

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P- 501913
PLACE ID 13769, LTF 62571
SIGNIFICANT AMENDMENT**

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, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Arizona Public Service Company (APS) to operate the surface impoundments at the Redhawk Power Plant located in Arlington, Maricopa County, Arizona. These units operate over groundwater defined as the Hassayampa Sub-basin within the Phoenix Active Management Area (AMA), in Sections 14 and 23, Township 1 South, Range 6 West of the Gila and Salt River baseline and meridian.

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

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: Redhawk Power Plant - Surface Impoundments
Facility Address: 11600 South 363rd Avenue
Arlington, Arizona 85322
Maricopa County

Permittee: Arizona Public Service Company
Permittee Address: 400 North 5th Street, MS 5100
Phoenix, Arizona 85004

Facility Contact: Plant Manager
Emergency Phone No.: (602) 407-7820

Permitted Flow Rate: 7,000,000 gallons per day (gpd)
Latitude/Longitude: 33° 20' 08.94" North / 112° 50' 25.86" West
Legal Description: 1/2 S of Section 14, and the 1/4 NW of Section 23 of Township 1S, Range 6 W of the Gila and Salt River Baseline and Meridian, Maricopa County, Arizona

1.3 AUTHORIZING SIGNATURE

Trevor Baggione, Director
Water Quality Division
Arizona Department of Environmental Quality
Signed this ____ day of _____, 2016

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

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

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

The Redhawk Power Plant is a 1060-megawatt (MW) combined cycle power plant developed on 460 acres of land owned by Arizona Public Service Company (APS). Operations at the facility started in 2002. The Redhawk power plant is a natural gas-fired, advanced technology combustion turbine combined cycle power plant that consists of three basic components: a combustion turbine (CT) and electric generator, heat recovery steam generator (HRSG), and a steam turbine and electric generator. The CT produces electric power through the electric generator and supplies hot gases to the HRSG. The steam generated in the HRSG is sent to a condensing steam turbine that produces additional electricity. The steam turbine water is cooled via a wet mechanical draft cooling tower.

The facilities regulated under this permit consists of three lined impoundments (Makeup Water Surge Pond (MWSP), Brine Concentrator Surge Pond (BCSP) and one cell Brine Solids Drying Pond (BSDA)) used for plant operations and the temporary disposal of cooling tower blowdown. The MWSP stores makeup water for the plant operations and dust control and suppression on site. This water is received from the Palo Verde Power Plant’s reclamation plant that primarily treats the effluent water received from the City of Tolleson Wastewater Treatment Plant and the City of Phoenix’s 91st Avenue Wastewater Treatment Plant. The BCSP is used for temporary disposal of cooling tower blowdown. One of the two BSDA permitted cells (Cell #2) has been constructed. The second permitted BSDA cell (Cell #1) may be constructed in the future, when needed. The BSDA shall be used to manage the discharges from the plant’s Zero Liquid Discharge (ZLD) system and to increase water balancing options. Drainage channels direct stormwater runoff from a 100-year 24-hour storm event away from the impoundments. The domestic sewage is disposed to an on-site septic system operated under a general permit.

The depth to groundwater is approximately 240 feet below land surface at the site. The general direction of the groundwater flow is to the north-northwest.

The purpose of this amendment is to:

1. Remove routine discharge monitoring of the MWSP and routine indicator parameter groundwater monitoring in MWSP seepage monitoring wells.
2. Update the permit to remove pre-operational and initial characterization requirements that are no longer necessary.
3. Allow use of water from the MWSP for dust control and suppression on site.
4. Clarify operational monitoring requirements.
5. Designate regional aquifer POC locations.
6. Update the Compliance Schedule to reflect completed actions.
7. Update financial assurance and closure costs.
8. Revise the permit to match the current APP template.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Makeup Water Surge Pond	33° 20' 20.87" North	112° 50' 33.70" West
Brine Concentrator Surge Pond	33° 19' 44.96" North	112° 50' 23.00" West
Brine Solids Drying Area (Cell #1) Not constructed	33° 19' 41.70" North	112° 50' 29.73" West
Brine Solids Drying Area (Cell #2)	33° 19' 40.67" North	112° 50' 36.62" West

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 7,000,000 gallons per day (gpd). If the facility is incapable of discharge at this time, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under the rule.

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

The permittee has demonstrated 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. The estimated closure and post closure cost is \$20,048,029.00. The financial assurance mechanism was demonstrated through a financial test for self-assurance and a statement by permittee's chief financial officer in accordance with A.A.C. R18-9-A203(C)(1)(b) and (c).

