

March 27, 1972

El Paso Smelter
Environmental Lead Problem

A lawsuit now being tried in the 41st District Court of El Paso, Texas, is of interest and importance to all operators of smelters and refineries. Following is a brief description of the events leading to the trial and of the proceedings thus far.

In early 1970, the City of El Paso and the State of Texas filed suit against ASARCO's El Paso smelter alleging violations of regulations promulgated by the Texas Air Control Board. A hearing was held in May, 1970, and ASARCO was directed to carry out certain projects to control its low level or "fugitive" particle emissions. In addition, ASARCO was directed by the Texas Air Control Board in the Fall of 1970 to report each of its violations of SO₂ ambient air standards, measured by its own monitoring instruments, promptly to City and State air agencies.

The City continued to press its suit. On finding that ASARCO stack emissions included lead, cadmium, and arsenic oxides which escaped complete collection by baghouses and

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electrostatic precipitators, the original complaint citing excessive low level particles and SO₂ was amended to include a charge of emitting toxic substances.

The City Health Department collected more than two hundred blood samples from El Paso residents and analyzed the samples for lead, in order to determine if lead emissions had caused generally elevated blood lead concentrations among the citizens. The sampling failed to show any such general problem, but elevated blood lead levels were found in some children living in Smeltertown, a 100-family, low-income community on a narrow strip of land between the highway immediately to the west of ASARCO's plant and the Rio Grande River and about 80 feet below the level of smelter land.

ASARCO first learned about the Smeltertown situation during a pre-trial deposition on February 19, 1972. We were surprised by the disclosure and at once began our own investigation which generally confirmed the City's finding. Most of the children under eight years old had blood level concentrations above the normal range. Older children and adults had essentially normal blood levels.

The narrow streets and small yards where children played in Smeltertown were covered with loose, dry, dusty soil. Young children might have ingested enough dirt and inhaled enough

dust from the streets and yards to cause a problem if the soil were lead-contaminated. Analyses revealed lead in varying concentrations generally in the range of 0.5% and in two cases samples showing over 1%. Also, old, peeling paint in a few homes contained up to 8.4% lead. The City found improperly lead-glazed foodware in use. Airborne lead may have been contributed from heavy traffic on the main highway, from vehicles moving on the dusty roads within Smeltertown, and from the ASARCO plant. These contributions are now being evaluated.

ASARCO took immediate action to reduce lead exposures by removing all loose soil from the streets. Roadways were swept and wet down with soil binders to suppress dusting. Yard soil is being removed and replaced with lead-free soil. Parents were warned of the dangers of soil and paint ingestion by children and were told the results of their children's blood analyses. Parents of children having blood lead levels of 40 or more micrograms per 100 grams of whole blood were urged to have their children examined either by the City-County health authorities, or another pediatrician at ASARCO's expense.

The City Health Department had tested twenty children and had ordered medical examinations of nine or ten having the highest blood leads. None was found to have clinical symptoms

of lead intoxication but some were subsequently hospitalized for observation and finally received intramuscular injections of BAL-EDTA to promote lead excretion. About 25 of the high lead children discovered by ASARCO's complete survey have been hospitalized and treated but were also asymptomatic. All children admitted to the hospital either have been released or are scheduled to be released within a few days of their admittance.

ASARCO believes that Smeltertown soil was the principal source of lead exposure. However, an extensive air monitoring program with several types of instruments is now in progress.

There are no state or local emission or ambient air standards for lead applicable in El Paso. Ambient air standards adopted by other U.S. jurisdiction have ranged from 1.5 to 10 micrograms per cubic meter, 30-day average. The actual safe concentration or concentrations not causing significant blood lead rises in children have not been precisely determined. The Environmental Protection Agency, in a recent publication on additives to gasoline, has suggested 2 micrograms per cubic meter, averaged over 90 days or longer, as a safe atmospheric lead level. It is not known whether this suggestion will find acceptance generally in the scientific community.

ASARCO has monitored SO₂ and airborne lead, cadmium, and arsenic in certain sections of El Paso for many years. The lead concentrations have been of the order of one microgram in residential areas and two micrograms in business sections with heavy traffic. These levels are common in U.S. cities. Air monitoring has not been done in the past in Smeltertown.

As a result of the discovery of lead absorption among young children in Smeltertown, the emphasis of the suit against ASARCO has shifted away from violations of SO₂ and particulate regulations. The charges now include that of being a public nuisance and the initial demands of the City-State attorneys include a claim for a one million dollar fine and that ASARCO be required to shut down operations at the close of the case for so long as necessary to install further, though unspecified, emission controls.

No legal steps to effect immediate shut-down of the smelter have been taken by the City or State. However, we have announced our intention to stop operations if our investigation shows operations cannot be continued without jeopardizing the public health by reason of lead emissions.

We hope and believe that measures already taken have reduced lead intake of Smeltertown children. Another round of

blood analyses to begin shortly may provide an answer. We further believe that future, significant contamination of the area's air and soil can be prevented. An all-out effort is being made to reduce miscellaneous fugitive emissions from the plant. As a further move toward eliminating future problems, we are exploring with City officials ways of finding other homes for Smeltertown residents.