

Appendix E: Air Quality Technical Memorandum

July 24, 2011

Mr. Fernando Camarillo, P.E.
Poznecki-Camarillo, Inc.
5835 Callaghan Road, Suite 200
San Antonio, TX 75228

**RE: Air Quality Technical Memorandum
Eagle Pass Railroad and International Bridge
Maverick County, Texas**

Dear Mr. Camarillo:

Civil Associates, Inc. (CAI) was retained by Poznecki-Camarillo, Inc. (PCI) to conduct an air analysis for a new location short line freight railroad in Eagle Pass, Maverick County, Texas. The proposed corridor is approximately seven miles long and includes an international bridge crossing the Rio Grande River to Piedras Negras, Coahuila, Mexico (refer to **Vicinity Map**). The air analysis results will be incorporated in the National Environmental Policy Act (NEPA) Environmental Assessment (EA) document prepared for the Surface Transportation Board (STB).

Regulatory Requirements for Air Quality

Air emission sources in Texas are regulated at the federal level by the Clean Air Act (CAA), as amended, and at the state level by the Texas Commission on Environmental Quality (TCEQ) Division of Air Quality. According to Section 176(c) of the CAA (Title 40 CFR Section 51.853), a federal agency must make a conformity determination in the approval of a project having air emissions that exceed specified thresholds in nonattainment and/or maintenance areas.

Regulations and Applicability to the Proposed Project

The STB's 49 Code of Federal Regulations [CFR] 1105, Section 1105.7(e)(5) on environmental report requirements on air are as follows:

⊕ STB Regulation 49 CFR 1105.7(5)(e)(i):

If the proposed action will result in (A), (B), or (C), the anticipated effects on air emissions would be quantified.

- (A) An increase in rail traffic of at least 100% (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or
- (B) An increase in rail yard activity of at least 100% (measured by carload activity), or
- (C) An average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on any affected road segment.

For a proposal under 49 United States Code (U.S.C.) 10901, *Authorizing construction and operation of railroad lines*, (or 10505, *Authority to exempt rail carrier and motor carrier transportation*) to construct a new line or reinstitute service over a previously abandoned line, only the eight train a day provision in subsection (5)(i)(A) will apply.

Proposed Project:

- It is projected that at least two diesel engine trains per day would utilize the proposed project.
- Union Pacific Railroad (UPRR) does not plan to run any of its existing traffic over the proposed project's route.
- The proposed project's route would only be utilized by the Altos Hornos de Mexico SA (AHMSA) for coal traffic. This company is Mexico's largest steelmaker, with a production capacity of more than three million tons a year. It makes flat products (plate, hot- and cold-rolled coil, tin-free steel) and long products (heavy and light structural sections, wire rod, wire products). A former government-controlled company privatized in 1991, AHMSA mines its own iron ore and coal to produce steel, and it also produces steam coal.
- Track configurations would be in cuts, at fills, and bridged (refer to **Typical Sections**).
- One railroad track (with a potential of a staging track to cross the U.S.-Mexico border) is proposed.

Result:

Because the construction of the new line would be less than the eight train a day provision in subsection (5)(i)(A), the proposed project will not require the quantification of the anticipated effects on air emissions.

⊕ STB Regulation 49 CFR 1105.7(5)(e)(ii):

If the proposed action affects a class I or nonattainment area under the Clean Air Act (CAA) and will result in (A), (B), or (C), state whether any expected increased emissions are within the parameters established by the State Implementation Plan (SIP).

- (A) An increase in rail traffic of at least 50% (measured in gross ton miles annually) or an increase of at least three trains a day on any segment of rail line.
- (B) An increase in rail yard activity of at least 20% (measured by carload activity), or
- (C) An average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on a given road segment.

However, for a rail construction under 49 U.S.C. 10901 (or 49 U.S.C. 10505), or a case involving the reinstatement of service over a previously abandoned line, only the three train a day threshold in this item shall apply.