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

Total containment through three lined impoundments of the makeup and process water shall provide pollution control at this facility. Operational methods and wastewater discharge control processes are included as part of the BADCT design. All required quality assurance and control procedures for the containment structures and treatment components, were approved by ADEQ, shall be followed. All materials used in the construction of the impoundments shall be compatible with the solution received.

2.2.1 Engineering Design**2.2.1.1- Makeup Water Surge Pond (MWSP)**

The MWSP has a surface area of 40 acres and a storage capacity of approximately 500-acre feet. The pond is lined with a single 60-mil high density polyethylene (HDPE) geomembrane liner underlain by a one-foot thick layer of soil compacted to a permeability of less than or equal to 6×10^4 cm/sec. The liner system is secured in an anchor trench at the top of the slopes and the side slopes at 3H:1V. At least 2.5 feet of freeboard shall be maintained in the pond operation.

2.2.1.2- Brine Concentrator Surge Pond (BCSP)

The BCSP has a surface area of approximately 2.77 acres with a maximum storage capacity of 27-acre feet. The BCSP is designed to hold approximately 7 days of cooling tower blowdown and shall be maintained with at least 2.5 feet of freeboard. The liner system consists of a double liner equipped with a leak collection and removal system (LCRS). The impoundment has a 60-mil HDPE geomembrane lower liner overlying a geosynthetic clay liner (GCL) with a hydraulic conductivity of approximately 1×10^{-9} cm/sec and a 60-mil HDPE geomembrane upper liner covered by a 12 inch layer of granular soil with riprap on the side slopes. The liner system is secured in an anchor trench at the top of the slopes and the side slopes designed at 3H:1V. The interior side slope and bottom are covered with soil to resist damage due to weathering, animals and vandalism. The exterior slopes are covered with a 6 inch layer of prepared bedding material for erosion protection.

The Leak Collection and Removal Control System (LCRS) was constructed in between the two HDPE geomembrane liners and consists of a HDPE geonet, a rock filled trench, and a rock filled collection sump for fluid collection and evacuation. The bottom of the pond slopes at two percent from two sides to promote drainage toward the leak collection sump at the north-central location of the pond. The leak collection trench located in the center of the pond is sloped at 0.5 percent toward the leak collection sump. A four inch diameter, perforated HDPE pipe in the collection trench collects leakage and drains it to the rock filled collection sump. A 16 inch diameter perforated HDPE pipe is embedded in the rock filled collection sump and connected to a 16 inch HDPE riser pipe. The riser pipe is connected to a flow meter and a pump with a level control sensor for fluid evacuation. A sufficient sized pump shall be provided with a level control sensor for fluid evacuation.

2.2.1.2- Brine Solids Drying Area (BSDA)

The BSDA shall contain two cells and will have a surface area of approximately 12 acres. Currently the BSDA consists of Cell #2, which is approximately 4.50 acres and holds discharges from the brine concentrator until dry enough for off-site disposal or when the ZLD is not in operation. Cell #1 may be constructed when needed. The liner system consists of a double liner equipped with a LCRS. The impoundment has a 60-mil HDPE geomembrane lower liner overlying a geosynthetic clay liner (GCL) with a hydraulic conductivity of approximately 1×10^{-9} cm/sec and a 60-mil HDPE geomembrane upper liner. The liner system is secured in an anchor trench at the top of the slopes and the side slopes designed at 3H:1V. The interior side slope and bottom are covered with soil to resist damage due to weathering, animals and vandalism. The exterior slopes are covered with a 6 inch layer of prepared bedding material for erosion protection.

The sand filled leak collection trench located in the center of the pond is sloped at 0.5 percent toward the leak collection sump. A four inch diameter, perforated HDPE pipe located in the collection trench collects leakage and drains to collection sump. A 16 inch diameter perforated HDPE pipe is embedded in the rock filled collection sump and connected to a four inch collection pipe. The riser pipe is connected to a flow meter and a pump with a level control sensor for fluid evacuation. A sufficient sized pump shall be provided with a level control sensor for fluid evacuation.

