance, if you may exceed the VSQG threshold of 220 lb. per month for generation of

hazardous waste. It is Targa's best practice to ensure hazardous waste is managed and appropriately disposed at a permitted facility within 90 days.

A summary of the storage, manifesting, recordkeeping, transportation and training requirements for hazardous waste is shown on the Generator Summary Chart at the end of this Appendix. Other important guidelines for VSQG's include:

A. A VSQG facility is not required to obtain an EPA Generator Number unless certain hazardous solvent wastes are generated. Contact the ES&H Specialist for more information.

B. Under federal and state regulations, there is no storage time limit for hazardous waste at a VSQG, as long as the total amount of hazardous waste stored never exceeds 2200 lbs. **However, it is Targa's best practice that hazardous waste is <u>not</u> to be stored at a VSQG longer than 90 days.**

C. Containers used for the storage of hazardous waste must be in good condition. The exterior of the container should not contain excessive amount of waste. Should the condition of a container become impaired, a generator is required to transfer material to a container in good condition. Good condition is defined as: no severe rusting, no sharp-edged creases or dents, no bulging heads, and no severe structural defects.

D. Containers holding hazardous waste must be labeled at all times. The labels must contain the words "Hazardous Waste" and identify the contents and the date when waste was first placed in the container.

E. Containers holding hazardous waste must always be kept closed except when necessary to add or remove waste from the containers. The containers must not be handled in a manner that may cause them to rupture or leak. Containers should also be equipped with secondary containment.

VI. SATELLITE ACCUMULATION

A satellite accumulation area for hazardous waste storage is the area where the waste is initially collected at or near the point where the waste is generated and is under the control of the person who operates the process, which generates the waste. For example, paint solvent waste collected in a drum located around a corner or directly outside a door in the area where the paint spray guns are being cleaned would be considered a satellite accumulation area. A facility can have more than one satellite accumulation area.

The total amount of waste which can be collected in the satellite accumulation area is 55 gallons of hazardous waste or one quart of an acutely hazardous waste. Acutely hazardous wastes are materials such as parathion and tetraethyl lead and are not typically handled in Targa facilities. Even when more than one waste stream is generated, the total volume in the satellite accumulation area cannot exceed 55 gallons of hazardous waste. For example, in an area where paint waste and waste

solvent is accumulated, there could be 30 gallons of paint waste and 25 gallons of waste solvent or other combinations.

A recommended best practice is to only allow 55 gallons of container capacity in the satellite accumulation area at any one time so that the regulatory capacity limit would never be exceeded.

In the satellite accumulation area, the waste must be stored DOT-approved containers and must be kept closed except when adding or removing waste. Each container must be labeled with the words "Hazardous Waste" and the name of the waste. Containers must be in good condition (i.e., not leaking) and must be compatible with the waste being stored (e.g. do not place acid in unlined steel drums). These are the same hazardous waste practices required in central accumulation areas.

The container(s) must be moved from the satellite accumulation area to a central accumulation area within 24 hours once the 55-gallon capacity limit is reached. The start date (beginning of the regulatory time clock) is marked on the container when the container is moved from the satellite accumulation area to the central accumulation area. Although not required by law, a best management practice would be to conduct weekly inspections of all satellite accumulation areas to check for compliance with the requirements addressed in this guideline.

Also refer to the NMED HWB SAA Policy guidance document (2017): Microsoft Word - Final SAA Policy 2017-3-2.docx (nm.gov)

VII. TRANSPORTATION OF HAZARDOUS WASTE

A. A properly trained (see Section 8.4) ES&H Specialist shall be involved with the disposal of any hazardous waste and provide signatures for associated manifests.

B. All hazardous waste generated is to be picked up and shipped by an approved transportation company.

C. Each shipment of hazardous waste must be accompanied by manifests and/or shipping papers in accordance with DOT regulations.

D. The generating facility must maintain all records required by the applicable State Hazardous Waste Regulations (notification form, manifests, inspection logs, shipping papers, etc.).

VIII. MANIFESTS

A hazardous waste manifest is a shipping document that identifies the hazardous waste generator, transporter, and the disposal facility. It also describes the contents of the waste shipment.

The hazardous waste generator uses a multi-part manifest to provide the generator, each transporter, the designated disposal facility with one copy for their records, plus

an additional copy to be returned to the generator. Each completed manifest must be retained on-site for a minimum of three years.

