TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER concerning Application of ASARCO, Incorporated to Renew Air Quality Permit No. 20345, TCEQ Docket No. 2004-0049-AIR, SOAH Docket No. 582-05-0593

On _____, the Texas Commission on Environmental Quality (Commission or TCEQ) considered the application of ASARCO, Incorporated, to Renew Air Quality Permit No. 20345. The application was presented to the Commission with a Proposal for Decision by the Honorable William G. Newchurch and Veronica S. Najera, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH).

After considering the ALJs' Proposal for Decision (PFD) and the evidence and arguments presented, the Commission makes the following Findings of Fact (FOF) and Conclusions of Law (COL):

I. FINDINGS OF FACT

Introduction

1. On March 28, 2002, ASARCO, Incorporated, (Applicant or ASARCO) applied to the Commission to renew its Air Quality Permit No. 20345 (Permit, Current Permit, or Permit 20345).

2. The requested renewal would allow Applicant to resume its copper smelting operations, which it ceased in 1999.

3. On April 28, 2004, during its open meeting and public comment period, the Commission received a request for hearing on the renewal issue.

4. On May 14, 2004, the Commission, exercised its plenary authority to hold a hearing in the public interest and issued an interim order referring two issues to SOAH:

   a. Whether the operation of the El Paso Copper Smelter under the terms of the proposed permit will cause or contribute to a condition of air pollution; and

   b. Whether the Applicant' s compliance history for the last five years of operation of the El Paso Primary Copper Smelter warrant the renewal of Air Quality Permit No. 20345.

5. The Commission also assigned the burden of proof on these issues to ASARCO.

Procedural History and Parties

6. On January 27, 2005, the ALJs held a preliminary hearing in this matter at the University of Texas at El Paso.

7. Notice of the preliminary hearing was published in the *El Paso Times*, a newspaper generally circulated in El Paso County, on December 26, 2005, and mailed by the Commission' s Chief Clerk to persons who had previously requested such notice.

8. At the preliminary hearing, parties were admitted and aligned as follows:

ADMITTED PARTIES	**REPRESENTATIVE**
ASARCO	Mr. Eric Groten and Mr. Patrick Lee
City of El Paso (El Paso)	Mr. Erich M. Birch
Executive Director (ED)	Mr. Daniel Long and Mr. Brian MacLeod
Office of Public Interest Counsel (PIC)	Ms. Anne Rowland
Sierra Club, *et al.* (Sierra Club) • Quality of Life El Paso • El Paso County Medical Society • Get the Lead Out Coalition • Senator Eliot Shapleigh, individually • UTEP Students Against ASARCO • UTEP Students Government Association • El Paso High Neighborhood Association • Matthew F. Carroll, individually • Debra Kelly, individually • Juan Garza, individually	Mr. Richard W. Lowerre and Ms. L. Layla Aflatooni
Sandoval, *et al.* (Sandoval or Anapra Group) • Southside Low Income Housing Development • Linda Sandoval, individually • Michelle Velasco, individually • Olga Arguelles, individually	Mr. Taylor Moore
Sunset Heights ACORN, *et al.* (ACORN) • Henry L. Pfafflin, individually • Edward C. Patrykus, individually • Rodolfo Urias, individually • Blanca Vega de Urias, individually • Dr. Fidel Urrutia, individually • Arturo Moreno, individually	Mr. Michael R. Wyatt, Mr. Enrique Valdivia, and Ms. Veronica Carbajal

9. The PIC is currently represented by Emily A. Collins. Ms. Rowland has left the PIC.

10. On March 7, 2005, Juan Garza filed a motion to withdraw as a party. His motion was granted via Order No. 10.

11. On May 31, 2005, the El Paso Medical Society filed a motion to withdraw as a party. Its motions was granted via Order No. 24.

12. On March 31, 2005, the El Paso High Neighborhood Association filed a motion to withdraw as a party. Its motions was granted via Order No. 9.

13. On March 31, 2005, Matthew F. Carroll filed a motion to withdraw as a party. His motion was granted via Order No. 9.

14. Subsequent to the preliminary hearing, the ALJs established a docket control order designed to complete the proceeding within the maximum expected duration set by the Commission. In its Interim Order, the Commission set October 27, 2005, as the date by which the PFD would be due.

15. The following are the principal procedural events in the case:

DATE	PROCEDURAL SCHEDULE
Jan. 27, 2005	Preliminary hearing at which parties were designated and aligned.
March 14, 2005	Deadline for each party to serve TRCP 194 disclosures. Discovery began.
March 21, 2005	ASARCO pre-filed its direct-case evidence in writing, including all testimony and exhibits.
May 6, 2005	First prehearing conference.
May 6, 2005	All parties, other than ASARCO, El Paso, and the ED, pre-filed their direct case evidence in writing, including all testimony and exhibits.
May 13, 2005	Second prehearing conference.
May 18, 2005	El Paso pre-filed its direct-case evidence in writing, including all testimony and exhibits.
May 23, 2005	Deadline to submit written discovery requests.
June 13, 2005	ED pre-filed his direct-case evidence in writing, including all testimony and exhibits.
June 27, 2005	Close of discovery/Final day to take depositions/Deadline to file objections to and motions to strike pre-filed evidence/Deadline for ASARCO to file list of rebuttal witnesses and brief summary of each' s rebuttal testimony/Deadline to file dispositive motions.
July 5, 2005	Deadline to file responses to objections to pre-filed evidence and to dispositive motions.
July 8, 2005	Third Prehearing conference.
July 11- 22, 2005	Hearing on the merits.
August 19, 2005	Deadline to file closing briefs.
August 29, 2005	Deadline to file replies to closing briefs.
October 27, 2005	Deadline to issue Proposal for Decision.

General Background

16. ASARCO has operated a smelting and refining operations at its El Paso facility for over one-hundred years. The original plant was built in 1887, along the Rio Grande, to process lead ores from the mines in Mexico and the Southwest.

17. In 1899, the smelter incorporated into the American Smelting and Refining Company, and it so operated until 1975, when the company officially became ASARCO, Incorporated.

18. The ASARCO EL Paso Plant is situated at the juncture of two countries (the United States and Mexico) and three states (Texas, New Mexico, and the Mexican state of Chihuahua). The ASARCO plant is located immediately north and east of the Rio Grande. It lies in the Rio Grande Canyon between the Franklin Mountains and the Cerros del Muleros in Mexico.

19. The ASARCO EL Paso Plant is bounded by Interstate 10 on the east, Executive Center Boulevard to the north, the American Canal to the southwest, and Paisano Boulevard to the west.

20. Before closing operation, ASARCO smelted copper in El Paso using a Continuous Top-Feed Oxygen Process (ConTop).

21. Permit 20345, which this case concerns, was issued by the Texas Air Control Board (TACB) in 1992 to permit the new ConTop reactors at the ASARCO El Paso Plant.

22. The ConTop reactors replaced ASARCO' s previously grandfathered copper-smelting facilities.

23. ASARCO also holds Permit No. 4151, which authorizes unloading operations, certain conveyance systems, and other operations up to and including the bedding building at the El Paso plant.

24. ConTop was implemented in March 1993, and has been the exclusive operating unit used for the production of copper anodes since then.

25. Since Permit 20345' s 1992 issuance, several permit amendments and alterations have been approved by the ED without contested case hearings.

26. Applicant ceased its copper smelting operations in 1999 and remains in an extended condition of inoperation.

27. Until production was discontinued in 1999, copper smelting was ASARCO' s primary activity at its El Paso plant, resulting in the production of copper anodes that are sent to other ASARCO facilities.

28. Applicant also generated sulfuric acid as part of the off-gas treatment process from the emissions from the copper smelting process.

Air Pollution

Authorized Emissions

29. Permit 20345 contains a maximum allowable emission rate table (MAERT) that authorizes ASARCO to emit the following, which the permit specifically refers to as " air contaminants," at various locations and in various amounts:

- Particulate matter equal to or less than 10 microns in diameter (PM_{10});

- Particulate matter (PM), including PM_{10}, often called total suspended particulates (TSP);
- Oxides of nitrogen (NO_X), which includes nitrogen dioxide (NO_2);
- Volatile organic compounds (VOCs);
- Sulfur dioxide (SO_2);
- Carbon monoxide (CO);
- Sulfuric acid (H_2SO_4); and
- Lead.

30. Additionally, ASARCO will emit other compounds, which are included in its PM and VOC emissions.

31. In November 1994, an uncontested amendment to Permit 20345 was granted by the Commission to adjust heavy metal emission rates from the original representations to actual rates that were measured during required stack sampling. According to that amendment, the following compounds were authorized to be emitted at various locations and in various amounts:

- Arsenic
- Chromium
- Chrome VI
- Copper-dust
- Copper-fume
- Lead
- Nickel
- Zinc
- Chromium
- Chrome VI.

32. Although not specifically named in Permit 20345, the permit has authorized and if renewed would authorize ASARCO to emit manganese, barium, carbon and cadmium

33. Permit 20345 has never authorized and would not authorize ASARCO to emit hydrogen sulfide, beryllium, dioxins, furans, or fluoride.

34. If renewed, Permit 20345 would also authorize ASARCO to emit trace quantities of other compounds that would not cause or contribute to air pollution.

NAAQS

35. The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for lead, NO_2, CO, sulfur oxides (including SO_2), PM_{10}, $PM_{2.5}$, and ozone. 40 Code of Federal Regulations (C.F.R.) §§ 50.4, 50.5, 50.6, 50.7, 50.8, 50.9, 50.10, 50.11, and 50.12.

