

Project Manual Contop & Old Reverb Asset Recovery

**Texas Custodial Trust c/o Project Navigator, Ltd.
Decontamination and Demolition of the former Asarco Smelter
in El Paso, Texas**

October 12, 2010

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Project Navigator, Ltd.

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Project No. 0118148

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Decontamination and Demolition of the former Asarco
Smelter in El Paso, Texas



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LIST OF ACRONYMS

| | |
|--------|-----------------------------------------------------------|
| ACM | Asbestos Containing Material |
| ANSI | American National Standard Institute |
| AST | Aboveground Storage Tank |
| ASTM | ASTM International |
| BDL | Below Detection Limit |
| C&D | Construction and Demolition |
| CM | Construction Manager |
| D&D | Decontamination and Demolition |
| EMR | Experience Modification Rating |
| ERM | Environmental Resources Management |
| GFCI | Ground Fault Circuit Interrupter |
| HASP | Health and Safety Plan |
| HEPA | High Efficiency Particulate Air |
| JHA | Job Hazard Analysis |
| LCP | Lead Containing Paint |
| TCEQ | Texas Commission on Environmental Quality |
| MSDS | Material Safety Data Sheet |
| NECA | National Electrical Contractors Association |
| NEMA | National Electrical Manufacturers Association |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NIOSH | National Institute for Occupational Safety and Health |
| ODS | Ozone-depleting Substances |
| OSHA | Occupational Safety and Health Administration |
| PACM | Potential ACM |
| PCB | Polychlorinated Biphenyl |
| PCM | Phase Contrast Microscopy |
| PEL | Permissible Exposure Limit |
| PPE | Personal Protective Equipment |
| RFCI | Resilient Floor Covering Institute |
| RFP | Request for Proposal |
| SPCC | Spill Prevention, Control, and Countermeasures |
| SWP3 | Stormwater Pollution Prevention Plan |
| TEM | Transmission Electron Microscopy |
| TSI | Thermal System Insulation |
| TWA | Time-Weighted Average |
| UL | Underwriters Laboratories, Inc. |
| USDOT | United States Department of Transportation |

INTRODUCTION

On behalf of Texas Custodial Trust (the "Trust"), Environmental Resources Management-Southwest, Inc. (ERM) is performing decontamination and demolition services to support asset recovery of the Contop and Old Reverb at the former Asarco Smelter site (herein after referenced as the "Site") in El Paso, Texas. The purposes of this Project Manual are to:

- Describe a Scope of Work and provide specifications for the Decontamination and Demolition (D&D) of the Site to support asset recovery of the Continuous Top Operations Furnace (Contop) and Old Reverbatory Furnace (Reverb);
- Describe Safety and Compliance requirements for the Work; and
- Request pricing and provide commercial terms for the Work. ERM will execute a Contract with the selected Contractor.

For the Scope of Work described in this Project Manual:

- ERM will provide Construction Management services, and serve as The Trust's Prime Contractor. For the purpose of this project, Project Manual, and *Contract*, ERM will be known as the Construction Manager (CM). ERM's contact information is below.
- The firm selected to execute the Scope of Work under contract to ERM will be known as the Contractor. All sections herein are applicable to the Contractor.
- The Contractor may hire Subcontractors in accordance with the requirements described herein.

ERM's Contact Information

| | | | |
|--------------------|-------------------------------|-------------|--------------------------------------------|
| Jeffery L. Bauguss | Partner-in-Charge | Houston, TX | (281) 600-1232 jeff.bauguss@erm.com |
| Adrian Velazquez | Senior Construction Manager | El Paso, TX | (484) 319-8548 adrian.velazquez@erm.com |
| Mike Casbon | Senior Program Safety Manager | El Paso, TX | (224) 542-0954 mike.casbon@erm.com |
| Amy McDonald | Project Manager | Houston, TX | (281) 600-1070 amy.mcdonald@erm.com |

DESCRIPTION OF WORK

The site is located at 2301 W. Paisano Drive in El Paso, Texas. Figure 1-1 provides a site map showing the building locations and other structures. The demolition work described herein is intended solely to support the safe and efficient recovery of the assets in the Contop and Old Reverb furnaces.

