

Mission Complex

May 18, 2010

Pima County Department of Environmental Quality  
Air Program  
Attn: Mr. James M. Jones, Civil Engineering Assistant  
33 N. Stone Avenue, Suite 700  
Tucson, AZ 85701

Re: Response to NOV Nos. 1004-134  
ASARCO LLC—Mission Complex, Permit No. 2026

Dear Mr. Jones:

This letter constitutes the response of ASARCO LLC—Mission Complex (“Asarco”) to the Notice of Violation (NOV) No. 1004-134 issued by the Pima County Department of Environmental Quality (“PDEQ”) on April 27, 2010. Asarco’s general response and explanation of its actions and corrective actions taken to ensure compliance is addressed first, followed by each allegation in the NOV and Asarco’s specific response to those allegations.

**General Response and Explanation of Actions that Led to Alleged Violations and Corrective Actions Taken to Ensure Compliance**

Asarco believes that it has taken reasonable precautions not only on the day in question, but throughout the berm building period. Asarco commenced berm building in February 2010, when ambient moisture levels reached the level that would allow berm building. Asarco was following all of the requirements of its proposed “Berm Building Dust Control Plan,” developed to minimize emissions during berm building, in particular:

- Asarco completed an initial inspection of the dam to look for areas of potential excessive emissions and to ensure adequate moisture to prevent excessive emissions and provided notice of start of perimeter berm building for Tailings Dam #4 on February 8, 2010 for start of berm building on February 15, 2010. Actual construction did not begin until March 1, 2010 because the tailings dam was too wet prior to that time.
- Asarco completed a visual observation every week as required by Asarco’s Visual Observation Plan. If areas of concern were observed, Asarco took corrective action such as application of polymer.
- During each berm building day, Asarco inspected the berm building operations. If dust generation was observed, Asarco would immediately apply water to those areas.
- At the conclusion of each berm building day, Asarco would spray all disturbed areas with polymer to prevent blowing dust from these areas.
- On days on which high winds were forecast berm construction was suspended.

- Asarco adopted the practice that if polymer trucks would not be available, no berm construction would occur during that day. This assured both periodic maintenance on the trucks and also that no disturbed area would be left untreated at the end of any day.

Despite Asarco's precautions beginning with the commencement of berm building on Tailings Dam #4 on February 15, 2010, excess emissions were observed from the Tailings Dam #4 service road on April 21, 2010. Unfortunately, high winds on April 21<sup>st</sup> and the days before dried out the service road on the perimeter of Tailings Dam #4 faster than anticipated. Asarco had been applying water and dust suppressant to Tailings Dam #4, including the road in questions, starting with the beginning of berm building and in the weeks leading up to the observed excess emissions. On April 21<sup>st</sup>, Asarco immediately dispatched water trucks to the road segment once visible emissions were noted. The visible emissions were an unintended consequence of Asarco's efforts to prevent or minimize emissions from the dam surface and berm building area, which was successful.

Asarco believes that its continuous program of inspection, periodic visual observation monitoring, cessation of activities during days of anticipated high winds, application of water during construction activities, and sealing of all disturbed areas at the conclusion of each construction day and following its proposed Berm Building Dust Control Plan meets the regulatory requirement that Asarco take "reasonable precautions" to prevent blowing tails and excess opacity.

### **Response to Specific Alleged Violations in NOV 1004-134**

#### **Alleged Violation #1**

PCC 17.16.040 and 17.16.050.B

##### **Permit Condition, Part "B", Section I.C.2**

No person shall cause or permit the effluent from a single emission point, multiple emission points, or fugitive emissions source to have an average optical density greater than 20 percent subject to the following provisions.

[SIP Rule 321, PCC 17.16.040, and PCC 17.16.050B]

- a. Opacities (optical densities) of an effluent shall be measured by a certified visible emissions evaluator with his natural eyes, approximately following the procedures which were used during his certification, or by an approved and precisely calibrated in-stack monitoring instrument.
- b. A violation of an opacity standard shall be determined by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set unless otherwise noted herein. The measurements shall be made at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be 25. Sets need not be consecutive in time, and in no case shall two sets overlap. If the average opacity of the set of instantaneous measurements exceeds the maximum allowed by any rule, this shall constitute a violation.