36. Each of the NAAQS is listed below:

NAAQS [micrograms per cubic meter ($\mu g/m^3$) or parts per million (ppm) as indicated]			
Pollutant	**Averaging Time**	**Primary Standard**	**Secondary Standard**
Carbon Monoxide	8-hour	9 ppm 10,000 $\mu g/m^3$	None
	1-hour	35 ppm 40,000 $\mu g/m^3$	None
Lead	Quarterly Average	1.5 $\mu g/m^3$	Same as Primary
Nitrogen Dioxide	Annual (Arithmetic Mean)	0.053 ppm 100 $\mu g/m^3$	Same as Primary
PM_{10}	Annual (Arithmetic Mean)	50 $\mu g/m^3$	Same as Primary
	24-hour	150 $\mu g/m^3$	None
$PM_{2.5}$	Annual (Arithmetic Mean)	15.0 $\mu g/m^3$	Same as Primary
	24-hour	65 $\mu g/m^3$	None
Ozone	8-hour	0.08 ppm	Same as Primary
Sulfur Oxides	Annual (Arithmetic Mean)	0.03 ppm 80 $\mu g/m^3$	None
	24-hour	0.14 ppm 365 $\mu g/m^3$	None
	3-hour	None	0.5 ppm 1300 $\mu g/m^3$

The Commission's NGLC Rules

37. With certain exceptions, the Commission generally prohibits any person in Texas from causing, suffering, allowing, or permitting emissions of the following substances from sources on contiguous properties to exceed the following net ground level concentrations (NGLCs):

Net Ground Level Concentration Standards ($\mu g/m^3$ unless otherwise indicated)		
Substance	Concentration	Averaging Time
sulfur dioxide	0.4 ppm ($755\ \mu g/m^3$)	30-minutes
TSP	200	3 hours
	400	1 hour
H_2SO_4	15	24 hours
	50	more than once in a 24-hour period
	100	any time

30 TEX. ADMIN. CODE ANN. (TAC) §§ 111.155, 112.3(a), and 112.41(a) (2005).

SO_2 Area Control Plan

38. An "area control plan" is a site-specific regulatory scheme for which the owner of an SO_2-emitting source can apply for approval as an alternative to compliance with the generally applicable SO_2 NGLC standard. 30 TAC § 112.19.

39. Upon application by a regulated entity and recommendation of the ED, the Commission may approve such a regulatory control plan. 30 TAC § 112.20.

40. The area around the ASARCO El Paso plant is covered by an area control plan that sets 0.5 ppm, or 1137 $\mu g/m^3$, over two consecutive half-hour averages as the compliance standard.

Effects Screening Levels

41. Since at least the mid-1970s, the Commission staff has developed effects screening levels

(ESLs) for ground level concentrations of emitted constituents.

42. The ESLs are prepared by the staff of the Commission's Toxicology Section and identify the levels at which the members of that section believe that a constituent may unquestionably be emitted without causing adverse health or other effects.

43. The staff uses toxicological information from animal studies, exposure limits set for occupational situations, epidemiological studies, and Material Safety Data Sheets to identify concentrations of constituents at which no adverse health effect has been observed. When specific information on a constituent is not available, the staff uses information that is available on constituents with similar chemical structures and toxicological properties to fill the gaps.

44. Having determined a concentration of a contaminant with no reported or estimated health effect, the staff divides that number by multiple safety factors of ten to account for differences between animals and humans (when the underlying data was based on a study of animals), between people (to account for particularly sensitive individuals), and in exposure time and for the contribution of multiple sources of the same pollutant in an area.

45. Thus, to account for the shorter-term exposure effects, the staff generally sets a 24-hour average ESL that is 1 percent of the occupational exposure limit. To account for longer-term exposure effects, they generally set an annual average ESL that is 1/1000 of the occupational standard.

46. ESLs set by the above-described method are very conservative and protective of children, the elderly, and people with pre-existing conditions and account for long term exposures.

47. The Commission and its predecessor agencies have a long history of finding the above ESL methodology sound in prior cases. *See Asarco Incorporated*, TACB Docket No. 92-07

(Board Order) (May 8, 1992)(FOF 22). *Also Southwestern Refining Company, Inc.*, TNRCC Docket No. 95-0431-AIR (An Order Renewing Air Quality Permit No. R-3153)(Jul. 13,1995)(FOF 27 and 28); and *In the Matter of the Application of TXI Operations, L.P. for Permit No. HW-50316-001* (An Order Granting the Application of TXI Operations, L.P. for Permit No. HW-50316-001)(Mar. 10, 1999)(FOF 423 *et seq.*)

48. Below are ESLs for particulate matter components that ASARCO could emit under Permit 20345 if it were renewed:

Contaminant	**ESL ($\mu g/m^3$)**	**Averaging Time**
Arsenic	0.4	24-hour
	0.1	Annual
Chromium	0.4	24-hour
	0.1	Annual
Chrome VI	0.4	24-hour
	0.1	Annual
Copper-dust	4	24-hour
	1	Annual
Copper-fume	0.4	24-hour
	0.1	Annual
Nickel	0.06	24-hour
	0.015	Annual
Zinc	20	24-hour
	5	Annual
Manganese	2	24-hour
	0.2	Annual
Barium	5	24-hour

	0.5	Annual
Cadmium	0.1	24-hour
	0.01	Annual
Iron salts	4	24-hour
	1	Annual
Respirable silica	0.4	24-hour
	0.1	Annual

Carbon

49. Carbon emissions, in and of themselves, would not cause adverse health or other effects.

VOCs

50. VOCs and NO_X form ozone, hence VOCs are indirectly regulated by the NAAQS for ozone.

51. ASARCO would not emit a quantity of any specific VOC that would cause adverse health or other effects.

Copper and Iron Salts

52. Because the ESL exceedances are relatively small and the margin of safety in setting an ESL is so large, a 24-hour copper dust concentration of 5.2 $\mu g/m^3$, which is 1.3 times the ESL, and a 24-hour iron salt concentration of 4.43 $\mu g/m^3$, which is 1.1 times the ESL, would not cause adverse health or other effects.

Respirable Silica

53. The primary concern with silica is a chronic effect, silicosis, hence the short-term level could be much higher.

54. The California EPA's chronic exposure level for respirable silica is 3 $\mu g/m^3$.

55. A 2.90 $\mu g/m^3$ 24-hour and a 0.43 $\mu g/m^3$ annual-average concentration of respirable silica would not cause adverse health or other effects.

Arsenic

56. A 1.32 $\mu g/m^3$ 24-hour average concentration of arsenic, though higher than the ESL, would not cause adverse health or other effects.

57. The unpolluted, cleanest air in Texas, with no significant industrial sources of contaminants, is near the McDonald Observatory in west Texas.

58. Annual-average arsenic concentrations in the air near the McDonald Observatory range from 0.01 to 0.02 $\mu g/m^3$.

59. Above-average levels of cancer are not found in the area near the McDonald Observatory.

60. A 0.2 $\mu g/m^3$ annual-average of arsenic would not cause adverse health or other effects.

Risk Assessment

61. There is no such thing as zero risk.

62. EPA uses a range of risk factors from one-in-10,000 to one-in-a-million, depending on the circumstances, and most state environmental agencies use that same range.

63. EPA and the Commission are approaching risk-analysis issues along similar lines in all environmental programs and steadily moving toward greater consistency.

64. No state requires a one-in-a-million or lower risk level.

65. One-in-a-million is often used by environmental agencies as a *de minimus* value, which requires no further scrutiny. A greater risk typically requires a more site-specific evaluation.

66. TCEQ's Texas Risk Reduction Program (TRRP) concerns corrective action when land has been contaminated. However, such land cleanups can impact air quality. 30 TAC §§ 350.1 and 350.2(a).

67. The TRRP generally requires cleanups to reduce emissions of carcinogenic air contaminants to a risk level of 1-in-100,000 for off-site receptors except when a very detailed analysis of exposure pathways indicates that few people are likely to be exposed. 30 TAC § 350.72(a)(1), 350.74 and 350.75.

68. EPA guidance states that even levels of risk calculated to be slightly in excess of 1-in-10,000 can still be acceptable, based on site-specific and chemical-specific information.

69. The Commission and EPA are moving toward a consistent carcinogenic-risk target of not more than one-in-100,000 unless evidence indicating that far fewer than 100,000 people would be exposed to the risk, which might make a target as low as one-in-10,000 acceptable.

EPA's Integrated Risk Information System

70. EPA' s Integrated Risk Information System (IRIS) electronic database is available on the Internet and lists toxicity values for different exposure paths, *e.g.* oral, air, *etc.*

71. The methodologies underlying IRIS have been thoroughly reviewed by peer experts both within and outside EPA.

72. IRIS inhalation reference concentrations (IRIS values) are calculated based on EPA' s assumptions of the average volume of air that an average-sized exposed person would breathe in a day, *e.g.* 20 m^3/day and 70 kg body weight.

73. IRIS values are based on the assumption that a person is exposed to the concentration of a contaminant for an entire lifetime.

74. IRIS values are calculated based on both cancer and non-cancer health risks and are intended to be used to evaluate long-term community exposure rather than shorter exposure.

75. The IRIS values show concentrations of a contaminant that EPA has calculated could cause one additional cancer in 10,000 one in 100,000 and one in one million for people who receive lifetime exposure to the contaminant through that path.

76. IRIS inhalation exposure levels are useful in identifying potential health hazards and selecting a response, but they have many limitations.

77. IRIS values have a uncertain spanning, *i.e.*, margin of error, of perhaps an order of magnitude.

78. IRIS inhalation concentrations cannot be validly used to accurately predict the incidence of human disease or the types of effects that chemical exposures have on humans.

Cadmium

79. EPA has assigned a risk factor to cadmium.

80. The highest reported level of cadmium not affecting exposed workers is 10 $\mu g/m^3$ per year.

81. In 1986, the annual-average concentration of cadmium in the ambient air in El Paso was 0.018 $\mu g/m^3$, and in 1987 it was 0.014 $\mu g/m^3$.

82. IRIS data indicates that there is a 0.0018 risk of additional lifetime cancers per $\mu g/m^3$ of lifetime exposure to cadmium.

83. Using IRIS data, an exposure to a 0.018 $\mu g/m^3$ concentration of cadmium for life could lead to 3.2 extra cancers per 100,000 population.

