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January 25, 2008

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VIA FAX 512-239-3311
AND REGULAR MAIL

Re: Sunset Heights ACORN et al. Brief in Opposition to Renewal of Air Quality Permit No. 20345; Application of ASARCO Inc., for Renewal of Air Quality Permit No. 20345, SOAH Docket No. 582-05-0593, TCEQ Docket No. 2004-0049-AIR

Dear Ms. Castañuela:

Enclosed for filing in the above referenced matter, please find an original and eleven copies of Sunset Heights ACORN et al. Brief in Opposition to Renewal of Air Quality Permit No. 20345.

Please contact me at the number above if you have any questions regarding this filing.

Sincerely,

Enrique Valdivia
Attorney at Law

cc: Service List

TCEQ DOCKET NO. 2004-0049-AIR
SOAH DOCKET NO. 582-05-0593

IN THE MATTER OF THE APPLICATION OF ASARCO, INC. FOR RENEWAL OF AIR QUALITY PERMIT NO. 20345 EL PASO, EL PASO COUNTY	§ § § § §	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

SUNSET HEIGHTS ACORN et al. BRIEF IN OPPOSITION TO RENEWAL OF AIR QUALITY PERMIT NO. 20345

TO THE HONORABLE COMMISSIONERS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

Protestant Sunset Heights ACORN et al. (ACORN) hereby submits this, its Brief in Opposition of Renewal of Air Quality Permit No. 20345.

I. Any Evaluation of Emissions from the ASARCO Copper Smelter Must Consider Existing Conditions and Historical Contamination

It is well documented that there are historical high levels of certain heavy metals, such as lead, arsenic, and cadmium, in the soils of areas near the ASARCO copper smelter. Due to their heavier nature, these metals tend to settle much closer to their industrial source than gaseous pollutants, such as sulfur dioxide and nitrogen oxides. If these contaminants are again emitted by ASARCO, they will not simply dissipate into the air. They will also settle and accumulate in the soil, water, and surfaces in the vicinity of the smelter. This new contamination will add to a history of lead and arsenic contamination that resulted from the over 112 years of operation of ASARCO, including nearly 100 years of operation as a lead plant.

Lead in the air settles into dust and soils. In fact, ASARCO was ordered to conduct soil removal and other corrective actions after the EPA concluded that "contamination of the residential soils is due to decades of emissions of arsenic and lead from the ASARCO copper and lead smelter into the El Paso community's ambient air."[1] Moreover, lead in soil, be it in backyards, unpaved roads and alleys, empty lots, or the dry, mountainous terrain, can become airborne during the dust events that are commonplace in El Paso and the surrounding

[1] PIC Exh. No. 4, *In the Matter of El Paso County Metal Survey Site, El Paso, El Paso County, Texas, ASARCO, Inc., Respondent*, U.S. EPA Region 6 CERCLA Docket No. 6-8-05 (Unilateral Administrative Order for Removal and Response Activities (Mac. (sic) [May] 25, 2005).

Chihuahuan Desert lowland areas.[2] Only a full multi-media review of existing contamination and predicted new emissions from the ASARCO copper smelter can ensure that the Commission fulfills its mandate of ensuring environmental quality and protecting the public health and safety.

II. Lead Emissions Will Add to Historically High Levels of Lead Contamination, and thus the Commission Should Consider EPA's Review of the Lead NAAQS.

Exposure to lead can occur from breathing contaminated air or house dust, or eating lead-based paint chips or contaminated dirt. Regardless of whether lead is inhaled or ingested, its health effects are the same.[3] Acute exposure to the toxic metal can cause brain damage, kidney damage, and gastrointestinal distress. Chronic exposure to lead can cause effects on the blood, central nervous system, blood pressure, and kidneys, among other health problems. In children, chronic exposure can cause slowed cognitive development, reduced growth and other health effects. Pregnant women who are exposed to lead are at risk of spontaneous abortions, while developing fetuses are at risk of low birth weight and slowed postnatal neurobehavioral development.[4,5] The health effects of lead exposure not only affect individuals and their families, they can also devastate an entire community. In particular, lower IQ levels resulting from lead exposure can result in reduced scholastic accomplishment, higher crime rates, and lower worker productivity.

