

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



EXAMPLE A

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN AIR PERMIT RENEWAL

PERMIT NUMBER 48862

APPLICATION Thomas Redi-Mix Company, Inc., has applied to the Texas Commission on Environmental Quality (TCEQ) for renewal of Air Quality Permit Number 48862, which would authorize continued operation of a Concrete Batch Plant located at 3600 West Loop 335 North, Amarillo, Potter County, Texas 79108. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=35.265&lng=-101.876944&zoom=13&type=r>. The existing facility is authorized to emit the following air contaminants: particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less.

This application was submitted to the TCEQ on January 21, 2021. The application will be available for viewing and copying at the TCEQ central office, TCEQ Amarillo regional office, and at <https://www.enviroag.com/documents>, beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review in the Amarillo regional office of the TCEQ.

The executive director has determined the application is administratively complete and will conduct a technical review of the application. Information in the application indicates that this permit renewal would not result in an increase in allowable emissions and would not result in the emission of an air contaminant not previously emitted. **The TCEQ may act on this application without seeking further public comment or providing an opportunity for a contested case hearing if certain criteria are met.**

PUBLIC COMMENT You may submit public comments, or a request for a contested case hearing to the Office of the Chief Clerk at the address below. The TCEQ will consider all public comments in developing a final decision on the application. **The deadline to submit public comments is 15 days after newspaper notice is published.** After the deadline for public comments, the executive director will prepare a response to all relevant and material, or significant public comments. Issues such as property values, noise, traffic safety, and zoning are outside of the TCEQ's jurisdiction to address in the permit process.

After the technical review is complete the executive director will consider the comments and prepare a response to all relevant and material, or significant public comments. If only comments are received, the response to comments, along with the executive director's decision on the application, will then be mailed to everyone who submitted public comments or who is on the mailing list for this application, unless the application is directly referred to a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING You may request a contested case hearing. The applicant or the executive director may also request that the application be directly referred to a contested case hearing after technical review of the application. A contested case hearing is a legal proceeding similar to a civil trial in state district court. Unless a written request for a contested case hearing is filed within 15 days from this notice, the executive director may act on the application. **If no hearing request is received within this 15 day period, no further opportunity for hearing will be provided.** According to the Texas Clean Air Act § 382.056(o) a contested case hearing may only be granted if the applicant's compliance history is in the lowest classification under applicable compliance history requirements and if the hearing request is based on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission may only grant a hearing on those issues submitted during the public comment period and not withdrawn.

A person who may be affected by emissions of air contaminants from the facility is entitled to request a hearing. If requesting a contested case hearing, you must submit the following: (1) your name (or for a group or

association, an official representative), mailing address, daytime phone number; (2) applicant's name and permit number; (3) the statement "[I/we] request a contested case hearing;" (4) a specific description of how you would be adversely affected by the application and air emissions from the facility in a way not common to the general public; (5) the location and distance of your property relative to the facility; (6) a description of how you use the property which may be impacted by the facility; and (7) a list of all disputed issues of fact that you submit during the comment period. If the request is made by a group or association, one or more members who have standing to request a hearing must be identified by name and physical address. The interests the group or association seeks to protect must also be identified. You may also submit your proposed adjustments to the application/permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing within 15 days following this notice to the Office of the Chief Clerk at the address below.

If any requests for a contested case hearing are timely filed, the Executive Director will forward the application and any requests for a contested case hearing to the Commissioners for their consideration at a scheduled Commission meeting. Unless the application is directly referred to a contested case hearing, the executive director will mail the response to comments along with notification of Commission meeting to everyone who submitted comments or is on the mailing list for this application. The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material air quality concerns submitted during the comment period.** Issues such as property values, noise, traffic safety, and zoning are outside of the Commission's jurisdiction to address in this proceeding.

MAILING LIST In addition to submitting public comments, you may ask to be placed on a mailing list for this application by sending a request to the Office of the Chief Clerk at the address below. Those on the mailing list will receive copies of future public notices (if any) mailed by the Office of the Chief Clerk for this application.

AGENCY CONTACTS AND INFORMATION Public comments and requests must be submitted either electronically at www14.tceq.texas.gov/epic/eComment/, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the Public Education Program toll free at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Thomas Redi-Mix Company, Inc., P.O. Box 5664, Amarillo, Texas 79117-5664 or by calling Mr. Shane Self, P.E. Enviro-Ag Engineering, Inc. at (806) 353-6123.

Notice Issuance Date: January 26, 2021



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

January 8, 2021

Via STEERS

TCEQ Air Permits Initial Review Team (APIRT) MC-161
PO Box 13087
Austin, TX 78711-3087

Re: Air Permit Renewal Application for Concrete Batch Plants – Permit No. 48862
Thomas Redi-Mix Company, Inc. - CN602602500, RN101989226
Batch Plant No. 2 – Potter County, Texas

Dear Sir or Madam,

Thomas Redi-Mix Company has requested us to assist them in the concrete batch plant permit renewal of Permit No. 48862. Enclosed please find the completed NSR PI-1 General Application Workbook and supporting documentation for the above-referenced permit renewal. The renewal fee has been submitted through STEERS.

Should you have any questions or require additional information, please call me.

Respectfully Submitted,

Shane Self, P.E.

Enviro-Ag Engineering, Inc.

Enclosures

Cc: TCEQ Region 1 Office, Amarillo
Thomas Redi-Mix Company, Inc.
EAE file

**Air Quality Permit Registration
For
Concrete Batch Plants
Form PI-1 General Application
Renewal for Permit 48862**

Prepared for:

Thomas Redi-Mix Company, Inc.

P.O. Box 5664

Amarillo, Texas 79117

January 2020

Site:

The facility is located approximately 2200 ft east of the intersection of Western Street and Loop
Highway 335, Amarillo, TX

Prepared By:



Enviro-Ag Engineering, Inc.

3404 Airway Blvd. • Amarillo, Texas 79118

Tel (806) 353-6123 • Fax (806) 353-4132

www.enviroag.com

TABLE OF CONTENTS

| | |
|--|-----------|
| TABLE OF CONTENTS | 1 |
| SECTION 1 TCEQ CORE DATA FORM | 2 |
| SECTION 2 TCEQ FORM PI-1 GENERAL APPLICATION | 3 |
| SECTION 3 FACILITY MAPS..... | 4 |
| SECTION 4 BATCH PLANT - OPERATION DISCUSSION | 10 |
| SECTION 5 EMISSIONS DATA – CONCRETE BATCH PLANT | 12 |
| SECTION 6 TABLE 2 | 13 |
| SECTION 7 TABLE 11 | 14 |

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|---|
| SECTION 1 TCEQ CORE DATA FORM |
|---|



TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

| | | |
|---|---|--|
| 1. Reason for Submission (If other is checked please describe in space provided.) | | |
| <input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.) | | |
| <input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form) | <input type="checkbox"/> Other | |
| 2. Customer Reference Number (if issued) | Follow this link to search for CN or RN numbers in Central Registry** | 3. Regulated Entity Reference Number (if issued) |
| CN 602602500 | | RN 101989226 |

SECTION II: Customer Information

| | | | |
|--|--|---|--|
| 4. General Customer Information | | 5. Effective Date for Customer Information Updates (mm/dd/yyyy) | |
| <input type="checkbox"/> New Customer | | <input type="checkbox"/> Update to Customer Information | |
| <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts) | | <input type="checkbox"/> Change in Regulated Entity Ownership | |
| The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA). | | | |
| 6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) | | If new Customer, enter previous Customer below: | |
| | | | |
| 7. TX SOS/CPA Filing Number | 8. TX State Tax ID (11 digits) | 9. Federal Tax ID (9 digits) | 10. DUNS Number (if applicable) |
| | | | |
| 11. Type of Customer: | <input type="checkbox"/> Corporation | <input type="checkbox"/> Individual | Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited |
| Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other | <input type="checkbox"/> Sole Proprietorship | <input type="checkbox"/> Other: | |
| 12. Number of Employees | | 13. Independently Owned and Operated? | |
| <input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following | | | |
| <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator | | | |
| <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other: | | | |
| 15. Mailing Address: | | | |
| | City | State | ZIP |
| 16. Country Mailing Information (if outside USA) | | 17. E-Mail Address (if applicable) | |
| | | | |
| 18. Telephone Number | 19. Extension or Code | 20. Fax Number (if applicable) | |
| () - | | () - | |

SECTION III: Regulated Entity Information

| | |
|--|--|
| 21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application) | |
| <input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information | |
| The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC). | |
| 22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.) | |
| Concrete Batch Plant 2 | |

| | | | | | | | | |
|---|---------------------|----------|-------|----|-----|-------|---------|--|
| 23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i> | 3600 W. Loop 335 N. | | | | | | | |
| | City | Amarillo | State | TX | ZIP | 79117 | ZIP + 4 | |
| 24. County | Potter | | | | | | | |

Enter Physical Location Description if no street address is provided.

| | | | | | | | | |
|---|-----------------------------------|-----------------------|--|-------------------------------|--|-------|------------------|--|
| 25. Description to Physical Location: | | | | | | | | |
| 26. Nearest City | | | | | | State | Nearest ZIP Code | |
| | | | | | | | | |
| 27. Latitude (N) In Decimal: | | | | 28. Longitude (W) In Decimal: | | | | |
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds | | | |
| 35 | 15 | 54 | 101 | 52 | 37 | | | |
| 29. Primary SIC Code (4 digits) | 30. Secondary SIC Code (4 digits) | | 31. Primary NAICS Code (5 or 6 digits) | | 32. Secondary NAICS Code (5 or 6 digits) | | | |
| 3273 | | | 327320 | | | | | |
| 33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i> | | | | | | | | |
| Supplier of Concrete Ready Mix | | | | | | | | |
| 34. Mailing Address: | P.O. Box 5664 | | | | | | | |
| | | | | | | | | |
| | City | Amarillo | State | TX | ZIP | 79117 | ZIP + 4 | |
| 35. E-Mail Address: | trm@thomasredimix.com | | | | | | | |
| 36. Telephone Number | | 37. Extension or Code | | | 38. Fax Number <i>(if applicable)</i> | | | |
| (806) 381-8485 | | | | | (806) 381-60 | | | |

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

| | | | | |
|--|--|---|--|---|
| <input type="checkbox"/> Dam Safety | <input type="checkbox"/> Districts | <input type="checkbox"/> Edwards Aquifer | <input type="checkbox"/> Emissions Inventory Air | <input type="checkbox"/> Industrial Hazardous Waste |
| <input type="checkbox"/> Municipal Solid Waste | <input type="checkbox"/> New Source Review Air | <input type="checkbox"/> OSSF | <input type="checkbox"/> Petroleum Storage Tank | <input type="checkbox"/> PWS |
| <input type="checkbox"/> Sludge | <input type="checkbox"/> Storm Water | <input type="checkbox"/> Title V Air | <input type="checkbox"/> Tires | <input type="checkbox"/> Used Oil |
| <input type="checkbox"/> Voluntary Cleanup | <input type="checkbox"/> Waste Water | <input type="checkbox"/> Wastewater Agriculture | <input type="checkbox"/> Water Rights | <input type="checkbox"/> Other: |
| | | | | |