84. Except when a very detailed analysis of exposure pathways indicates that few people are likely to be exposed, annual-average cadmium concentrations should not be greater than 0.01 $\mu g/m^3$, which is the ESL.

Monitoring Data

85. From 1993 through 1999, when the ASARCO El Paso plant operated under the Permit 20345, El Paso owned and operated an ambient-air monitor (El Paso Monitor) that was 1.25 miles east of the ASARCO site.

86. TCEQ also owned and operated a monitor (TCEQ Monitor) that was 1.5 miles from the ASARCO facility.

87. ASARCO maintained a network of five to six continuously operating ambient SO_2 monitors (ASARCO Monitors) around the El Paso plant since the 1970s. The ASARCO Monitors are two to three miles to the southeast, east, and northwest of the facility.

88. The available data from the TCEQ and El Paso Monitors showed no exceedance of the NAAQS for lead when ASARCO previously operated under Permit 20345. That data showed the following peak lead level:

Monitored Maximum Levels Compared to NAAQS				
Contaminant	Averaging Period	NAAQS	Highest Level	Year of Highest
Lead	Quarterly Average	1.5 $\mu g/m^3$	0.4 $\mu g/m^3$	1996

89. There is some data from the TCEQ and El Paso Monitors for PM_{10}, but it is fragmentary and has large gaps.

90. From 1993 through 1999, when ASARCO previously operated under Permit 20345, the maximum 3-hour, 24-hour, and annual-average concentrations of SO_2 recorded by the El Paso and TCEQ Monitors never came close to the NAAQS, steadily moved downward until approximately 2000, and then stayed at very small fractions of each NAAQS thereafter.

91. During that same period of operation, the following were the highest levels of NO_2 and SO_2 recorded by either the TCEQ or the El Paso Monitor during the periods before, during, and after ASARCO operated ConTop:

Monitored Maximum Levels Compared to NAAQS (1992-2004)				
	averaging period	NAAQS	Highest Level	Year of Highest
Sulfur Dioxide	Annual Arithmetic Mean	0.03 ppm	0.012 ppm	1992
	24-hour	0.14 ppm	0.095 ppm	1990
	3-hour	0.5 ppm (1300 $\mu g/m^3$)	0.4 ppm	1990
NO_2	Annual	0.053 ppm	0.023 ppm	1994-1996

92. The TCEQ Monitor and El Paso Monitor were placed to monitor the overall quality of the air in the region and not specifically to monitor the localized impact of ASARCO's or any other entity's emissions.

93. The computer modeling for lead that ASARCO submitted to the TACB when Permit 20345 was originally issued predicted a max GLC at a point west of the ASARCO facility, which was miles from the TCEQ, El Paso, or ASARCO Monitors.

94. In March 1995, to support an amendment to its permit, ASARCO modeled SO_2 for a broad grid of points surrounding the ASARCO facility and produced a set of maps showing the predicted annual SO_2 concentrations. Those maps also showed the max GLC points that the modeling predicted for each averaging period.

95. The March 1995 modeling predicted an annual SO_2 max GLC, before accounting for background SO_2 contribution, of 15.6 $\mu g/m^3$ at a point virtually on ASARCO's eastern property line. The maximum predicted 30-minute impact was 1,135 $\mu g/m^3$ at a point approximately 8,200 feet, or 1.5 miles, east of the ASARCO facility. The 3-hour average max GLC was northeast of the ASARCO facility.

96. The El Paso Monitor is approximately one-quarter mile from the 30-minute SO_2 peak location predicted in the 1995 modeling, but far less close to the other peak locations. The TCEQ Monitors are even farther away from those max GLC locations.

97. The annual-average SO_2 concentrations predicted in the 1995 modeling generally fall from the predicted 15.6 $\mu g/m^3$ peak at ASARCO' s property line to approximately half of that a mile to the east, while declining and then rising to 12 $\mu g/m^3$ over two miles to the north.

98. For purposes of determining maximum ground level concentrations, short distances matter.

Air Dispersion Modeling

99. Atmospheric dispersion modeling, also called air dispersion modeling, is a computerized mathematical tool based on the principles of physics that simulates the dispersion of an emission from the source to the location where it is received and provides an estimate of the concentration at the receptor location.

100. Various factors are fed into a computer program, which than predicts concentrations of the contaminant at various locations. Among those factors are the type of contaminant; the temperature, point, and elevation of the emission; the speed and direction of the wind; the turbulence of the atmosphere; and the elevation of the surrounding terrain.

101. Atmospheric dispersion modeling is the most suitable tool for predicting the ambient concentration of a particular pollutant that will result from the emissions from a particular source.

102. The TCEQ staff and EPA rely almost exclusively on modeling to determine whether a particular source will cause or contribute to a condition of air pollution.

103. For at least the last 30 years, both agencies' policies and procedures have directed applicants to use models.

Overview of Models

104. Though not required, EPA and the TCEQ staff currently prefer that regulated entities generally use the Industrial Source Complex Model, Version 3 (ISC3) for the following regulatory applications:

- Industrial source complexes;
- Rural or urban areas;
- Flat or rolling terrain;
- Transport distances less than 50 kilometers;
- 1-hour to annual averaging times; and
- Continuous toxic air emission.

40 C.F.R. Part 51, Appendix A to Appendix W of Part 51—Summaries of Preferred Air Quality Models.

105. ASARCO has never modeled the dispersion of its emissions under Permit 20345 using ISC3.

106. In 1992, the preferred dispersion models were the original version of the Industrial Source Complex Model (ISC1) and COMPLEX I, which was another EPA approved model that took into account the changes in the elevation of the terrain over which the emissions would be dispersed.

107. After ASARCO originally applied for Permit 20345 in 1991, it prepared and submitted ISC1 and COMPLEX I modeling runs in early 1992 (1992 Modeling).

108. In 1992, one had to run both the ISC1 and the COMPLEX I models to determine maximum ground level concentrations (max GLCs) at different terrain elevations. One had to run the two different models separately, look at the results, and see which ones were higher.

109. The ISC3 model incorporates the features of the ISC1 and COMPLEX I models.

110. Superficially, there are differences in the interfaces with the ISC models. In ISC3, one can now use menus to enter data for emission rate, stack height, stack diameter, *etc.*, and the menus transmit that data to the model input file. In 1991, one had to enter that data directly into a model input file in FORTRAN code. Numbers for the inputs–diameter, velocity, *etc.*–were entered left to right with no separation between them.

111. The only other air dispersion modeling that ASARCO has ever run and submitted to TCEQ concerning Permit 20345 was prepared to support its 1994 application to amend the permit. That application was primarily to change its authorized SO_2 emission rates.

112. To support that 1994 application, ASARCO in 1995 modeled those then-proposed SO_2 emissions using BEEST-X, Version 1.3 (1995 modeling). That was a private vender's software that combined the algorithms from a later version of ISC–Industrial Source Complex Short-Term Model (ISC2)–and COMPLEX I into one model.

113. ASARCO did not prepare an up-to-date dispersion model for this case. Instead, ASARCO relied on its 1992 and 1995 modeling, neither of which modeled all of the concentrations of each pollutant that the Permit, if renewed, would authorize ASARCO to emit.

Appropriateness of Using Older Models

114. The basic science of plume dispersion has not changed.

Scaling

115. GLCs for any emission rate could be calculated based on the modeling of a different emission rate for the same pollutant by calculating the ratio between the two rates and multiplying the modeled GLC by that same ratio. This process is referred to as scaling.

116. In scaling from older modeling to support this renewal application, ASARCO always reverted back to the latest modeling that was conducted for the pollutant at issue. In the case of SO_2, it was the 1995 modeling. In the case of the other pollutants, it was the 1992 modeling. To avoid distortions, no number that was previously scaled was scaled again.

117. Scaling is an acceptable technique when performed correctly and is not forbidden by the EPA' s modeling guidance.

118. Scaling is not an appropriate approach when the heights of the emission sources dramatically differ.

Conservatism In Modeling

119. In its 1992 and 1995 modeling, ASARCO made certain conservative assumptions that tended to over-predict the maximum ground level concentrations that the modeled emissions would cause.

120. That modeling assumed that all modeled sources were operating at the same time, the events were coincidental, and there were worst-case meteorological conditions. All of those conditions rarely occur at the same time, hence that was a very conservative set of assumptions.

121. Although emissions hug the ground and cannot go up-hill unless there is turbulence, the ISC1 model assumed that ground-level and low-level releases from ASARCO could travel uphill and impact receptors higher than their points of emission.

122. When receptors were lower than the ASARCO plant elevation, they were nevertheless modeled as if they were at the plant grade. That meant that the plume did not have to travel downward and disperse to reach the receptors, hence the results assumed that the receptors were experiencing an exaggerated impact of those emissions.

123. Although the EPA guidance for the ISC models states that one should not model receptors higher than the stack height, those higher receptors were modeled, which overestimated the impacts on them.

124. Not all of ASARCO' s sources would operate 24 hours a day, yet the modeling assumed that ASARCO' s sources were operating 24 hours a day. That included nighttime, in stable conditions, which are worst-case conditions for many of ASARCO sources.

125. The rural instead of the urban switch was selected for the 1992 and 1995 modeling. Using the urban switch assumed lower turbulence and predicted higher GLCs than the if the urban switch had been used.

Partial vs. Full Receptor Grid

126. In 1992 and 1995, ASARCO modeled five relatively small grids near likely sensitive receptors. Even in the early 1990s computer computation speeds were so slow that modeling a broad range of points was very time-consuming and rather difficult. Modeling only the five sensitive-receptor areas, rather than a very broad area, reduced the quantity, length, and cost of the computer runs.

127. The five small receptor areas were:

- La Calavera, a residential area immediately adjacent to the ASARCO facility;
- Executive Center, another residential area a bit farther away;
- Mesita Elementary School, the school in Texas that is nearest to the ASARCO facility;
- The nearest dorms at the University of Texas at El Paso; and
- A fifth location that is not indicated in the evidence.