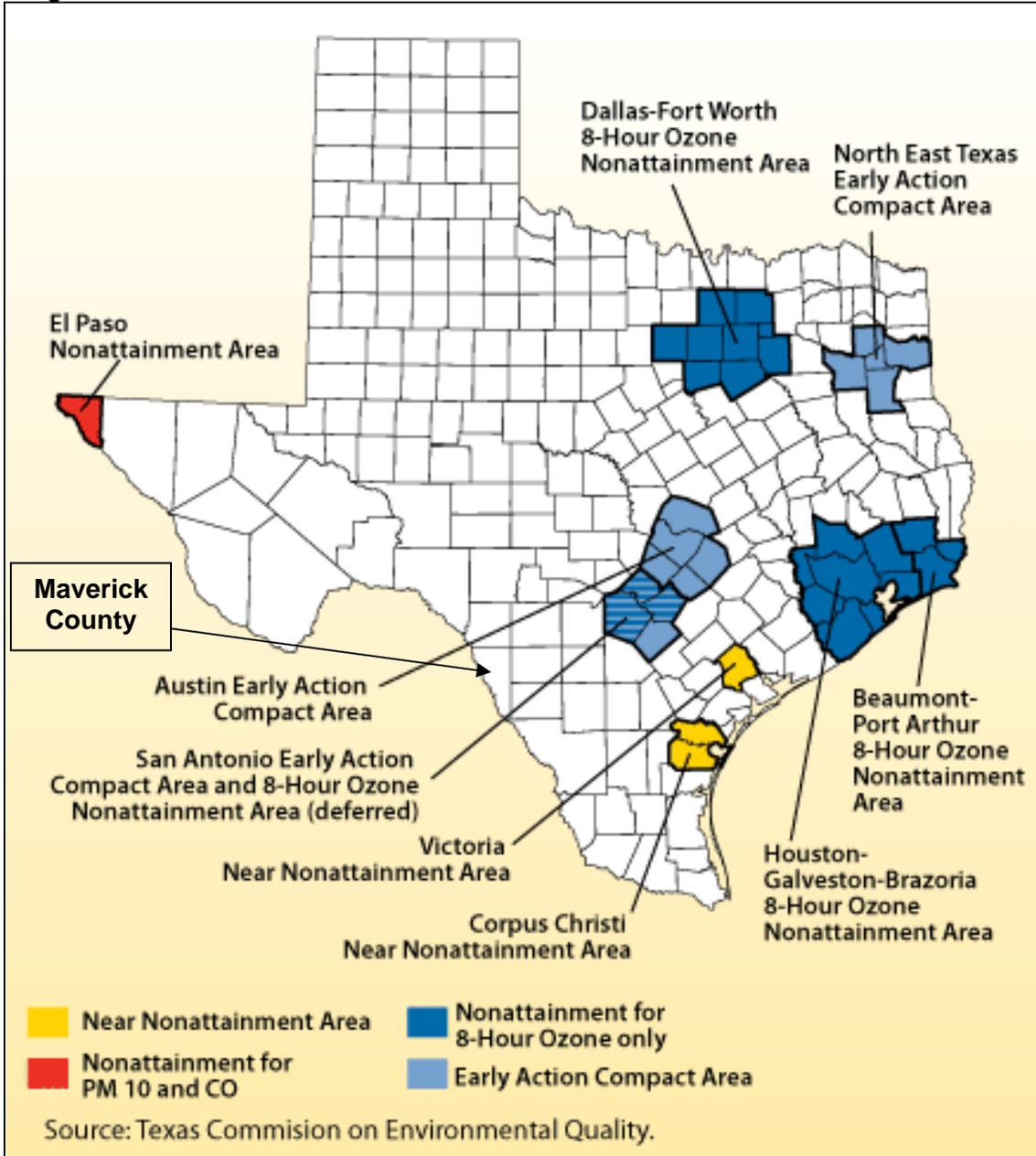
Proposed Project:

- The proposed project is in Maverick County which is in an area in attainment of all the National Ambient Air Quality Standards (NAAQS) (see **Figure 1**). The proposed project is consistent with the SIP. NAAQS are air quality standards set by the U.S. Environmental Protection Agency (EPA) for six "criteria pollutants" which are among the most harmful to public health and the environment:
 1. Ozone (O₃)
 2. Carbon monoxide (CO)
 3. Particulate matter (PM)
 4. Sulfur dioxide (SO₂)
 5. Lead (Pb)
 6. Nitrogen dioxide (NO₂)
- The proposed project would not affect a Class I area, where emissions of PM and SO₂ are to be restricted. Mandatory Class I federal lands include all national wilderness areas exceeding 500 acres. Such lands may not be redesignated (42 U.S.C. 7472). Additionally, national wildlife refuges which exceed 10,000 acres may only be redesignated by States as Class I or Class II areas (42 U.S.C. 7474).