Although not required by federal regulations, it is highly recommended that hazardous waste generated at a VSQG be accompanied by a hazardous waste manifest. **If a hazardous waste manifest is used, it must be signed by the generator. This should be a Targa employee who has had RCRA/DOT training.** The transporter signs the manifest, accepting the load. The green copy (generator's first copy) is retained for records. Within 60 days the original generator's copy should be returned by the disposal facility by mail. If the manifest is not received within 60 days of shipment, inquiries must be initiated and notification to the State is required as soon as possible. Contact the ES&H Specialist for assistance.

Note the U.S. EPA launched the e-Manifest in June 2018. The e-Manifest provides access to higher quality manifest tracking and more timely shipment data, while saving time and resources for states, tribes, and industry. Refer to NMED E-manifest for further information and fact sheets.

GENERATOR SUMMARY CHART

	VSQG	SQG	LQG
Quantity Limits	≤220 lbs/month (100 kg/month) ≤ 2.2 lbs/month (1 kg/month) of acute hazardous waste ≤ 220 lbs/month (100 kg/month) of acute spill residue or soil 40 CFR §§261.5(a) and (e)	between 220-2200 lbs/month (100-1000 kg/month) 40 CFR §262.34(d)	≥2200 lbs/month (1000 kg/month) > 2.2 lbs/month (1 kg/month) of acute hazardous waste > 220 lbs/month (100 kg/month) of acute spill residue or soil 40 CFR Part 262 and §261.5(e)
EPA ID Number	Not required 40 CFR §261.5	Required 40 CFR §262.12	Required 40 CFR §262.12
On-Site Accumulation Quantity	≤ 2200 lbs (1000 kg) ≤2.2 lbs (1 kg) acute ≤220 lbs (100 kg) acute spill residue 40 CFR §§261.5(f)(2) and (g)(2)	< 13,200 lbs (6000 kg) 40 CFR §262.34(d)(1)	No Limit
Accumulation Time Limit	No storage time limit required by regulation. (Targa best practice is < 90 days).	Up to 180 days from the date a waste is initially placed in a container. (Targa best practice is < 90 days). 40 CFR §262.34(d)	≤90 days 40 CFR §262.34(a)
Storage Requirements	None 40 CFR §261.5	Basic requirements with technical standards for tanks or containers	Full compliance for management of tanks, containers, drip pads, or containment buildings. 40 CFR §262.34(a)

		40 CFR §§262.34(d)(2) and (3)	
Off-site Management of Waste	State approved or RCRA permitted/interim status facility 40 CFR §§261.5(f)(3) and (g)(3)	RCRA permitted/interim status facility 40 CFR §262.20(b)	RCRA permitted/interim status facility 40 CFR §262.20(b)
Manifest	Not required 40 CFR §261.5 but highly recommended	Required 40 CFR §262.20	Required 40 CFR §262.20
Biennial Report	Not required (§261.5) but highly recommended	Not required 40 CFR §262.44	Required 40 CFR §262.41
Personnel Training	Not required 40 CFR §261.5	Basic training required 40 CFR §262.34(d)(5)(iii)	Required 40 CFR §262.34(a)(4)
Contingency Plan	Not required 40 CFR §261.5	Basic plan 40 CFR §262.34(d)(5)(i)	Full plan required 40 CFR §262.34(a)(4)
Emergency Procedures	Not required 40 CFR §261.5	Required 40 CFR §262.34(d)(5)(iv)	Required 40 CFR §262.34(a)(4)
DOT Transport Requirements	Yes (if required by DOT)	Yes 40 CFR §§262.30-262.3	Yes 40 CFR §§262.30-262.3

* Please consult ES&H Dept. to ensure appropriate agency notifications are performed in advance, if you may exceed the VSQG threshold of 220 lb. per month for generation of hazardous waste. It is Targa's best practice to ensure hazardous waste is managed and appropriately disposed at a permitted facility within 90 days.

Appendix E

Example Waste Labels

Hazardous Waste

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

If found, contact the nearest police or public safety authority, and the Washington State Department of Ecology or the Environmental Protection Agency

Accumulation Start Date:

Reportable Quantities (RQ): lbs
40 CFR Subchapter J, Part 302, Table 302.4

Manifest Document #:

Emergency Response Guide #:

EPA Waste Code(s) and/or Characteristic(s)

Generator Name:

Address:

City:

State:

Zip:

EPA ID #:

EPA/DOT Shipping Name:

Hazard Class:

UN/NA #:

Packing Group (PG):

In the event of a spill or release of this hazardous waste, contact the US Coast Guard National Response Center at 1-800-424-8802 for information and assistance.