PM Emissions under Permit 20345 Slone

128. ASARCO's 1992 modeling predicted the following maximum ground level concentrations from PM and PM_{10} emissions:

1992 PM Modeling Results ($\mu g/m^3$)				
	Averaging Time	Highest Concentration	EPA Significance Level	NAAQS or NGL
PM_{10}	24-hour	3.09	5	150
	annual	0.37	1	50
PM	1-hour	311	- -	400
	3-hour	177	- -	200

129. That 1992 modeling was prepared based on the following assumptions:

1992 PM Modeling Assumptions ($\mu g/m^3$)		
	lbs/hour	tpy
PM	95	371
PM_{10}	92.5	368

130. The permit at issue in this case has been amended since 1992. The PM that ASARCO would be authorized to emit is lower than it was in the 1992 permit. The renewed permit would authorize 98 percent of the hourly and 95 percent of the annual PM and PM_{10} emissions that the 1992 permit did. Rounding off, the renewed permit would authorize the following:

PM Emissions Under the Renewed Permit ($\mu g/m^3$)		
	lbs/hour	tpy
PM	93.3	353
PM_{10}	90.7	350

131. There are a lot of options when modeling wide-spread fugitive dust sources. Their precise location does not matter that much and can be modeled as a single source. That allows PM emissions to be scaled as a group.

132. Since the renewed permit would authorize 98 percent of the hourly and 95 percent of the annual PM and PM_{10} emissions that the 1992 permit did, scaling from the 1992 modeling would yield the following max GLCs under Permit 20345 alone, if it is renewed:

Renewed Permit Maximum PM Impact Scaled from 1992 PM Modeling Results ($\mu g/m^3$)				
	Averaging Time	Highest Concentration	EPA Significance Level	NAAQS or NGLC
PM_{10}	24-hour	3.0282	5	150
	annual	0.3515	1	50
PM	1-hour	304.78	- -	400
	3-hour	168.15	- -	200

133. Due to significant technical difficulties in directly estimating $PM_{2.5}$ from industrial facilities

and estimating secondarily-formed fine particles through chemical reactions in the atmosphere, current EPA policy is to allow a source to use its PM_{10} NAAQS demonstration as a surrogate for making a $PM_{2.5}$ NAAQS demonstration.

134. Based on the above, the maximum ground level concentration of $PM_{2.5}$ due to ASARCO emissions under Permit 20345 alone can be estimated as follows:

Renewed Permit Maximum $PM_{2.5}$ Impact Based on and Scaled from 1992 PM Modeling Results ($\mu g/m^3$)			
Pollutant	**Averaging Time**	**Primary Standard**	**NAAQS**
$PM_{2.5}$	24-hour	3.0282	65 $\mu g/m^3$
	Annual	0.3515	15.0 $\mu g/m^3$

Specific PM Constituents

135. PM is a catchall category that includes many particular pollutants.

136. In the 1992 modeling, ASARCO modeled contiguous ASARCO sources and predicted max GLCs for the following PM constituents, which are compared to the non-polluting levels, generally the ESLs, found above:

1992 Modeling of PM Constituents Compared to Maximum Non-polluting Levels ($\mu g/m^3$)			
Contaminant	**1992 Model Max GLC**	**Non-polluting Level**	**Averaging Times**
Arsenic	0.11	1.32	24-hour
	0.02	0.2	Annual
Chromium	<0.01	0.4	24-hour
	<0.01	0.1	Annual
Chrome VI	<0.01	0.4	24-hour
	<0.01	0.1	Annual
Copper-dust	5.16	5.2	24-hour
	0.72	1	Annual
Copper-fume	0.17	0.4	24-hour
	0.02	0.1	Annual
Nickel	<0.01	0.06	24-hour
	<0.01	0.015	Annual
Zinc	0.35	20	24-hour
	0.03	5	Annual
Iron salts	4.43	4.43	24-hour
	0.61	1	Annual
Respirable silica	2.90	2.90	24-hour
	0.43	0.43	Annual

137. Since Permit 20345, if renewed, would authorize less PM to be emitted than was studied in the 1992 modeling, the max GLCs for the above PM constituents would be 95 to 98 percent lower, just as PM as a group would be.

138. Variations in the percentages of PM constituents in the ore that ASARCO smelts would not cause an exceedance of non-polluting levels for the PM constituents indicated above.

139. ASARCO will also emit the following PM constituents if Permit 20345 is renewed and ASARCO resumes operation, but ASARCO never modeled those emissions: manganese, barium, and cadmium.

Permit Emissions for Non-Permit 20345 Sources

140. ASARCO has two permits for its El Paso plant: the one considered for renewal in this case, 20345, and another, 4151.

141. Permit 4151 covers ASARCO's unloading and bedding building facilities, and Permit 20345 covers the rest of the plant.

142. The 1992 TACB Order approving the original issuance of Permit 20345 listed all of the PM emissions authorized by both permits, while the 1992 modeling included only the PM emissions under Permit 20345.

143. There is no evidence that the PM or PM_{10} emissions authorized in 1992 under Permit 4151 have been reduced.

144. Additionally, ASARCO' s PM_{10} emissions under Permit 20345 are approximately ten percent of the PM_{10} emissions from the entire ASARCO El Paso plant.

145. The 1992 modeling for Permit 20345 did not consider the impact of other PM sources at ASARCO' s El Paso plant.

146. For this case, ASARCO has not analyzed the max GLCs that would result from all PM emissions at this plant.

The PM emissions authorized in 1992 under Permit 4151 can be calculated by comparing those stated in the 1992 order for both permits and those that were modeled in 1992 for Permit 20345 alone:

PM Emissions under Permits 20345 and 4151 in 1992 (tons per years)			
	Both	Permit 20345	Permit 4151
PM	485.9	371	114.9
PM_{10}	482.8	368	114.8

The PM emissions that the current version of Permit 20345 and the 1992 version of Permit 4151 would authorize together can be calculated as follows:

PM Emissions under Current Versions of Permits 20345 and 4151 (tons per years)			
	Permit 20345	Permit 4151	Both
PM	353	114.9	467.9
PM_{10}	350	114.8	464.8

147. The ratios between the PM emissions under just Permit 20345 and under both permits can then be calculated:

Ratio of Permit 20345 PM Emissions to Emissions under Both Asarco El Paso Permits			
	Permit 20345	Both	Ratio
PM	353 tpy	467.9 tpy	1.33
PM_{10}	350 tpy	464.8 tpy	1.33

148. Modeling PM and PM_{10} emissions as a single source and assuming that pound-per-hour emissions have the same ratio as tons-per-year emissions, scaling can be used to roughly calculate the PM max GLCs that would result from ASARCO' s renewed operation under both permits for its El Paso plant:

Estimated PM Impact From Both Permits 20345 and 4151 ($\mu g/m^3$)						
	Averaging Time	Max GLC Permit 20345	Ratio	Max GLC Both Permits	EPA Sign. Level	NAAQS or NGL
PM_{10}	24-hour	3.0282	1.33	4.03	5	150
	annual	0.3515	1.33	0.47	1	50
PM	1-hour	304.78	1.33	405.36	- -	400
	3-hour	168.15	1.33	223.64	- -	200

149. From all sources at its El Paso plant, ASARCO emit 10 times the PM_{10} authorized by Permit 20345 alone.

If the total PM emissions from the plant are ten times the emissions under Permit 20345, and if PM emissions of all sizes from all plant sources are also ten times as large as under Permit 20345 alone, the following max GLCs can be estimated using scaling:

Estimated PM Impact From All ASARCO El Paso Plant Sources ($\mu g/m^3$)						
	Avg.Time	Max GLC Permit 20345	Ratio	Max GLC from all ASARCO Sources	EPA Sign. Level	NAAQS or NGL
PM_{10}	24-hour	3.0282	10	30.28	5	150
	annual	0.3515	10	3.52	1	50
PM	1-hour	304.78	10	3047.8	- -	400

	3-hour	168.15	10	1681.5	- -	200

150. When ASARCO previously operated under the permit at issue in this case, there was another PM emission source on property contiguous to the ASARCO plant. The pollutants were emitted from slag coming from the ASARCO facility.

151. Slag is a molten waste that ASARCO pours on the ground and allows to cool and solidify.

152. After the slag cooled, Oglebay Norton, another company, bought the slag from ASARCO and used front-end loaders to carry it to property owned by ASARCO and adjacent to ASARCO' s plant but leased to Oglebay Norton.

153. There Oglebay Norton processed the slag by crushing, and sizing it, then sold it to a railroad for ballast.

154. Oglebay Norton' s resumption of handling of slag generated by ASARCO, if ASARCO resumed operation under a renewed Permit 20345, would cause PM emissions not included in ASARCO' s modeling for this case.

155. While it need not sell it and could possibly store it, ASARCO cannot operate its smelter without generating slag.

SO_2 Emissions

156. If the permit is renewed, ASARCO would be authorized to emit 6,673.15 tpy of SO_2. That is far and away the largest quantity of any pollutant that the permit would authorize ASARCO to emit.

157. ASARCO also would be the largest emitter of SO_2 in El Paso County. The largest emission of SO_2 by any entity in El Paso County in 2002 was 401.31 tpy, and the total SO_2 emissions in the county were 591.91 tpy. That was a year when ASARCO had suspended operation.

158. If it resumed operation, ASARCO would be emitting more than 12 times more SO_2 in El Paso County than all others combined emitted in 2002.

159. In the 1995 modeling, ASARCO included all SO_2 emissions from all sources at the ASARCO El Paso plant, plus all sources from nearby external point sources and a background level.

160. The 1995 modeling also used a very broad receptor grid, reflected in maps showing the calculated max GLCs.

161. The 1995 modeling estimated the following SO_2 max GLCs:

1995 Modeling Results for Maximum Ground Level SO_2 Concentrations ($\mu g/m^3$)					
Avg. Time	ASARCO El Paso Plant sources	ASARCO & Other Sources	Monitored Background	Total	NAAQS and Area Control Plan Levels
Annual		16	14	30	80
24-hour		137	30	167	365
3-hour		797	121	918	1,300
30-min.	1,135			1,135	1,137

162. After the 1995 modeling, ASARCO's permit was changed many times, and no modeling was conducted to support the changes except once.