2.2.2 Processes and Operational Methods

The Redhawk Power Plant is designed to be a zero discharge plant that will recycle and reuse all the wastewater generated mainly from operation of the cooling towers. The primary source of cooling water used in the plant is coming from the Palo Verde Nuclear Generating Station (PVNGS) reclamation plant. Groundwater from on-site wells will provide a backup source when necessary. Both the treated effluent and the on-site well water are stored in the MWSP prior to being used by the plant or for dust control and suppression on site. The water utilized in the cooling towers is recycled until the salinity is approximately 15 to 23 times of the source water. All process waters generated within the plant are routed to the brine concentrator/crystallizer for distillation of purified water. The distilled water is returned to the plant's circulating system as feedwater for the cooling towers. Miscellaneous equipment drains are also collected in a piping system and routed to an oil/water separator for primary treatment and then are directed to the brine concentrator/crystallizer for final treatment before being recycled back to the plant. Approximately 95 % of the process water is recycled back to the cooling tower and steam water system. Approximately 3% of the process water will be evaporated during the brine concentrator distillation process. Only about 2% of the liquids which remain will then be processed by the crystallizer into a partially dewatered filter cake that will be periodically characterized and removed from the site to a nearby solid waste landfill for disposal.

The BCSP is constructed as emergency storage to hold approximately seven days of blowdown per year when the brine concentrator/crystallizer is being serviced and non-operational. When the brine concentrator returns to operation, the blowdown water stored in the BCSP shall be pumped back to the brine concentrator for treatment and recycling.

The BSDA will be used primarily to store brines from the Brine Concentrator, the Crystallizer and cooling tower sludge. For purposes of water balancing and optimizing clean-out of the BSDA, brine and water can be transferred between the BCSP and the BSDA. As required, the brine in the BSDA will be cleaned out and disposed of in a properly licensed landfill.

2.2.3 Site-specific Characteristics

Not used for BADCT demonstration.

2.2.4 Pre-operational Requirements

Within 60 days of completion of construction of the BSDA Cell #1, the permittee shall provide a final construction report to the ADEQ Water Permits Section and the ADEQ Water Quality Compliance Section. The construction report shall be certified by the on-site construction manager and shall include:

- A. Verification that the impoundment was constructed in accordance with ADEQ approved plans;
- B. Documentation of the QA/QC procedures completed for installation of the liner and the LCRS; and
- C. The final as-built plans and inspection results for all pollution control components relating to wastewater discharge and treatment processes.

2.2.5 Operational Requirements

The permittee shall comply with all operational and monitoring requirements in addition to the compliance schedule requirements as described in Section 3.0.

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

1. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. §49-201(12) resulting from failure or bypassing BADCT pollution control technologies including liner failure, uncontrollable leakage, berm breaches that result in unexpected loss fluid, accidental spills, or other unauthorized discharges.
2. The discharge limitations in this section are not applicable to any discharge caused by precipitation in excess of a single 100-year, 24 hour event.

2.3.1 Authorized and Unauthorized Materials

Authorized materials discharged to the MWSP shall be limited to only the tertiary treated domestic effluent, groundwater, ZLD pure distillate water, or treated water, and the chemicals previously approved by ADEQ. Any new water treatment chemicals may be used with prior approval from ADEQ.

Authorized materials discharged to the BCSP shall be restricted to cooling tower blowdown and oil/water separator effluent during periods when the brine concentrator is off-line, discharges from the Brine Concentrator (when the crystallizer is off-line), water and brine from the BSDA and shall not contain any sewage, organic solvents, or other hazardous substances that are not associated with the aforementioned operations.

Authorized materials discharged to the BSDA shall be restricted to discharges from the Brine Concentrator (when the crystallizer is off-line), brine from the Crystallizer during upset conditions, cooling tower sludge, water and brine from the BCSP and shall not contain any sewage, organic solvents, or other hazardous substances that are not associated with the aforementioned operations.

In the event of an unauthorized discharge the permittee shall initiate the contingency requirements in Section 2.6.5.

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

The POCs are established by the following monitoring location(s):

POC	POC Locations	Latitude	Longitude
1	Northwest corner of the MWSP	33° 20' 25.84" North	112° 50' 40.97" West
2	Northwest corner of the BCSP	33° 19' 47.42" North	112° 50' 24.02" West
3	Northwest corner of the BSDA	33° 19' 43.98" North	112° 50' 37.97" West

No groundwater monitoring is required under this permit. The Director may amend this permit to designate additional POCs, if information on groundwater gradients or groundwater usage indicates the need.

Perched Groundwater Monitoring

Four groundwater monitoring wells have been installed to monitor the perched groundwater systems. The four monitoring wells are as follows:

Monitoring Well	Latitude	Longitude	ADWR Number
MW-14cab	33° 20' 24"North	112° 50' 42" West	55-588913
MW-14dbb1	33° 20' 26"North	112° 50' 29" West	55-588914
MW-14cdb	33° 20' 13"North	112° 50' 41" West	55-588915
MW-14dcb	33° 20' 14"North	112° 50' 25" West	55-588916

No groundwater monitoring is currently required from the perched groundwater monitoring wells.