Findings NOV 0911-061

On April 21, 2010, ASARCO LLC – Mission Complex caused and allowed fugitive emissions from tailings dam #4 to have an average optical density greater than 20 percent.

Requested Corrective Action(s)

- › Immediately employ all necessary control measures required to prevent effluent from fugitive sources to remain below the applicable opacity standard.
- › Immediately develop and implement all necessary control methods to be employed to prevent recurrence of emissions in excess of the opacity standard from tailings dam #4.

**Asarco Response to Alleged Violation #1**

Asarco does not know whether an exceedance of the 20% opacity standard occurred or not. During the inspection, the inspector indicated to Asarco's Environmental Engineer, Arturo Burgos, that his readings were at or near the standard. Mr. Burgos accordingly did not take an independent reading. Asarco notes that the maximum wind speeds measured on April 21, 2010 exceeded 25 mph—a condition that the Asarco Permit and the Pima County Regulations explicitly acknowledge is difficult to control *See, e.g.*, Part B, Condition I.C.3.b; PCC § 17.16.050.D. Maximum wind speeds exceeded 40 mph and 45 mph during two separate measurements by PDEQ's inspector.

Asarco did immediately employ all necessary control measures to reduce emissions from the start of berm building up to and including April 21, 2010. As provided in Asarco's proposed Berm Building Dust Control Plan, these measures included canceling berm building on the 21<sup>st</sup> due to the National Weather Service wind speed forecast on the 20<sup>th</sup>; spraying water and polymer on the berm, disturbed areas, the surface of the dam (within areas reachable without risking the safety of Asarco employees) and surface of the service road. The success of Asarco's efforts is seen in the absence of excess emissions from the dam surface, the berm building area, and from the road later during that day and during the following days.

Asarco believes that it has developed and implemented all necessary measures in its proposed dust Berm Building Dust Control Plan and provided operational personnel the necessary training to prevent a recurrence of excess emissions.

**Alleged Violation #2**

**PCC 17.16.050.D**

**Permit Condition, Part "B", Section I.C.3**

No person shall cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.

[SIP Rule 343 and PCC 17.16.050.D1]

- a. Sources required to obtain an air quality permit under ARS § 49-426, § 49-480 or Rule 17.12.470 may request to have the actions constituting reasonably necessary and feasible precautions

approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this provision.

- b. This subsection shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.

Findings (NOV 0911-061):

On April 21, 2010, ASARCO, LLC – Mission Complex caused and permitted the diffusion of visible emissions from tailings dam #4 beyond the property boundary of Pima Mine Road without taking reasonably necessary and feasible precautions to control the fugitive emissions. The control measures taken by ASARCO, LLC – Mission Complex were not commensurate with the size and scope of the emission source.

Requested Corrective Action(s)

- › Immediately employ all necessary control measures commensurate with the size and scope of tailings dam #4 to prevent diffusion of visible emissions beyond the property boundary line.
- › Immediately develop and implement all necessary control methods to prevent diffusion of visible emissions from tailings dam #4 from recurring.

**Asarco's Response to Alleged Violation #2**

Asarco disagrees with PDEQ's alleged violation #2. First, Asarco did take "reasonably necessary and feasible precautions" to prevent and control fugitive emissions from its property. As stated in the General Response above, Asarco had implemented the following reasonable precautions:

- Asarco completed an initial inspection of the dam to look for areas of potential excessive emissions and to ensure adequate moisture to prevent excessive emissions.
- Asarco completed a visual observation each week as required by Asarco's Visual Observation Plan. If areas of concern were observed, Asarco took corrective action such as application of polymer.
- During each berm building day, Asarco inspected the berm building operations. If dust generation was observed, Asarco would immediately apply water to those areas.
- At the conclusion of each berm building day, Asarco would spray all disturbed areas with polymer to prevent blowing dust in the future.
- On days on which high winds were forecast berm construction was suspended.
- Asarco adopted the practice that if polymer trucks would not be available, no berm construction would occur during that day.