163. Matte is an intermediate copper product.

164. ASARCO obtained a matte pouring amendment for which it prepared a stand-alone model in 1996.

165. ASARCO predicted the following SO_2 concentrations would result just from the matte pouring:

SO_2 Impacts Due Matte Pouring Amendment ($\mu g/m^3$)			
one-hour	three-hour	24 hour	annual
4935	41.6	6.94	0.35

166. These additional concentrations, even if added to those predicted in the 1995 modeling, would not cause exceedances of the annual, 24-hour, or three-hour SO_2 NAAQS.

167. The second biggest SO_2 source is ASARCO' s 828-foot stack.

168. ASARCO modeled that stack as if it were approximately 525 feet high, in accord with EPA guidance, which directs that a stack be modeled at a height consistent with good engineering practice.

169. Modeling that stack at a lower-than-actual height increased the resulting estimated SO_2 ground level concentrations at some locations, but ignored the reality that emissions at the full 828-foot elevation would have passed over lower-lying terrain.

170. The model unrealistically predicted higher impacts of SO_2 at elevations between 525 and 828 feet.

171. As to the annual, 24-hour, and three-hour NAAQS, the post-1995 permit changes resulted in increased SO_2 emissions that would be too small to matter.

172. The 1995 modeling showed that ASARCO's SO_2 emissions were at 99.8 percent of the Commission's area-control-plan standard for SO_2.

173. When the issue is whether maximum consecutive 30-minute concentrations would exceed the applicable standard, a very short-term spike in emissions might be all that is necessary to cause such an exceedance.

174. The SO_2 emission due to the matte pouring would push the 30 minute 1,135 $\mu g/m^3$ max GLC predicted in the 1994 modeling to 1,184.5 $\mu g/m^3$, exceeding the already liberal 1,137 $\mu g/m^3$ area-control-plan level.

175. In 1995, even before the matte-pouring amendment was granted, TNRCC Staff members monitored ASARCO and found exceedances of the area-control-plan standard. SO_2 concentrations of 0.702 and 0.907 ppm, well above the 30-minute 0.5-ppm control-plan level, were found during two of the ten monitoring time-frames.

176. During that monitoring, a Staff member experienced heaviness in the chest, periodic increases in heart rate, sulfur odor and tastes, and general feelings of discomfort. That is consistent with the short-term respiratory irritation and aggravation of pre-existing respiratory illnesses that SO_2 exposure can produce.

Lead Emissions

177. For the 1992 modeling, ASARCO modeled all sources of lead at the ASARCO plant as well as all nearby sources.

178. For that modeling, ASARCO assumed a background concentration of lead that was the highest level monitored in El Paso at that time. The background level of lead in El Paso County has decreased dramatically since 1992.

179. That monitored lead level included the influence of other point sources, which ASARCO had separately modeled. To that extent, the 1992 modeling double-counted lead impacts.

180. That 1992 modeling predicted the following:

1992 Lead Modeling Results ($\mu g/m^3$)				
Avg. Time	ASARCO & Other Sources	Monitored Background	Total	NAAQS
Calendar quarter	0.67	0.42	1.09	1.5

181. The following is a comparison of the authorized lead emissions under the 1992 and current versions of Permit 20345:

Authorized Lead Emissions under Permit 20345 ($\mu g/m^3$)			
	1992	Current	Percent change
LB/HR	2.63	3.17	+20.53
TPY	8.03	7.67	-4.48

182. The above 1992 emissions were used for the 1992 modeling.

183. Since the only applicable standard is the calendar-quarter NAAQS, it is more appropriate to use the annual rate to scale than to use the hourly rate.

184. If ASARCO resumed operation under the permit, the quarterly concentrations of lead would be lower than the 1992 model predicted.

185. Unlike for other pollutants that might be emitted under the catchall category of PM, there is no need to determine what quantity of lead the permit would authorize ASARCO to emit. The permit sets specific limits on lead.

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186. The 1992 modeling for lead, which considered all sources within the 50-kilometer study-area radius of the ASARCO plant as well as the highest recorded level of lead monitored in the ambient air in that study area, was very conservative.

187. The 1992 modeling, which predicted lead concentrations significantly below the NAAQs, over-predicts concentrations of lead that might result if ASARCO resumes operation under Permit 20345, because the annual lead emissions will be lower than considered in the 1992 modeling.

H_2SO_4 Emissions

188. In the 1992 modeling, ASARCO predicted the following for H_2SO_4:

H_2SO_4 1992 Modeling Results ($\mu g/m^3$)		
Averaging Time	Asarco Contiguous Sources Max GLC	NGLC Standard
24-hours	0.79	15
more than once in a 24-hour period	3.83	50
any time	3.83	100

189. For the 1992 modeling, ASARCO assumed the H_2SO_4 emission rates shown below, which are compared to the rates under Permit 20345 if renewed:

Authorized H_2SO_4 Emissions under Permit 20345			
	1992	Current	Percent change
LB/HR	3.75	3.75	0
TPY	14.5	16.2	+11.72

190. For scaling purposes, the hourly emission rate should be used, because the H_2SO_4 NGLC rule sets short-term standards.

191. Because there has been no change in the hourly emission rate, the current permit would result in the same max GLC as the 1992 model.

NO_2 Emissions

192. In the 1992 modeling, ASARCO predicted the following for NO_2:

1992 NO_2 Modeling Results ($\mu g/m^3$)			
Averaging Time	Permit 20345 Sources Max GLC	Significance Level	NAAQS
Annual	.944	1	100 $\mu g/m^3$

193. For the 1992 modeling, ASARCO only examined the 34-tpy change in NO_X emissions from the plant that the original version of Permit 20345 authorized and assumed that all of the NO_X emissions would actually be NO_2.

194. There are other sources of NO_X at the ASARCO facility, which ASARCO did not model in 1992.

195. The 1992 modeling predicted that the max GLC of NO_2 was below the significance or *de minimus* level established by EPA and, in accordance with EPA modeling guidance, further modeling was not required.

196. If Permit 20345 is renewed, ASARCO would be authorized to emit 230.04 tpy of NO_X.

197. Without even considering other continguous ASARCO sources, scaling would show that just the Permit 20345 sources would cause NO_x max GLCs that were 6.78 times the level modeled in 1992, which would be higher than the significance level.

198. There is insufficient evidence in this case to show the quantity of NO_2 that would be emitted from all sources at the ASARCO El Paso plant or what additional ground level concentrations of NO_2 they would cause.

199. The highest screening background NO_2 concentration anywhere in El Paso was 70 $\mu g/m^3$.

Ozone, VOCs, and NO_X

200. Under Permit 20345, if renewed, ASARCO would be authorized to emit only 230.04 tpy of NO_X and 7.66 of VOC. Both of those are precursors of ozone.

201. All sources in the El Paso area collectively emit 25,154 tpy of NO_X and 23,849 of VOC.

202. Under Permit 20345, if renewed, ASARCO would only be allowed to emit 0.9 percent of the NO_X total and 0.03 percent of the VOC total emitted in the El Paso area.

203. The El Paso area's ozone exceedances are driven by VOC, not NO_X, making ASARCO's NO_X emissions irrelevant for purposes of an ozone analysis.

204. A Commission rule concerning permits for new sources of air pollutants specifically provides: ". . . for El Paso County, the [non-attainment new source review] rules apply to sources of VOC but not to sources of NO_X." 30 TAC §§ 116.12, Table I, footnote 3.

205. ASARCO's VOC emissions authorized by Permit 20345 would be the products of combusted fuels.

206. VOC emissions authorized by Permit 20345 have never been modeled by ASARCO, and the Commission staff has never asked that they be modeled.

207. Small quantities of unburned organic compounds from the combustion of sweet natural gas do not cause or contribute to a condition of air pollution.

208. ASARCO's VOC emissions would be too small compared to the quantity of VOC in the ambient air in the El Paso area to have any affect on ozone.

Carbon Monoxide Emissions

209. In the 1992 modeling, ASARCO predicted the following for carbon monoxide, based on the modeling of site-wide permit allowables under the original Permit 20345:

CO 1992 Modeling Results		
Averaging Time	ASARCOs Contiguous Sources Max GLC	NAAQS
8-hour	25.9 $\mu g/m^3$	9 ppm 10,000 $\mu g/m^3$
1-hour	75.7 $\mu g/m^3$	35 ppm 40,000 $\mu g/m^3$

210. For the 1992 modeling, ASARCO used the CO emission rates shown below, and the current permitted emission rates from all contiguous ASARCOS sources are shown as well:

Authorized CO Emissions from All Contiguous ASARCO Sources			
	1992	Current	Percent change
LB/HR	11.4	106	+830
TPY	24.8	288	+1061

211. Since the NAAQS are short-term standards, scaling should be based on the hourly emission rate.

212. Scaling from the 1992 modeling would predict the following max GLCs for all CO emissions under Permit 20345 if the permit is renewed:

CO Max GLCs Scaled from 1992 Modeling Based on LB/HR Change ($\mu g/m^3$)				
Averaging Time	1992 Modeling Max GLC	Percent Change	Current Permit Max GLC	NAAQS
8-hour	25.9 $\mu g/m^3$	+830	241 $\mu g/m^3$	9 ppm 10,000 $\mu g/m^3$
1-hour	75.7 $\mu g/m^3$	+830	704 $\mu g/m^3$	35 ppm 40,000 $\mu g/m^3$

Mexico and New Mexico

213. Under Permit 20345, ASARCO would emit contaminants within 300 feet of the international border and 600 feet of the New Mexico state line.

214. The wind blows toward Anapra, New Mexico, approximately twenty-two percent of the time and toward the Ciudad Juárez, Chihuahua, Mexico, area approximately forty-six percent of the time.