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

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Monitoring shall commence the first full monitoring period following permit issuance. 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. 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.

2.5.1 Discharge Monitoring

Not required under the terms of this permit.

2.5.2 Facility / Operational Monitoring

The permittee shall maintain and inspect the MWSP, BCSP and the BSDA according to Section 4.2, Table III. A log of inspections shall be kept at the facility for 10 years from the date of each inspection, available to ADEQ personnel upon request or inspection.

If any damage to an impoundment is identified during an inspection or if a pollution control system is rendered inoperable, the permittee shall perform the necessary repairs or maintenance to return the impoundment or system to operating condition, or remove the surface impoundment or system from service. The permittee shall document facility monitoring activities, and all repair procedures, methods, and materials used to return the system to operating condition in the facility log.

2.5.2.1 Leak Collection and Removal System (LCRS) Monitoring

The permittee shall monitor the LCRS in the BCSP in accordance with Section 4.3, Table IV, for presence of fluid on a daily basis starting the date that the surge pond receives cooling tower blowdown or discharges from the Brine Concentrator and continuing until three (3) more days after all fluid in the surge pond has been removed.

The permittee shall monitor the LCRS in the BSDA in accordance with Section 4.3, Table IV, for presence of fluid on a daily basis starting the date that the pond receives discharges from the Brine Concentrator and continuing until three (3) more days after all fluid in the pond has been removed.

If fluids are collected in the LCRS sumps of the BCSP or BSDA during the period the ponds are in use, the fluids shall be pumped and quantified as needed to maintain a hydraulic head of no more than one foot on the bottom liner at all times. If the fluid detected exceeds the alert levels established for the leakage rate described in Section 4.3, Table IV, the permittee shall initiate the necessary contingency plan described in Section 2.6. A log of the monitoring results shall be kept at the facility for ten (10) years from the date of each inspection, available for review by ADEQ personnel.

2.5.2.2 Wastewater Containment Structure Monitoring

During the operation of the impoundments, the operator shall properly maintain and inspect all wastewater containment structures according to Section 4.2, Table III. A log of these inspections shall be kept at the facility for ten (10) years from the date of each inspection, available for review by ADEQ personnel.

If any damage to the impoundments or the LCRS is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used to return the system(s) to operational status shall be documented as an attachment to the self-monitoring report and submitted annually to the ADEQ Water Quality Compliance Section, Enforcement Unit and made available at the site for review by ADEQ personnel. Results of the pollution control structure monitoring shall be recorded and reported to ADEQ according to Section 2.7.4.

2.5.3 Groundwater Monitoring and Sampling Protocols

Not required under the terms of this permit.

2.5.4 Surface Water Monitoring and Sampling Protocols

Not required under the terms of this permit.

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. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose “other actions” including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. 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, AZ 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 samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Water Permits Section for approval prior to installation and the permit shall be amended to include any new points.

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 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan submitted in the application 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 plan.

Any AL that is exceeded or any violation of an Aquifer Quality Limit (AQL), discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. 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 if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Established Performance Standards (Alert Levels) for Operation of an Impoundment

A. Exceeding of Freeboard in the Brine Concentrator Surge Pond, Brine Solids Drying Area, or Make-up Water Surge Pond

In the event freeboard in any pond is less than the required 2.5 feet for the BCSP or MWSP; or less than the required 2 feet for the BSDA in Section 4.2, Table III permittee shall:

1. Immediately cease discharging to the affected impoundment(s), remove and properly dispose of the liquid in the affected pond until the water level is at or below the freeboard limit.
2. Within 5 days of discovery, evaluate the cause of the incident and make needed operational adjustment as necessary to avoid future occurrences.
3. Record in the facility log, the amount of wastewater removed, a description of

the removal method, and the disposal arrangements. The facility log shall be maintained according to Section 2.7.2. Records documenting each freeboard incident and actions taken to correct the problem shall be included in the annual report submittal as required in Section 2.7.4.