Second, Asarco's permit specifically requires that Asarco "employ at least one" of a list of dust control measures. Permit 2026, Part B, Condition I.C.11. Asarco was implementing "use dust suppressants or soil stabilizers," "continuous wetting," "inherent moisture content," "encrustation", "dust suppressants," and "spraying active berms and construction areas with

water as necessary.” These measures, by permit, fulfill the requirement of Part B, Condition I.C.3. *See* Permit 2026, Part B, Condition I.C.11 (last sentence). Because Asarco was implementing the approved measures, Asarco satisfied the requirements of Condition I.C.3.

Third, PDEQ’s NOV contravenes the permit, which expressly provides:

In the event of significant problematic and persistent property line visible emissions, PDEQ and the Permittee shall confer to determine whether additional reasonably necessary and feasible precautions are needed. In the event that PDEQ and the Permittee agree additional precautions are necessary, the Permittee shall propose for PDEQ approval precautions that seek to diminish, but may not necessarily eliminate, visible emissions at the property line.

Permit 2026, Part B, Condition II.H. Under the permit, if PDEQ believes that Asarco’s reasonable precautions are not appropriate, then it must confer with the Permittee and the Permittee is to propose additional measures. Critically, the permit specifically recognizes that elimination of all visible emissions at the property line may not be possible. Read together, Conditions I.C.11 and II.H clearly refute PDEQ’s allegation that Asarco has violated Condition I.C.3 of its permit. Asarco was implementing reasonable precautions. If PDEQ believes additional precautions are needed, the permit requires PDEQ to confer with Asarco and Asarco to propose such measures. An NOV is inappropriate.

Fourth, PDEQ’s allegations contravene the provisions of Condition I.C.3.b, which clearly states that the visible emissions at the property line standard does not apply when wind speeds exceed 25 mph. On April 21, 2010, wind speeds exceeded 25 mph. PDEQ has provided no basis, nor can it, to support its contention that Asarco’s measures were not adequate or commensurate with the size of the facility. Asarco was following all the requirements of its proposed Berm Building Dust Control Plan. In accordance with the proposed plan, Asarco had cancelled berm construction operations for April 21<sup>st</sup> on the prior day because of the forecast high winds; the bulk of the tailings dam and levee surfaces remained encrusted; Asarco had applied polymer at the end of each berm building day to all areas disturbed by the berm building activity; Asarco applied polymer or water to reachable sections of the dam surface, as necessary, to prevent or minimize dust emissions. Asarco’s actions were “commensurate with the size or scope of the emission unit” and PDEQ’s action in issuing this NOV contravenes Conditions I.C.3.b and II.H of the permit.

In any event, Asarco did employ prior to the excess emissions observation and subsequently all necessary control measures to reduce emissions. These measures included cancelling the proposed berm building on April 21<sup>st</sup> in light of the high wind forecast on April 20<sup>th</sup>; spraying of water and polymer on the berm, disturbed areas, and the surface of the dam (within areas reachable without risking the safety of Asarco employees); and application of water. The success of Asarco’s efforts is seen in the absence of excess emissions from the tailings dams generally during the period in question and from the service road later during that day and during successive days.

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Asarco believes that it has developed all necessary measures as outlined in its proposed Berm Building Dust Control Plan and its Visual Observation Plan to prevent a recurrence of excess emissions events. Asarco's description of these measures is found below.

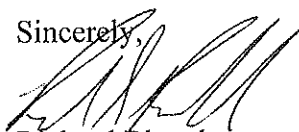
**Asarco's Plan to Prevent Future Recurrences**

The visible emissions that occurred on April 21, 2010 were due to more rapid drying on the service road than Asarco had anticipated as a result of sustained high winds and low humidity. Asarco has instructed the employees involved in the exercise of care that it expects to prevent or minimize fugitive dust emissions.

**Request to Meet**

Asarco would like to meet with PDEQ to discuss the response to this NOV. Please coordinate times with Dr. Krishna Parameswaran at (520) 798-7792. Please contact either Dr. Parameswaran at the number listed above, or Jamie Ekholm, Mission Complex Environmental Engineer at (520) 393-4671, if you have any questions concerning this response.

Sincerely,



Richard Rhoades  
General Manager