

Aquifer Protection Permit 511395
PLACE ID 145089, LTF 58513
ASARCO Ripsey Wash Tailings Storage Facility

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to the Aquifer Protection Permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). The purpose of BADCT is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology); to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer; or to prevent pollutants from reaching the aquifer.

I. FACILITY INFORMATION

Name and Location

| | |
|-----------------------------|---|
| Name of Permittee: | ASARCO LLC |
| Mailing Address: | ASARCO LLC – Ray Operations Box 640 Kearny, AZ 85137 |
| Facility Name and Location: | ASARCO Ripsey Wash Tailings Storage Facility 4 Miles SW of the Ray Mine Operations adjacent to the Florence-Kelvin Highway Kearny, Arizona |

Regulatory Status

This Aquifer Protection Permit (APP) application was received on issued on July 29, 2013. The Ripsey TSF will replace the Elder Gulch Tailings Storage Facility as it approaches the end of its proposed useful life. The Ripsey Wash TSF Site is located south of the Ray Mine and south of State Route 177 in Pinal County, Arizona. The Site lies within portions of Sections 10, 11, 12, 14, 15, 21, 22, 23, 26 and 27 of Township 4 South, Range 13 East, of the Gila and Salt River Baseline and Meridian. Most of the Site is located on State Trust land that is administered by the Arizona State Land Department (ASLD), with the exception of a small parcel of private land in the northwest corner of the Site that is owned by Asarco and a large parcel of land on the north side of the Gila River that is also owned by Asarco. Adjacent areas are owned by the U.S. Bureau of Land Management (BLM), the U.S Bureau

of Reclamation (USBR) and Asarco. The Florence-Kelvin Highway crosses the northern portion of the Site and will need to be relocated to the north of the Site prior to construction of the planned TSF.

Facility Description

ASARCO LLC shall construct and operate the ASARCO Ripsey Wash Tailings Storage Facility (TSF) located in eastern Pinal County, along the Florence-Kelvin Highway, approximately five miles west of the Town of Kearny. The Ripsey TSF (R1) shall receive tailings generated from the Ray Operations, located approximately four miles northeast of the facility. The Ray Operations has been in operation since 1911 and operates 24 hours a day, seven days a week. The TSF shall receive approximately 30,000 tons per day (tpd) (with peak production capacity at 45,000 tpd) for a total capacity of approximately 750 million tons generated from the Ray Operations. The facility shall consist of a tailings storage facility (R1), two reclaim impoundments, and a drain down impoundment. Tailings from the Ray Operations shall be piped in slurry form through tailing pipelines to the TSF. Reclaim water shall be pumped back to the Ray Operations for reuse.

The Main and East Reclaim Impoundments are considered non-stormwater impoundments. The impoundments shall receive and store tailing seepage water and run-off from the tailing side slopes, which is piped back to the thickener at the Ray Operations for reuse. The Main Reclaim Impoundment (R2) is located in Ripsey Wash. This pond stores fluid from the cyclone sand underflow; seepage from the TSF underdrain system; storm water that has contacted the TSF embankment; water recovered from the alluvial seepage collection trench downstream of the TSF; and, if needed, supernatant reclaim water from the tailings impoundment. The East Reclaim Impoundment (R3) is located in an unnamed wash referred to as the East Drainage. This impoundment stores seepage from the TSF underdrain system associated with the eastern portion of the TSF; storm water that has contacted the TSF embankment ; water recovered from the alluvial East Cutoff Wall seepage collection system; and, if needed, supernatant reclaim water. Accumulated fluids in both the Main and East Reclaim Impoundments will be pumped back to the Ray Operations for reuse.

The Drain Down Impoundment (R4) (also considered a non-stormwater impoundment) is located northeast of the TSF on the north side of the Gila River at the lowest elevation of the tailing slurry and the reclaim pipeline profile. This impoundment is designed to temporarily hold tailings and/or reclaim water if the pipelines need to be drained for maintenance (or in the event of a pipeline release), as well as direct precipitation falling onto the impoundment . The water contained in this impoundment is transferred back to the TSF or to the thickener at the Ray Operations.