There is strong consensus that the current National Ambient Air Quality Standard (NAAQS) for lead, established nearly thirty years ago, is not protective of human health.[6] As the

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2 David J. Novlan et al. *A Synoptic Climatology of Blowing Dust Events in El Paso, Texas from 1932-2005* (presented at the American Meteorological Society's 16th Conference on Applied Climatogy, January 18, 2007), *available at* http://ams.confex.com/ams/pdfpapers/115842.pdf. El Paso averages 14.5 significant dust events per year. Their consequences range from increased particulate matter concentrations to serious disruptive events aggravating respiratory health problems and near-zero visibility on city roads and highways.

3 *See id.*

4 Environmental Protection Agency, *Hazard Summary Lead Compounds* (2000), *available at* http://www.epa.gov/ttn/atw/hlthef/lead.html.

5 Philip J. Landrigan, M.D., M.Sc., Letter to Enrique Valdivia (June 28, 2007).

6 U.S. Environmental Protection Agency: National Ambient Air Quality Standard for Lead: Final Rules and Proposed Rulemaking, Federal Register 43: 46246-46261 (October 5 1978).

Commission is well aware, the EPA is under court order to review the NAAQS for lead and complete a final rulemaking by September 1, 2008.[7] The current NAAQS for lead is 1.5 $\mu g/m^3$, measured in a quarterly average.

In November of 2007, the EPA's Office of Air Quality Planning and Standards' (OAQPS) Staff released its recommendations, which reflect comments received from the public and the Clean Air Scientific Advisory Committee (CASAC), an independent scientific advisory committee.[8] The twenty-three (23) scientists that comprise the CASAC Lead Expert Review Panel were unanimous in their recommendation to EPA Administrator Johnson. They, along with the OAQPS' Staff, concluded that the current NAAQS for lead is inadequate and made the following recommendations:

(1) Keeping lead on the list of six criteria pollutants;
(2) Not revoking the lead NAAQS;
(3) Lowering the lead NAAQS from 1.5 $\mu g/m^3$ to a level between 0.02 $\mu g/m^3$ and 0.2 $\mu g/m^3$;
(4) Revising the averaging time to monthly (or retaining the current averaging time);
(5) Retaining lead in total suspended particulates (TSP-Pb) as the indicator for lead; and
(6) Future monitoring of lead exposure be conducted with low-volume PM10 samplers rather than with total suspended particulate (TSP) samplers.[9]

The OAQPS Staff based its recommendations on observations that include the following:

- Lead in the air contributes to lead in blood via inhalation and via ingestion of lead deposited in the air (e.g. from soil and indoor dust).
- A large body of scientific studies shows that adverse effects in young children occur at much lower blood lead levels than was understood when the current standard was set in 1978.
- Current health effects evidence does not indicate a level of lead exposure below which adverse health effects may not occur.
- Estimated lead exposure and the resulting risk of IQ loss in children associated with the levels allowed by the current standard are large enough to be considered

[7] U.S. EPA, "Review of National Ambient Air Quality Standards for Lead: Final Staff Paper and Human Exposure and Risk Assessment Report" at 1 (Nov. 2007), *available at*: http://www.epa.gov/ttnnaaqs/standards/pb/data/20071101_pb_fs.pdf [hereinafter EPA's Final Staff Paper].

[8] *Id.*

[9] *Id.*

> important from a public health perspective. This is true not only because of the serious nature of IQ loss during childhood years, but also because of the potential long-term adverse consequences of childhood IQ effects over a lifetime.

As stated by the Commission in its comments to the EPA regarding the lead NAAQS, establishing a NAAQS for lead is only one of a number of risk reduction steps necessary to protect the public, especially children, from lead, including existing lead in soil.[10]

Historically, the two major sources of lead in ambient air were motor vehicles and industrial sources. The phase out of leaded gasoline has led to a dramatic decrease in lead emissions from motor vehicles. As such, point sources, including metals processing facilities, such as ASARCO's copper smelter, have become the primary source of lead in ambient air.[11]

Permit 20345 authorizes ASARCO to emit 4.7 tons or 9,400 pounds of lead per year into the El Paso air, making the copper smelter the highest lead emitter in the State and one of the largest lead emitters in the country.[12] As noted by the Commission, "industrial point sources that are potentially significant sources of lead emissions can expose children to lead in air, and more importantly, to lead in recently settled dust."[13] If the smelter is reopened, this volume of lead would be emitted into an area where children have been documented to have high blood lead levels and where residential yards near the smelter are the subject of an ongoing lead remediation, both because of ASARCO's past operations. New emissions of lead would only exacerbate existing health threats from the historical lead exposure in the affected areas of El Paso, Ciudad Juarez, and southern New Mexico.

