



DRAFT PERMIT

www.azdeq.gov

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-51185900 (LTF # 64529, PLACE ID 146154)
DURHAM REGIONAL LANDFILL
NON-HAZARDOUS LIQUID WASTE SOLDIFICATION FACILITY**

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2, and 3; Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2; A A.C. Title 18, Chapter 11, Article 4; and amendments thereto; and the conditions set forth in this permit, Durham Regional Landfill, LLC, is hereby authorized to operate one (1) lined industrial liquid waste solidification facility, and unlined temporary trenches for non-industrial liquid waste solidification in designated areas within the future cells at Durham Regional Landfill (DRL), a municipal solid waste landfill located at 22316 South Harmon Road, Florence, Arizona, in Section 35, Township 8 South, Range 4 East of the Gila and Salt River Base Line and Meridian in Maricopa County.

This permit becomes effective on the date of the Waste Program Division Director’s signature and shall be valid for the life of the facility (operational, closure and post-closure care periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate, and maintain the permitted facility:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: DRL Non-Hazardous Liquid Waste Solidification Facility
Facility Address: 22316 South Harmon Road, Florence, Arizona, 85132
Facility Contact: Bart Powell: (480) 983-9100

Permittee as Owner/ Operator: Durham Regional Landfill, LLC
 Waste Technologies, LLC dba Right Away Disposal
 3755 South Royal Palm Road, Apache JCT, AZ 85119

Latitude: 32° 40' 57" North **Longitude:** 111° 17' 18" West

1.2 AUTHORIZING SIGNATURE

**Laura L. Malone, Director
 Waste Programs Division
 Arizona Department of Environmental Quality**

Signed this _____ day of _____, 2017

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(A)(4), 49-241(A)]

This Aquifer Protection Permit (APP) allows Durham Regional Landfill, LLC (DRL) to construct and operate (upon receiving construction certification approval as required in Sections 2.2.2 and 2.2.4) a non-hazardous Industrial liquid waste solidification facility within the future landfill footprint Cell Number 12. The design of the facility consists of three (3) side by side trenches within an approximately 2-acre lined structure designed to contain all liquid waste. In addition, this APP grants a permission to solidify non-hazardous non-industrial liquid waste within unexcavated future cells of the landfill. Both industrial and non-industrial liquid waste solidification process shall implemented in accordance with the *Durham Regional Landfill Application for Aquifer Protection Permit for Operation of a liquid Waste Solidification Facility for both Industrial and non-Industrial liquid Wastes (APPA)*, prepared by CPE Consultants, LLC dated August 8, 2016, and supplemental documents and revisions to APPA dated December 21, 2016, February 28, 2017, and March 6, 2017.

DRL is an approved Subtitle D regulated municipal solid waste landfill authorized to operate under *Master Facility Plan Approval (MFPA) No. 51185900.02*, issued October 25, 2016. The permitted waste footprint of DRL occupies approximately 183.85 acres of the entire 499.6-acre facility. DRL receives municipal solid waste, construction and demolition debris, vegetative waste, asbestos-containing materials, sewage sludge, special wastes, and treated biomedical wastes.

Conditions for Acceptance of Liquid Waste Loads

Conditions for acceptance of liquid waste loads processed in the lined or unlined trenches are contained in **Section 2.2.5** of this permit.

Processing of Liquid Wastes in Lined Trenches and Evaporation Pond

Liquid solidification operations authorized by this APP shall occur as described in the steps below in three (3) solidification trenches within a lined evaporation pond located on Cell No. 12 as shown in Figure 2, *Site Plan*, of the APPA.

1. Non-hazardous industrial and non-industrial liquid waste loads are acceptable for processing in the lined trenches. All liquid waste haulers must check in at the scale house prior to discharging any liquid wastes at DRL. Scale house personnel shall confirm that the liquid hauler has a current waste profile on file with DRL. A liquid waste log shall be completed for each liquid waste load received at DRL, and shall identify the date, time, vehicle license number, volume, contents, and source of waste. Once load approval is obtained, the hauler shall be directed to the liquids discharge area.
2. An approximately 28-inch thick layer of clean soil for solidification activities shall be placed evenly along the entire length of each solidification trench.
3. Liquid wastes shall be discharged onto a concrete splash pad located at either end of each liquid solidification trench and allowed to freely flow into the trench.
4. Any liquids that drain through the layer of soil placed for solidification shall accumulate in a sump constructed in the base lining system of the evaporation pond. Liquids accumulating in the sump shall be recirculated by a pump to the lined solidification trenches. As a

contingency measure if the solidification trenches are at capacity or unable to receive liquids accumulating in the sump, liquids could be discharged into the evaporation pond. Liquids in the evaporation pond shall be allowed to naturally evaporate.

5. After liquid is discharged in a designated trench (approximately 10,000 gallons), the material may take several hours to soak into the soil and air dry. Within 72 hours of the placement, once the material has sufficiently dried or been mixed so as to pass the paint filter free liquids test (Method 9095, EPA Publication SW-846), the solidified waste soil (approximately 28 inches thick) shall be removed and transported from the trench to the active working face of the landfill for use as landfill daily cover material or disposal as solid waste (repeat steps 1-5).

Processing of Non-Industrial Liquid Wastes in Unlined Trenches

Non-industrial liquid waste solidification operations authorized by this APP shall occur as described in the steps below in unlined solidification trenches located on unexcavated future cells as shown in Figure 2, *Site Plan*, of the APPA.