SECTION IV: Preparer Information

| | | | | |
|----------------------|---------------|----------------|--------------------|------|
| 40. Name: | Shane Self | | 41. Title: | P.E. |
| 42. Telephone Number | 43. Ext./Code | 44. Fax Number | 45. E-Mail Address | |
| (806) 353-6123 | 456 | () - | sself@enviroag.com | |

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

| | | | | |
|--------------------------|-----------------------|------------|--------|-------|
| Company: | Thomas Redi-Mix, Inc. | Job Title: | | |
| Name <i>(In Print)</i> : | | | Phone: | () - |
| Signature: | | | Date: | |

SECTION 2 TCEQ FORM PI-1 GENERAL APPLICATION

| I. Applicant Information | |
|---|-------------------------------|
| I acknowledge that I am submitting an authorized TCEQ application workbook and any necessary attachments. Except for inputting the requested data and adjusting row height and column width, I have not changed the TCEQ application workbook in any way, including but not limited to changing formulas, formatting, content, or protections. | I agree |
| A. Company Information | |
| Company or Legal Name: | Thomas Redi-Mix Company, Inc. |
| Permits are issued to either the facility owner or operator, commonly referred to as the applicant or permit holder. List the legal name of the company, corporation, partnership, or person who is applying for the permit. We will verify the legal name with the Texas Secretary of State at (512) 463-5555 or at: https://www.sos.state.tx.us | |
| Texas Secretary of State Charter/Registration Number (if given): | 12238935915 |
| B. Company Official Contact Information: must not be a consultant | |
| Prefix (Mr., Ms., Dr., etc.): | Mr. |
| First Name: | John |
| Last Name: | Thomas |
| Title: | Vice President |
| Mailing Address: | P.O. Box 5664 |
| Address Line 2: | |
| City: | Amarillo |
| State: | TX |
| ZIP Code: | 79117 |
| Telephone Number: | 806-381-8485 |
| Fax Number: | 806-381-0060 |
| Email Address: | trm@thomasredimix.com |
| C. Technical Contact Information: This person must have the authority to make binding agreements and representations on behalf of the applicant and may be a consultant. Additional technical contact(s) can be provided in a cover letter. | |
| Prefix (Mr., Ms., Dr., etc.): | Mr. |
| First Name: | Shane |
| Last Name: | Self |
| Title: | P.E. |
| Company or Legal Name: | Enviro-Ag Engineering, Inc. |
| Mailing Address: | 3404 Airway Blvd. |
| Address Line 2: | |
| City: | Amarillo |
| State: | TX |
| ZIP Code: | 79118 |
| Telephone Number: | 806-353-6123 |
| Fax Number: | 806-353-4132 |
| Email Address: | sself@enviroag.com |
| D. Assigned Numbers | |
| The CN and RN below are assigned when a Core Data Form is initially submitted to the Central Registry. The RN is also assigned if the agency has conducted an investigation or if the agency has issued an enforcement action. If these numbers have not yet been assigned, leave these questions blank and include a Core Data Form with your application submittal. See Section VI.B. below for additional information. | |
| Enter the CN. The CN is a unique number given to each business, governmental body, association, individual, or other entity that owns, operates, is responsible for, or is affiliated with a regulated entity. | 602602500 |

| | |
|---|-----------|
| Enter the RN. The RN is a unique agency assigned number given to each person, organization, place, or thing that is of environmental interest to us and where regulated activities will occur. The RN replaces existing air account numbers. The RN for portable units is assigned to the unit itself, and that same RN should be used when applying for authorization at a different location. | 101989226 |
|---|-----------|

II. Delinquent Fees and Penalties

| | |
|--|----|
| Does the applicant have unpaid delinquent fees and/or penalties owed to the TCEQ? This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ Web site at: https://www.tceq.texas.gov/agency/financial/fees/delin | No |
|--|----|

III. Permit Information

A. Permit and Action Type (multiple may be selected, leave no blanks)

Additional information regarding the different NSR authorizations can be found at:

<https://www.tceq.texas.gov/permitting/air/guidance/authorize.html>

Select from the drop-down the type of action being requested for each permit type. **If that permit type does not apply, you MUST select "Not applicable".**

Provide all assigned permit numbers relevant for the project. Leave blank if the permit number has not yet been assigned.

| Permit Type | Action Type Requested (do not leave blank) | Permit Number (if assigned) |
|--|---|-----------------------------|
| Minor NSR (can be a Title V major source): <i>Not applicable, Initial, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Relocation/Alteration, Change of Location, Alteration, Extension to Start of Construction</i> | Renewal | |
| Special Permit: <i>Not applicable, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Alteration, Extension to Start of Construction</i> | Not applicable | |
| De Minimis: <i>Not applicable, Initial</i> | Not applicable | |
| Flexible: <i>Not applicable, Initial, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Alteration, Extension to Start of Construction</i> | Not applicable | |
| PSD: <i>Not applicable, Initial, Major Modification</i> | Not applicable | |
| Nonattainment: <i>Not applicable, Initial, Major Modification</i> | Not applicable | |
| HAP Major Source [FCAA § 112(g)]: <i>Not applicable, Initial, Major Modification</i> | Not applicable | |
| PAL: <i>Not applicable, Initial, Amendment, Renewal, Renewal/Amendment, Alteration</i> | Not applicable | |
| GHG PSD: <i>Not applicable, Initial, Major Modification, Voluntary Update</i> | Not applicable | |

| | |
|--|------------|
| | |
| B. MSS Activities | |
| How are/will MSS activities for sources associated with this project be authorized? | De Minimis |
| List the permit number, registration number, and/or PBR number. | 48862 |
| C. Consolidating NSR Permits | |
| Will this permit be consolidated into another NSR permit with this action? | No |
| | |
| | |
| | |
| | |
| | |
| Will NSR permits be consolidated into this permit with this action? | No |
| | |
| | |
| D. Incorporation of Standard Permits, Standard Exemptions, and/or Permits By Rule (PBR) | |
| <p>To ensure protectiveness, previously issued authorizations (standard permits, standard exemptions, or PBRs) including those for MSS, are incorporated into a permit either by consolidation or by reference. At the time of renewal and/or amendment, consolidation (in some cases) may be voluntary and referencing is mandatory. More guidance regarding incorporation can be found in 30 TAC § 116.116(d)(2), 30 TAC § 116.615(3) and in this memo:</p> <p>https://www.tceq.texas.gov/assets/public/permitting/air/memos/pbr_spc06.pdf</p> | |
| Are there any standard permits, standard exemptions, or PBRs to be incorporated by reference? | No |
| | |
| Are there any PBR, standard exemptions, or standard permits associated to be incorporated by consolidation? Note: Emission calculations, a BACT analysis, and an impacts analysis must be attached to this application at the time of submittal for any authorization to be incorporated by consolidation. | No |
| | |
| | |
| E. Associated Federal Operating Permits | |

| | | |
|---|--|----|
| Is this facility located at a site required to obtain a site operating permit (SOP) or general operating permit (GOP) ? | | No |
| | | |

IV. Facility Location and General Information

| | | |
|--|---|--|
| A. Location | | |
| County: Enter the county where the facility is physically located. | Potter | |
| TCEQ Region | Region 1 | |
| County attainment status as of Sept. 23, 2019 | attainment or unclassified for all pollutants | |
| Street Address: | 3600 W. Loop 335 N. | |
| City: If the address is not located in a city, then enter the city or town closest to the facility, even if it is not in the same county as the facility. | Amarillo | |
| ZIP Code: Include the ZIP Code of the physical facility site, not the ZIP Code of the applicant's mailing address. | 79117 | |
| Site Location Description: If there is no street address, provide written driving directions to the site. Identify the location by distance and direction from well-known landmarks such as major highway intersections. | | |
| Use USGS maps, county maps prepared by the Texas Department of Transportation, or an online software application such as Google Earth to find the latitude and longitude. | | |
| Latitude (in degrees, minutes, and nearest second (DDD:MM:SS)) for the street address or the destination point of the driving directions. Latitude is the angular distance of a location north of the equator and will always be between 25 and 37 degrees north (N) in Texas. | 35d15'54" | |
| Longitude (in degrees, minutes, and nearest second (DDD:MM:SS)) for the street address or the destination point of the driving directions. Longitude is the angular distance of a location west of the prime meridian and will always be between 93 and 107 degrees west (W) in Texas. | 101d52'37" | |
| Is this a project for a lead smelter, concrete crushing facility, and/or a hazardous waste management facility? | | |
| If yes, does the project meet the distance limitations listed in 30 TAC § 116.112? | | |
| B. General Information | | |
| Site Name: | Thomas Redi-Mix Primary Plant | |
| Area Name: Must indicate the general type of operation, process, equipment or facility. Include numerical designations, if appropriate. Examples are Sulfuric Acid Plant and No. 5 Steam Boiler. Vague names such as Chemical Plant are not acceptable. | | |
| Are there any schools located within 3,000 feet of the site boundary? | No | |

C. Portable Facility

| | |
|--|----------|
| Permanent or portable facility? | Portable |
| Serial number of the equipment to be authorized: | |
| Serial number of the equipment to be authorized: | |

D. Industry Type

| | |
|--|--------------------|
| Principal Company Product/Business: | Ready Mix Concrete |
| A list of SIC codes can be found at: https://www.naics.com/sic-codes-industry-drilldown/ | |
| Principal SIC code: | 3273 |
| NAICS codes and conversions between NAICS and SIC Codes are available at: https://www.census.gov/eos/www/naics/ | |
| Principal NAICS code: | 327320 |

E. State Senator and Representative for this site

| | |
|---|-------------|
| This information can be found at (note, the website is not compatible to Internet Explorer): https://wrm.capitol.texas.gov/ | |
| State Senator: | Kel Seliger |
| District: | 31 |
| State Representative: | Four Price |
| District: | 87 |

V. Project Information**A. Description**

| | |
|--|------------------------------|
| Provide a brief description of the project that is requested. (Limited to 500 characters). | Concrete Batch Plant renewal |
|--|------------------------------|

B. Project Timing

Authorization must be obtained for many projects before beginning construction. Construction is broadly interpreted as anything other than site clearance or site preparation. Enter the date as "Month Date, Year" (e.g. July 4, 1776).

| | |
|----------------------------------|------------------------|
| Projected Start of Construction: | Currently in Operation |
| Projected Start of Operation: | Currently in Operation |

C. Enforcement Projects

| | |
|---|----|
| Is this application in response to, or related to, an agency investigation, notice of violation, or enforcement action? | No |
| | |

D. Operating Schedule

| | |
|--|----|
| Will sources in this project be authorized to operate 8760 hours per year? | No |
| If no, provide details in your permit application materials. | |
| Does this facility operate seasonally? | No |
| | |

VI. Application Materials

All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. (30 TAC § 116.116)