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10 Texas Commission on Environmental Quality's (TCEQ) Comments to the U.S. Environmental Protection Agency's (EPA) Advance Notice of Proposed Rulemaking for the National Ambient Air Quality Standard for Lead, Docket Id. No. EPA-HQ-OAR-2006-0735 (January 16, 2008) [hereinafter Commission's Comments].

11 *See id.*

12 Toxic Releases Inventory (TRI): On-site and off-site reported disposed of or otherwise released (in pounds), for facilities in all industries, LEAD, Texas, 2005, *available at* http://www.epa.gov/tri/. The second largest lead emitter in Texas releases 4,300 tons of lead or 5,100 pounds less than ASARCO.

13 *See* Commission's Comments.

Albeit problematic, for reasons stated later in this brief, ASARCO's most recent atmospheric dispersion modeling predicts ambient concentrations of lead of 0.20 $\mu g/m^3$ and background emissions of 0.07 $\mu g/m^3$.[14] ASARCO would be emitting lead potentially at the very highest concentration recommended by the scientific and medical community and OAQPS staff: 0.20 $\mu g/m^3$. Both the CASAC Panel and OAQPS staff recommend that EPA adopt a lead NAAQS potentially as low as 0.02 $\mu g/m^3$, a concentration that is ten times below ASARCO's air modeling. When combined with the area's background emissions for lead, it is clear that ASARCO's lead emissions would not meet even the highest recommended new lead NAAQS.

The medical community has found that exposure to any levels of lead in children potentially results in irreversible health effects. This is particularly important because there is an elementary school only 400 feet from the smelter and another just a mile away from the smelter.[15] Dr. Lucy Frasier's expert testimony indicated that individuals at these schools could be impacted by emissions from the smelter because of their proximity to it and because of evidence that the wind blows in the general direction of the schools for a fairly large percentage of the time.[16] Dr. Lucy Fraiser also indicated that the EPA's current primary lead NAAQS ". . . might not be adequately protective of people in El Paso who carry excess lead in their bodies because of prior exposure," such as children who eat soil. Further, the adequacy of the area's existing lead air monitoring network was called into question repeatedly during the June 2005 hearing, particularly given evidence regarding the direction of prevailing winds from the smelter.

Given the medical consensus on the effects of lead exposure and the long history of lead contamination and the related detrimental health effects in El Paso and neighboring

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[14] *See* Zephyr Envtl. Corp., Air Quality Analysis for ASARCO El Paso Plant at 2 (Nov. 22, 2006).

[15] *See* Tr. at 2158 (Rebuttal Testimony of David Cabe, P.E.).

[16] *See* Tr. at 1399-1400 (Cross Examination of Dr. Lucy Frasier). Dr. Frasier was referring to earlier testimony by David Cabe that the wind blows from the direction of the smelter towards Mexico approximately 66% of the time. *See* Tr. 1087 (Re-Cross Examination of David Cabe, P.E.).

communities, the Commission is obligated to consider ASARCO's permit renewal in the context of what is currently known about the health effects of lead. To do this, the Commission must, at a minimum, closely evaluate ASARCO's most recent modeling assuming a much more stringent standard than the current lead NAAQS. The Commission must also evaluate whether the current monitoring network truly ensures against toxicologically significant exposure to lead through ambient air from this significant industrial source.

III. Air Emissions from the ASARCO Copper Smelter Will Cause Exceedances of Federal and State Health Standards

As demonstrated at the Asarco Hearing (June 2005), emissions of many parameters permitted under ASARCO's air quality permit have exceeded federal and state air quality standards in the past, and ASARCO's operational history fails to demonstrate that ASARCO will be able to operate the smelter in compliance with permitted standards in the future. The following exceedances of permitted standards were demonstrated in the evidentiary record.