Compliance History

June 17, 1994 EPA Consent Agreement and Order, Docket No. TSCA-VI-598C

215. On June 17, 1994, EPA and ASARCO entered a consent agreement and EPA issued an order against ASARCO in Docket No. TSCA-VI-598C.

216. EPA instituted a proceeding pursuant to and for violations of the Toxic Substance Control Act which resulted, on June 17, 1994, in a Consent Agreement and Order, Docket No. TSCA-VI-598C.

217. EPA found that ASARCO improperly stored and managed materials containing Polychorinated Biphenyls (PCBs) without notifying EPA of its handling activities prior to storage and disposal. Improper actions included:

- Using eight transformers with dielectric fluid contained PCBs at a concentration of 500 ppm or greater;
- Storing combustible materials closer than five meters to the PCB transformer;
- Failing to notify EPA of PCB waste-handling activities prior to storage and disposal;
- Failing to maintain and make available records of inspection and maintenance history of the transformers;
- Failing to mark large High Voltage capacitors containing PCBs as required by law;
- Failing to check all PCB articles and containers in storage for leaks at least every 30 days;
- Failing to date the capacitors when they were placed in storage;
- Failing to develop and maintain an annual document recording disposition of PCBs and PCB items for eight years;
- Failing to record total weight of PCBs contained;
- Failing to record removal dates of PCBs;
- Failing to record storage and transport dates of PCBs; and
- Failing to record removal, storage, and shipment information concerning transformers.

218. ASARCO was assessed a civil penalty of $19,500.00, ordered to reconstruct PCB annual documents for 1983 through 1990, ordered to remove combustible materials closer than five meters to PCB transformers and to photograph that removal, ordered to cleanup leaking PCB-contaminated rectifiers and present supporting documentation, and pay a $1,000.00 penalty per day for failure to comply with the order.

219. Because of their high toxicity, there can be no release of PCBs.

220. The clerical nature of some of the violations does not diminish their significance in that labeling and manifest requirements are a primary means for ensuring proper handling of toxic substances.

August 2, 1994 Notice of Violation

221. On August 2, 1994, the TCEQ Staff issued a Notice of Violation (NOV) alleging violations of air emission limits and monitoring required by specific provisions of Permit 20345 discovered during a regular inspection by TNRCC Staff conducted on May 31 through June 3, 1994. Also found were federal notification and record keeping violations, including:

- Excessive SO_2 emissions due to boiler-feed water-pump problems;
- Failure to span to the required concentration for SO_2;
- Exceedance of a 6-hour block average from acid plant stack;
- Exceedance of a 1-hour block average from acid plant stack;
- Failure to conduct daily calibrations of the acid-gas plant's continuous emission monitoring system (CEMS);
- Fugitive dust emissions;
- Open duct;
- Plastic slats at converter building failing to effectively contain emissions within the building;
- Lapse of required daily checks/calibration of acid plant stack;
- Failure to maintain the converter building ventilation baghouse Continuous Opacity Monitoring system (COMS);
- Lapse of required daily checks of system, specifically the fluid-bed dryer-exhaust duct and the converter-building ventilation baghouse;
- The fluid-bed dryer-exhaust duct Com system was not spanned to the required opacity range;
- Fugitive emissions from the delumper;
- Failure to maintain information to determine the gas distribution for the waste-water treatment-plant boiler, spray dryer, two power boilers and the fluid-bed concentrate dryer due to lack of information not kept by ASARCO;
- Failure to submit required quarterly reports documenting excessive emissions and total CEMS/COMS downtime from the acid plant stack and fluid-bed dryer-exhaust duct; and
- Failure to have quality assurance procedures for acid-plant stack CEMS and the fluid-bed dryer-exhaust COMS.

222. The violations were addressed only after being brought to ASARCO's attention, resulting in fugitive emissions escaping for an undetermined period.

223. TNRCC indicated in a letter dated June 13, 1996, to ASARCO that "certain violations were forwarded to the Air Section in Austin for initiation of formal enforcement action while other violations alleged in the NOV were not."

224. Formal enforcement action was taken on this NOV, which resulted in Agreed Order No. 96-1142-AIR-E.

May 4, 1995 Notice of Violation

225. On May 4, 1995, the Commission issued a NOV after Commission Staff found ambient SO_2 violations detected through mobile monitoring downwind of ASARCO on January 28 through February 1, 1995.

226. The monitoring evaluated ambient air concentrations of SO_2 downwind of the smelter. The sampling location during these two periods was southwest of ASARCO on Paisano Avenue, 0.4 miles south of the IBWC compound.

227. It was determined that on February 1, 1995, SO_2 concentrations were emitted above the regulatory allowable level, during two one-hour periods:

- One-hour average concentrations of 0.702 ppm were recorded from 00:45 to 1:45;
- One-hour average concentration of 0.907 ppm was recorded from 2:50 to 3:50.

228. The above exceedances resulted from one-hour averages, so peaks and averages over shorter periods of time were even higher.

229. Formal enforcement action was taken on this NOV, which resulted in Agreed Order No. 96-1142-AIR-E.

August 28, 1996 TNRCC Agreed Order, Docket No. 96-0212-MLM-E

230. On August 28, 1996, TNRCC issued an Agreed Order against ASARCO in Docket No. 96-0212-MLM-E.

231. The Commission assessed administrative penalties of $168,400.00 and required corrective actions for numerous violations involving the mismanagement of solid and liquid hazardous wastes.

232. These contaminants were found during three separate periods of inspections conducted on May 31 through June 13, 1994; January 12 through 13, 1995; and April 28 through May 8, 1995.

233. Laboratory testing confirmed the release of unauthorized discharges of industrial solid waste, wastewater and storm water, in the form of elevated toxic metals, including lead. The order

also found violations of storage, labeling and record-keeping requirements. The specifics are stated below, separated by inspection period:

AUGUST 28, 1996 TNRCC AGREED ORDER, NO. 96-0212-MLM-E PERMIT VIOLATIONS FOR MAY-JUNE, 1994 & JANUARY 12-13, 1995:

• Elevated levels of metals evidencing the presence of industrial solid waste were found in:
  • pond nos. 1 and 6;
  • an asphalt-lined surface impoundment located west of the converter building ventilation baghouse, which was used as a spill containment area; and
  • a 90,000-gallon tank, which served the unloading building's wastewater treatment plant. (The effluent from the tank was used for wash down in the bedding building, unloading building and for dust suppression around the facility.)

• Elevated levels of metals in the soil were found in:
  • an asphalt-lined surface impoundment located west of the converter building ventilation baghouse, which was used as a spill containment area. (Leakage was found due to cracks in the impoundment asphalt);
  • the " boneyard" area, which was on top of a slag pile consisting of spent scrubber saddles, discarded brick, wood, plastic, flues, and flue residue;
  • the base of a slope located outside of ASARCO's perimeter fence outside of Acid Plant No. 2;
  • an area of stained soil adjacent to a roll-off container located just west of Acid Plant No. 2;
  • a berm located west of the lead plant and south of the closed copper roaster; and
  • a berm located south of the lined storm water pond.

• Sulfuric acid spill at Acid Plant No. 2 in 1994.
• Sulfuric acid spill on the ground at Acid Plant No. 2 in 1995.
• Failed to perform a waste determination and to amend the Notice of Registration concerning the generation of the following solid wastes: air conditioning filters, spent catalyst, lathe cleaning solvent, anti-freeze and freon recycling machine filters, waste oils, scrubber saddles, brick materials, residues in flues, waste oil, grease bags from the spray dryer baghouse, drums with spent solvents and waste oil.
• Failed to amend the Notice of Registration concerning the following waste management units: the 90,000-gallon wastewater treatment plant, 1,000-gallon laboratory wastewater holding tank, the RCC pre-treatment wastewater-treatment plant, and the RCC wastewater treatment plant.
• Labeling violations of hazardous waste.

AUGUST 28, 1996 TNRCC AGREED ORDER, NO. 96-0212-MLM-E PERMIT VIOLATIONS FOR MAY-JUNE, 1994 & JANUARY 12-13, 1995:
• Uncovered hazardous waste containers..

AUGUST 28, 1996 TNRCC AGREED ORDER, NO. 96-0212-MLM-E PERMIT VIOLATIONS FOR APRIL 28 THROUGH MAY 8, 1995:
• Elevated levels of arsenic in groundwater-monitoring wells.
• Unauthorized discharges of solid waste, consisting of sludge, sediment, scrubber saddles, boneyard waste materials, and leaking 35-gallon drum containing lubricating oil.
• Failed to perform a waste determination and to amend the Notice of Registration concerning the generation of the following solid wastes: air conditioning filters, anti-freeze and freon recycling machine filters, scrubber saddles, brick materials, residues in flues, and grease bags from the spray dryer baghouse.
• Failed to amend the Notice of Registration concerning the following waste management units: the 90,000-gallon wastewater treatment plant, 1,000-gallon laboratory wastewater holding tank, the Zig Zag building, and the RCC wastewater-treatment plant.
• Failed to perform a waste determination on a 55-gallon drum containing contaminated grease and 55-gallon drum containing sludge.

234. The Agreed Order also documented that on-site and off-site groundwater monitoring wells were sampled in May 1995 and that the analytical results confirmed the presence of elevated levels of arsenic and other metals in some on-site and off-site groundwater monitoring wells.

235. In addition to the extensive directives that ASARCO was to comply with, the Agreed Order contained a provision whereby a portion of the penalty would be remitted with the condition that ASARCO perform and comply with certain Supplemental Environmental Project (SEP) provisions.

Encycle/Texas ASARCO Consent Decree

236. On April 15, 1999, EPA and the State of Texas, on behalf of the TNRCC, filed a civil action in United States District Court for injunctive relief and civil penalties against Encycle/Texas

Incorporated and its affiliate, ASARCO, for violations of federal and state laws. *United States of America and the State of Texas v. ENCYCLE/Texas, Inc. & ASARCO, Inc.*, H-99-1136.