A. Confidential Application Materials

| | |
|--|----|
| Is confidential information submitted with this application? | No |
| | |

| | |
|--|-----|
| | |
| B. Is the Core Data Form (Form 10400) attached? | Yes |
| https://www.tceq.texas.gov/assets/public/permitting/centralregistry/10400.docx | |
| C. Is a current area map attached? | |
| Is the area map a current map with a true north arrow, an accurate scale, the entire plant property, the location of the property relative to prominent geographical features including, but not limited to, highways, roads, streams, and significant landmarks such as buildings, residences, schools, parks, hospitals, day care centers, and churches? | Yes |
| Does the map show a 3,000-foot radius from the property boundary? | Yes |
| D. Is a plot plan attached? | |
| Does your plot plan clearly show a north arrow, an accurate scale, all property lines, all emission points, buildings, tanks, process vessels, other process equipment, and two bench mark locations? | Yes |
| Does your plot plan identify all emission points on the affected property, including all emission points authorized by other air authorizations, construction permits, PBRs, special permits, and standard permits? | Yes |
| Did you include a table of emission points indicating the authorization type and authorization identifier, such as a permit number, registration number, or rule citation under which each emission point is currently authorized? | Yes |
| E. Is a process flow diagram attached? | |
| Is the process flow diagram sufficiently descriptive so the permit reviewer can determine the raw materials to be used in the process; all major processing steps and major equipment items; individual emission points associated with each process step; the location and identification of all emission abatement devices; and the location and identification of all waste streams (including wastewater streams that may have associated air emissions)? | Yes |
| F. Is a process description attached? | |
| Does the process description emphasize where the emissions are generated, why the emissions must be generated, what air pollution controls are used (including process design features that minimize emissions), and where the emissions enter the atmosphere? | Yes |
| Does the process description also explain how the facility or facilities will be operating when the maximum possible emissions are produced? | Yes |
| G. Are detailed calculations attached? Calculations must be provided for each source with new or changing emission rates. For example, a new source, changing emission factors, decreasing emissions, consolidated sources, etc. You do not need to submit calculations for sources which are not changing emission rates with this project. Please note: the preferred format is an electronic workbook (such as Excel) with all formulas viewable for review. It can be emailed with the submittal of this application workbook. | Yes |
| Are emission rates and associated calculations for planned MSS facilities and related activities attached? | N/A |
| H. Is a material balance (Table 2, Form 10155) attached? | Yes |
| Table 2 (Form 10155), entitled Material Balance: A material balance representation may be required for all applications to confirm technical emissions information. Typically this is required for refining and chemical manufacturing processes involving reactions, separations, and blending. It may also be requested by the permit reviewer for other applications. Table 2 should represent the total material balance; that is, all streams into the system and all streams out. Additional sheets may be attached if necessary. Complex material balances may be presented on spreadsheets or indicated using process flow diagrams. All materials in the process should be addressed whether or not they directly result in the emission of an air contaminant. All production rates must be based on maximum operating conditions. | |

| | |
|--|-----|
| I. Is a list of MSS activities attached? | N/A |
| | |
| J. Is a discussion of state regulatory requirements attached, addressing 30 TAC Chapters 101, 111, 112, 113, 115, and 117? | N/A |
| | |
| | |
| K. Are all other required tables, calculations, and descriptions attached? | |

VII. Signature

The owner or operator of the facility must apply for authority to construct. The appropriate company official (owner, plant manager, president, vice president, or environmental director) must sign all copies of the application. The applicant's consultant cannot sign the application. **Important Note: Signatures must be original in ink, not reproduced by photocopy, fax, or other means, and must be received before any permit is issued.**

The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7; the Texas Health and Safety Code, Chapter 382; the Texas Clean Air Act (TCAA); the air quality rules of the Texas Commission on Environmental Quality; or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I understand my signature indicates that this application meets all applicable nonattainment, prevention of significant deterioration, or major source of hazardous air pollutant permitting requirements. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.

| | |
|--|--|
| Name: | |
| Signature: | |
| <i>Original signature is required.</i> | |
| Date: | |

Texas Commission on Environmental Quality
Form PI-1 General Application
Renewals

Date: 12/22/20
Permit #: 48862

Company: Thomas Redi-Mix Company, Inc.

| I. Type of Permit Renewal and Associated Actions | |
|---|----------------------------|
| A. Current Operations | |
| Do all dockside vessel emissions associated with the facility comply with all rules and regulations of the commission and with the intent of the TCAA, including protection of the health and property of the public and minimization of emissions to the extent possible, consistent with good air pollution practices? (30 TAC § 116.311(a)(1)) | N/A |
| Is the facility being operated in accordance with all requirements and conditions of the existing permit, including representations in the application for permit to construct and subsequent amendments, and any previously granted renewal, unless otherwise authorized for a qualified facility? | Yes |
| | |
| Are there any permit actions pending before the TCEQ? | No |
| | |
| <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> <div style="display: flex; border-bottom: 1px solid black;"> <div style="width: 80%; height: 20px; background-color: #cccccc;"></div> <div style="width: 20%; height: 20px; background-color: #cccccc;"></div> </div> | |
| Have any qualified facility changes under 30 TAC § 116.116(e) occurred since originally issued or last renewed? | Yes |
| Have emission factors changed since the last permitting action? | No |
| B. Changes Made Since Last Amendment or Renewal | |
| Have any of the following changes been made to or proposed for the facilities covered by this permit since it was last amended or renewed and are not currently authorized by a PBR, standard permit, or other authorization? <i>Select "Yes"</i> | |
| Construction of a new emission source? | No |
| The emission of new chemical species or a change in character of emissions? | No |
| An increase in emission rates on a short term or annual basis? (This includes increases of a criteria pollutant as well as increases of a chemical species.) | No |
| A change in the method of emission control if the emission control is a source itself, such as a thermal oxidizer or flare? | No |
| Are new pollutants being added in the renewal process, not currently listed in the permit? | No |
| If "yes" to any question in Section B above is selected, a concurrent permit amendment is required before the permit can be renewed. | |
| | |
| II. Federal Regulatory Questions | |
| Indicate if any of the following requirements apply to the proposed facility. Note that some federal regulations apply to minor sources. Enter all applicable Subparts. | |
| A. Title 40 CFR Part 60 | |
| Do NSPS subpart(s) apply to a facility in this application? | Yes |
| If applicable, list applicable subparts you will demonstrate compliance with (e.g. Subpart M) | Subpart OOO, IIII and JJJJ |
| B. Title 40 CFR Part 61 | |

Texas Commission on Environmental Quality
Form PI-1 General Application
Renewals

Date: 12/22/20
Permit #: 48862

Company: Thomas Redi-Mix Company, Inc.

| | |
|---|----|
| Do NESHAP subpart(s) apply to a facility in this application? | No |
| | |

C. Title 40 CFR Part 63

| | |
|--|--------------|
| Do MACT subpart(s) apply to a facility in this application? | Yes |
| If applicable, list applicable subparts you will demonstrate compliance with (e.g. Subpart VVVV) | Subpart ZZZZ |

III. Renewal Certification

A. Renewal Certification Eligibility Determination

Select "Yes" or "No" to answer each question.

| | |
|--|-----|
| Does the permitted facility emit an air contaminant on the watch list and is the permitted facility located in the area on the watch list? | No |
| Is the permitted facility required to participate in the Houston/Galveston Area (HGA) cap and trade program for highly reactive VOCs? In addition, do the HRVOCs need to be speciated on the maximum allowable emission rates table (MAERT)? | No |
| Does the company have an unsatisfactory compliance history? | No |
| Is the permit a Flexible Permit or an Existing Facilities Flexible Permit? | No |
| Does this permit require the inclusion of marine loading emissions? | No |
| Is there a concurrent amendment application being submitted for this permit? | No |
| Is there a permit amendment application currently under review for this permit? | No |
| Is the addition of Compliance Assurance Monitoring conditions required with this renewal? | No |
| Are scheduled maintenance, startup, or shutdown emissions not authorized by PBR or standard permit, required to be authorized in the permit? | No |
| Are there any facilities that have been shutdown that are proposed to be removed from the permit at the time of renewal? | No |
| Have the emissions factors changed for any source or have the emissions calculation methodology changed for any source? | No |
| Is this permit being consolidated into another permit or are other NSR permits being consolidated into this permit as part of this renewal? | No |
| Is there inclusion of any sources never before identified but always present and previously represented? | Yes |

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The Renewal Certification option cannot be used. Be sure to change your response on the General Sheet, Section III if you selected renewal certification. Then continue to the next sheet.

Texas Commission on Environmental Quality
Form PI-1 General Application
Technical

Date: 12/22/20
Permit #: 48862
Company: Thomas Redi-Mix Company, Inc.

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E. Concrete Batch Plants

| | |
|---|-----|
| Is this a project for a concrete batch plant? | Yes |
|---|-----|

We must notify the applicable county judge and presiding officer when a permit, amendment, renewal, and/or change of location application for a concrete batch plant is received. This information can be obtained at:

<https://www.txdirectory.com>

Provide the information for the **County Judge** for the location where the facility is or will be located:

| | |
|------------------|------------------------------|
| The Honorable: | Nancy Tanner |
| Mailing Address: | 500 South Filmore, Suite 103 |
| Address Line 2: | |
| City: | Amarillo |
| State: | Texas |
| ZIP Code: | 79101 |

| | |
|--|-----|
| Is the facility located in a municipality or an extraterritorial jurisdiction of a municipality? | Yes |
|--|-----|

If so, provide the information for the Presiding Officer(s) of the municipality. This is frequently the Mayor. An attachment may be used for multiple.

| | |
|------------------|-----------------|
| First Name: | Ginger |
| Last Name: | Nelson |
| Title: | Mayor |
| Mailing Address: | 601 S. Buchanan |
| Address Line 2: | |
| City: | Amarillo |
| State: | Texas |
| ZIP Code: | 79101 |

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I. Public Notice Applicability

A. Application Type

Is this an application for a renewal?

Yes

Company: Thomas Redi-Mix Company, Inc.

| | | | | | | |
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| B. Renewal Certification Only: List all pollutants listed on your current MAERT including any HAPs. These pollutants may be included in the Public Notice. | | | | | | |
| C. Is public notice required for this project as represented in this workbook? If no, proceed to Section III Small Business Classification. Note: public notice applicability for this project may change throughout the technical review. | | | | | Yes | |
| D. Are any HAPs to be authorized/re-authorized with this project? The category "HAPs" must be specifically listed in the public notice if the project authorizes (reauthorizes for renewals) any HAP pollutants. | | | | | No | |

Complete this section if public notice is required (determined in the above section) or if you are not sure if public notice is required.