A. SO_2 Emissions

During operation of the copper smelter in the early 1990s, actual emissions of sulfur dioxide (SO_2) were approximately twice the permitted limits, and emissions from the copper stack annulus were five times higher than permitted limitations.[17] ASARCO obtained a permit amendment in 1995 to address these exceedances of permitted standards. ASARCO's modeling for SO_2 in 1995 in support of the permit amendment—the only modeling performed by ASARCO even though the permit was modified on fourteen separate occasions—showed that the increased SO_2 levels would result in SO_2 emissions of 99.8% of the state property line standard.[18] As Jennifer Geran testified: "[T]he model has a margin of error significantly greater than 0.2%, indicating that there is clearly a potential for the currently authorized emission rates to exceed the standard."[19] ASARCO's additional increases in SO_2 emissions throughout the 1990s, including the increases in copper anode and sulfuric acid production rates in 1996 and the

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17 *See* Tr. at 71-74 (Cross Examination of Lawrence Castor); see also ASARCO Exh. 27.
18 *See* City of El Paso Exh. 1 at 37.
19 *See id.*

outside matte pouring and reclaiming activities in 1997, were not supported by modeling. Because the 1995 amendment resulted in emissions of 99.8% of the standard, it seems clear that modeling would have been necessary to demonstrate that those emission increases did not violate the property line standard.

Additionally, SO_2 emissions from the copper smelter are not governed by the same regulations for net ground level concentrations as other facilities in the State. Since 1975, almost twenty years before the improvements in the early 1990s, the copper smelter has been subject to an area control plan that provides for an allowable net ground level concentration of 0.5 parts per million (ppm) (one-hour average). This standard is less stringent than the 0.4 ppm (30-minute average) that would normally be applicable.[20] ASARCO was allowed to keep this less stringent standard when Air Quality Permit No. 20345 was issued in 1992. Even though a less stringent standard is applicable, documented violations still occurred in the 1990s.[21]

B. PM_{10} Emissions

The El Paso area is nonattainment for particulate matter less than 10 microns in diameter (PM_{10}). As identified in previous filings, EPA's reactivation policy requires that "reactivation of facilities that have been in an extended condition of inoperation" may trigger nonattainment and/or Prevention of Significant Deterioration review, as appropriate.[22] ASARCO's copper smelter has been shutdown for almost nine years. As such, it has been in an extended condition of inoperation, EPA's reactivation policy has been triggered, and a full nonattainment review must be completed to ensure that the permit includes appropriate emissions limitations to ensure that federal standards are met.

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20 *See* 30 Tex. Admin. Code § 112.3(a).

21 *See* City of El Paso Exh. 1 at 37.

22 *See* In the Matter of Monroe Electric Generating Plant Entergy Louisiana, Inc.'s Proposed Operating Permit; Petition No. 6-99-2; Order Responding to Petitioner's Request that the Administrator Object to Issuance of a State Operating Permit, *available at* http://www.epa.gov/region07/programs/artd/air/title5/petitiondb/petitions/entergy_decision1999.pdf [hereinafter Monroe Order].

C. $PM_{2.5}$ Emissions

The El Paso area is currently in attainment for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), but ASARCO's newest modeling demonstrates its emissions of $PM_{2.5}$ would cause a condition of nonattainment in Sunland Park, New Mexico. The Sunland Park monitoring data was excluded from the $PM_{2.5}$ background concentration analysis, even though it is one of the closest monitors to ASARCO's copper smelter. ASARCO argued that the Sunland Park monitor was not representative of the El Paso region and even identified that the Air Quality Bureau of the New Mexico Environment Department (NMED) had indicated that the Sunland Park monitor was "influenced by very localized, unique geographical features that tend to 'funnel' pollutants to the monitor," and thus apparently not appropriate for the modeling analysis.[23] NMED has since clarified that it "never represented to ASARCO that the Agency favored exclusion of the monitor, and we object to its exclusion now."[24]

It should be noted that the Sunland Park monitor is probably the most representative PM_{10} and $PM_{2.5}$ monitor near the copper smelter and should have identified as the monitor most representative for determining the background concentrations of $PM_{2.5}$ and PM_{10}.