1. Only non-hazardous non-industrial liquid waste could be solidified within Designated Areas as explained in Section 2.2.1.2.
2. Liquid wastes (up to 7,000 gallons per trench) shall be discharged into the solidification trenches at either end of trenches. If even distribution of the liquid is not achieved, the tanker truck will discharge liquids into trenches at a control rate while driving parallel and alongside of the trench, not to exceed 5 miles/hour.
3. Discharge shall flow into the trench and soak into the underlying soil and evaporate over the remainder of the operational day for solidification and evaporation.
4. At the end of the operating day a pull scraper or other heavy equipment will be used to fully mix and solidify the liquid into the underlying soil.
5. Within 72 hours of placement, once the material has sufficiently dried or been mixed so as to pass the paint filter free liquids test (Method 9095, EPA Publication SW-846), the entire solidified waste mass shall be removed from the trench for use as landfill daily cover material or disposal as a solid waste. The excavation shall continue until no visible sign of liquid waste, in any part of the trench, is observed (repeat steps 1-5).

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The site includes the following permitted discharging facility:

Facility	Latitude	Longitude
DRL Lined Non-Hazardous Industrial Liquid Waste Mixing Facility	32° 40' 48" N	111° 17' 8" W
DRL Unlined Non-Industrial Liquid Waste Mixing at Future Cells	Varies*	Varies

* Discharge impact areas as shown in Figure 2, *Site Plan*, of the APPA

2.1.1 Annual Registration and Disposal Fees [A.R.S. §§ 49-836 and A.A.C. R18-14-104]

The annual registration fee for this permit is established by A.R.S. § 49-242 and is payable to ADEQ each year. Any liquids that are disposed of in the lined or unlined trenches are subject to disposal fees in accordance with A.R.S. § 49-836.

The annual registration fee shall be based on the maximum volume of 80,000 (i.e. 30,000 gallons per day (gpd) of non-hazardous industrial liquid waste and 50,000 gpd of non-hazardous non-industrial liquid waste) discharged into the liquid solidification trenches at DRL, as prescribed by A.A.C. R18-14-104, Table 2. The fees are payable to ADEQ each year.

2.1.2 Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee must demonstrate financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility including closure and post-closure care (if clean-closure is not achieved). The engineering cost estimate for closure activities as of December 15, 2016, is \$143,764.00, and was calculated and sealed by Raul F. Piña, an Arizona registered professional engineer.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The permittee is authorized to construct unlined trenches and three (3) liquid solidification trenches within a lined evaporation pond as shown in Figures 2 and 3, and Appendix A- Design Plan Sheets, contained in the APPA.

2.2.1 Engineering Design

2.2.1.1 Lined Trenches and Evaporation Pond

1. Evaporation Pond: The lined solidification facility will be constructed by excavating an area of 400 feet long by 220 feet wide by 10 feet deep with 3H:1V (horizontal(H):vertical(V)) excavation side slopes.
2. Lining System: The floor of evaporation pond is lined with a dual high-density polyethylene (HDPE) geomembrane liner system (each 60 mil thick) with a geonet leak-detection liner placed between the HDPE geomembrane liners. The secondary geomembrane liner is underlain by a geosynthetic clay liner (GCL). The liners are anchored in an anchor trench around the perimeter of the Industrial Facility.
3. Liquid Collection Sump: The liquid collection sump shall be constructed above the top liner with two (2) perforated or machine slotted 4-inch nominal diameter PVC pipe with riser on the side slope of the trench to allow access to the sump. A 3/8-inch gravel pack shall be placed around the slotted pipe in the sump to allow for material collecting in the sump to drain to the sump pipe. The base of each trench shall be sloped at 2 percent (%) toward the sump area, which shall be 10 feet wide by 2 feet deep and span the width of the trench. Liquids accumulating in the collection sump shall be recirculated with a portable pump to the solidification trenches.
4. Leak Detection Sump: The leak detection pipe shall be constructed above the bottom liner with a perforated or machine slotted 4-inch nominal diameter PVC pipe connected to an 8-inch diameter PVC riser pipe with a sump on the side slope to allow access to the sump. A 3/8-inch gravel pack shall be placed around the slotted pipe in the sump to allow for material collecting in the trench to drain to the collection pipe. The liquids collection pipe will be

similarly constructed above the top liner to allow for removal of any liquid accumulating on top of the lining systems.

5. Protective Operational Layer: A 5-foot layer of native soil shall be placed in each trench above the liner system to provide a working buffer between the base lining system and the liquid solidification soil in the trench.
6. Colored Geotextile Warning: A colored geotextile or other suitable liner material shall be installed in the buffer soil in each trench approximately one (1) foot above the base lining system. The colored geotextile will serve as a warning to the scraper operator of the proximity of the base lining system in the event that either of the lined liquid solidification trenches are excavated to within one (1) foot of the base lining system.
7. Trench Dimensions: The three (3) trenches shall be constructed up to 300 feet long by 8 feet wide within the lined evaporation pond to a maximum depth of 5 feet with a 1H:1V side slope.
8. Solidification Layer: A 28-inch layer of clean solidification soil is placed on the buffer soil for each cycle of the liquid solidification and excavation.
9. Run on/Run-off Control: A two (2)-foot high compacted soil berm shall be constructed around the perimeter of the Industrial Facility as containment to control storm water run-on/run-off within the Industrial Facility.
10. Maximum Discharge: The maximum volume permitted for disposal into the trenches is 30,000 gpd based on a 5-day per week operating schedule.

2.2.1.2 Unlined Liquid Solidification Trenches

1. Designated Areas for Trench Excavation: The Liquid waste solidification trenches will only be constructed in designated areas (i.e. future cells) maintaining a minimum separation of 10 horizontal feet from the toe of the excavated slope around perimeter of the landfill. In addition, the depth of excavation for the liquid solidification activity shall be limited to a maximum of seventy-five percent (75%) of the future cells' excavation depths, maintaining a minimum of ten (10) feet vertical buffer from the bottom of the future cells, as shown in Figures 2 and 3, contained in the APPA.
2. Trenches: Shallow trenches, 8 feet wide, approximately 12 inches deep, and for a total length of 500 feet will be excavated for each 7000-gallon load of non-industrial liquid waste.
3. Run-on Control: Soils excavated from the shallow trenches will be piled along the perimeter of the trench to prevent run-on into the trenches.
4. Discharge Control: Discharge of pollutants shall be controlled operationally by frequent mixing (within 24 hours) and excavation (within 72 hours) of solidified liquid waste to prevent migration of non-industrial liquids to the subsurface vadose zone. Each trench shall be constructed with excavation and removing of the impacted in-situ soil remained from the previous liquid waste solidification cycle.
5. Maximum Discharge: The maximum volume permitted for disposal into the unlined trenches is 50,000 gpd based on a 5-day per week operating schedule.