Enter the contact information for the **person responsible for publishing**. This is a designated representative who is responsible for ensuring public notice is properly published in the appropriate newspaper and signs are posted at the facility site. This person will be contacted directly when the TCEQ is ready to authorize public notice for the application.

| | |
|-------------------------------|-----------------------------|
| Prefix (Mr., Ms., Dr., etc.): | Mr. |
| First Name: | Shane |
| Last Name: | Self |
| Title: | P.E. |
| Company Name: | Enviro-Aq Engineering, Inc. |

Texas Commission on Environmental Quality
Form PI-1 General Application
Public Notice

Date: 12/22/20
Permit #: 48862

Company: Thomas Redi-Mix Company, Inc.

| | |
|-------------------|--------------------|
| Mailing Address: | 3404 Airway Blvd |
| Address Line 2: | |
| City: | Amarillo |
| State: | Texas |
| ZIP Code: | 79118 |
| Telephone Number: | 806-350-5456 |
| Fax Number: | |
| Email Address: | sself@enviroag.com |

Enter the contact information for the **Technical Contact**. This is the designated representative who will be listed in the public notice as a contact for additional information.

| | |
|-------------------------------|-----------------------------|
| Prefix (Mr., Ms., Dr., etc.): | Mr. |
| First Name: | Shane |
| Last Name: | Self |
| Title: | P.E. |
| Company Name: | Enviro-Ag Engineering, Inc. |
| Mailing Address: | 3404 Airway Blvd |
| Address Line 2: | |
| City: | Amarillo |
| State: | Texas |
| ZIP Code: | 79118 |
| Telephone Number: | 806-350-5456 |
| Fax Number: | |
| Email Address: | sself@enviroag.com |

B. Public place

Place a copy of the full application (including all of this workbook and all attachments) at a public place in the county where the facilities are or will be located. You must state where in the county the application will be available for public review and comment. The location must be a public place and described in the notice. A public place is a location which is owned and operated by public funds (such as libraries, county courthouses, city halls) and cannot be a commercial enterprise. You are required to pre-arrange this availability with the public place indicated below. The application must remain available from the first day of publication through the designated comment period.

If this is an application for a PSD, nonattainment, or FCAA §112(g) permit, the public place must have internet access available for the public as required in 30 TAC § 39.411(f)(3).

If the application is submitted to the agency with information marked as Confidential, you are required to indicate which specific portions of the application are not being made available to the public. These portions of the application must be accompanied with the following statement: ***Any request for portions of this application that are marked as confidential must be submitted in writing, pursuant to the Public Information Act, to the TCEQ Public Information Coordinator, MC 197, P.O. Box 13087, Austin, Texas 78711-3087.***

| | | |
|---|---|--|
| Name of Public Place: | Due diligence search for public notice place available for public viewing in Potter County, | |
| Physical Address: | | |
| Address Line 2: | | |
| City: | | |
| ZIP Code: | | |
| County: | | |
| Has the public place granted authorization to place the application for public viewing and copying? | Yes | |
| | | |

C. Alternate Language Publication

In some cases, public notice in an alternate language is required. If an elementary or middle school nearest to the facility is in a school district required by the Texas Education Code to have a bilingual program, a bilingual notice will be required. If there is no bilingual program required in the school nearest the facility, but children who would normally attend those schools are eligible to attend bilingual programs elsewhere in the school district, the bilingual notice will also be required. If it is determined that alternate language notice is required, you are responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

| | |
|---|----|
| Is a bilingual program required by the Texas Education Code in the School District? | No |
|---|----|

| | |
|---|----|
| Are the children who attend either the elementary school or the middle school closest to your facility eligible to be enrolled in a bilingual program provided by the district? | No |
|---|----|

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Texas Commission on Environmental Quality
Form PI-1 General Application
Public Notice

Date: 12/22/20
Permit #: 48862
Company: Thomas Redi-Mix Company, Inc.

III. Small Business Classification

Complete this section to determine small business classification. If a small business requests a permit, agency rules (30 TAC § 39.603(f)(1)(A)) allow for alternative public notification requirements if all of the following criteria are met. If these requirements are met, public notice does not have to include publication of the prominent (12 square inch) newspaper notice.

| | |
|---|-----|
| Does the company (including parent companies and subsidiary companies) have fewer than 100 employees or less than \$6 million in annual gross receipts? | Yes |
| Is the site a major source under 30 TAC Chapter 122, Federal Operating Permit Program? | No |
| Are the site emissions of any individual air contaminant greater than or equal to 50 tpy? | No |
| Are the site emissions of all air contaminants combined greater than or equal to 75 tpy? | No |
| Small business classification: | Yes |

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The fee for renewal is based on the total annual allowable emissions from the permitted facility to be renewed. If this project includes an amendment, the amendment permit fee will be calculated separately.

| | |
|--|------------------|
| Enter the total allowable emissions (tons per year). The total emissions must include those represented in any PBR or standard permits to be incorporated by consolidation into this permit. | 4.143 |
| Permit fee due | \$ 600.00 |

| | |
|-------------|-----------|
| | |
| | |
| Renewal Fee | \$ 600.00 |
| | |

| | |
|--|-----------|
| A. Payment One (required) | |
| Was the fee paid online? | Yes |
| Enter the fee amount: | \$ 600.00 |
| Enter the check, money order, ePay Voucher, or other transaction number: | |
| Enter the Company name as it appears on the check: | |
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SECTION 3 FACILITY MAPS

Figure 3.1 – Vicinity/USGS 7.5-Minute Quadrangle Map

Figure 3.1, entitled Vicinity/USGS 7.5-Minute Quadrangle Map. The location of the facility is depicted on the map.

Figure 3.2 – USGS 7.5-Minute Quadrangle Map

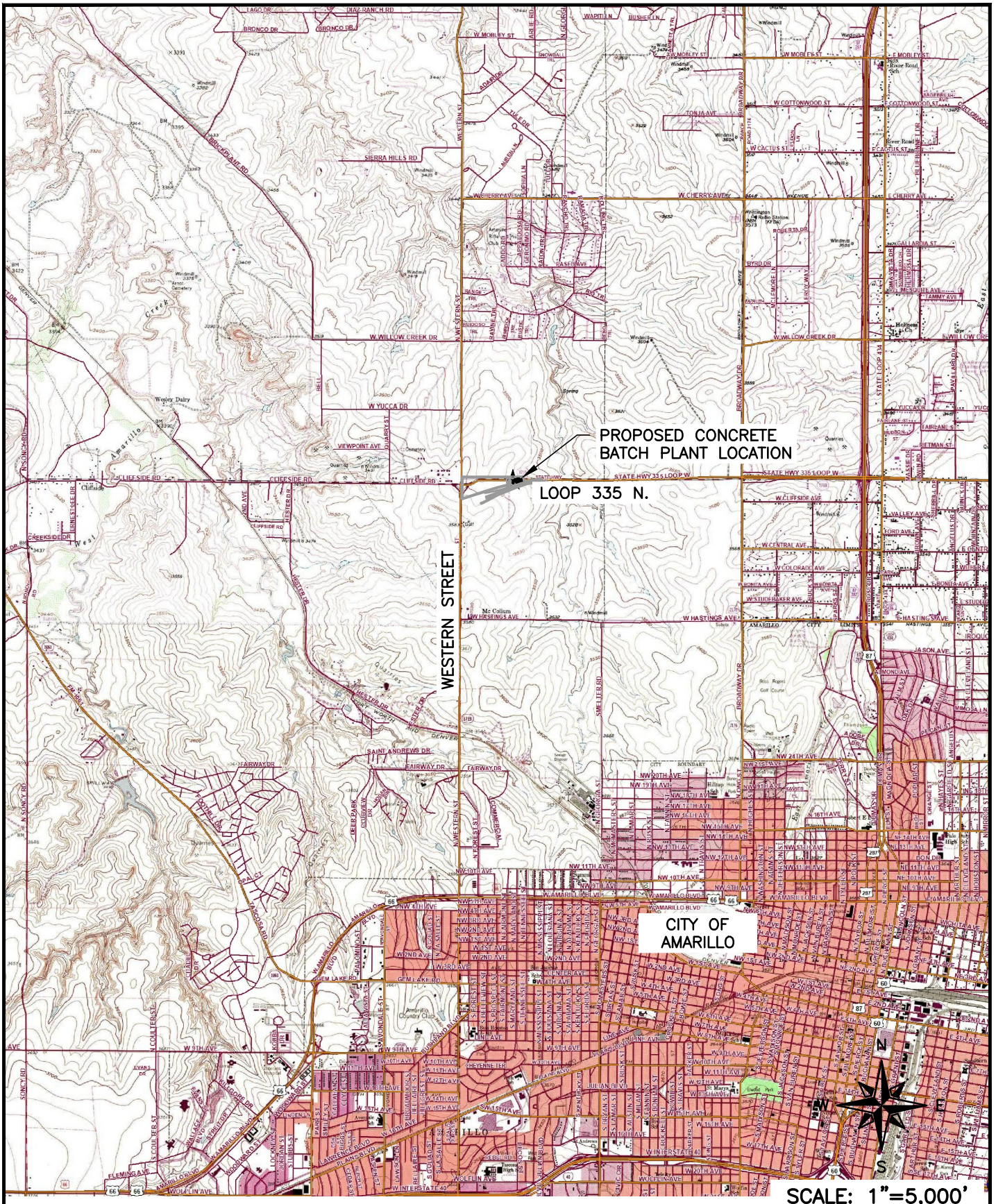
Figure 3.2, entitled USGS 7.5-Minute Quadrangle Map is a seamless, high-quality copy of the 7.5-minute USGS quadrangle map that depicts the location of the property of the land operated by the owner.

Figure 3.3 & 3.4 – Site Plot Plan A and Site Plot Plan B

Figure 3.3, entitled Site Plot Plan A is an aerial image of the site showing the extents of the property in relation to existing plans on site. Figure 3.4, entitled Site Plot Plan B, is a scaled drawing depicting a north arrow, all property lines, emission points, buildings, tanks, process vessels, other process equipment.

Figure 3.5 – Process Flow Diagram

Figure 3.5, entitled Proposed Process Flow Diagram, shows the concrete batch plant batching process. Each item that is involved in the process is labeled, the items in the process that release emissions are labeled as emission points.