D. Lead Emissions

ASARCO failed to account for all lead emissions in its newest modeling analysis. Approximately three-quarters of a ton of lead emissions are missing from the modeling analysis. In addition, ASARCO's modeling analysis fails to consider arsenic from fugitive PM_{10} emissions. ASARCO cannot show that its emissions of lead will not violate federal standards because it did not include all sources of lead emissions in its modeling.

E. Arsenic Emissions

The TCEQ Modeling Audit identifies that the one-hour and 24-hour site-wide modeling concentrations for arsenic are 1.7 times greater than their respective Effects Screening Levels (ESLs). As previously addressed by the City of El Paso, because TCEQ used an inappropriate

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[23] *See* Zephyr Envtl. Corp., Air Quality Analysis for ASARCO El Paso Plant at 2 (Nov. 22, 2006).

[24] *See* Letter from Ron Curry, Secretary, NMED, to Chairman Buddy Garcia and Commissioner Larry Soward (Oct. 2, 2007).

factor to determine the 24-hour ESL, this greatly underestimates the actual 24-hour ESL for arsenic. When the 24-hour modeled arsenic concentration is compared to the more accurate 24-hour ESL calculated by the City, it is demonstrated that the 24-hour modeled arsenic concentrations exceeds the City's number by a factor of 24. The 24-hour average monitored arsenic concentration exceeds the City's number of a factor of 12. Thus, the total combined air concentration (modeled plus monitored) exceeds the City's calculated ESL by a factor of 36. Such an exceedance is not protective of environmental quality or the health and safety of people in El Paso and surrounding areas affected by arsenic emissions from the copper smelter.

IV. Startup of the ASARCO Smelter is Subject to Nonattainment and PSD Review

As addressed briefly above, the ASARCO smelter has been shutdown nearly nine years. As such, ASARCO should be required to apply for and receive a PSD permit. EPA, in its reactivation policy, has taken the position that "reactivation of facilities that have been in an extended condition of inoperation may trigger PSD requirements as 'construction' of either a new major stationary source or a major modification of an existing source."[25] The reactivation policy review is fact specific, but there is a presumption that a shutdown is permanent if it lasts longer than two years. EPA has stated: "A source which had been shut down would be a new source for PSD purposes upon reopening if the shutdown was permanent. *A shutdown lasting for two years or more*, or resulting in removal of the source from the emissions inventory of the State, *should be presumed permanent*. The owner or operator proposing to reopen the source would have the burden of showing that the shutdown was not permanent."[26] Moreover, the smelter is proposing to emit vast quantities of pollution emissions that did not exist in the area in the last year, or even the last nine years.

Because of the required PSD review, ASARCO's permit must be re-evaluated and cannot be renewed or allowed to continue in its current form. Asarco must file an application to amend

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[25] *See* Monroe Order.

[26] Memorandum from Director, Division of Stationary Source Enforcement, U.S. EPA, to Stephen A. Dvorkin, Chief, General Enforcement Branch, Region II, U.S. EPA (Sept. 6, 1978) (emphasis added).

the permit and to request issuance of a federal PSD permit, subject to all PSD permitting requirements.

V. TCEQ Has Jurisdiction to Consider All Impacts from Emissions from the ASARCO Smelter

The Commission is the only regulatory agency that can perform a full evaluation of all environmental impacts that result from the air emissions from the ASARCO smelter. If the Commission continues to blindly consider the air emissions from the smelter in a hypothetical bubble that does not accurately represent the historical and current air, soil, and water conditions in the El Paso area, then the Commission will fail to assess and evaluate the full impacts of the air emissions from the ASARCO copper smelter. If TCEQ does not address the combined impact of the air and soil contamination and the resulting detrimental health effects on the entire population, the cycle of lead and arsenic contamination will continue for generations to come.

VI. Prayer

For all of these reasons, Sunset Heights ACORN et al. respectfully requests that the Texas Commission on Environmental Quality deny ASARCO's application for renewal of Air Quality Permit No. 20345 because ASARCO has failed to demonstrate that emissions from the copper smelter will not cause or contribute to a condition of air pollution, as required by Texas law.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 25th, 2008, copies of the document above were sent by fax, and/or mail to the following as indicated below:

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