6. Confirmation samples: Soil samples will be collected from the base of excavation upon completion of excavation of the cell in accordance with the Section 5.1-Closure Plan of the APPA.

2.2.2 Construction Requirements

A third-party Arizona registered professional engineer (QAE) shall be responsible for construction quality assurance (CQA) and construction quality control (CQC) procedures for any construction. The QAE shall be responsible for inspecting, collecting, interpreting and reporting field and laboratory results.

The QAE shall certify that all construction, including excavation, soil segregation, subgrade preparation, liners installation, soil layer construction, and any other construction or installation work, is performed according to the APPA, the manufacturer's specifications, engineering testing standards and/or the federal, state or local regulations that may apply to the work. The exact geographic coordinates for the location of the Industrial Facility shall be provided.

2.2.3 Site-Specific Characteristics

Not applicable.

2.2.4 Pre-Operational Requirements

The permittee shall submit the construction certification to ADEQ, as described in Section 2.2.2 of this permit, and receive approval from the Solid Waste Unit for the lined evaporation pond and trenches prior to the beginning of operations.

2.2.5 Operational Requirements

1. General Requirements: The facility shall be constructed, operated, and maintained in a manner that will protect public health, safety, and the environment. This includes maintenance of the structures, equipment, training employees, controlling facility access, posting appropriate signage, implementing health and safety programs, regular updates of the safety programs, groundwater monitoring, and recordkeeping. If any damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be performed immediately as referenced in Section 4.2.

2. Conditions for Acceptance of Liquid Waste Loads:

- a. Waste Profiles: All liquid waste loads must have a generator's waste profile sheet approved by DRL in advance prior to acceptance of the load for solidification and disposal.
For the purposes of this permit, non-industrial liquids shall be septic and sewage waste, grease trap waste, water from concrete and rock saw cuttings, animal feed products, landscape or decorative pond and fountain cleanouts (such as water cleanouts from golf courses), and human consumables. Human consumables shall consist of off-

specification ingestible products, related rinsate from product lines, skin application products such as sun tan lotions, skin lotions, shampoo, and other non-prescription FDA-regulated skin application products. ADEQ may add or subtract liquids from the list of non-industrial liquids based on a petition by DRL. All other liquids shall be defined as industrial liquid wastes.

- i. New and existing waste profiles for industrial liquid wastes shall be renewed every quarter for the first year of waste acceptance, and updated annually thereafter.
 - ii. Waste profiles from non-industrial liquids shall be renewed at least annually with representative characterization information including analytical results from samples collected.
- b. Fact Sheets: When a fact sheet regarding regulatory compliance for industrial liquid waste generators becomes available from ADEQ, DRL shall provide this fact sheet to all industrial liquid waste generators. These generators must sign a certification statement acknowledging that they have read and understand the information in the fact sheet. Beginning sixty (60) days after DRL has received the fact sheet from ADEQ, DRL shall not accept industrial liquid waste shipments from any generator who has not signed this certification statement unless that generator provides quarterly recertifications for each industrial liquid waste profile and analytical sampling results for 100% of industrial liquid loads. Once an ADEQ fact sheet is signed by the generator, DRL will return that generator to annual recertifications and sampling following Section 2.2.5.2 (e).
- c. Visual Inspection: A visual inspection, in accordance with the *Standard Test Method for Physical Description Screening Analysis in Waste*, ASTM D-4979, must be conducted on 100% of incoming liquid waste loads in order to verify conformance with the approved generator's waste profile sheet. Any incidental odors must be documented and investigated. All rejected loads must be documented in the DRL operating record.
- If a shipment of liquids is received in non-bulk containers, such as drums, DRL must visually inspect the contents of at least one (1) container representative of each waste profile contained in each day's shipment, or 10% of the containers, whichever quantity is greater.
- d. Flammability/pH Testing: Random load inspections shall be documented in the operating record and conducted on at least 10% of incoming liquid waste loads for the following parameters:
- i. Flammability/ignitability: The *Standard Test Method for Flammability Potential in Screening Analysis of Waste*, ASTM D-4982, shall be conducted on a sample collected from the load by exposing the sample to an open flame to see if it will burn. Loads

failing the flammability test will be rejected or tested for ignitability consistent with 40 CFR 261.21(a).

- ii. pH: The pH of the load shall be determined by using the *Standard Test Method for Screening of pH in Waste*, ASTM D-4980. The test shall determine the potential for hazardous levels of alkalinity or corrosivity in the waste by using paper pH test strips (litmus test) or by an electronic pH meter. Any waste with a $\text{pH} \leq 2$ or ≥ 12.5 , shall be rejected, in addition to wastes with a tested pH that is significantly different from pH range indicated on the generator's waste profile sheet.

Septic loads are excluded from the pH and flammability/ignitability testing requirements described above. These random load inspections shall not be conducted on the same loads for which analytical sampling (Section 2.2.5.2 (e) below) is conducted.