237. In their complaint, the federal and state agencies made 38 claims for relief for violations of the laws regarding receipt, generation, management, treatment, storage and disposal of hazardous wastes; and the discharge of pollutants into navigable waters, at various facilities, one of which was ASARCO' s El Paso plant.

238. The ASARCO El Paso facility was alleged to have released hazardous waste into the environment. The specific alleged federal violations are described below:

- Failure to notify EPA or Texas that the ASARCO El Paso facility stored and/or disposed of hazardous waste;
- ASARCO treated and/or stored, and/or disposed of hazardous waste at the ASARCO El Paso facility;
- Failure to obtain permit to treat, store of dispose of hazardous waste at the El Paso facility; and
- Failure to meet storage and treatment standards by storing and disposing of restricted hazardous waste at the El Paso facility.

239. The State of Texas separately alleged violations of Texas law by the ASARCO El Paso plant:

- On May 31-June 13, 1994 inspections revealed that hazardous-waste sludges and waste water were being stored in Texas;
- Failure to document daily inspection reports;
- Unpermitted discharge of industrial solid waste;
- Failure to notify of process change as required by permit; and
- Failure to sign and return manifests to generators.

240. The following general violations were alleged by both the federal and state governments:

- Failure to follow waste-analysis process;
- Failure to comply with waste acceptance requirements [accepted waste that contained organic carbon concentration greater than 1,000 ppm];
- Management of hazardous waste in unpermitted areas;
- Failure to maintain hazardous waste container in good condition;
- Failure to amend its contingency plan;

- Failure to list items to be inspected;
- Failure to maintain the necessary personnel training documents;
- Failure to post signs;
- Failure to transfer waste in areas with secondary containments;
- Failure to notify the regional administrator of wastes from foreign sources;
- Failure to install a monitoring system;
- Treating hazardous wastes without a permit or interim status;
- Failure to comply with hazardous waste exporting requirements;
- Failure to package, label, mark and placard;
- Failure to comply with manifesting requirements;
- Failure to report and keep records;
- Failure to conduct waste analysis and record keeping;
- Failure to comply with tank system requirements;
- Failure to comply with general inspection requirements;
- Failure to comply with closure requirements;
- Failure to comply with financial assurance requirements; and
- Failure to notify EPA and Texas of its storing activities of hazardous waste sent for precious metals recovery.

241. In October 1999, a Consent Decree ordered ASARCO to take extensive corrective actions and assessed a civil penalty of $5.5 million.

242. In 2001, compliance inspections resulted in a referral to the Texas Attorney General to collect stipulated penalties in the amount of $2,046,000. The penalty demand was reduced to $1,526,000.

243. The Encycle Consent Decree falls under 30 TAC § 116.122; it is a final order of a federal court judge.

244. There were four specific violations against the ASARCO El Paso plant.

245. The copper concentrate, which was hazardous waste, was smelted by ASARCO in its Permit 20345 facility.

246. Although the decree was executed in October of 1999, the compliance events at issue occurred within the five-year compliance-history period.

Evaluation of Compliance History Components

247. ASARCO offered no comparative data or other information to quantitatively evaluate its compliance history.

Transcript Costs

248. The ALJs ordered ASARCO to pay for transcripts of the hearing for the ALJs' and the Commission's use and for the Commission's record. No party requested the transcript.

249. This is not a rate case, and none of the parties who is potentially liable for transcript costs is a state or federal agency.

250. ACORN's members, who are represented by Texas Rio Grande Legal Aid, Inc., a non-profit agency that specializes in providing free civil legal services to indigents, do not have money to cover the transcript costs.

251. All of the parties actively participated in the hearing, though some far more than others. A rough count of the number of transcript pages devoted to each party's examination of witnesses shows that the parties participated to approximately the following extent:

PARTY	**PERCENT**
ASARCO	20
Sandoval	28
El Paso	32
Sierra Club	5
ACORN	6
PIC	5
ED	3

252. ASARCO and El Paso extensively used and cited to the transcript in their post-hearing arguments. Sandoval did not file an argument. The other parties used it approximately in proportion to their participation.

253. ASARCO put on a difficult to understand case primarily based on the 1992 modeling, which did not represent what would be emitted if Permit 20345 were renewed, and that contained many questionable adjustments and gaps.

254. The nature of ASARCO' s case caused the hearing to take longer than it should have.

255. El Paso took the lead for the Protestants on nearly every issue.

256. The amount of time that El Paso took during the hearing was in very large part due to the odd nature of ASARCO' s substantive case.

257. ASARCO's attorneys and witnesses were orderly, prepared, efficient, and professional at the hearing.

258. The Anapra Group took an enormous amount of time during the hearing pursuing wildly irrelevant lines of inquiry suggesting misconduct by ASARCO and nearly every other party and witness.

259. The Anapra Group offered virtually no relevant evidence, or even irrelevant evidence that supported the thrust of its irrelevant questioning.

260. The Anapra Group's representative was repeatedly instructed by the ALJs to move on the relevant evidence, but he continually failed to do so.

CONCLUSIONS OF LAW

Jurisdiction

1. The Commission has jurisdiction over ASARCO's application pursuant to TEX. HEALTH AND SAFETY CODE ANN. (Health & Safety Code) Chapter 382 (West 2005) and to call hearing in the public interest concerning that application pursuant to TEX. WATER CODE ANN. (Water Code) Chapter 5 (West 2005).

2. SOAH has jurisdiction to conduct a hearing and to prepare a PFD in this matter. TEX. GOV'T CODE ANN. (Government Code) § 2003.047 (West 2005).

3. Notice was provided pursuant to 30 TAC § 39.601, *et seq.* (2005) and Government Code §§ 2001.051 and 2001.052.

Burden of Proof

4. In a contested case hearing involving an air quality permit application, the burden of proof is on the applicant to demonstrate that it has addressed the issues referred by the Commission to SOAH by a preponderance of the evidence. 30 TAC § 80.17(a).

5. ASARCO may not be required to prove the logically impossible, to prove a negative. Hence, ASARCO is not required to prove that it absolutely will *not* cause or contribute to air pollution. It need only show, given the preponderance of the evidence standard, that it will *not likely* cause or contribute to air pollution.

Air Pollution

6. Health and Safety Code § 382.003(3) states:

> "Air pollution" means the presence in the atmosphere of one or more air contaminants or combination of air contaminants in such concentration and of such

duration that:
(1) are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property; or
(2) interference with the normal use or enjoyment of animal life, vegetation, or property.

7. The policy of this state and the purpose of the Texas Clean Air Act are to safeguard the state's air resources from pollution by controlling or abating air pollution and emissions of air contaminants, consistent with the protection of public health, general welfare, and physical property, including the esthetic enjoyment of air resources by the public and the maintenance of adequate visibility. Health & Safety Code § 112.3

NAAQS

8. The NAAQS are ambient air quality standards that EPA has determined are requisite to protect the public health and welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. 42 United States Code Ann. (U.S.C.A.) §§ 7409(a) and 7409(b)(1) and (2).

9. All language in the Federal Clean Air Act referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants. 42 U.S.C.A. § 7602(h).

10. The criteria for the adoption of a NAAQS closely parallel the definition of air pollution in the Texas Clean Air Act.

11. EPA in adopting the NAAQS was setting standards that would prevent " air pollution" as that term is use in the Texas Clean Air Act.

12. The Commission has adopted the NAAQS by reference and specified that they are to be enforced throughout Texas. 30 TAC § 101.21.

13. Based on the above Conclusions of Law, a NAAQS exceedance would be air pollution under the Texas Clean Air Act.

14. Based on the above Conclusions of Law, to cause or contribute to an exceedance of a NAAQS would be to cause or contribute to air pollution, as defined by the Texas Clean Air Act.

NGLC Rules

15. The titles of, history of, and statutory authority for rules and the state policy that the Commission sought to accomplish in adopting rules are factors that the Commission should consider in interpreting statutes and rules. Government Code Rule §§ 311.002(4) and 311.023.

16. When the Commission adopted its NGLC rules, it indicated that it was doing so under Health and Safety Code § 382.017, which provides it with the authority to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. 30 TAC § 112.3(a), adopted to be effective October 23, 1992, 17 Tex.Reg. 7085. 30 TAC §112.41(a) adopted to be effective January 1, 1976; amended to be effective July 14, 1989, 14 Tex.Reg. 3202. 30 TAC §111.155 adopted to be effective July 18, 1989, 14 Tex.Reg. 3296.

17. The sulfur dioxide and H_2SO_4 NGLC rules are included in 30 TAC Chapter 112, entitled "Control of Air Pollution from Sulfur Compounds."

18. The TSP NGLC rule is in 30 TAC Chapter 111, entitled "Control of Air Pollution from Visible Emissions and Particulate Matter."

19. Each NGLC rule is a concentration and duration control, not just an emission control.

20. No TCEQ rule may be applied to air conditions on property under the control of the person who is the source of the offending air contaminants. Health and Safety Code § 382.027.

21. An exceedance of a net ground level concentration set in an applicable NGLC rule is air pollution at any location other than on property under the control of the person who is the source of the offending air contaminant.

22. The NGLC rules do not apply only to a single permit but to any combination of sources that a single person operates on contiguous properties.

23. The Commission's circumvention rule, 30 TAC § 101.3, specifically prohibits efforts to circumvent the Commission's rules or the Texas Clean Air Act:

> No person shall use any plan, activity, device or contrivance which the executive director determines will, without resulting in an actual reduction of air contaminants, conceal or appear to minimize the effects of an emission which would otherwise constitute a violation of the Act or regulations. Air introduced for dilution purposes only is considered a circumvention of the regulations.

24. Despite the above reference to the ED, the Commission decides whether there is such a circumvention within the context of a contested case in which the ED is only a party and the Commission itself is the decision maker. See *BFI Waste Sys., Inc. v. Martinez Envtl. Group*, 93 S.W.3d 570, 576 (Tex.App.-Austin 2002, no pet. h.).