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY

The Ripsey TSF shall employ individual BADCT components and the three surface impoundments will employ prescriptive BADCT components (in accordance with the Arizona Mining BADCT Guidance Manual (AMBG)). BADCT has been determined in accordance with the AMBG. Although considered non-stormwater impoundments pursuant

to the AMBGM, the design of the three ponds incorporates enhanced discharge control measures (such as double liners and leak collection and recovery systems) that go beyond the prescriptive components identified in the AMBGM for non-stormwater impoundments.

Ripsey Wash Tailings Storage Facility (R1) (Tailings Impoundment)

Facility R1, the Ripsey Wash TSF, will be constructed using the centerline dam construction method via two engineered soil and rockfill embankment starter dams and will be constructed, operated and monitored as described in the April 24, 2014 AMEC Technical Design Memorandum (AMEC April 24, 2014 Tech Memo) and subsequent correspondence and technical memorandums submitted during the application process. The TSF will have a deposition rate up to 45,000 tons per day (tpd) by dry weight and have a total capacity of 750 million tons. The maximum permitted dam crest elevation shall be no greater than 2,200 feet above mean sea level (amsl) based on the stability analyses completed by AMEC (April 24, 2014). The TSF will be partially lined with underdrains constructed beneath the two starter dams. Seepage from the underdrains will be collected in the Main and East Reclaim Impoundments. Seepage collection systems will be constructed within Ripsey Wash and the East Drainage downstream of the Ripsey TSF to intercept flows within the alluvium of Ripsey Wash and East Drainage, respectively. The downstream side of the seepage collection trench in Ripsey Wash will be lined with a geomembrane that is anchored into bedrock. The cutoff wall within the East Drainage will extend into bedrock. Water that is collected in the seepage collection systems will be pumped out and stored in the reclaim impoundments. Geosynthetic liner will be used for control of potential discharge in the Hackberry fault as described in the AMEC April 24, 2014 Tech Memo.

An upstream diversion dam will be constructed across Ripsey Wash at the south (upgradient) end of the ultimate TSF footprint. Storm water from the upstream watershed will be routed around the TSF via a storm water diversion channel on the east side of the TSF and a series of detention ponds, pump stations, and pipes on the west side of the TSF.

Main Reclaim Impoundment (R2) (Non-Stormwater)

Facility R2, the Main Reclaim Pond, will be constructed with a 80 mil HDPE overlying 60 mil HDPE double-liner located in the main drainage downgrade of the Ripsey TSF. The impoundment volume for this facility is 39.0 million gallons (119.69 ac-ft) at its maximum pond height (25 feet). The impoundment shall be used to store fluid from the cyclone sand underflow; seepage from the TSF underdrain system; storm water that has contacted the TSF embankment; water recovered from the alluvial seepage collection trench downstream of the TSF; and, if needed, supernatant reclaim water. Pumps will be used to return water from the impoundment to the Ray Operations. This facility will include a Leachate Collection Recovery System (LCRS). The impoundment shall have sufficient capacity to contain expected normal operating volumes and precipitation associated with a 100-year, 24-hour event while still maintaining a minimum 2 feet of freeboard. Accumulated fluids in the Main Reclaim Impoundment will be pumped back to the Ray Operations for reuse. The slopes on the impoundment sides will be 3 horizontal to 1 vertical. The impoundment meets the definition of a non-stormwater pond, but shall

be designed and constructed using the prescriptive BADCT measures identified for process solution impoundments.

East Reclaim Impoundment (R3) (Non-Stormwater)

Facility R3, the East Reclaim Impoundment, will be constructed with an 80 mil HDPE overlying 60 mil HDPE double liner located in the eastern drainage downgrade of the TSF. The estimated impoundment volume for this facility will be 7.7 million gallons (23.63 ac-ft) at its maximum pond height (16.5 feet). The impoundment will be used to store seepage from the TSF underdrain system associated with the eastern portion of the TSF; storm water that has contacted the TSF embankment; water recovered from the alluvial East Cutoff Wall seepage collection system; and, if needed, supernatant reclaim water. This facility shall include a LCRS. The impoundment shall have sufficient capacity to contain expected normal operating volumes and precipitation associated with a 100-year, 24-hour event while still maintaining a minimum 2 feet of freeboard. Accumulated fluid in the East Reclaim Impoundment will be pumped back to the Ray Operations for reuse. The slopes on the impoundment sides will be 3 horizontal to 1 vertical. The impoundment meets the definition of a non-stormwater impoundment, but shall be designed and constructed using the prescriptive BADCT measures identified for process solution impoundments.