- e. Liquid Waste Sampling: Sampling shall be conducted on incoming industrial liquid waste shipments accepted by the facility in accordance with the frequency specified in Section 2.2.5.2 (e) (i) and (ii) below. Samples shall be analyzed for metals using EPA Methods 6010 and 7470, and VOCs using EPA Method 8260. This sampling shall apply to industrial liquid wastes and excludes septic and sewage waste, grease trap waste, water from concrete and rock saw cuttings, and human consumables (as defined in Section 2.2.5.2 (a)). The analytical data shall be compared to the hazardous waste toxicity characteristic leaching procedure (TCLP) limits stated below in Table 1:

Table 1

<u>Contaminant</u>	<u>Level (mg/L)</u>
Arsenic	5.0
Barium	100.0
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0
1,1-Dichloroethene	0.7
1,2-Dichloroethane	0.5
1,4-Dichlorobenzene	7.5
2-Butanone (Methyl ethyl ketone)	200.0
Benzene	0.5
Carbon tetrachloride	0.5
Chlorobenzene	100.0
Chloroform	6.0
Hexachlorobutadiene	0.5
Tetrachloroethene	0.7
Trichloroethene	0.5
Vinyl chloride	0.2

If the results are below the TCLP regulatory limits, no further action shall be required. If the results are above or equal to the TCLP regulatory

limits, DRL shall run TCLP tests on the load unless otherwise approved by ADEQ.

- i. DRL shall sample a minimum of 20% of incoming industrial waste loads until four (4) consecutive months of no failed liquid waste loads have been reported to ADEQ. At that time, upon written concurrence by ADEQ (e-mail is acceptable) that no failed loads have been reported for four (4) consecutive months, the required minimum sampling frequency may be reduced to 15%. If two (2) additional consecutive months of no failed liquid loads are reported (six (6) total months), then DRL, upon written concurrence by ADEQ that no failed loads have been reported for six (6) consecutive months, the required minimum sampling frequency may be reduced to 10%. If two (2) additional consecutive months of no failed liquid loads are reported (eight (8) total months), then DRL, upon written concurrence by ADEQ that no failed loads have been reported for eight (8) consecutive months, the required minimum sampling frequency may be reduced to 5%. A petition for further reduction in the sampling frequency may be submitted by DRL to ADEQ for evaluation if four (4) additional consecutive months of no failed liquid loads are reported (twelve (12) total months).
If a failed load is reported for a month while sampling at a reduced frequency (15%, 10%, 5%, or less as approved by ADEQ), ADEQ will evaluate, on a case-by-case basis, whether or not to require an increase in the liquid load sampling frequency. The evaluation will take into consideration the characteristics of the failed liquid waste load (origin of the load, severity of TCLP exceedance(s), etc.). A “failed load” is defined as a sampled load with an analytical result that equals or exceeds a TCLP level in Table 1 of this APP Appendix A.
- ii. Upon acceptance of any industrial liquid waste load for which TCLP sampling results equal or exceed any Table 1 level, DRL shall implement sampling and analytical testing, in accordance with Section 2.2.5.2 (e), for 100% of incoming industrial liquid waste loads received from the specific generator location where the waste originated. Sampling of 100% of the loads from that generator shall continue for a rolling twelve (12)-month period or until ten (10) loads are received, whichever comes first. If after twelve (12) consecutive months or ten (10) loads, no TCLP sample results have equaled or exceeded a Table 1 level, DRL may resume sampling of the industrial liquid waste loads from this generator pursuant to Section 2.2.5.2 (e) (i) above.
- iii. DRL shall store any bulk liquid waste shipment sampled pursuant to Section 2.2.5.2 (e) on-site in tanks or tankers until a demonstration is made that the waste shipment TCLP results do not equal or exceed the Table 1 levels. Drums or containerized liquids may be stored in the shipping containers until the analytical results have been

received. The following conditions apply to the liquid waste staging area:

1. The manufacturer's recommended minimum freeboard shall be maintained in all containers holding liquid waste.
 2. Sediment or sludge that cannot be pumped or does not readily drain from the container shall be slurried with washwater to either pump or drain to the solidification trenches in a manner similar to the liquid contents. Washwater and sediment generated after a failing load shall be separately containerized on-site and analytically tested for toxicity characteristic for the constituents that failed screening criteria in the original waste load. Washwater that fails the screening criteria shall be removed from the site for disposal at a facility authorized to accept hazardous waste liquids.
 3. Liquid waste holding containers shall be inspected daily. Each inspection shall identify the date, inspector, the number of containers in use, identify if there are any leaking containers, evidence of spills, and adequate freeboard in all containers. Upon finding issues, appropriate actions shall be taken immediately, and the remedy actions be noted on the inspection checklist, such as transferring contents and removing from service any leaking tanks, clean-up of spills, and the use of additional holding containers for inadequate freeboard.
-
- iv. DRL shall submit the test results from the load sampling within thirty (30) days of the end of the month for the previous month's sampling data to the ADEQ Solid Waste Unit. At the end of each calendar quarter DRL shall prepare and submit to ADEQ a report of the volumes and types of waste streams (i.e., industrial liquids and non-industrial liquids) accepted and a description of rejected loads (i.e., generator, type of waste, and reason for rejection).
 - v. If the sampling results equal or exceed any Table 1 level, DRL shall notify the ADEQ Solid Waste Unit within 24 hours of the determination. This notification shall include the generator's contact information, the waste profile, analytical results and the date the load was received at the landfill.
 - vi. If the sampling results equal or exceed any Table 1 level, DRL shall remove the waste shipment from the facility as expeditiously as possible, but not longer than ten (10) business days unless otherwise approved by ADEQ. DRL shall notify ADEQ of the measures taken to remove the load within 24 hours after removing the load from the facility. In the event that DRL does not know the final destination of the load, DRL shall request that the generator notify ADEQ of the final destination.
 - vii. DRL may accept industrial liquid waste from a generator that has previously failed the acceptance criteria at another landfill approved

for liquid solidification only if DRL notifies ADEQ within 24 hours of acceptance of the first load from that generator, and subjects that generator to 100% testing in accordance with Section 2.2.5.2 (e) (ii), above. This requirement only applies if ADEQ notifies DRL prior to acceptance of the industrial liquid waste that the generator has previously failed the acceptance criteria from another landfill.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243, and A.A.C. R18-9-A205(B)]

Discharges from the lined liquid solidification trenches and evaporation pond shall be prevented by the double HDPE-liner system and leak detection sumps. Discharges within unlined trenches will be controlled operationally by frequent mixing and excavation of solidified liquid waste to prevent migration of non-industrial liquid waste to the vadose zone. No numerical discharge limits are set in this permit.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

The point of compliance is established by the following monitoring locations:

POC Well ID	Latitude	Longitude
DL-MW-1	32° 40' 45" N	111° 16' 39" W
DL-MW-4*	32° 40' 59" N	111° 16' 59" W

* Following the installation of Well DL-MW-4, a revised table will be submitted to ADEQ to reflect the surveyed latitude and longitude location.