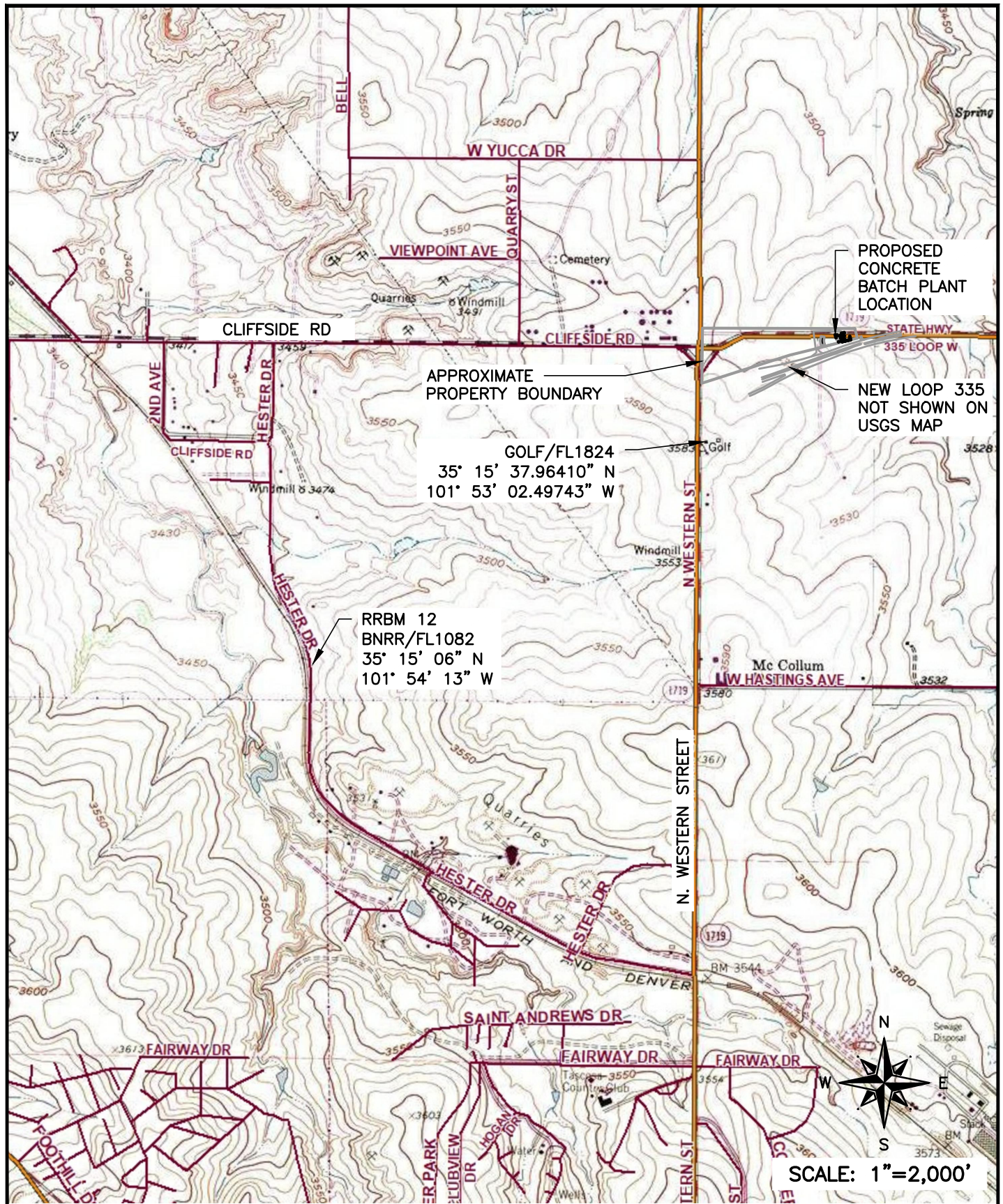
SOURCE: CLIFFSIDE, TX. QUADRANGLE, 1973

THOMAS REDI-MIX COMPANY, INC.
CONCRETE BATCH PLANT #2
AMARILLO, POTTER COUNTY, TX

LOCATION MAP
FIGURE 3.1



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



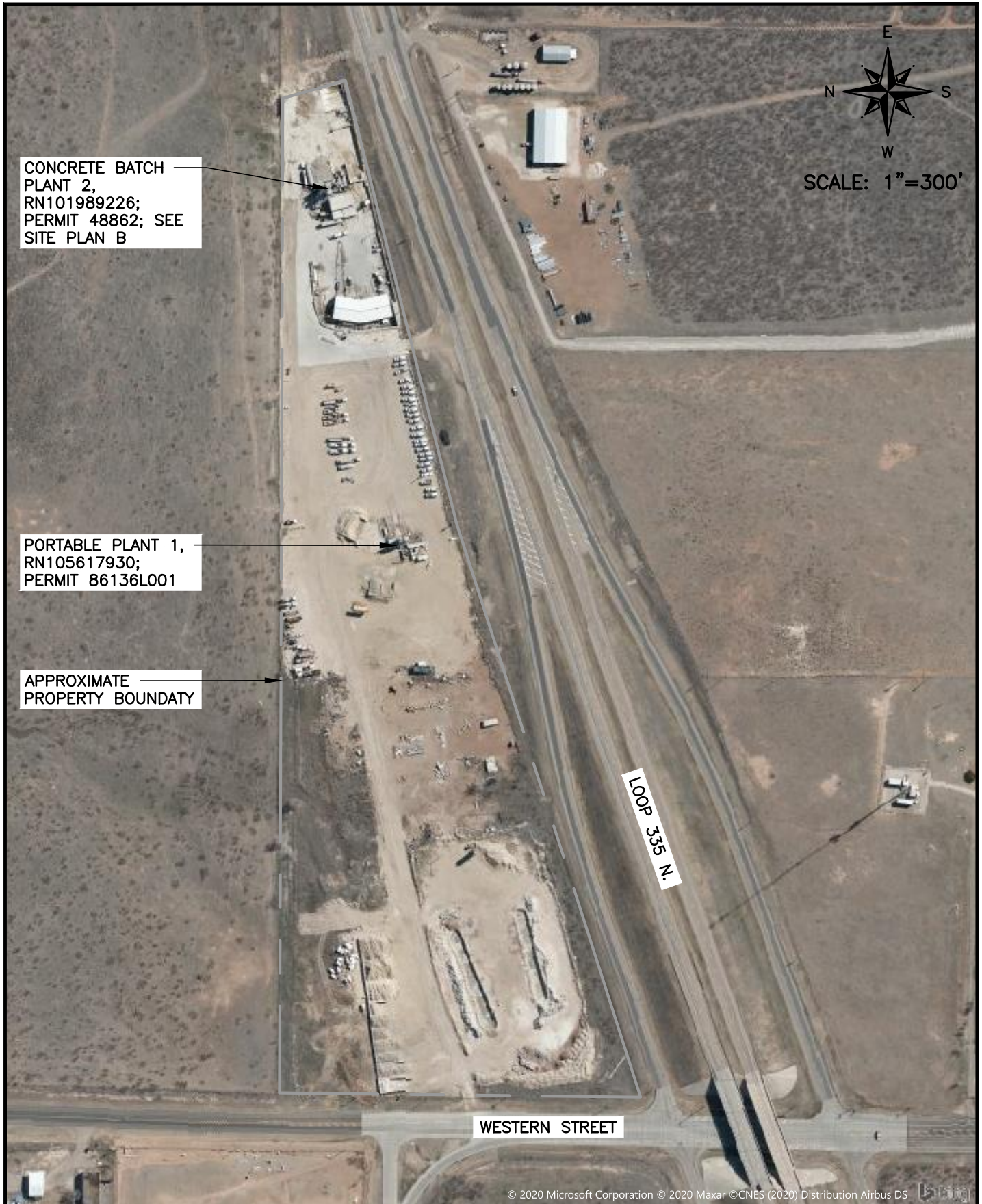
SOURCE: CLIFFSIDES, TX. QUADRANGLE, 1973

THOMAS REDI-MIX COMPANY, INC.
 CONCRETE BATCH PLANT 2
 AMARILLO, POTTER COUNTY, TX

VICINITY MAP
 FIGURE 3.2

ENVIRO-AG
EAE
 ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
 ENGINEERING CONSULTANTS
 3404 Airway Boulevard
 AMARILLO, TEXAS 79118
 TEL (806) 353-6123 FAX (806) 353-4132

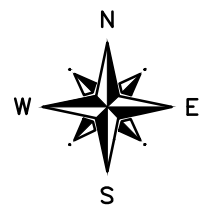


THOMAS REDI-MIX COMPANY, INC.
CONCRETE BATCH PLANT 2
AMARILLO, POTTER COUNTY, TX

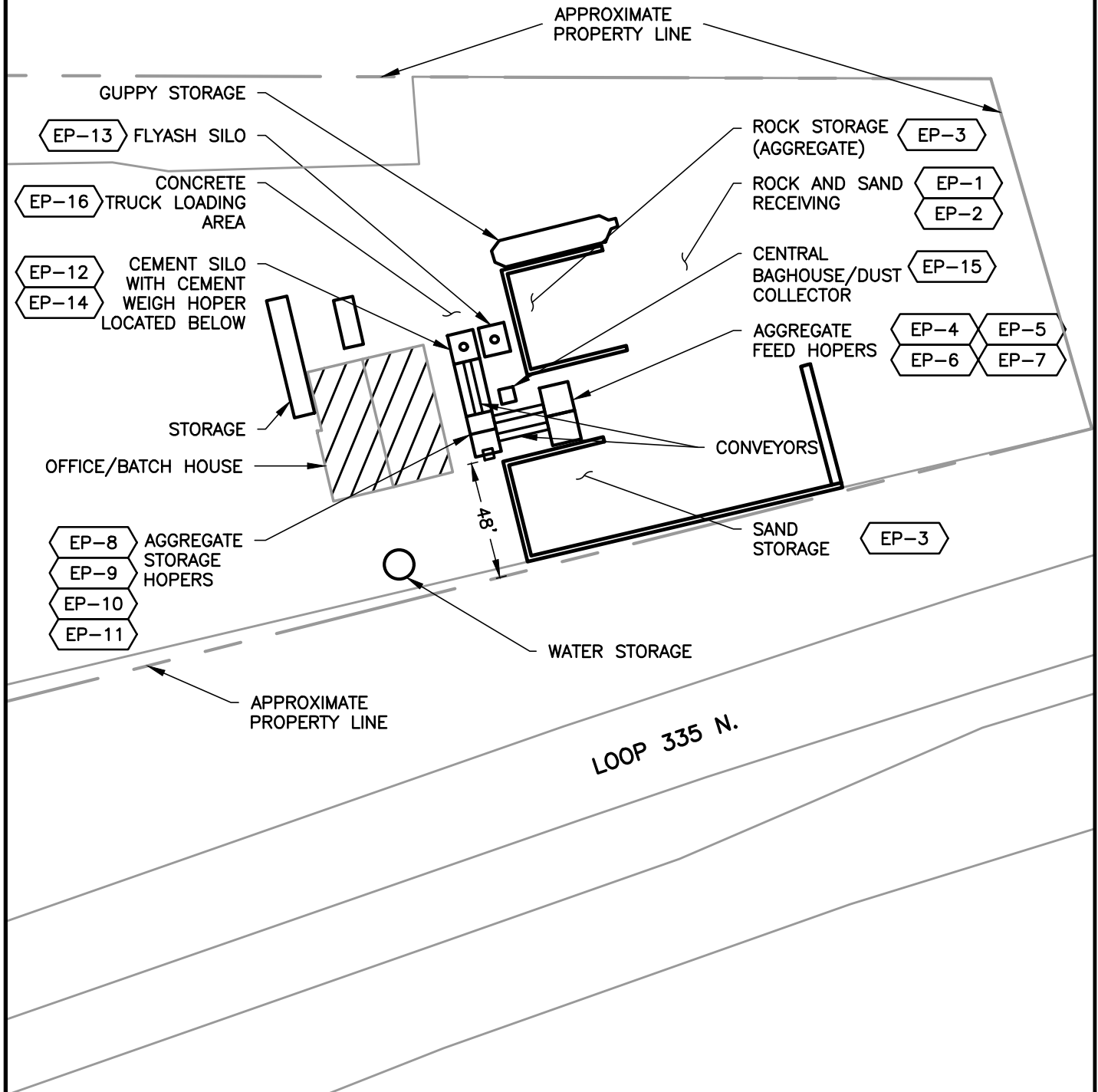
SITE PLOT PLAN A
AERIAL IMAGE
FIGURE 3.3



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



SCALE: 1"=60'