Drain Down Pond (R4) (Non-Stormwater Impoundment)

Facility R4 the Drain Down Impoundment will be constructed with a 80 mil HDPE overlying 60 mil HDPE double liner located north of the Gila River and east of the Florence-Kelvin Highway. The estimated impoundment volume for this facility will be 6.88 million gallons (21.11 acre feet) with a maximum pond height (13.5 ft). This impoundment is designed to temporarily hold tailings and/or reclaim water if the pipelines need to be drained for maintenance (or in the event of a pipeline release), as well as direct precipitation falling onto the impoundment. The water contained in this pond is transferred back to the TSF or to the thickener at the Ray Operations. The impoundment will have sufficient capacity to contain anticipated volumes from a pipeline drain down along with the direct precipitation associated with a 100-year, 24-hour storm event while still maintaining a minimum of 2 feet freeboard. The slopes on the impoundment sides will be 3 horizontal to 1 vertical. This facility will include a LCRS. The impoundment meets the definition of a non-stormwater pond, but shall be designed and constructed using the prescriptive BADCT measures identified for process solution impoundments.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Monitoring and Reporting Requirements

Ambient Groundwater

Eight rounds of groundwater quality samples will be obtained from each of the four existing POC wells (MW-1 A, MW-1B, MW-2 and MW-3) over a two-year period to establish ambient groundwater conditions, and Alert Levels (ALs) and Aquifer Quality Limits (AQLs) for the Ripsey Wash TSF APP. The first round of ambient monitoring was performed on

February 26, 2014. Subsequent monitoring rounds will be performed at approximately 3-month intervals. The ambient groundwater quality samples are being analyzed for the same list of parameters as those contained in the biennial monitoring parameters table in the consolidated Ray Mine APP (Section 4.2, Table 4.2.2).

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

Six (6) POC well locations were identified for the proposed TSF. Four of the POC wells are existing wells, whereas the other two wells are just proposed locations. Ambient groundwater monitoring is ongoing for the four existing POC wells. The proposed POC well (MW-X) is located downgradient from the deepest portion of the lined Drain Down Pond and upgradient from the Gila River. POC Y is also a proposed location for a POC well which is located directly downgradient (north) of the East Reclaim pond.

Well MW-1A is screened within the alluvial aquifer of Ripsey Wash and Well MW-1B is screened within the regional bedrock aquifer. Well MW-2 is located within the East Drainage downgradient of the planned tailings impoundment and the East Reclaim Pond. Well MW-3 is located along the west edge of the tailings impoundment between Ripsey Wash and Zelleweger Wash. Wells MW-2 and MW-3 are both screened within the regional bedrock aquifer. Well MW-3 is one of the original regional bedrock wells drilled and installed by Boart-Longyear in 2012. The other three wells (MW-1A, MW-1B and MW-2) were drilled and installed by Ways Drilling, Inc. in late 2013. A new well was drilled and installed to replace the existing Well MW-2. This well was replaced because the water level in the older well was above the screened interval of the well.

There are six established POC well locations in this permit.

| Well Number | POC Locations | Latitude (North) | Longitude (West) | ADWR Number |
|--------------------|--|-------------------------|-------------------------|--------------------|
| MW-1A (existing) | Located in the Ripsey Wash drainage downgradient (north-northeast) of the planned TSF and the Main Reclaim Impoundments. | 33° 05' 54" | 111° 00' 29" | 55-222616 |
| MW-1B (existing) | Located in the Ripsey Wash drainage downgradient (north-northeast) of the planned TSF and the Main Reclaim Impoundments. | 33° 05' 54" | 111° 00' 29" | 55-222617 |
| MW-2 (existing) | Located downgradient (northeast) of the East Reclaim Impoundment. | 33° 05' 47" | 110° 58' 54" | 55-222618 |
| MW-3 | Located along the west | 33° 05' 16" | 111° 00' 44 " | 55-220885 |

| | | | | |
|----------------------|---|----------------|------------------|-----|
| (existing) | edge of the planned TSF between Ripsey Wash and Zelleweger Wash. | | | |
| MW-X (Conceptual) | To be located downgradient from the deepest portion of the lined Drain Down Impoundment and upgradient from the Gila River. | 33° 06' 14.15" | 110° 58' 25.27 " | TBD |
| MW-Y (Conceptual) | To be located downgradient (north) of the East Reclaim Impoundment. | 33° 05' 49.85" | 110° 59' 0.284 " | TBD |

Groundwater monitoring is required at POCs MW-1A, MW-1B, MW-2 and MW-3. Monitoring requirements for each Point of Compliance are listed in Section 4.2, Table 4.2.3. MW-Y may be required in response to an Alert Level 2 exceedance at the East Reclaim Pond.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POCs or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

Discharge Monitoring

Discharge Monitoring is not required.