B. Exceeding of Alert Level # 1 for the Leak Collection and Removal System Associated with Brine Concentrator Surge Pond and the Brine Solids Drying Area

For exceedances above Alert Level # 1, but below Alert Level # 2 set in Section 4.3, Table IV, the permittee shall take the following actions:

1. Within five (5) days, determine if the fluid or leakage in the collection sump is operational water by measuring the pH and conductivity of fluids contained in the pond and in the sump to allow direct comparison in water quality.
2. Within five, (5) days, notify the ADEQ Water Quality Compliance Section, Enforcement Unit in accordance with Section 2.7.3, and include in the notification an assessment of the type of water in the sump based on the measurements taken in accordance with item B(1) listed above.
3. Within fifteen (15) days, initiate the assessment of the condition of the liner system using visual methods, electric leak detection, or other methods if applicable.
4. Monitor fluid removal from the LCRS on a daily basis until the daily volume of fluid quantified remains below the specified Alert Level #1.
5. Within 30 days the permittee shall submit a report to the ADEQ Water Quality Compliance Section, Enforcement Unit to address problems identified from the assessment of the liner system, source of the fluid, and the remedial actions taken to minimize the future occurrences. The report shall include the results of the liner evaluation, methods used to locate the leak if applicable, the repair procedures implemented to restore the liner to optimal operational status, and other information necessary to ensure that future occurrence of the incidence will be minimized. ADEQ may request additional action if necessary to address problems identified from the assessment of the liner system and other applicable repair procedures including infiltration of non-operational water detected in the leak detection and removal system.

C. Exceeding of Alert Level #2 for the Leak Collection and Removal System Associated with the Brine Concentrator Surge Pond or the Brine Solids Drying Area

If the operational Alert Level # 2 set in Section 4.3, Table IV, has been exceeded, the permittee shall:

1. Within 24 hours of discovery, determine if the water in the leak collection sump is operational water by measuring the pH and conductivity of fluids contained in the pond and in the sump to allow direct comparison in water quality.
2. Within five (5) days of discovery, notify the ADEQ Water Quality Compliance Section, Enforcement Unit in accordance with Section 2.7.3, and include an assessment regarding the type of water in the sump based upon the measurement taken in accordance with item C (1) listed above.
3. Within five (5) days of discovery, initiate the assessment of the condition of the liner system using visual methods, electric leak detection, or other methods if applicable.
4. If practical, immediately cease all discharges to the affected pond.
5. Within five (5) days of discovery, collect samples from the liquid contained in the leak collection sump, in accordance with Section 4.3, TABLE IV. The analytical data shall be submitted to the ADEQ Water Quality Compliance Section, Enforcement Unit within 30 days of incidence.
6. Within 30 days of discovery, submit for approval to ADEQ, a corrective action plan to address problems identified from assessment of the liner system in an

expeditious manner. At the direction of ADEQ, implement the approved plan.

7. Within 30 days of the completion of corrective actions, submit a report to the ADEQ Water Quality Compliance Section, Enforcement Unit describing the repairs to the liner system and details of any remedial actions taken.

2.6.2.2 Exceeding of Alert Levels in Groundwater Monitoring

Not required under the terms of this permit.

2.6.3 Discharge Limitations Violations

2.6.3.1 Liner Failure, Containment Structure Failure, Excessive Liner Leakage or (Leakage into the Vadose Zone)

If there is unexpected loss of fluid in the pond, any failure of the containment structure, or leakage through the liner system such that fluids are released to the vadose zone, the permittee shall take the following actions:

1. Within 24 hours of discovery, cease all discharges to the surface impoundment as necessary to prevent any further releases to the environment.
2. Within 24 hours of discovery, notify ADEQ WQCS.
3. Within 5 days of discovery of a failure that resulted in a release to the subsurface, collect representative samples of the fluid remaining in the surface impoundment. One Sample shall be analyzed for the parameters specified in Section 4.3, Table V. Within 30 days of the incident, submit a copy of the analytical results to the ADEQ WQCS.
4. Within 15 days of discovery, initiate an evaluation to determine the cause for the incident. Identify the circumstances that resulted in the failure and assess the condition of the surface impoundment and liner system. Implement corrective actions as necessary to resolve the problems identified in the evaluation. Initiate repairs to any failed liner, system, structure, or other component as needed to restore proper functioning of the surface impoundment. The permittee shall not resume discharging to the surface impoundment until repairs of any failed liner or structure are performed. Repair procedures, methods, and materials used to restore the system(s) to proper operating condition shall be described in the facility log/recordkeeping file and available for ADEQ review.
5. As soon as practicable, remove fluid remaining in the surface impoundment as necessary to prevent further releases to the subsurface and/or to perform repairs. Record in the facility log/recordkeeping file the amount of fluid removed, a description of the removal method, and other disposal arrangements. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection/Log Book/Recordkeeping).
6. Within 30 days of discovery of the incident, submit a report to ADEQ as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within 60 days of discovery, conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the incident. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to ADEQ, for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of ADEQ, the permittee shall implement the approved plan.
8. Within 30 days of completion of corrective actions, submit to ADEQ, a written report as specified in section 2.6.6 (Corrective Actions). Upon review of the report, ADEQ may amend the permit to require additional monitoring,

increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.2 Overtopping of an Impoundment

