Lead National Ambient Air Quality Standards

Under the federal Clean Air Act (CAA), the United States Environmental Protection Agency (EPA) is responsible for establishing National Ambient Air Quality Standards (NAAQS) "based on such criteria and allowing an adequate margin of safety" as is necessary "to protect the public health." 42 U.S.C. § 7409(b)(1). In meeting this responsibility, EPA has been measuring lead concentrations in the atmosphere since the 1970s and, in 1978, EPA adopted the first NAAQS for lead. EPA reports that, for the most part, lead concentrations in the air have decreased dramatically (nearly 94%) over the period from 1978 to 2007 "[a]s a result of EPA's regulatory efforts to reduce lead in gasoline, air emissions of lead from the transportation sector, and particularly the automotive sector..." Regarding present day emissions sources of lead in the air, EPA explains: "[t]oday industrial processes, primarily metals processing, are the major source of lead emissions to the air;" "[l]arger industrial sources of lead emissions currently include metals processing, particularly primary and secondary lead smelters;" and "[l]ead is also emitted from industries such as: iron and steel foundries; primary and secondary copper smelting; industrial, commercial, and institutional boilers; waste incinerators; glass manufacturing; and cement manufacturing."

According to EPA:

> "The Clean Air Act established two types of national air quality standards for lead. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The Clean Air Act requires EPA to review the latest scientific information and standards every five years. Before new standards are established, policy decisions undergo rigorous review by the scientific community, industry, public interest groups, the general public and the Clean Air Scientific Advisory Committee (CASAC)."

On October 15, 2008, after extensive re-examination, EPA revised the NAAQS for lead as set forth in the table below:

National Ambient Air Quality Standards for Lead

Pollutant	Primary Stds.	Averaging Times	Secondary Stds.
Lead	0.15 µg/m^3 (1)	Rolling 3-Month Average	Same as Primary
	1.5 µg/m^3	Quarterly Average	Same as Primary

(1) Final rule signed October 15, 2008

Learn more about the National Ambient Air Quality Standards

*The quoted text and table above are reprinted from materials available on EPA's website at http://www.epa.gov/air/lead ; http://www.epa.gov/air/lead/actions.html ; and http://www.epa.gov/air/lead/standards.html

Thus, the latest EPA review has set a standard that is ten times lower than the ambient concentration allowed previously.

Las Brisas Energy Center Controls and Emissions Modeling

As part of the TCEQ air permit process, Las Brisas will demonstrate compliance with all NAAQS through conservative emissions modeling that tends to over-predict the actual offsite concentrations. Regarding lead, based on preliminary modeling, the conservatively predicted off-site ambient lead concentration attributable to the Las Brisas project will be approximately one-tenth of one percent (0.10%) of the new established lower NAAQS (0.00015 $\mu g/m^3$ versus the 0.15 $\mu g/m^3$ standard). The low lead ambient concentration derives from the fact that the Las Brisas main boilers will emit lead in the form of particulate matter that is very efficiently removed (upwards of 99%) by the fabric filter control (sometimes referred to as a "baghouse") proposed by Las Brisas.

In sum, Las Brisas preliminary air dispersion modeling, at the emission rates proposed in the permit application indicates that lead emissions from the project will be less than 0.1% of the NAAQS. Thus, lead emissions from the project will not measurably affect existing ambient concentrations of lead in the Corpus Christi area.