IV. HYDROGEOLOGIC SETTING

The Site is located in the northern portion of the Tortilla Mountains, approximately 4 miles southwest of the Asarco Ray Mine and 5 miles west of the Town of Kearny. The mountain range is bounded on the northeast by the San Pedro and Gila Rivers. The northeast side of the Tortilla Mountains is characterized by rugged terrain with incised drainages that flow toward the San Pedro and Gila Rivers, whereas the southwest side of the mountain range grades into an extensive erosional surface that slopes toward the Florence Basin. The topography at the Site ranges from approximately 1,775 feet at the Gila River to approximately 2,500 feet along the southern limits of the Site. The elevation at the Main Reclaim Pond is approximately 1,800 feet

The dominant geologic structure at the Site is the graben formed by the Hackberry and Ripsey Faults. The graben appears to have controlled the deposition and thickness of the tilted San Manuel Formation within and adjacent at the Ripsey Wash site. The Hackberry fault is easily observed on the east side of Zelleweger Wash, on both sides of Ripsey Wash and intermittently on the ridge between the two washes. The fault was first encountered in Boring MW-3, but the method of drilling (downhole hammer) did not allow for detailed characterization of the fault. Four additional borings (P-9, and P-13 through P-15) were subsequently drilled through the Hackberry Fault zone using both wireline coring methods and Tubex (downhole hammer) methods. Optical and acoustic televiewer and gamma-caliper

logging of Boring P-15 was also performed. The Ripsey Fault was investigated by utilizing photo-geological analyses of aerial imagery, surface refraction surveys, exploration drilling and downhole geophysical logging.

The two primary water-bearing units at the Site are alluvium within the major drainages and the underlying bedrock. Groundwater conditions and aquifer parameters for these two units have been characterized through the drilling and installation of wells and piezometers and the performance of water level measurements and hydrologic testing.

Bedrock Groundwater

Depths to water in wells completed in the bedrock aquifer ranged from approximately 18 feet bgs in Well P-11A completed in the East Drainage to 151 feet bgs in Well MW-3 completed on the ridge between Ripsey Wash and Zelleweger Wash. Groundwater generally flows north from the highlands located to the south and southwest of the Site downgradient toward the Gila River. The general direction of groundwater flow beneath the proposed tailings impoundment is reportedly N5°W at a gradient of 0.035 (3.5 feet per 100 feet).

Alluvium Groundwater

Although a number of wells have been completed in the alluvial deposits within the Site, only two of the wells contain water. Both of these wells (Well MW-1A and P-8) are located in the lower reach of Ripsey Wash. Depths to water in Well MW-1A and P-8 are approximately 53.7 and 87.9 feet bgs, respectively. Bedrock was encountered at depths of 71 feet and 97 feet bgs, respectively, in these wells indicating a saturated thickness of about 17 feet and 9 feet at these well locations. Groundwater within the alluvium moves downgradient (north) along the Ripsey Wash channel toward the Gila River (according to sheet 3-Groundwater Elevation Contour map).

Groundwater Wells

There are 38 ADWR-registered wells located within 0.5 miles of the Site. All but six of the wells are owned by Asarco; most of the Asarco-owned wells were drilled as part of the geotechnical and hydrogeological investigations performed for the planned Ripsey Wash TSF.