If overtopping of fluid from a permitted surface impoundment occurs, and results in a discharge pursuant to ARS § 49-201(12), the permittee shall:

1. Within 24 hours of discovery, cease all discharges to the surface impoundment to prevent any further releases to the environment.
2. Within 24 hours of discovery, notify the ADEQ WQCS.
3. Within 5 days, collect representative samples of the fluid contained in the surface impoundment. One Sample shall be analyzed for the parameters specified in Section 4.3, Table V. Within thirty days of the incident, submit a copy of the analytical results to ADEQ WQCS.
4. As soon as practicable, remove and properly dispose of excess water in the impoundment until the water level is restored at or below the appropriate freeboard as described in Section 4.2, Table III. Record in the facility log, the amount of fluid removed a description of the removal method, and the disposal arrangements. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection/Log Book/Recordkeeping).
5. Within 30 days of discovery, evaluate the cause of the overtopping, and identify the circumstances that resulted in the incident. Implement corrective actions and adjust operational conditions as necessary to resolve the problems identified in the evaluation. Repair any systems as necessary to prevent future occurrences of overtopping.
6. Within 30 days of discovery of overtopping, submit a report to ADEQ as specified in section 2.7.3 (Permit Violation and Alert Level Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within 60 days of discovery, and based on sampling in Subsection 3 above, conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the incident.
8. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to ADEQ for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of ADEQ, the permittee shall implement the approved plan.
9. Within 30 days of completion of corrective actions, submit to ADEQ, a written report as specified in Section 2.6.6 (Corrective Actions). Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.3 Inflows of Unexpected Materials to an Impoundment

The types of materials that are expected to be placed in the permitted surface impoundments are specified in Section 2.3. If any unexpected materials flow to a permitted surface impoundment, the permittee shall:

1. Within 24 hours of discovery, cease all unexpected inflows to the surface impoundment(s).
2. Within 24 hours of discovery, notify the ADEQ WQCS.
3. Within 5 days of the incident, identify the source of the material and determine the cause for the inflow. Characterize the unexpected material and contents of the affected impoundment, and evaluate the volume and concentration of the material to determine if it is compatible with the surface impoundment

liner. Based on the evaluation of the incident, repair any systems or equipment and/or adjust operations, as necessary to prevent future occurrences of inflows of unexpected materials.

4. Within 30 days of an inflow of unexpected materials, submit a report to ADEQ as specified in section 2.7.3 (Permit Violation and Alert Level Status Reporting). Include a description of the actions performed in Subsections 1 through 3 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
5. Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

Not required under the terms of this permit.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6

2.6.5.1 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.

2.6.5.2 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(19)) 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 Water Quality Compliance Section within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 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 Water Quality Compliance Section within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to ADEQ Water Quality Compliance Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and 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 Corrective Actions

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

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Water Permits Section prior to implementing a corrective action to

accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, 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

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.
 - Table III, Facility Inspection Monitoring Log Book only

Section 4.3

- Table IV, Leak Collection and Removal System Monitoring
- Table V, Contingency Discharge Characterization for BADCT Failures and Overtopping

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book 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;
5. Documentation of sampling date and time;
6. Any other information required by this permit to be entered in the log book; and
7. Monitoring records for each measurement shall comply with R18-9 A206 (B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing within 5 days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an AL exceedance.
2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. 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

- c. 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 which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
- 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 Operational, Other or Miscellaneous Reporting

The permittee shall submit an annual report in narrative and/or tabular form to the ADEQ WQCS that briefly summarizes the status of compliance under this permit. The report shall identify any contingency actions taken, violations of this permit, or any ALs or DLs that have been exceeded; shall summarize the findings of the wastewater containment structure monitoring identified in Section 4.2, Table III and contingency monitoring identified in Section 4.3, Table IV (if conducted); and shall include any other information specifically requested by permit condition to be submitted in the annual report. The annual report is to be submitted by January 30 of each year to cover activities from January 1 through December 31 of the previous year.