25. Dividing a single plant's emissions between two permits in order to argue that operation under one of them would not cause air pollution is a plan or contrivance to minimize the effect of an emission without an actual reduction.

26. It cannot be determined if one source violates an NGLC rule without examining the combined impact from all sources operated by the same person on contiguous properties.

27. The failure to consider all emissions from all sources operated by ASARCO on property contiguous to the sources authorized by Permit 20345, if renewed, would be a circumvention of each applicable NGLC rule.

SO_2 Area Control Plan

28. Based on the above Findings of Fact and Conclusions of Law, an SO_2 net ground level concentration in the area surrounding the ASARCO El Paso plant in excess of 0.5 ppm, or 1137 $\mu g/m^3$, over two consecutive half-hour averages, as set by the area control plan, would be a condition of air pollution.

29. Based on the above Findings of Fact and Conclusions of Law, the 0.4 ppm (755 $\mu g/m^3$), 30-minute average SO_2 NGLC rule is not applicable to ASARCO for its El Paso plant.

ESLs

30. Based on the above Findings of Fact and Conclusions of Law, a 24-hour or annual-average ground level concentration of a contaminant that was lower than the respective ESL would not likely cause air pollution.

31. Based on the above Findings of Fact and Conclusions of Law, net ground level concentrations of a contaminant that are equal to or lower than the non-polluting levels set out in Finding of Fact No. 136 will not cause air pollution.

PM

32. Based on the above Findings of Fact and Conclusions of Law, ASARCO' s PM_{10}, and $PM_{2.5}$ emissions under the renewed permit would not likely exceed the NAAQS.

33. Based on the above Findings of Fact and Conclusions of Law, ASARCO' s emissions of arsenic, chromium, chrome VI, copper dust, copper-fume, nickel, zink, iron salts, and respirable silica will not cause or contribute to air pollution.

34. Based on the above Findings of Fact and Conclusions of Law, ASARCO has failed to show that its barium, manganese, or cadmium emissions will not cause or contribute to air pollution.

35. Based on the above Findings of Fact and Conclusions of Law, there is substantial evidence that the PM emissions that ASARCO would emit under Permits 20345 and 4151 combined would cause an exceedance of the Commission's NGLC rule for particulate matter.

36. Based on the above Findings of Fact and Conclusions of Law, all of ASARCO PM emissions from its El Paso plant must be considered to determine whether ASARCO's renewed operation under a renewed Permit 20345 would cause or contribute to an exceedance of the standards in the PM NGLC rule and the NAAQS for PM.

37. Given the reasonable likelihood of significant PM emissions from Oglebay Norton and ASARCO' s interconnected and interdependent arrangement with that company regarding slag, Oglebay Norton's PM emission's must be considered to avoid a circumvention and determine whether renewal of Permit 20345 will cause or contribute to an exceedance of the standards in the PM NGLC rule, hence air pollution.

38. Based on the above Findings of Fact and Conclusions of Law, ASARCO has failed to show

that its renewed operation under a renewed Permit 20345 would not cause or contribute to exceedances of the NAAQS or NGLC for PM, PM_{10}, or $PM_{2.5}$.

39. Based on the above Findings of Fact and Conclusions of Law,

40. ASARCO' s renewed operation under the Permit 20345 would not likely lead to exceedances of the annual, 24-hour, and three-hour NAAQS for SO_2

41. Based on the above Findings of Fact and Conclusions of Law, ASARCO has not proven that its renewed operation under Permit 20345 would not cause or contribute to exceedances of the SO_2 limit set in its area-control plan.

42. Based on the above Findings of Fact and Conclusions of Law, ASARCO' s renewed operation under the permit will not cause or contribute to an exceedance of the NAAQS for lead.

43. Based on the above Findings of Fact and Conclusions of Law, ASARCO's renewed operation under the permit would not likely lead to exceedances of the NGLC for H_2SO_4.

44. Based on the above Findings of Fact and Conclusions of Law, ASARCO has failed to prove that its NO_2 emissions would not cause or contribute exceedances of the NAAQS for NO_2.

45. Based on the above Findings of Fact and Conclusions of Law, ASARCO' s emission of the quantities of NO_X and VOCs authorized by Permit 20345 would not cause or contribute to an exceedance of the NAAQS for ozone.

46. Based on the above Findings of Fact and Conclusions of Law, ASARCO's CO emissions will not cause or contribute to an exceedance of the NAAQS if Permit 20345 is renewed and ASARCO resumes operation.

47. Based on the above Findings of Fact and Conclusions of Law, ASARCO failed to prove that its operation under Permit 20345, if renewed, would not cause or contribute to air pollution.

Compliance History

48. The current statute that is generally applicable to consideration of compliance history is Water Code § 5.754, which as to air permit renewals Health & Safety Code§ 382.0518(c) adopts by reference.

49. Water Code § 5.754 was included in House Bill 2912 of 2001 (HB2912). Acts 2001, 77th Leg., ch. 965, § 4.01, eff. Sept. 1, 2001.

50. Water Code § 5.754 adopts a complex system for considering compliance history and calls on the Commission to adopt rules to implement it.

51. The Commission has adopted those rules. 30 TAC § 60.2.

52. As to components to be considered in a compliance-history review, the current generally applicable rule is 30 TAC § 60.1(c), which was adopted to implement House Bill 2912.

53. Section 18.05(f) of House Bill 2912 stated:

> The changes made by this Act in the consideration of compliance history in decisions by the Texas Natural Resource Conservation Commission relating to the . . . renewal of permits under the following sections apply only to an application for the . . . renewal of a permit submitted to the Texas Natural Resource Conservation Commission on or after September 1, 2002:
>
> * * *
>
> (2) Sections . . . 382.055 . . . Health and Safety Code.

54. The current generally applicable rule regarding compliance history components, specifically indicates that it only applies to permit renewal applications filed on or after September 1, 2002. 30 TAC § 60.1(a)(7)(A).

55. In the preambles when it proposed and adopted the chapter 60 rules, the Commission made it clear that the pre-HB 2912 rules apply to applications, like ASARCO's filed before September 1, 2001. 27 Tex. Reg. 194 and 211.

56. Because ASARCO filed its application to renew Permit 20345 on March 28, 2002, the compliance history law as it existed before the enactment of HB 2912 applies to ASARCO's application.

57. As to compliance history components, 30 T.A.C. § 116.122(a)(1) is the prior law, which predates the creation of the Agency's compliance history scoring system.

58. In a recent proceeding involving a similar issue, the Commission interpreted its rules and found that the compliance-history standard to be applied to an application filed before September 1, 2002, is the law as it existed before the passage of HB 2912. *An Order concerning the application by CAP-TEX, Inc. for registration No. 710855*; TCEQ Docket No. 2001-1275-SLG (Nov. 24, 2003) (The Commission found that Health & Safety Code 361.089 as it existed prior to HB 2912 applied.)

59. Based on the above Findings of Fact and Conclusions of Law, Health and Safety Code § 382.055(d) and 30 T.A.C. § 166.122 as they existed before the passage of HB 2912 apply for compliance-history review purposes to ASARCO's application in this case.

60. Under 30 TAC § 116.122(a)(1), ASARCO's compliance history includes just the following types of events: (A) criminal convictions, civil orders, judgments and decrees; (B) administrative enforcement orders; and (C) compliance proceedings.

61. “Compliance proceeding” is defined as a Notice of Violation issued by the commission or other agency for which the commission has recommended formal enforcement action and has notified the applicant of such recommendation. 30 TAC §116.11(4).

62. The pre-HB 2912 version of Health & Safety Code § 382.055(d) sets the following standard of compliance history review for air quality permit renewals:

> [W]hether the facility is or has been in substantial compliance with [the Texas Clean Air Act] and the terms of the existing permit . . . .

63. Substantial compliance does not mean the literal and exact compliance with every requirement of a statute, but simply compliance with the “ essential” requirements of the statute. *Santos v. Guerra*, 570 S.W.2d 437,440 (Tex.Civ. App. 1978, writ ref'd n.r.e.); *Wentworth v. Medellin*, 529 S.W.2d 125 (Tex. Civ. App. 1975, no writ.); *Methodist Hospital of Dallas v. Tx. Industrial Accident Board*, 798 S.W.2d 651 (Tex. App.–Austin 1990, writ dism'd w.o.j.).

64. Substantial compliance has two parts: Do the acts tendered in satisfaction of a statutory requirement (1) secure the legislative objectives that underlie the requirement and (2) come fairly within the character and scope of each action or thing explicitly required by the statute in terms that are concise, specific and unambiguous? *Methodist Hospital of Dallas v. Tx. Industrial Accident Board*, 798 S.W.2d 651 (Tex. App.–Austin 1990, writ dism'd w.o.j.)

65. The Texas Clean Air Act places several core requirements on ASARCO. The permit places specific requirements on ASARCO as well.

66. It was ASARCO’s burden to prove what the core components and legislative objective were and that it complied with them.

67. ASARCO failed to prove that its compliance history for the last five years of operation of the

El Paso Primary Copper Smelter warrants the renewal of Air Quality Permit No. 20345.

Transcript

68. The Commission's rules provide that the Commission will not assess transcript costs against the ED or the PIC. 30 TAC § 80.23 (d)(2).

69. Under 30 TAC § 80.23 (d)(1), the Commission considers the following relevant factors in allocating reporting and transcription costs among the other parties:

- the party who requested the transcript;
- the financial ability of the party to pay the costs;
- the extent to which the party participated in the hearing;
- the relative benefits to the various parties of having a transcript;
- the budgetary constraints of a state or federal administrative agency participating in the proceeding;
- in rate proceedings, the extent to which the expense of the rate proceeding is included in the utility's allowable expenses; and
- any other factor which is relevant to a just and reasonable assessment of costs.

70. Because ASARCO failed to prove that its operation under Permit 20345, if renewed, would not cause or contribute to air pollution or that its compliance history for the last five years of operation of the El Paso Primary Copper Smelter warrants the renewal of that permit, it would be just and reasonable to allocate the entire transcript cost to ASARCO.