Semiannual groundwater monitoring of MW-1 and MW-4 shall be incorporated into the overall DRL groundwater monitoring program, as described in the MFPA No. 51185900.02. In addition to monitoring parameters established in the Master Facility Plan, detection monitoring shall be conducted semi-annually for biochemical oxygen demand (BOD) and fecal coliform, as shown in Table 8, *Proposed Alert Levels and Aquifer Quality Limits*, of the APPA, replicated as Table 4.1.1 of this permit.

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1) and (K)(6), A.A.C. R18-9-A206 and R18-9-A209(C)]

The permittee shall continue all monitoring required in this permit for the duration of the permit, regardless of the operational status of the facility. All sampling, preservation, and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained; and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and Title 40 of the Code of Federal Regulations (40 CFR) Part 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

The following information associated with each sample, inspection or measurement shall be included in the monitoring records:

1. Name of each individual who performed the sampling, inspection or measurement;
2. Date, time, and exact location of sampling, inspection, or measurement;
3. Date on which the sampling analysis was completed;
4. Name of each individual and laboratory who performed the analysis;
5. Analytical techniques or methods used to perform the sampling and analysis; laboratory detection limit for each test method performed, and analytical variance for each parameter analyzed;
6. Chain of custody records; and
7. Any field notes relating to information described in items 1 through 6, above.

In addition, DRL shall retain a copy of all correspondence, monitoring and reports of any and all information in connection with the operation of the lined and unlined liquid solidification trenches in the operating record for DRL.

2.5.1 Discharge Monitoring

Not applicable.

2.5.2 Facility / Operational Monitoring

Routine Inspections and Maintenance: The liquid collection sumps in lined solidification area shall be checked daily, and any liquids detected shall be recirculated to the trenches for solidification. As a contingency measure in the event that the solidification trenches are at capacity or unable to receive liquids accumulating in the sump, liquids collecting in the trench sumps may be discharged to an area for infiltration and evaporation within the lined area but outside of the liquid solidification trenches. All leak detection sumps shall be inspected weekly for the presence of liquids, and any liquids observed shall be transferred to the evaporation pond. The amount of liquid collected in each leak detection sump shall be measured and recorded during transfer to the evaporation pond. Leakage rates exceeding actionable levels shall be promptly addressed according to the Level 1/Level 2 Contingency procedures in Section 2.6.1 of this permit. The structural condition of the exposed liner material, riser pipes, and liner anchor trenches shall be inspected on a monthly basis to identify any damage or wear that requires maintenance.

2.5.3 Groundwater Monitoring and Sampling Protocols

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three (3) borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as “dry” for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the monitoring report.

2.5.3.1 POC Well Replacement

In the event that the designated POC well should become unusable or inaccessible due to damage, a decrease in water levels for more than two (2) sampling events, or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty (50) feet or less from the original well, the ALs and/or AQLs calculated for the designated POC well shall apply to the replacement well. Otherwise, the ALs and/or AQLs shall be recalculated and set following standard protocols.

2.5.4 Surface Water Monitoring and Sampling Protocols

Not applicable.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative groundwater samples can be collected. If new groundwater monitoring wells are determined to be necessary, the construction details shall be submitted to the ADEQ Solid Waste Unit for approval prior to installation and the permit shall be amended to include any new monitoring wells.

2.6 Contingency Plan Requirements [A.R.S. § 49-243(K)(3), (K)(7), and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 Contingency Plan

At least one copy of the approved contingency and emergency response plan(s) submitted in the APPA shall be maintained at the location where day-to-day

decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

1. Level 1 Contingency: A Level 1 Contingency shall be defined as actionable levels of liquid accumulating in either leak detection sump in the Industrial Facility. An acceptable accumulation of liquid in the leak detection sump, calculated from the leakage rate from a small hole (3.2 square millimeters [mm²] or less) in the primary liner is 735 gallons per week (gpw) in each leak detection sump, as detailed in Table 9 of the APPA. If there is an exceedance of a Level 1 contingency action response level, DRL shall:
 - a. Notify the ADEQ Solid Waste Unit as specified in Section 2.7.5 of this permit.
 - b. Assess the condition of the liner system.
 - c. Submit a corrective action plan to ADEQ within 30 days of the notification to address problems identified in the assessment of the liner system.
 - d. Implement the corrective action plan, as approved by ADEQ.

2. Level 2 Contingency: A Level 2 Contingency shall be defined as exceptional levels of liquid accumulating in either leak detection sump of the Industrial Facility. Exceptional accumulation of liquid in the leak detection sump, calculated from the leakage rate from a large hole (11.3 mm²) in the primary liner is 2,679 gpw in a leak detection sump, as detailed in Table 9 of the APPA. If there is an exceedance of a Level 2 contingency action response level, DRL shall:
 - a. Notify the ADEQ Solid Waste Unit as specified in Section 2.7.5 of this permit.
 - b. Initiate actions to identify the location(s) of the leak(s) within three (3) days of becoming aware of the exceedance.
 - c. Unless otherwise approved by ADEQ, cease the disposal of liquid waste to Industrial Facility within 7 days of becoming aware of the exceedance.
 - d. Collect a sample of liquid contained in the leak detection sump(s) within five (5) days of becoming aware of the exceedance and analyze the sample(s) for volatile organic compounds (VOCs) and metals.
 - e. Submit a corrective action plan to repair or replace the liner system to ADEQ within 30 days of the notification in item (a).
 - f. Implement the corrective action plan, as approved by ADEQ.