Description of Site When Contractor Arrives

The Site consists of two contiguous parcels of land. It is bounded on all sides by railroad track and West Paisano Drive is located south of the site. Two entrances

currently provide vehicle access to the site and include the Main Entrance and the Truck Entrance. Access by way of the Main Entrance requires vehicles to pass under a railroad bridge and access by way of the Truck Entrance requires vehicles to cross a main rail line. Onsite rail services were formerly provided by the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) Railroads. Rail service to the site was terminated in 2008, but nearby tracks are still active.

The primary structures on the site include an ore unloading building, ore bedding building, ore processing equipment, two ore smelting furnaces, converter building, air pollution control devices, two acid plants, an electrical powerhouse and substations, oxygen plant, maintenance buildings and support structures, several office buildings, bath house, cafeteria, aboveground storage tanks (ASTs), multiple railroad tracks, tank car unloading rack, and various other support buildings and storage areas. The site is serviced by limited utilities including: electric, water, gas, sanitary sewer, stormwater system, and telephone. All utility services may not be available in the future.

1.1.2

Summary of Scope of Work

The Contractor shall furnish all labor, materials, equipment, tools, services, and incidentals to complete all Work required by this Project Manual. The limits of the asbestos abatement and demolition work area are depicted in Figure 1-1 and further described as follows:

- *Southern limit of abatement and demolition work area* – to the southern limit of the Reveratory (Reverb) Furnace Process System (including all associated process equipment and structures) and to the intersections of the western and eastern limits;
- *Western limit of abatement and demolition work area* – to column line M, in alignment with columns M-2.1 and M-2.9, and to the intersections of the southern and northern limits;
- *Northern limit of abatement and demolition work area* – to column line 1.3(including North Tunnel Area) of the Contop material processing and storage equipment structures, and to the intersections of the western and eastern limits; and
- *Eastern limit of abatement and demolition work area* – to the western exterior column line B of the Converter Building, with exceptions. Equipment, piping, hangers and other appurtenances that are attached to or protrude from the western wall of the Converter Building are to be demolished without disturbing the Converter Building columns and siding and/or asbestos containing materials. In addition, the section of the Contop Holding Furnace that protrudes through the western wall of the Converter Building, including appurtenances, is to be demolished to grade.

The Scope of Work includes, but is not limited to, implementing the following:

- Abatement of Asbestos Containing Material (ACM) such that site conditions are consistent with the section below describing the site conditions when

work is completed. Listed below are the buildings and equipment that have been identified in the Asbestos Survey Report included in Appendix A as requiring ACM abatement in portions of the plant included in this scope of work. Note that the Asbestos Survey Report also includes the Converter Building, which is not part of this scope of work.