When BSDA Cell #1 is constructed, the permittee shall submit the final construction report and QA/QC documentation within 60 days of completion.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
 Water Quality Compliance Section, Data Unit
 Mail Code: 5415B-1
 1110 W. Washington Street
 Phoenix, AZ 85007
 Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to:

Arizona Department of Environmental Quality
 Water Quality Compliance Section
 Mail Code: 5415B-1
 1110 W. Washington Street
 Phoenix, AZ 85007
 Phone (602) 771-4497

All documents required by this permit to be submitted to the Water Permits Section shall be directed to:

Arizona Department of Environmental Quality
 Water Permits Section
 Mail Code: 5415B-3
 1110 W. Washington Street
 Phoenix, AZ 85007
 Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30

Monitoring conducted during quarter:	Quarterly Report due by:
July-September	October 30
October-December	January 30

The following table lists the annual report due date:

Monitoring conducted:	Report due by:
Annual: January-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits Section and Water Quality Compliance Section shall be notified within 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 Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems 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 Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

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

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Water Permits Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year, thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and/or
5. Further action is necessary to meet property use restrictions.

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

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Permits Section. In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits Section a Post-closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-closure Plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-closure Plan.

2.10.1 Post-closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-closure Completion

Not required at the time of permit issuance.

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

For the compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Water Permits Section. A copy of the cover letter must also be submitted to the ADEQ Water Quality Compliance Section.

No.	Description	Due by:	Permit Amendment Required?
3.1	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, 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 3.2 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 the self-assurance demonstration as required in A.A.C. R18-9-A203(C)(1).	April 18, 2018 and by April 18 every two years thereafter for the duration of the permit.	No
3.2	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.	April 18, 2022 and by April 18 every 6 years thereafter for the duration of the permit.	Yes
3.3	Final Construction Report and QA/QC documentation for the BSDA Cell #1 as per Sections 2.2.4 and 2.7.4.	Submit within 60 days of the completion of the BSDA Cell #1	No
3.4	Submit a minor amendment to update the latitude and longitude for the BSDA Cell #1, LCRS monitoring points: Sampling Point 003-E Sampling Point 003-W	Submit within 60 days of the completion of the BSDA Cell #1	Yes

4.0 COMPLIANCE AND OPERATIONAL MONITORING

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

I Pre-operational requirements are not a condition of this permit.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

III Facility Inspection Operational Monitoring – Log Book

4.3 Contingency Monitoring

IV Leak Detection and Removal System Monitoring

V Compliance Discharge Characterization for BADCT Failures and Overtopping

4.0 COMPLIANCE AND OPERATIONAL MONITORING

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

TABLE I

Pre-operational requirements are not a condition of this permit.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
DISCHARGE MONITORING

Discharge monitoring requirements are not a condition of this permit.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III
FACILITY INSPECTION MONITORING- Log Book¹

Parameter	Performance Standards²	Monitoring Frequency	Reporting Frequency
MWSP Impoundment	Minimum of 2.5 feet of Freeboard	Weekly	Annually and as otherwise required by Section 2.7
BCSP Impoundment	Minimum of 2.5 feet of Freeboard	Weekly	Annually and as otherwise required by Section 2.7
BSDA Impoundment	Minimum of 2.0 feet of Freeboard	Weekly	Annually and as otherwise required by Section 2.7
Evidence of overtopping of the impoundments	Discharge to land surface.	Weekly	Annually and as otherwise required by Section 2.7
Fluid Level	No unexpected or sudden loss	Monthly or after a significant rainstorm or other natural disaster	Annually and as otherwise required by Section 2.7
Upper Liner Integrity	No visible tears, punctures or other deformity	Monthly or after a significant rainstorm or other natural disaster	Annually and as otherwise required by Section 2.7
Berm Integrity	No visible structural damage or breach. No erosion of embankment	Weekly or after a significant rainstorm or other natural disaster	Annually and as otherwise required by Section 2.7
Leak Collection and Removal System (LCRS)	No obstruction in the sumps, pumps in good operational condition	Weekly or after a significant rainstorm or other natural disaster	Annually and as otherwise required by Section 2.7
Flow meter, solution- level sensor, and chart recorder (if applicable)	Maintained to be in continual operational condition	Weekly	Annually and as otherwise required by Section 2.7

¹ The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

² Performance Standards monitoring method shall be field observation.

