



San Joaquin Valley Unified Air Pollution Control District

Emission Inventory Methodology 410 - Sodium Carbonate (Soda Ash) Production

I. Purpose

This document describes the Area Source Methodology used to estimate criteria emissions from the production, storage, and processing of sodium carbonate, or soda ash, in the San Joaquin Valley Air Basin.

II. Applicability

The emission calculations from this Area Source Methodology applies to facilities that are identified by the following CES and EIC code(s):

| CES | REIC | Description |
|-------|-------------------|--|
| 46953 | 410-406-2048-0000 | Sodium Carbonate (Soda Ash) Production |

III. Point Source Reconciliation

The following SIC/SCC combinations should be used in the Point Source Inventory when entering or updating emissions from this type of emission source.

| EIC | SIC | SCC | Point Source Type |
|----------------|------|----------|--|
| 41040620480000 | 2812 | 30102110 | Chemical Mfg - Sodium Carbonate - Alkalies & Chlorine - Trona - Calcining |
| 41040620480000 | 2812 | 30102111 | Chemical Mfg - Sodium Carbonate - Alkalies & Chlorine - Trona - Dryer |
| 41040620480000 | 2812 | 30102199 | Chemical Mfg - Sodium Carbonate - Alkalies & Chlorine - Trona - Not Classified |

IV. Methodology Description

Soda ash is the trade name for sodium carbonate, a chemical refined from the mineral trona or sodium-carbonate-bearing brines (both referred to as "natural soda ash") or manufactured from one of several chemical processes (referred to as "synthetic soda ash"). It is an essential raw material in glass, chemicals, detergents, and other important industrial products (USGS, 2006). According to the ARB (Vivian Lerch, e-mail, August 15, 2006), this source category encompasses the production, storage, and processing of sodium carbonate. Only storage associated with the production or processing of sodium carbonate is included in this category.

Dun & Bradstreet's online business listings (Dun and Bradstreet, 2006) was used on 8/3/2006 to determine if there were any sodium carbonate production or processing operations (SIC# 2812 - Alkalies and Chlorines) within the district. The result was that there are currently no sodium carbonate production or processing operations within the district. This was confirmed using the U.S. Geological Survey's (USGS, 2006) listings of mining operations within each county and state. Therefore, the emissions for this source category will be set to zero.

To ensure that there are no changes in emissions, the following steps will be performed every five (5) years:

- 1) Check CEIDARS;
- 2) Check Dun & Bradstreet for new sodium carbonate production or processing operations in the District;
- 3) Check the United State Geological Survey website for mining locations within each county in the District.
- 4) Check PAS for newly permitted facilities.

V. Assumptions

- a. Dun & Bradstreet and the U.S. Geological Society's inventories of sodium carbonate operations within the district are accurate.

VI. Update Schedule

Because there is no current activity within the District, it is recommended that this methodology be updated every five (5) years or whenever activity occurs within the District.

| EIC | Frequency (In years) | Source of Emissions (Point Source Inventory / Data Gathering) |
|-------------------|-------------------------|--|
| 410-406-2048-0000 | 5 | Data Gathering |

VII. References

- a. California Air Resources Board (2006). CEIDARS Emission Inventory Categorization Database
<http://www.arb.ca.gov/app/emsinv/dist/rpts/sub_eic.php>
- b. Dun and Bradstreet (2006). Business Listings by SIC#2812.
<www.zapdata.com>
- c. United States Geological Survey (2006). Mine and Mineral Processing Plant Locations - Supplemental Information For USGS Map I-2654.
<<http://minerals.usgs.gov/minerals/pubs/mapdata/documnt2.pdf>>