Eight wells (MW-1 through MW-8) were drilled and installed in the regional bedrock aquifer at the Site. The wells were placed within and around the planned tailings impoundment. In addition to the eight (8) wells above, nineteen piezometers (P-1 through P-19) and one shallow alluvial well (MW-9) were drilled and installed at the Site. These borings were drilled to investigate specific aspects of the Site: Monitor Well MW-9 (drilled in Zelleweger Wash to characterize the alluvial profile within the wash); piezometers P-1 (investigate hydrogeologic conditions along the alignment of the proposed seepage collection trench in Ripsey Wash); piezometers P-9, P-10 and P-13 through P-15 (drilled along the west side of the tailings impoundment to investigate the thickness of Tertiary deposits in this area and to characterize conditions along Hackberry Fault); piezometers P-11, P-12, P-18 and P-19 (drilled to investigate hydrogeologic conditions at the proposed cut off wall in the East drainage); piezometers P-16 and P-17 (drilled to characterize subsurface conditions along the

suspected trend of the Ripsey Fault. The general direction of groundwater flow beneath the proposed tailings impoundment is N5°W at a gradient of 0.035.

Groundwater Quality

Groundwater samples were obtained from the bedrock aquifer wells (MW-1, and MW-3 through MW-8) at the conclusion of the pump tests. The exception was well MW-2, which yields so little water it was not able to be pump tested. The groundwater samples were submitted to Test America, Inc. for analysis. Water quality indicator parameters (pH, temperature and electrical conductivity) were also measured. Field values of pH ranged from 6.2 to 7.9 standard units and field values of electrical conductivity ranged from 590 to 2,880 micromhos per centimeter (pmhos/cm). Concentrations of total dissolved solids (TDS) ranged from 420 milligrams per liter (mg/L) in Well MW-8 to 2,800 mg/L in Well MW-7. Sulfate concentrations ranged from a low of 24 mg/L in Well MW-8 to a high of 1,900 mg/L in Well MW-7. Five metals with AWQs (arsenic, barium, chromium, nickel and selenium) were detected in the groundwater samples; however, all concentrations were below AWQs. Three parameters did exceed AWQs: fluoride, nitrate as N and nitrite-nitrate as N. The AWQ for fluoride is 4 mg/L; the groundwater sample obtained from Well MW-8 had a fluoride concentration of 6.3 mg/L. Nitrate as N and nitrate-nitrate as N both have AWQs of 10 mg/L., the groundwater sample obtained from Well MW-3 had nitrate as N and nitrite-nitrate as N concentrations of 11 mg/L. According to the groundwater flow, MW-3 is located cross-gradient (west) from the Ripsey Wash TSF.

POLLUTANT MANAGEMENT AREA (PMA)

Arizona Revised Statutes (A.R.S.) § 49-244(1) defines the pollutant management area (PMA) as “the limit projected in the horizontal plane of the area on which pollutants are or will be placed.” Where more than one discharging facility is included in a permit, the PMA is described as an imaginary line circumscribing the multiple discharging facilities at the site. There are two PMA's delineated at the Site: one for facilities north of the Gila River, and the other for those facilities located south of the Gila River.

Groundwater Modeling

A Groundwater Modeling Plan was developed to assess potential impacts to groundwater quality resulting from construction and operation of the proposed TSF. The objectives of the groundwater modeling include evaluating if water from the TSF can migrate through the subsurface to the Gila River and, if so, to estimate the arrival times and path of groundwater flow from the TSF to the Gila River. Groundwater flow modeling and particle tracking simulations were performed to address this question.

If it is determined that there is a potential for water from the TSF to migrate through the subsurface to the Gila River, potential impacts of contaminants from the TSF water on the Gila River will be evaluated. A fate and transport model will be developed for the subsurface flow along with mixing calculations for the river to address this question. The groundwater model was constructed using MODFLOW (McDonald 1988), a three-dimensional (3-D), finite-difference groundwater flow model.

Step-discharge and/or constant-rate discharge, single well pumping tests were performed in the regional bedrock wells and POC wells with the exception of Wells MW-1B and Well MW-2. These wells were not tested due to the extremely low yields of these wells (<0.005 gallons per minute {gpm}). The test results provided estimates of the hydraulic conductivity and transmissivity of the bedrock units and the alluvium in Ripsey Wash.

V. SURFACE WATER CONSIDERATIONS

The proposed tailings impoundment will occupy the lower reaches of Ripsey Wash and its tributaries. Zelleweger Wash is located to the west of the Site and a small unnamed wash (referred to as the East Drainage) drains the northeast portion of the Site. Ripsey Wash, Zelleweger Wash and East Drainage all drain toward the Gila River to the north of the Site. The 100-year floodplain delineation includes Ripsey Wash, Zelleweger Wash and the Gila River.