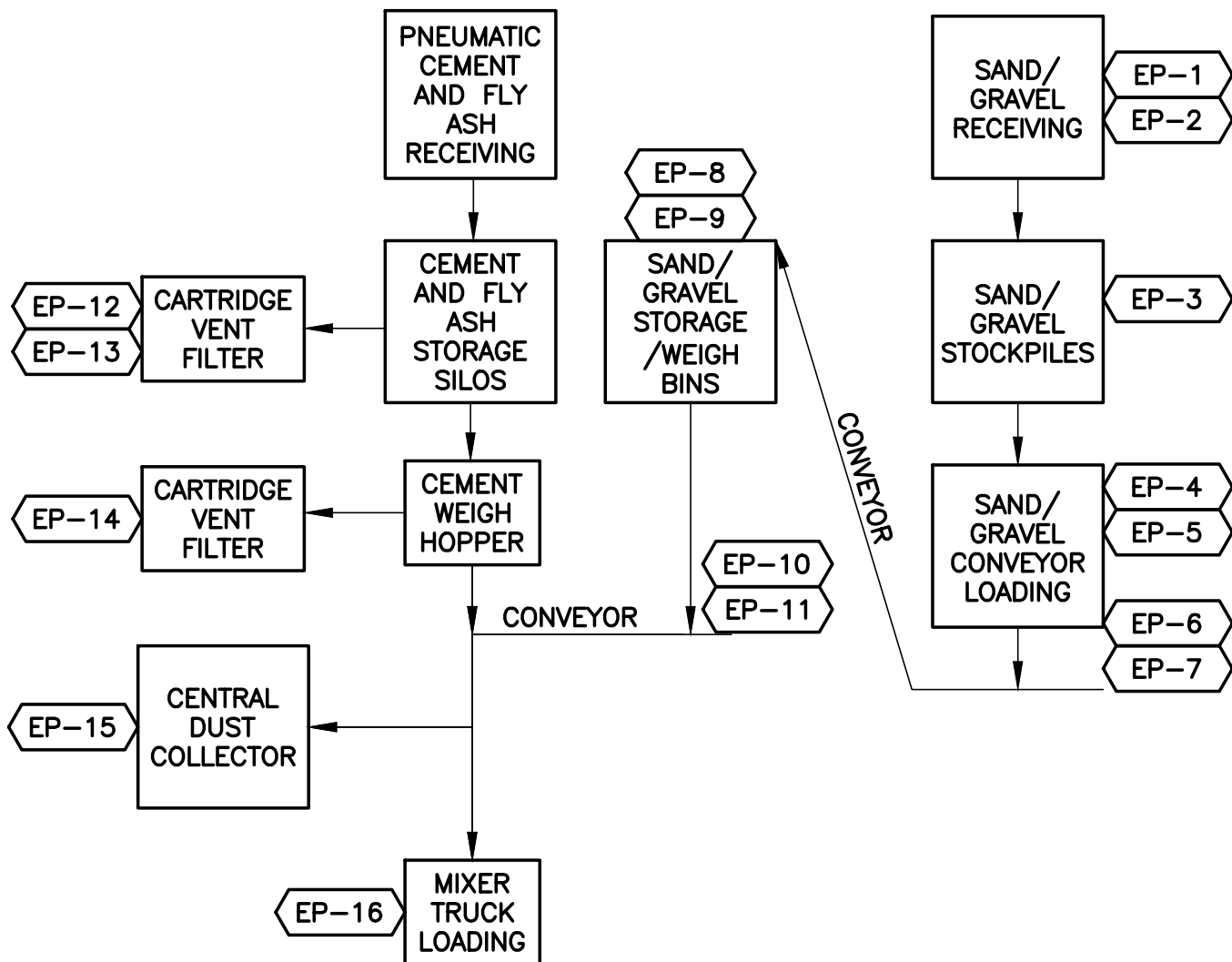


THOMAS REDI-MIX COMPANY, INC.
CONCRETE BATCH PLANT 2
AMARILLO, POTTER COUNTY, TX

SITE PLOT PLAN B
FIGURE 3.4



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



SECTION 4 BATCH PLANT - OPERATION DISCUSSION

Sand is delivered to the site in dump trucks with a capacity of 25 tons each at a maximum rate of two trucks per hour. Gravel is delivered in 25-ton dump trucks and hopper trucks at a maximum rate of two trucks per hour. The sand and gravel will be dumped on the ground and stockpiled with a 2.5 cubic yard front end loader. Emission points for sand and gravel receiving are represented as EP1 and EP2 respectively. All aggregate stockpiles are watered to control dust (EP3). All plant roads are to be watered or cleaned as needed to prevent a nuisance condition.

The sand and gravel are loaded separately into their designated aggregate feed hoppers with a front-end loader (EP4 and EP5). As needed, the sand and gravel is dropped onto a conveyor (EP6 and EP7) that transports the materials to the weigh hoppers where the materials empty/drop into the designated hoppers (EP8 and EP9). During batching operations, sand and gravel are released from the weigh hoppers at a feed rate for the given batch design, onto a conveyor (EP10 and EP11) that transports the materials to a point where they are dumped into the concrete mixer truck.

The cement is weighed in its own weigh ben and is loaded directly into the back of the truck. A central dust collector is connected to a shroud at the discharge point, or the point where materials are dumped (EP16) into the concrete truck. The central dust collector pulls suction from the shroud, through ductwork connecting with the dust collector assembly where the cement/sand/gravel dust is filtered. The filtered air discharges out the top of the top of the central dust collector (EP 15). Mixer truck loading is considered a dry process.

Cement will be delivered to the site in 25 ton loads via pneumatic trailers. Pneumatic trailers convey the cement/fly ash from the trailer into two storage silos. The cement storage silo and fly ash silos are both equipped with a cartridge filter (EP12 & EP13, respectfully) assembly's that filter cement/fly ash particulate during the cement/flyash transferring process. Cement and fly ash is gravity fed from silo storage to the cement weigh hopper. The cement weigh hopper also has its own cartridge vent filter (EP14) to filter particulate matter during transfer. A maximum of two trucks per hour can be delivered.

After the rock, sand, and cement are in the mixer trucks, water is added to form concrete. The water helps to eliminate further fugitive emissions. A maximum of 720,000 lbs per hour of all ingredients (cement, sand, rock, and water) will be dropped into the mixer trucks.

Maintenance Startup and Shutdown (MSS) calculations are included in the maximum production rates. TCEQ's Mechanical Sources, Current Best Available Control Technology guidelines will be utilized.

SECTION 5 EMISSIONS DATA – CONCRETE BATCH PLANT

TCEQ ATTACHED CALCULATION SPREAD SHEET

General Plant Information

This worksheet is used to document the material composition and maximum expected production level. The values entered will be used to calculate the estimated emission rates in subsequent worksheets within this workbook.

Instructions:

1. Enter the requested information in the input cells below, or if prompted, select the appropriate answer from the drop-down menu provided.

| | | | | |
|---------------------------------|--------------------------|------------------------|------------|------------|
| Operating Schedule | hours/day | days/week | weeks/year | hours/year |
| | 14 | 7 | 52 | 5,096 |
| Concrete Production Rate | yd ³ / hour | yd ³ / year | | |
| | 150 | 150,000 | | |
| Type of Batch Plant | Truck or Central Mix? | | | |
| | Truck Mix | | | |

Concrete Composition

| | | |
|--|------------------------------|-----|
| Would you like to use the default composition of concrete? | | Yes |
| Material | Default (lbs/yd3) | |
| Aggregate | 1,865 | |
| Sand | 1,428 | |
| Cement | 491 | |
| Supplement | 73 | |

Maximum Material Mass Flow Rate

| | | |
|-----------------|---------------|---------------|
| Material | ton/hr | ton/yr |
| Aggregate | 139.9 | 139,875.0 |
| Sand | 107.1 | 107,100.0 |
| Cement | 36.8 | 36,825.0 |
| Supplement | 5.5 | 5,475.0 |

Material Handling & Stockpile Emissions

This worksheet is used to calculate emissions from material handling and stockpiles. Enter the requested information in the input cells, or if prompted, select the appropriate answer using the drop-down menu provided.

A list of commonly accepted emission control methods and their associated efficiency ratings are provided below:

Wet material = 50%
 Water sprays = 70%
 Chemical foam = 80%
 Partial enclosure = 50 - 85%
 Full enclosure = 90%
 Enclosed by building = Up to 90%
 Washed material = 95%
 Washed material with water spray = 98.5%

Material Handling - Coarse Aggregate Transfer Points

| | | | | |
|---|-----|--|---------------------------------|---------|
| Enter the number of Aggregate Transfer Points | 5 | | Maximum Mass Flow Rate (ton/hr) | 140 |
| Use the maximum material mass flow rate? | Yes | | Maximum Mass Flow Rate (ton/yr) | 139,875 |

| Emission Point Number | 2 | 5 | 7 | 9 | 11 |
|--|--------------|--------------|--------------|--------------|--------------|
| Hourly Mass Flow Rate (ton/hr) = 140 | | | | | |
| Annual Mass Flow Rate (ton/yr) = 139,875 | | | | | |
| Control Type | Wet Material | Wet Material | Wet Material | Wet Material | Wet Material |
| Control Efficiency (%) | 50 | 50 | 50 | 50 | 50 |
| PM (lb/hr) | 0.4826 | 0.4826 | 0.4826 | 0.4826 | 0.4826 |
| PM (ton/yr) | 0.2413 | 0.2413 | 0.2413 | 0.2413 | 0.2413 |
| PM ₁₀ (lb/hr) | 0.2308 | 0.2308 | 0.2308 | 0.2308 | 0.2308 |
| PM ₁₀ (ton/yr) | 0.1154 | 0.1154 | 0.1154 | 0.1154 | 0.1154 |
| PM _{2.5} (lb/hr) | 0.0349 | 0.0349 | 0.0349 | 0.0349 | 0.0349 |
| PM _{2.5} (ton/yr) | 0.0175 | 0.0175 | 0.0175 | 0.0175 | 0.0175 |

Material Handling - Sand Transfer Points

| | | | | |
|--|-----|--|---------------------------------|---------|
| Enter the number of Sand Transfer Points | 5 | | Maximum Mass Flow Rate (ton/hr) | 107 |
| Use the maximum material mass flowrate? | Yes | | Maximum Mass Flow Rate (ton/yr) | 107,100 |

| Emission Point Numbers | 1 | 4 | 6 | 8 | 10 |
|--|--------------|--------------|--------------|--------------|--------------|
| Hourly Mass Flow Rate (ton/hr) = 107 | | | | | |
| Annual Mass Flow Rate (ton/yr) = 107,100 | | | | | |
| Control Type | Wet Material | Wet Material | Wet Material | Wet Material | Wet Material |
| Control Efficiency (%) | 50 | 50 | 50 | 50 | 50 |
| PM (lb/hr) | 0.1125 | 0.1125 | 0.1125 | 0.1125 | 0.1125 |
| PM (ton/yr) | 0.0562 | 0.0562 | 0.0562 | 0.0562 | 0.0562 |
| PM ₁₀ (lb/hr) | 0.0530 | 0.0530 | 0.0530 | 0.0530 | 0.0530 |
| PM ₁₀ (ton/yr) | 0.0265 | 0.0265 | 0.0265 | 0.0265 | 0.0265 |
| PM _{2.5} (lb/hr) | 0.0080 | 0.0080 | 0.0080 | 0.0080 | 0.0080 |
| PM _{2.5} (ton/yr) | 0.0040 | 0.0040 | 0.0040 | 0.0040 | 0.0040 |

Raw Material Stockpile Emissions

| | |
|---|--------------|
| Stockpile Emission Point Number | 3 |
| Stockpile Area (acres) | 0.5 |
| Control Type | Wet Material |
| Control Efficiency (%) | 50 |
| Number of Active Days per Year | 351 |
| PM Inactive Emissions (ton/yr) | 0.0061 |
| PM ₁₀ Inactive Emissions (ton/yr) | 0.0031 |
| PM _{2.5} Inactive Emissions (ton/yr) | 0.0005 |
| PM Active Emissions (ton/yr) | 0.5792 |

| | |
|--|---------------|
| PM ₁₀ Active Emissions (ton/yr) | 0.2896 |
| PM _{2.5} Active Emissions (ton/yr) | 0.0434 |
| <hr/> | |
| TOTAL PM Emissions (ton/yr) | 0.5853 |
| TOTAL PM₁₀ Emissions (ton/yr) | 0.2926 |
| TOTAL PM_{2.5} Emissions (ton/yr) | 0.0439 |

Silo Emissions

This worksheet is used to calculate emissions from storage silos. Enter the requested information in the input cells below, or if prompted, select the appropriate answer from the drop-down menu provided.