3. Level 3 Contingency: A Level 3 Contingency shall be defined as leakage through both the upper and lower liners into underlying soils in such a manner that the leak detection system is unable to contain the loss of fluid. In the event of a Level 3 Contingency, DRL shall:
 - a. Notify the ADEQ Solid Waste Unit as specified in Section 2.7.5 of this permit within 24 hours of becoming aware of the leakage.

- b. Immediately cease disposal of liquids to the Industrial Facility.
- c. Remove all liquid and solidified liquid waste from the Industrial Facility.
- d. Collect a sample of liquid contained in the leak detection sump(s) within five (5) days of becoming aware of the leakage and analyze the sample(s) for VOCs and metals.
- e. Assess the condition of the liner system and the extent of contamination resulting from the release of liquids to the subsurface soil and/or groundwater.
- f. Submit a corrective action plan to repair or replace the liner system and address any soil and/or groundwater contamination to the ADEQ Solid Waste Unit within 30 days of the notification in item (a).
- g. Implement the corrective action plan, as approved by ADEQ.

2.6.2 Verification Sampling

An exceedance of an alert level (AL) or aquifer quality limit (AQL) may involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated an exceedance. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL.

The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of an AQL, or any other permit condition.

2.6.3 Exceeding of Alert Levels

Any alert level (AL) that is exceeded or any violation of an aquifer quality limit (AQL) or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

2.6.3.1 Exceeding of Alert Levels Set for Operational Conditions

Not applicable.

2.6.3.2 Exceeding of Alert Levels Set for Discharge Monitoring

Not applicable.

2.6.3.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.3.3.1 Alert Levels for Indicator Parameters

Not applicable.

2.6.3.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in TABLE 4.1.1, has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of an AL being exceeded. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL being exceeded, or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to a monthly basis. In addition, the permittee, shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The permittee shall initiate actions to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action, the permittee shall obtain prior approval from the ADEQ Solid Waste Unit according to Section 2.6.7. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the ADEQ Solid Waste Unit, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the ADEQ Solid Waste Unit.
4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the ADEQ Solid Waste Unit, along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.

5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
6. The increased monitoring required as a result of ALs being exceeded may be reduced to a semiannual monitoring frequency if the results of four (4) consecutive sampling events demonstrate that no parameters exceed the AL.
7. If the increased monitoring required as a result of an AL exceedance continues for more than six (6) consecutive sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within thirty (30) days of the receipt of laboratory results of the sixth sampling event.

2.6.3.3 Alert Levels to Protect Downgradient Users from Pollutants without Numeric Aquifer Water Quality Standards

Not applicable.

2.6.4 Discharge Limitations (DL) Violations

Not applicable.

2.6.5 Aquifer Quality Limit (AQL) Violation

1. If an AQL listed in TABLE 4.1.1 has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of an AQL being exceeded. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter, or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to monthly. In addition, the permittee shall immediately initiate an evaluation of the cause of the violation, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified

exceedance of an AQL will be considered a violation unless the permittee demonstrates within thirty (30) days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider, and ADEQ may require, corrective action that may include control of the source of discharge, clean-up of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
4. The permittee shall notify any downstream or downgradient users who may be directly affected by the discharge.

2.6.6 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.6.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment. The DRL facility manager shall be the emergency response coordinator (ERC) for the liquid solidification operation. In the event of an emergency which results in imminent and substantial endangerment to public health or the environment, the ERC shall notify ADEQ within 24 hours of the occurrence of an emergency at ADEQ's emergency response hotline, (800) 234-5677.

2.6.6.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances [A.R.S. § 49-201(18)] or toxic pollutants [A.R.S. § 49-243(I)] on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ's Emergency Response Unit at (602) 771-2330 and the ADEQ Solid Waste Unit within twenty-four (24) hours upon discovering the discharge of hazardous material that: (a) has the potential to cause an AWQS or AQL exceedance; or (b) could pose an endangerment to public health or the environment.

2.6.6.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Solid Waste Unit within twenty-four (24) hours upon discovering the discharge of non-hazardous material that: (a) has the potential to cause an AQL exceedance; or (b) could pose an endangerment to public health or the environment.

2.6.6.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.6.2 and 2.6.6.3 to the ADEQ Solid Waste Unit within thirty (30) days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, facility response activities and include all information specified in Section 2.7.3.

If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6.5 Liquid Waste Discharge Notification Requirements

The following notifications are required if there is an unauthorized discharge of liquid waste from the liquid solidification trenches or evaporation pond:

1. Within five (5) business days of the unauthorized discharge, the permittee shall notify the ADEQ Solid Waste Plan Review Unit.
2. Within seven (7) days of detection of the discharge, the permittee shall place in the operating record a description of the steps taken to protect human health. A copy of this description shall be submitted to the ADEQ Solid Waste Plan Review Unit.
3. The permittee shall submit a report within 30 days to the ADEQ Solid Waste Plan Review Unit that contains any analytical results, leak detection investigation activities, an explanation of the conditions responsible for the discharge, and repair and/or operational changes designed to prevent future discharges.

2.6.7 Corrective Actions

Specific contingency measures identified in Section 2.6 of this permit have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.6, the permittee shall obtain written approval from the ADEQ Solid Waste Unit prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil clean-up;
3. Clean-up of affected surface waters;
4. Clean-up of affected parts of the aquifer; or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within thirty (30) days of completion of any corrective action, the permittee shall submit to the ADEQ Solid Waste Plan Review Unit a written report describing the causes, impacts and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Forms (SMRF)

Not applicable.