The proposed TSF is located in the northern portion of the Tortilla Mountains in an area that drains north toward the Gila River. The Site is drained by three primary ephemeral washes: Zelleweger Wash along the western margin of the Site, Ripsey Wash in the western and central portions of the Site, and the East Drainage along the eastern margin of the Site. All three drainages flow northward and drain into the Gila River.

VI. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Groundwater monitoring is required at POCs MW-1A, MW-1B, MW-2 and MW-3. Monitoring requirements for each Point of Compliance are listed in Section 4.2, Table 4.2.3. MW-Y may be required in response to an Alert Level 2 exceedance at the East Reclaim Pond.

VII. COMPLIANCE SCHEDULE

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 Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section.

| No. | Description | Due by: | Permit Amendment |
|-----|---|---|------------------|
| 3.1 | The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for starter dam and associated facilities for the Ripsey TSF. The certification shall indicate that the facility was constructed in accordance with plans approved by ADEQ and QA/QC documentation completed for liner and subgrade preparation. | Within 90 days of 90 days of completion of construction | No |
| 3.2 | The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the Main Reclaim Impoundment. The certification shall indicate | Within 90 days of 90 days of completion of construction | No |

| No. | Description | Due by: | Permit Amendment |
|-----|--|--|------------------|
| | that the facility constructed in accordance with plans approved by ADEQ and QA/QC documentation completed for liner and subgrade preparation. | | |
| 3.3 | The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the East Reclaim Impoundment. The certification shall indicate that the facility constructed in accordance with plans approved by ADEQ and QA/QC documentation completed for liner and subgrade preparation. | Within 90 days of 90 days of completion of construction | No |
| 3.4 | The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the Drain Down Impoundment. The certification shall indicate that the facility constructed in accordance with plans approved by ADEQ and QA/QC documentation completed for liner and subgrade preparation. | Within 90 days of 90 days of completion of construction | No |
| 3.5 | The permittee shall submit an Ambient Groundwater Monitoring Report Submit with a Permit Amendment application, along with copies of all laboratory analytical reports, field notes, QA/QC procedures used in collection and analysis of the samples, and a report including the statistical calculations of the ALs, AQLs and DLs. The application shall include the sampling location for Section 4.2.5, Disposition Monitoring for Ripsey Wash Tailing Storage Facility. Begin monitoring under Table 4.2.3. To received the SMRFs for Quarterly monitoring contact the ADEQ Data Unit. | Submit within 30 days of receipt of laboratory report for final ambient sample. | Yes |
| 3.6 | The permittee shall submit a demonstration that the Self-assurance financial assurance mechanism listed in Section 2.1, Financial Capability, remains viable. 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 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). | Every 2 years from the date of permit signature, for the duration of the permit. | No |
| 3.7 | 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, and an updated financial assurance demonstration for the updated cost estimate as per A.A.C. R18-9-A203. | Every 6 years from the date of permit signature, for the duration of the permit. | Yes |

| No. | Description | Due by: | Permit Amendment |
|-----|--|---------|------------------|
| 3.8 | If the permittee wishes to deposit a greater quantity of tailings, or increase damn crest elevation above 2200 feet, the permittee shall apply for a permit amendment. | | Yes |

VIII. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

The ASARCO LLC has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

The permit requires that appropriate documents be sealed by an Arizona-registered Geologist or Professional Engineer. This requirement is a part of an on-going demonstration of technical capability. The permittee is expected to maintain technical capability throughout the life of the facility.

Financial Capability

The ASARCO LLC has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203 (C)(1) \$16,228,443.00.

Zoning Requirements

The ASARCO Ripsey Wash Tailings Storage Facility has been properly zoned for the permitted use and the permittee has complied with applicable zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201 (B) (3).

VIII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-108(A))

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit.

The public notice was published in the XXXXXXXXXXXX on XXXXXX, under public notice No.16-XX.

Public Comment Period (A.A.C. R18-9-109(A))

The Department shall accept written comments from the public prior to granting the significant amendment. The written public comment period begins on the publication date of the public notice and extends for 30 calendar days. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-109(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

IX. ADDITIONAL INFORMATION

Additional information relating to this permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – APP Unit
Attn: Monica Phillips
1110 W. Washington Street, Mail Code 5415B-3
Phoenix, Arizona 85007
Phone: (602) 771-2253