Non-Hazardous Waste

Material Not Regulated by DOT

Generator's Name: _____

Address: _____

_____

City: _____ **State:** _____ **Zip:** _____

Contents: _____


UNIVERSAL WASTE
Batteries
Accumulation Start Date: _____


UNIVERSAL WASTE
Lamps
Accumulation Start Date: _____

ENSOLUM

APPENDIX D

ESTIMATED

CLOSURE COSTS

COSTS TO CLOSURE Roadrunner Gas Plant Targa Resources Partners LP Eddy County, New Mexico	
TASK	**ESTIMATED COST**
Task 1: Roadrunner Gas Plant 1 Shutdown	
Purge and Flush	$850,000.00
Waste Disposal	$200,000.00
Isolate / Lockout	$50,000.00
Disassemble, remove, all site structures and equipment)	$5,250,000.00
Waste transport, disposal, and recycling	$1,250,000.00
Subtotal	$7,600,000.00
Task 2: Roadrunner Gas Plant 2 Shutdown	
Purge and Flush	$850,000.00
Waste Disposal	$200,000.00
Isolate / Lockout	$50,000.00
Disassemble, remove, all site structures and equipment)	$5,250,000.00
Waste transport, disposal, and recycling	$1,250,000.00
Subtotal	$7,600,000.00
Task 3: Soil Investigation and Remediation	
Soil Sampling	$9,200.00
Remediation (assume 1,000 yards)	$100,800.00
Subtotal	$110,000.00
Task 4: Reclamation	
Restoration and reseeding (appx 38 acres)	$342,000.00
Revegetation monitoring (2 years) & Closure	$18,475.00
Reclamation BMPs (contingency)	$25,000.00
Subtotal	$385,475.00
Total	**$15,695,475.00**

State of New Mexico
Energy, Minerals and Natural Resources Department

BY ELECTRONIC MAIL

January 29, 2025

Michael Gant
Targa Northern Delaware, LLC
811 Louisiana Street, Suite 2100
Houston, TX 77002
mgant@targaresources.com

RE: Targa Northern Delaware, LLC – Notice of an Administratively Complete Discharge Permit Application for Roadrunner Gas Plant, Eddy County, New Mexico

Dear Mr. Gant:

The New Mexico Energy, Minerals and Natural Resource Department's Oil Conservation Division (OCD) has reviewed your amended discharge permit application dated January 15, 2025, for Targa Northern Delaware, LLC's (Targa) Roadrunner Gas Plant located in Eddy County, New Mexico. OCD has determined that the amended discharge permit application is administratively complete.

Given OCD's determination, Targa must provide public notice within 30 days of receipt of this letter (i.e., February 28, 2025) in accordance with the requirements of 20.6.2.3108(B) NMAC to the general public in the locale of the Plant by each of the methods listed below:

1. Prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at the main entrance to the Facility and at the Loving Post Office for 30 days;

2. Providing written notice of the discharge by mail or electronic mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, Targa shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

3. Providing notice by certified mail, return receipt requested, to the owner of the discharge site if Targa is not the owner; and

4. Publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in the *Carlsbad Current-Argus*.

Within 15-days of completion of the public notice requirements in 20.6.2.3108(B) NMAC, Targa must submit to the OCD proof of the notice, including affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

Also, as part of the amended discharge permit application, Targa was required to submit a Closure/Post Closure Plan for OCD approval. OCD has reviewed this plan and hereby approves the Closure/Post Closure Plan. The financial assurance (FA) associated with this plan is $15,695,475.00. The FA must be on OCD prescribed forms, or forms otherwise acceptable to the OCD, payable to the OCD. Bond forms can be found at the bottom of OCD's Forms Page located at https://www.emnrd.nm.gov/ocd/ocd-forms/. The FA is due to the OCD within 30 days of email receipt of this letter (i.e., February 28, 2025).

If you have any questions, please do not hesitate to contact me by email at joel.stone@emnrd.nm.gov or by phone at (505) 709-5149. On behalf of the OCD, I wish to thank you and your staff for your cooperation during this process.

Respectfully,

Joel Stone

Joel Stone
Environmental Scientist & Specialist-Advanced

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: Targa Northern Delaware, LLC. 110 W. 7th Street, Suite 2300 Tulsa, OK 74119	OGRID: 331548
	Action Number: 421968
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
joel.stone	OCD emailed the discharge permit application approval letter to Michael Gant (Targa) on January 29, 2025. The emailed approval is attached to this application.	1/29/2025