2.7.2 Operation Inspection / Operating Record

A signed copy of this permit shall be maintained at all times at the location where decisions regarding the operation of the facility are made. An operating record (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where decisions are made regarding the operation of the facility. Facility inspections shall be conducted in accordance with TABLE 4.2.1. The operating record shall be retained for ten (10) years from the date of each inspection and, upon request, the permit and the operating record shall be made immediately available for review by ADEQ personnel. The information in the operating record shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed; including all repair procedures and materials used;
5. Documentation of date and time for any sampling;
6. Any other information required by this permit to be entered in the operating record; and
7. Monitoring records for samples shall comply with R18-9-A206(B)(2) and R18-9-A209(C).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the ADEQ Solid Waste Unit in writing within five (5) business days (except as provided in Section 2.6.6) of becoming aware of a violation of any permit condition or of an AL exceedance.
2. The permittee shall submit a written report to the ADEQ Solid Waste Unit within thirty (30) days of becoming aware of the violation of any permit condition unless otherwise specified in this permit. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information that indicates that any pollutants would be reasonably expected to cause a violation of an AWQS if a discharge occurred;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Closure/Post-Closure Monitoring and Reporting

1. Until clean-closure is achieved, the liquid solidification trenches and evaporation pond shall be inspected at the frequencies contained in Table 4.2.1, with all maintenance and repairs being conducted promptly and by the next inspection date. Facility inspection reports covering events shall be kept in a facility file.
2. Post-closure monitoring and maintenance will not be necessary if clean-closure is approved by the ADEQ Solid Waste Unit. If clean-closure is not approved, post-closure monitoring will be required and will consist of periodic inspection and maintenance of any remaining structures.

2.7.5 Reporting Location

All documents required by this permit to be submitted to the ADEQ Solid Waste Unit shall be directed to:

Arizona Department of Environmental Quality
Solid Waste Unit
Waste Programs Division
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4123

2.7.6 Reporting Deadline

2.7.6.1 Groundwater Monitoring

1. Reporting for groundwater monitoring events conducted during the operational period shall be performed in accordance with MFPA No. 51185900.02 and any subsequently approved plan amendments.
2. Reporting for groundwater monitoring events conducted during the closure/post closure period shall be performed in accordance with MFPA No. 51185900.02 and any subsequently approved plan amendments.

2.7.6.2 Repairs

Reports on any routine repairs/maintenance shall be submitted annually and shall be received by January 31st of each year reporting on the repair/maintenance events of the prior calendar year.

2.7.7 Changes to Facility Information in Section 1.1

The ADEQ Solid Waste Plan Review Unit shall be notified within ten (10) days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the ADEQ Solid Waste Unit before ceasing operation of the facility for a period of sixty (60) days or greater.

At the time of notification, the permittee shall submit for ADEQ approval a plan for maintenance of the solidification trenches and evaporation pond and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the ADEQ Solid Waste Unit of the operational status of the facility every three (3) years. When the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 of this permit.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252, and A.A.C. R18-9-A209(B)]

The permittee shall give written notice of closure to the ADEQ Solid Waste Unit of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

In accordance with A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3), a Type “other” permit amendment application for the closure plan shall be submitted to ADEQ within 90 days following notification of intent to cease liquid solidification operations. The permit amendment must be approved by the ADEQ Solid Waste Unit prior to conducting any closure activities.

2.9.2 Closure Requirements

DRL intends to achieve clean-closure of the lined liquid solidification trenches and evaporation pond upon development of landfill operations into the Cell 12, the area of Industrial Facility. The closure activities shall consist of, but not be limited to, the following activities:

1. Removal of any liquid remaining in the pond through solidification and evaporation.
2. Characterization, removal and disposal of all residual soils and sediments.
3. Removal of all liner materials and sump components.
4. Sampling and analysis of the soil below the trenches and pond to determine if a release has occurred.
5. If soils have been impacted due to a release, corrective action shall be implemented as necessary.

DRL will cease the non-industrial operation in the temporary trenches once the trench elevation reaches to a maximum of seventy-five percent (75%) of the future cell’s excavation depth, maintaining a minimum of ten (10) vertical feet buffer from the bottom of the future cells. Upon completion of excavation of the cell, DRL will collect soil samples from the base of the excavation to determine if a release has occurred. If soils, beneath the future cell’s liner, have been impacted due to a release, corrective action shall be implemented as necessary prior to installation of the liner.

2.9.3 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the ADEQ Solid Waste Unit indicating that the approved closure plan has been implemented fully, and provide supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). The permittee shall submit a CQA/CQC report, sealed by an independent Arizona-registered professional engineer, certifying that closure has been completed in accordance with the approved closure plan. If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If clean-closure has not been achieved, the permittee shall submit an application for a Type “other” permit amendment to incorporate a post-closure plan.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252, and A.A.C. R18-9-A209(C)]

2.10.1 Post-Closure Plan

Post-closure monitoring and maintenance will not be necessary if it is determined that closure activities have met the criteria for clean-closure approval. If closure activities have not met clean-closure criteria, a Type “other” permit amendment

application for the post-closure plan shall be submitted. The post-closure monitoring plan may consist of periodic inspections and maintenance of any closure structures as set forth in Sections 2.9 and 2.10.

2.10.2 Post-Closure Completion

If post-closure care is required, the permittee shall notify ADEQ in writing within thirty (30) calendar days of completion of all post-closure care activities. The written notice shall include a certification, sealed by an independent Arizona-registered professional engineer, certifying that post-closure care has been completed in accordance with the approved post-closure care plan.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Solid/Hazardous Waste Section, Solid Waste Unit.