4.3 CONTINGENCY MONITORING

TABLE IV
LEAK COLLECTION AND REMOVAL SYSTEM MONITORING³

Sampling Point	Identification	Latitude	Longitude
003	The LCRS at the BSDP	33° 19' 43"N	112° 50' 22" W
004-N	The LCRS at the BSDA Cell #2	33° 19' 42"N	112° 50' 38"W
004-S	The LCRS at the BSDA Cell #2	33° 19' 39"N	112° 50' 38" W
003-E	The LCRS at the BSDA Cell #1	TBD ⁴	TBD
003-W	The LCRS at the BSDA Cell #1	TBD	TBD

LCRS Sump	Parameter	AL#1⁵ (gpd)	AL#2⁶ (gpd)	Monitoring Method⁷	Monitoring⁸ Frequency	Reporting Frequency⁹
003	Liquid Pumped ¹⁰	4,050	39,730	Automated	Daily	Quarterly
004-N	Liquid Pumped	528	16,818	Automated	Daily	Quarterly
004-S	Liquid Pumped	533	16,977	Automated	Daily	Quarterly
003-E	Liquid Pumped	693	22,054	Automated	Daily	Quarterly
003-W	Liquid Pumped	1,011	32,208	Automated	Daily	Quarterly

³ The Alert Level 1 (AL#1) or Alert Level 2 (AL#2) shall be exceeded when the cumulative amount of leakage pumped from the two sumps for an evaporation pond is greater than the applicable quantity in the Table.

⁴ TBD = To Be Determined (See Section 3.0, Compliance Schedule, item 3.4).

⁵ AL#1= Exceedance in Alert Level #1: Increase LCRS monitoring to daily, including inspection of the LCRS and measurement of fluids evacuated from the collection sump, until the leakage rate is stabilized below Alert Level # 1. The permittee shall place into action the requirements presented in 2.6.2.1.B. Exceedance of an AL is not a violation.

⁶ AL#2 = Exceedance in Alert Level #2: Immediately cease discharge and collect a single sample from parameter set in Section 4.3, Table V. The permittee shall place into action the requirements presented in 2.6.2.1.C. Exceedance of an AL is not a violation.

⁷ Monitoring shall be automated. During repairs on the automated system, monitoring may be performed manually.

⁸ LCRS inspection and leakage quantification shall be performed while the impoundment is "in use" (when industrial wastewater is present in the impoundment and/or LCRS). Evacuation of fluids in the sump shall be performed as necessary for accurate monitoring and effective operation of the collection system. Routine analysis of sump fluids is not required. However, characterization of sump fluids is required as a contingency action in Section 2.6.

⁹ The permittee shall report quarterly of the LCRS monitoring. If no event occurred, the permittee shall state the fact in the Self-Monitoring Report form.

¹⁰ The "Liquid Pumped" value to be reported is the amount of liquid pumped from the LCRS sump in gallons per day (gpd).

4.3 CONTINGENCY MONITORING

TABLE V

CONTINGENCY DISCHARGE CHARACTERIZATION FOR BADCT FAILURES AND OVERTOPPING¹¹

Parameter	Units	Monitoring Frequency ¹²	Reporting Frequency
Alkalinity	mg/l ¹³	One sample	Quarterly
pH	mg/l	One sample	Quarterly
Total Dissolved Solids (TDS)	mg/l	One sample	Quarterly
Total Nitrogen ¹⁴	mg/l	One sample	Quarterly
Calcium	mg/l	One sample	Quarterly
Chloride	mg/l	One sample	Quarterly
Fluoride	mg/l	One sample	Quarterly
Magnesium	mg/l	One sample	Quarterly
Potassium	mg/l	One sample	Quarterly
Sodium	mg/l	One sample	Quarterly
Sulfate	mg/l	One sample	Quarterly
Antimony	mg/l	One sample	Quarterly
Arsenic	mg/l	One sample	Quarterly
Barium	mg/l	One sample	Quarterly
Cadmium	mg/l	One sample	Quarterly
Chromium	mg/l	One sample	Quarterly
Lead	mg/l	One sample	Quarterly
Mercury	mg/l	One sample	Quarterly
Selenium	mg/l	One sample	Quarterly
Zinc	mg/l	One sample	Quarterly
TPH	mg/l	One sample	Quarterly
Iodine 131	mg/l	One sample	Quarterly
Tritium	mg/l	One sample	Quarterly

¹¹ Monitor under this table per Section 2.6.2.1.C, Exceeding of AL#2 for LCRS at BCSP or BSDA, Section 2.6.3.1, Liner Failure, Containment Structure Failure, or Unexpected Loss of Fluid and/or Section 2.6.3.2, Overtopping of a Surface Impoundment.

¹² One verification sample shall be taken within 5 days of an event.

¹³ mg/l = milligrams per liter

¹⁴ Total Nitrogen includes nitrate-N and TKN-N.

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. Significant Amendment Application dated: June 17, 2015
2. Public Notice dated:
3. Public Hearing dated: NA
4. Responsiveness Summary dated: NA

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

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, 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 which 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 be in effect prior to any discharge authorized by this permit and 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]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, 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. §§ 41-1009, 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 & 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 Water Permits Section in writing within 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 shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).