Cement Silo Emissions

| | |
|---|----|
| How many cement silos? (Up to 4) | 1 |
| Would you like to use the manufacturer's filter efficiency? | No |

| Emission Factors - Cement Silo | | |
|--------------------------------|-------------------------|--------------------------|
| lb _{PM} /ton | lb _{PM10} /ton | lb _{PM2.5} /ton |
| 0.00099 | 0.00034 | 0.00006 |

| | |
|----------------------------------|--------|
| Cement Silo EPN(s) | 12 |
| Hourly Loading Rate (ton/hr) | 37 |
| Annual Loading Rate (ton/yr) | 36,825 |
| Controlled Emission Factors Used | |
| PM (lb/hr) | 0.0365 |
| PM (ton/yr) | 0.0182 |
| PM ₁₀ (lb/hr) | 0.0125 |
| PM ₁₀ (ton/yr) | 0.0063 |
| PM _{2.5} (lb/hr) | 0.0021 |
| PM _{2.5} (ton/yr) | 0.0011 |

Supplement Silo Emissions

| | |
|---|----|
| How many supplement silos? (Up to 4) | 1 |
| Would you like to use the manufacturer's filter efficiency? | No |

| Emission Factors - Supplement Silo | | |
|------------------------------------|-------------------------|--------------------------|
| lb _{PM} /ton | lb _{PM10} /ton | lb _{PM2.5} /ton |
| 0.0089 | 0.0049 | 0.0008 |

| | |
|----------------------------------|--------|
| Cement Supplement Silo EPN(s) | 13 |
| Hourly Loading Rate (ton/hr) | 5 |
| Annual Loading Rate (ton/yr) | 5,475 |
| Controlled Emission Factors Used | |
| PM (lb/hr) | 0.0487 |

| | |
|----------------|--------|
| PM (ton/yr) | 0.0244 |
| PM10 (lb/hr) | 0.0268 |
| PM10 (ton/yr) | 0.0134 |
| PM2.5 (lb/hr) | 0.0046 |
| PM2.5 (ton/yr) | 0.0023 |

Cement/Supplement Weigh Hopper Emissions

| | |
|---|-----|
| Is there a cement/supplement weigh hopper? | Yes |
| What is the EPN for the cement/supplement weigh hopper? | 14 |
| Is it equipped with its own dust collector? | Yes |

| Please select your preferred method of calculating emissions from the dust collector: | Outlet Grain Loading | |
|---|--------------------------|--------|
| | Flow Rate (acfm) | 150 |
| | Outlet Loading (gr/acfm) | 0.01 |
| | PM (lb/hr) | 0.0000 |
| | PM (ton/yr) | 0.0000 |
| | PM10 (lb/hr) | 0.0000 |
| | PM10 (ton/yr) | 0.0000 |
| | PM2.5 (lb/hr) | 0.0000 |
| | PM2.5 (ton/yr) | 0.0000 |

Loading and Baghouse Emissions

This worksheet is used to calculate emissions from a baghouse stack and truck/mixer loading. Enter the requested information in the input cells below, or if prompted, select the appropriate answer from the drop-down menu provided. Emission rates are automatically calculated and displayed in the table at the bottom of the worksheet.

Truck Loading Information

| | |
|--|-------|
| What is the EPN for fugitive emissions from central/truck mixer loading? | 16 |
| What is the central baghouse stack EPN? | 15 |
| What is the central baghouse efficiency? (%) | 99.99 |
| Use the Default Suction Shroud Capture Efficiency? | Yes |

Default Capture Efficiency % = 97.3

| Maximum Throughput | | |
|--------------------|--------|---------|
| Material | ton/hr | ton/yr |
| Aggregate | 140 | 139,875 |
| Sand | 107 | 107,100 |
| Cement | 37 | 36,825 |
| Supplement | 5 | 5,475 |

| Truck Loading Emission Factors | | |
|--------------------------------|-------------------------|--------------------------|
| lb _{PM} /ton | lb _{PM10} /ton | lb _{PM2.5} /ton |
| 1.118 | 0.310 | 0.053 |

| Pollutant | Central Baghouse Stack Emission Rates | Truck Loading Fugitive Emission Rates |
|----------------|---------------------------------------|---------------------------------------|
| PM (lb/hr) | 0.0046 | 1.2769 |
| PM (ton/yr) | 0.0023 | 0.6384 |
| PM10 (lb/hr) | 0.0013 | 0.3541 |
| PM10 (ton/yr) | 0.0006 | 0.1770 |
| PM2.5 (lb/hr) | 0.0002 | 0.0605 |
| PM2.5 (ton/yr) | 0.0001 | 0.0303 |

Emissions Summary Table

This worksheet compiles and displays the calculated emission rates for each source of air emissions listed within this workbook.

| Emission Point Number(s) | Name | PM | | PM ₁₀ | | PM _{2.5} | |
|--------------------------------|------------------------|---------|---------|------------------|---------|-------------------|---------|
| | | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr |
| 2, 5, 7, 9, 11, 1, 4, 6, 8, 10 | Material Handling | 2.975 | 1.488 | 1.419 | 0.710 | 0.215 | 0.107 |
| 3 | Stockpiles | -.-- | 0.585 | -.-- | 0.293 | -.-- | 0.044 |
| 15 | Central Baghouse Stack | 0.005 | 0.002 | 0.001 | < 0.001 | < 0.001 | < 0.001 |
| 16 | Loading Fugitives | 1.277 | 0.638 | 0.354 | 0.177 | 0.061 | 0.030 |
| 14 | Cement Weigh Hopper | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| 12 | Cement Silo | 0.036 | 0.018 | 0.013 | 0.006 | 0.002 | 0.001 |
| 13 | | | | | | | |
| 13 | Supplement Silo | 0.049 | 0.024 | 0.027 | 0.013 | 0.005 | 0.002 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

References

The purpose of this worksheet is to provide information regarding the source of emission factors and capture efficiencies that were used throughout this workbook. Emission Factors are in units of pound (lb) of pollutant per ton of material (see footnote "a" from AP-42 Ch. 11.12 Table 11.12-2) unless specified otherwise.

Concrete Composition

The default composition of concrete is from AP-42 Ch. 11.12 Concrete Batching. Footnote "a" from AP-42 Ch. 11.12 Table 11.12-2

Material Handling - Sand and Aggregate Transfer Points

The emission factors are from AP-42 Ch. 11.12 Table 11.12-2. The PM_{2.5} emission factors are based on a ratio of the aerodynamic particle size multipliers (k multiplier) represented in Aggregate Handling and Storage Piles AP-42 Ch. 13.2.4. The emission factors for PM and PM₁₀ listed in Ch. 11.12 for material transfer points are derived using the Aggregate Handling and Storage Piles AP-42 Ch. 13.2.4 equation. See AP-42 Ch. 11.12 Table 11.12-2 footnote "b".

Raw Material Stockpile Emissions

Emission Factors for the stockpiles have the following units: lb of pollutant per acre per day. The PM active and inactive emission factors are from "Cowherd, Jr., C. Development Of Emission Factors For Fugitive Dust Sources. EPA document Number. EPA-450/3-74-037. Research Triangle Park: U. S. Environmental Protection, 1974". PM₁₀ is estimated as 50% of PM based on the "k" factors listed in Aggregate Handling and Storage Piles AP-42 Ch. 13.2.4. The PM_{2.5} factor is derived from a ratio listed in the Background Document for Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Dust Emission Factors (Ch. 13.2) and "k" factors listed in Aggregate Handling and Storage Piles AP-42 Ch. 13.2.4.

Material Silos

The emission factors are from AP-42 Ch. 11.12 Table 11.12-2. Emission factor units are lb of pollutant per ton of material. The emission factor for PM_{2.5} was assumed to be 17.1% of PM₁₀. The value of 17.1% represents the percentage of PM₁₀ that is PM_{2.5} according to the worst case loading emission factors for a truck mix operation. The PM_{2.5} factors listed in the AP-42 documents for truck and mixer loading are based on lbPM_{2.5} per ton cement and cement supplement (see Loading Emission Rates). The worst case percentage of PM_{2.5} in PM₁₀ from the EPA loading factors is 17.1%.

Cement/Supplement Weigh Hopper Emissions

Emission factors are not quantified for this potential emission point. Since an emission factor was not quantified there are three preferred approaches: assume the emissions negligible if it is vented to another device meeting BACT; treat it as a material drop point and apply a control efficiency; and the outlet grain loading method. The control efficiency method is used in conjunction with the Aggregate Handling and Storage Piles AP-42 Ch. 13.2.4 equation to estimate emissions. The same wind speed used to develop the aggregate drop point emission factors listed in AP-42 Ch. 11.12 Table 11.12-2 was used in the Ch.13 Equation. The lowest acceptable moisture content of 0.25% was assumed.