No	Description	Due by	Amend. Required
1	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1.2, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 2 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a performance surety bond as required in A.A.C. R18-9-A203(C)(2).	Within 60 days from the date of permit signature and every 6 years thereafter.	No
2	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a.	Every 6 years from the date of permit signature, for the duration of the permit.	Yes
3	The permittee shall submit a type III change application to amend the MFPA# 51185900.2 for liquid waste solidification activities within future cells at DRL.	Within 30 days from the date of permit signature.	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 GROUNDWATER MONITORING

TABLE 4.1.1 - ALERT LEVELS AND AQUIFER QUALITY LIMITS FOR POC WELLS MW-1 AND MW-4

Parameter	Alert Level ¹ (mg/L)	Aquifer Quality Limit ² (mg/L)	Analytical Method ³
Volatile organic compounds	PQL	AWQS	EPA 624/8260B
Antimony	0.0048	0.006	EPA 200.8/6020B
Arsenic	0.008	0.01	EPA 200.8/6020B
Barium	1.6	2.0	EPA 200.8/6020B
Beryllium	0.0032	0.004	EPA 200.8/6020B
Cadmium	0.004	0.005	EPA 200.8/6020B
Chromium	0.08	0.1	EPA 200.8/6020B
Copper	0.8	1.0	EPA 200.8/6020B
Lead	0.04	0.05	EPA 200.8/6020B
Selenium	0.04	0.05	EPA 200.8/6020B
Thallium	0.0016	0.002	EPA 200.8/6020B
Zinc	4.0	5.0	EPA 200.8/6020B
Fluoride	3.2	4.0	EPA 300/9056A
Nitrate	8	10	EPA 300/9056A
Biochemical oxygen demand	PQL	N/A	EPA 5210
Fecal coliform	PQL	N/A	EPA 9131/9132

¹ PQL = laboratory practical quantitation limit

² N/A – Not applicable. AWQS = aquifer water quality standard (A.A.C. R18-11-406)

³ The permittee shall use only EPA approved methods unless ADEQ authorizes the use of another method. The permittee may substitute any EPA approved method for any other, if the substituted method provides detection limits that are equal to or lower than the limits of the originally approved method. All laboratory analyses shall have detection limits that are adequate for detection of the regulatory limits of the parameter in question. ADEQ reserves the right to determine the adequacy of the laboratory results based on the detection limits used.

4.2 COMPLIANCE MONITORING

TABLE 4.2.1 FACILITY INSPECTIONS

Parameter	Performance Levels	Inspection Frequency
Liquid collection sumps in lined solidification area	Any liquids detected shall be pumped to the solidification trenches or the pond (during contingency events)	Daily

Parameter	Performance Levels	Inspection Frequency
Leak detection sumps	Any liquids detected shall be pumped and recirculated to the trenches or evaporation pond. Level 1 contingency leakage rate is 735 gpw. Level 2 contingency leakage rate is 2679 gpw.	Weekly
Leak detection sump piping	No obstructions or clogging.	Monthly, repairs and maintenance on as needed basis
Liquid waste material in trenches	No fumes, oxidation or unexpected odors that indicate a reaction is occurring	Daily
HDPE liners (exposed, visible portion)/anchor trenches	No damage or environmental stress cracking.	Monthly, repairs and maintenance on as needed basis
POC well operability	No visible evidence of damage or loss of operability.	Semiannually
Public Access Control	Repair and replacement, as necessary, of fence and maintenance of no trespassing signs. Locked gate during non-business hours. Maintenance of all signage.	Monthly, repairs and maintenance on as needed basis

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. *Master Facility Plan Approval No. 51185900.01*, ADEQ, dated January 20, 2016.
2. *Durham Regional Landfill Application for Aquifer Protection Permit Application for Operation of a Liquid Waste Solidification Facility for both Industrial and Non-Industrial Liquid Wastes*, Durham Regional Landfill, LLC, dated August 8, 2016, prepared by CPE Consultants, LLC.
3. *Master Facility Plan Approval No. 51185900.02*, ADEQ, dated October 25, 2016.
4. *Durham Regional Landfill Groundwater Monitoring Report- Second Quarter (April-June) 2016*; Durham Regional Landfill, LLC, dated September 7, 2016, prepared by CPE Consultants, LLC.
4. *Durham Regional Landfill Groundwater Monitoring Report- Third Quarter (July-September) 2016*; Durham Regional Landfill, LLC, dated December 16, 2016, prepared by CPE Consultants, LLC.

5. *Durham Regional Landfill Application for Aquifer Protection Permit, response to ADEQ Substantive Review Comments, Durham Regional Landfill, LLC, dated December 21, 2016, prepared by CPE Consultants, LLC.*
6. *Durham Regional Landfill Application for Aquifer Protection Permit, response to ADEQ Substantive Review Comments, Durham Regional Landfill, LLC, dated March 2, 2017, prepared by CPE Consultants, LLC.*
7. *Location of Point of Compliance Monitoring Well #4 for Durham Regional Landfill (DRLF) Application for aquifer Protection Permit (APP), response to ADEQ 2nd Substantive Review Comments letter, dated March 29, 2017, prepared by CPE Consultants, LLC.*

6.0 GENERAL CONDITIONS AND RESPONSIBILITIES

6.1 Annual Registration Fees [A.R.S. §§ 49-747(c)(7), 49-836]

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ as referenced in Section 2.1.1 of this permit.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2, and 3 of the Arizona Revised Statutes and Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information that the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application pursuant to A.A.C. R18-9-A203(D) shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. §§ 49-243(K)(8) and A.A.C. R18-9-A206 and A209(C)]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit and with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension and Revocation. [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed or revoked for cause, under the rules of the Department.

The permittee shall notify the ADEQ Solid Waste Unit in writing within fifteen (15) days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

END OF AQUIFER PROTECTION PERMIT NO. P-51185900