Result:

Because the construction of the new line would be less than the three train a day threshold as discussed in subsection (5)(ii) and the proposed project would not affect a Class I or nonattainment area under the CAA, disclosure of the proposed project's increased emission with parameters established by the SIP is not required.

Figure 1. Texas' Nonattainment and near Nonattainment Areas Under the CAA.



⊕ STB Regulation 49 CFR 1105.7(5)(e)(iii):

If transportation of ozone depleting materials (such as nitrogen oxide and Freon) are contemplated, identify:

- the materials and quantity;
- the frequency of service;
- safety practices (including any speed restrictions);

- the applicant's safety record (to the extent available) on derailments, accidents and spills;
- contingency plans to deal with accidental spills; and
- the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment.

Proposed Project

- Coal will be the predominant commodity that would be transported on the proposed project.
- There are no known ozone depleting chemicals currently transported.

Result:

Because the predominant commodity that would be transported on the proposed new line is coal and no ozone depleting materials would be transported, the materials and quantity; the frequency of service; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment is not required for identification.

Ozone-depleting substances (ODS) are generally very stable in the troposphere and only degrade under intense ultraviolet light in the stratosphere. When they break down, they release chlorine or bromine atoms, which then deplete ozone. The following are the ODS, compounds that contribute to stratospheric ozone depletion (<http://www.epa.gov/ozone/basicinfo.html>):

- Chlorofluorocarbons (CFCs) - commonly used as refrigerants, solvents, and foam blowing agents. The most common CFCs are CFC-11, CFC-12, CFC-113, CFC-114, and CFC-115.
- Hydrochlorofluorocarbons (HCFCs) - are one class of chemicals being used to replace the CFCs. They contain chlorine and thus deplete stratospheric ozone, but to a much lesser extent than CFCs.
- Halons - used as fire extinguishing agents, both in built-in systems and in handheld portable fire extinguishers. Halon production in the U.S. ended on December 31, 1993, because they contribute to ozone depletion. They cause ozone depletion because they contain bromine.
- Methyl bromide - is an effective pesticide used to fumigate soil and many agricultural products. Because it contains bromine, it depletes stratospheric ozone. Production of methyl bromide was phased out on December 31, 2004, except for allowable exemptions.
- Carbon tetrachloride - was widely used as a raw material in many industrial uses, including the production of CFCs, and as a solvent. Solvent use ended when it was discovered to be carcinogenic. It is also used as a catalyst to deliver chlorine ions to certain processes.
- Hydrobromofluorocarbons - were not originally regulated under the CAA, subsequent regulation added HBFCs to the list of Class I substances. Class I substances listed in the CAA include CFCs, halons, carbon tetrachloride, and methyl chloroform. EPA later added HBFCs and methyl bromide to the list by regulation. HCFCs are Class II substances.
- Chlorobromomethane - the shortest hydrocarbon having bromine as well as chlorine is used as a reaction solvent and flotation agent. It is used as an intermediate for organic synthesis, agrochemicals (biocides) and pharmaceuticals. It is also used in fire extinguishers.

- Methyl chloroform - used as a solvent and degreasing agent in industry. It is an ingredient in consumer products such as household cleaners, glues, and aerosol sprays. It was formerly used as a food and grain fumigant.

Fugitive Emissions

Construction of the proposed project and associated facilities could result in intermittent and short-term fugitive emissions. These emissions would include dust from soil disruption and combustion emissions from the construction equipment. The fugitive dust emissions would depend on the moisture content and texture of the soils that would be disturbed. However, emissions from construction are not expected to cause or considerably contribute to a violation of an applicable ambient air quality standard because the construction equipment would be operated on an as-needed basis, primarily during daylight hours. In order to minimize dust generated from construction activities, the Contractor would take all reasonable steps to control dust near residential areas (if any). Control practices might include wetting soils on the right-of-way, limiting working hours in residential areas, and/or additional measures as appropriate based on site-specific conditions. The use of dust suppression techniques would minimize fugitive dust emissions during construction of the project, thereby minimizing potential air quality impacts on nearby residential and commercial areas.

Conclusion

The STB's 49 CFR 1105.6(5) environmental documentation requirements on air quality for the proposed project have been met. The proposed action would not require the quantification of air emissions, will not affect a class I or nonattainment area under the CAA, and will not transport ozone depleting materials.

Please note that we have also sent this information to you in an EA format. Please call or email me with any questions or comments. Thank you.

Sincerely,



Christopher Hagar
Project Manager
Civil Associates, Inc.