Loading Emission Rates

PM emission factor units are lb of pollutant per ton of cement and cement supplement. Emission factors (PM & PM₁₀) are from AP-42 Ch. 11.12 Table 11.12-2. The emission factors for PM_{2.5} are located in AP-42 Ch. 11.12 Background Document Table 18.6. The default emissions captured by the suction shroud is the average listed in AP-42 Ch 11.12 Background Document Table 17.1 and Table 17.2.

| |
|--------------------------|
| SECTION 6 TABLE 2 |
|--------------------------|

Texas Commission on Environmental Quality
Table 2
Material Balance

This material balance table is used to quantify possible emissions of air contaminants and special emphasis should be placed on potential air contaminants, for example: If feed contains sulfur, show distribution to all products. Please relate each material (or group of materials) listed to its respective location in the process flow diagram by assigning emission point numbers (taken from the flow diagram) to each material.

| List every material involved in each of the following groups | Emission Point No. from Flow Diagram | Process Rate ¹ Check appropriate column at right to indicate process rate method. | Measurement | Estimation | Calculation |
|--|--------------------------------------|---|-------------|------------|-------------|
| Raw Materials - Input | | Rock - 139.9 ton/hr Sand - 107.1 ton/hr Cement - 491 ton/hr Supplement - 5.5 ton/hr | | X | |
| Fuels - Input | | | | | |
| Products and By-Products - Output | | Concrete-150 cubic yards/hr | | X | |
| Solid Wastes - Output | | | | | |
| Liquid Wastes - Output | | | | | |
| Airborne Waste (Solid) - Output | | | | | |
| Airborne Wastes (Gaseous) - Output | | | | | |

¹ Specify the process rate of the facility using conventional engineering units (e.g., bbl/d, lb/yr, SCFM), and indicate the units next to each number. Standard Conditions: are 68°F 14.7 psia (30 Texas Administrative Code, Section 101.1(99)).

SECTION 7 TABLE 11



Texas Commission on Environmental Quality

Table 11
Fabric Filters

Tables, checklists, and guidance documents pertaining to air quality permits are available from the Texas Commission on Environmental Quality (TCEQ) Air Permits Division (APD) Web site at www.tnrc.state.tx.us/permitting/airperm.

| | | | | |
|--|--|-----------------------------|---------------------------------------|-----------------------|
| 1. Emission Point Number and name (from Process Flow Diagram): EP-12 | | | | |
| 2. Manufacturer and model number (if available): C&W Manufacturing, CP-305 | | | | |
| 3. Name of source(s) or equipment being controlled: Cement Silo Cartridge Vent Filter | | | | |
| 4. Type of particulate controlled: Particulate Matter | | | | |
| 5. GAS STREAM CHARACTERISTICS | | | | |
| Design Maximum Flow Rate (acfm) | Average Expected Flow Rate (acfm) | Gas Stream Temperature (°F) | Particulate Grain Loading (grain/scf) | |
| 2000 | 2000 | Ambient | Inlet: | Outlet: 0.01 |
| Pressure Drop (inches of H ₂ O) | Water Vapor Content of Effluent Stream (lb water/lb dry air) | | Fan Requirements | |
| | | | hp: | ft ³ /min: |
| 6. PARTICULATE DISTRIBUTION (By Weight) | | | | |
| Micron Range | Inlet (Percentage) | | Outlet (Percentage) | |
| 0.0-0.5 | | | | |
| 0.5-1.0 | | | | |
| 1.0-5.0 | | | | |
| 5-10 | | | | |
| 10-20 | | | | |
| over 20 | | | | |
| 7. FILTER CHARACTERISTICS | | | | |
| Filtering Velocity (acfm/ft ² of Cloth) | Bag Diameter (inches) | Bag Length (feet) | Total Number of Bags | |
| | 8 | 3.25 | 12 | |
| 8. Bag rows will be: <input type="checkbox"/> Staggered <input checked="" type="checkbox"/> Straight | | | | |
| 9. Will walkways be provided between banks of bags?: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | |
| 10. Filtering material: Spun Bonded Polyester | | | | |
| 11. Describe bag cleaning method and cycle.: Pulse Jet | | | | |
| 12. Capital installed cost \$ \$6,000.00 Annual operating cost \$ \$1,000.00 | | | | |

Note: Attach the details regarding the principle of operation and an assembly drawing (front and top view) of the abatement device drawn to scale clearly showing the design, size and shape.

If the device has bypasses, safety valves, etc., include in the drawing and specify when such bypasses are to be used and under what conditions.



Texas Commission on Environmental Quality

Table 11
Fabric Filters

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| | | | | |
|--|--|-----------------------------|---------------------------------------|-----------------------|
| 1. Emission Point Number and name (from Process Flow Diagram): EP-13 | | | | |
| 2. Manufacturer and model number (if available): WAM, SILOTOP R01 | | | | |
| 3. Name of source(s) or equipment being controlled: Fly Ash Silo Cartridge Vent Filter | | | | |
| 4. Type of particulate controlled: Particulate Matter | | | | |
| 5. GAS STREAM CHARACTERISTICS | | | | |
| Design Maximum Flow Rate (acfm) | Average Expected Flow Rate (acfm) | Gas Stream Temperature (°F) | Particulate Grain Loading (grain/scf) | |
| 1500 | 1500 | Ambient | Inlet: 30 | Outlet: 0.01 |
| Pressure Drop (inches of H ₂ O) | Water Vapor Content of Effluent Stream (lb water/lb dry air) | | Fan Requirements | |
| 8 | | | hp: | ft ³ /min: |
| 6. PARTICULATE DISTRIBUTION (By Weight) | | | | |
| Micron Range | | Inlet (Percentage) | | Outlet (Percentage) |
| 0.0-0.5 | | | | |
| 0.5-1.0 | | | | |
| 1.0-5.0 | | | | |
| 5-10 | | | | |
| 10-20 | | | | |
| over 20 | | | | |
| 7. FILTER CHARACTERISTICS | | | | |
| Filtering Velocity (acfm/ft ² of Cloth) | Bag Diameter (inches) | Bag Length (feet) | Total Number of Bags | |
| | 16.7 | 3 | 7 | |
| 8. Bag rows will be: <input type="checkbox"/> Staggered <input checked="" type="checkbox"/> Straight | | | | |
| 9. Will walkways be provided between banks of bags?: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | |
| 10. Filtering material: 8 oz. Spun Bonded Polyester | | | | |
| 11. Describe bag cleaning method and cycle.: Pulse Jet | | | | |
| 12. Capital installed cost \$ \$6,000.00 Annual operating cost \$ \$1,000.00 | | | | |

Note: Attach the details regarding the principle of operation and an assembly drawing (front and top view) of the abatement device drawn to scale clearly showing the design, size and shape.

If the device has bypasses, safety valves, etc., include in the drawing and specify when such bypasses are to be used and under what conditions.



Texas Commission on Environmental Quality

Table 11
Fabric Filters

Tables, checklists, and guidance documents pertaining to air quality permits are available from the Texas Commission on Environmental Quality (TCEQ) Air Permits Division (APD) Web site at www.tnrc.state.tx.us/permitting/airperm.

| | | | | |
|--|--|-----------------------------|---------------------------------------|---------------------------|
| 1. Emission Point Number and name (from Process Flow Diagram): EP-14 | | | | |
| 2. Manufacturer and model number (if available): WAM FCIJO3 | | | | |
| 3. Name of source(s) or equipment being controlled: Cement Batcher Vent | | | | |
| 4. Type of particulate controlled: Particulate Matter | | | | |
| 5. GAS STREAM CHARACTERISTICS | | | | |
| Design Maximum Flow Rate (acfm) | Average Expected Flow Rate (acfm) | Gas Stream Temperature (°F) | Particulate Grain Loading (grain/scf) | |
| 150 | 150 | Ambient | Inlet: 30 | Outlet: .01 |
| Pressure Drop (inches of H ₂ O) | Water Vapor Content of Effluent Stream (lb water/lb dry air) | | Fan Requirements | |
| .375 | | | hp: N/A | ft ³ /min: N/A |
| 6. PARTICULATE DISTRIBUTION (By Weight) | | | | |
| Micron Range | | Inlet (Percentage) | | Outlet (Percentage) |
| 0.0-0.5 | | | | |
| 0.5-1.0 | | | | |
| 1.0-5.0 | | | | |
| 5-10 | | | | |
| 10-20 | | | | |
| over 20 | | | | |
| 7. FILTER CHARACTERISTICS | | | | |
| Filtering Velocity (acfm/ft ² of Cloth) | Bag Diameter (inches) | Bag Length (feet) | Total Number of Bags | |
| 6 | 5.25 | 1.66 | 3 | |
| 8. Bag rows will be: <input type="checkbox"/> Staggered <input type="checkbox"/> Straight | | | | |
| 9. Will walkways be provided between banks of bags?: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | |
| 10. Filtering material: Spunbound Polyester, 9 oz per sq. yd. | | | | |
| 11. Describe bag cleaning method and cycle.: Pulse Jet | | | | |
| 12. Capital installed cost \$ \$6,000.00 Annual operating cost \$ \$1,000.00 | | | | |

Note: Attach the details regarding the principle of operation and an assembly drawing (front and top view) of the abatement device drawn to scale clearly showing the design, size and shape.

If the device has bypasses, safety valves, etc., include in the drawing and specify when such bypasses are to be used and under what conditions.



Texas Commission on Environmental Quality

Table 11
Fabric Filters

Tables, checklists, and guidance documents pertaining to air quality permits are available from the Texas Commission on Environmental Quality (TCEQ) Air Permits Division (APD) Web site at www.tnrc.state.tx.us/permitting/airperm.

| | | | | |
|--|--|-----------------------------|---------------------------------------|----------------------------|
| 1. Emission Point Number and name (from Process Flow Diagram): EP-15 | | | | |
| 2. Manufacturer and model number (if available): C & W, Model CP-535C | | | | |
| 3. Name of source(s) or equipment being controlled: Baghouse Filter for Concrete Batch Plant | | | | |
| 4. Type of particulate controlled: Particulate Matter | | | | |
| 5. GAS STREAM CHARACTERISTICS | | | | |
| Design Maximum Flow Rate (acfm) | Average Expected Flow Rate (acfm) | Gas Stream Temperature (°F) | Particulate Grain Loading (grain/scf) | |
| 5000 | 5000 | Ambient | Inlet: | Outlet: |
| Pressure Drop (inches of H ₂ O) | Water Vapor Content of Effluent Stream (lb water/lb dry air) | | Fan Requirements | |
| | | | hp: 10 | ft ³ /min: 5000 |
| 6. PARTICULATE DISTRIBUTION (By Weight) | | | | |
| Micron Range | Inlet (Percentage) | | Outlet (Percentage) | |
| 0.0-0.5 | | | | |
| 0.5-1.0 | | | | |
| 1.0-5.0 | | | | |
| 5-10 | | | | |
| 10-20 | | | | |
| over 20 | | | | |
| 7. FILTER CHARACTERISTICS | | | | |
| Filtering Velocity (acfm/ft ² of Cloth) | Bag Diameter (inches) | Bag Length (feet) | Total Number of Bags | |
| 9.35 | 8 | 6.5 | 6 | |
| 8. Bag rows will be: <input type="checkbox"/> Staggered <input type="checkbox"/> Straight | | | | |
| 9. Will walkways be provided between banks of bags?: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | |
| 10. Filtering material: 100% Polyester | | | | |
| 11. Describe bag cleaning method and cycle.: Pulse Jet | | | | |
| 12. Capital installed cost \$ \$25,000.00 Annual operating cost \$ \$1,000.00 | | | | |

Note: Attach the details regarding the principle of operation and an assembly drawing (front and top view) of the abatement device drawn to scale clearly showing the design, size and shape.

If the device has bypasses, safety valves, etc., include in the drawing and specify when such bypasses are to be used and under what conditions.