- Reverb Section (office area floor tile)
- Calcine Highline (metal panels)
- Rinsing of buildings and associated components prior to demolition. Wash water is to be captured in sumps in the vicinity of each facility being washed, and a vacuum truck will be used to extract the wash water and transport the water to one of two 750,000 gallon tanks located near the RCC.
- Removal, packaging, marking, labeling, transportation and storage on-site (at a location to be identified by the Trust) of all Universal Wastes including, but not limited to, PCB ballasts, fluorescent light bulbs, high-intensity discharge bulbs, batteries, mercury containing devices.
- Rig, remove, transport and store onsite the fan motors located between Contop and Old Reverb that have been designated by the Trust to be salvaged. The Trust may request that salvage equipment and/or materials be loaded directly on to transport vehicles (provided by others) in lieu of onsite storage.
- Demolition of the Calcine Highline Structure, Reverb Furnace Process System and the Contop Furnace Process System. All demolition shall be to grade or top-of-slab as indicated in the work description and attached figure. The intent of this scope of work is to gain access to the assets within the Contop and Reverb by demolishing all process structures, buildings, utilities, and associated structures within the defined limits of demolition (See Figure 1-1), with noted exceptions. Process systems, building structures and utilities include, but are not limited to, process equipment, buildings, facilities, associated equipment and appurtenances as generally described and listed below:
 - Calcine Highline Structure - including roofs, roof trusses, structural steel, walls, floors, rail tracks, hoppers and material conveyance systems, utilities and process lines(electric, gas, steam, etc.), lighting, ventilation ductwork, debris, trestle and trestle piers to grade. The old Zinc Furnace foundations are not to be removed;
 - Reverberatory Furnace Process System - including roofs, roof trusses, structural steel and supports, platforms and decks, stairways, walls, floors, furnace (refractory, hangers, columns, buckstays, etc.), waste heat boiler and uptake system (tubes, steam drums, hoist dampers, refractory, steel shell, structural steel, piping, insulation, etc.), hoppers, conveyors and material conveyance systems, silos, tanks, utilities and process lines(electric, gas, steam, etc.), electrical systems (transformers, switchgear, breakers, motor control centers, etc.), lighting, ventilation systems and ductwork, pre-heaters, fans, overhead flue ductwork and supports, pollution control devices (bag houses and/or electrostatic

precipitators), buildings, debris and all appurtenances to grade, without removing on-grade concrete slabs. Concrete piers and pump pads that protrude above grade and/or concrete slab-on-grade shall be removed. Refractory brick from the top of the furnace is to be removed and transported to the Bedding Building where it will be neatly stored for later disposal by the Trust. The contractor is responsible for placing the brick in the Bedding Building in an area designated by the Trust.

- Contop Furnace Process System (Contop) - including roofs, roof beams/trusses, structural steel and supports, platforms and decks, stairways, walls, floors, furnace (refractory, hangers, columns, cyclones, etc.), Converter Spray Chamber, air compressors, waste heat boilers and uptake system (tubes, steam drums, hoist dampers, refractory, steel shell, structural steel, piping, insulation, etc.), hoppers, conveyors and material conveyance systems, silos, tanks, utilities and process lines (electric, gas, steam, etc.), electrical systems (transformers, switchgear, breakers, motor control centers, etc.), lighting, ventilation systems and ductwork, pre-heaters, dryers, fans, overhead flue ductwork and supports, pollution control devices (excluding the Dryer Bag Houses, Converter Cottrell and Reverb Cottrell), buildings, debris and all appurtenances to grade, without removing on-grade concrete slabs or foundations. All equipment and structures contained in the Contop/Reverb Slag Tunnel, except equipment and structures associated with sumps, are to be demolished. Concrete piers and pump pads that protrude above grade and/or concrete slab-on-grade shall be removed. Refractory brick from the top of the furnace is to be removed and transported to the Bedding building where it will be neatly stored for later disposal by the Trust. The contractor is responsible for placing the brick in the bedding building in an area designated by the Trust.

Notes: 1.) All steel scrap and Copper wire is to the account of the Contractor; and, 2.) With the exception of copper wire, demolition of the Old Reverb and Contop Furnaces and Calcine Highline structure DOES NOT include retention of non-ferrous metals or removal of the former molten slag, copper matte and other metals within the furnace and beneath the furnace floors.

- Store all construction debris from demolition operations, including refractory, salvage equipment and materials and scrap on-site following waste management procedures described in the Waste Management Plan (Appendix B).
- With the exception of copper wire, all non-ferrous scrap and refractory shall remain the property of the Trust and will be properly segregated stored onsite in the Bedding Building material bays or onsite elsewhere as otherwise directed by the Trust.
- Sumps, pits and other voids are to be kept free of accumulated liquids (water from dust control measures, rinsate, etc). Accumulated liquids are to be pumped and/or otherwise collected and transported to designated holding tanks onsite. No liquids are to be freely discharged to the environment.

Thanksgiving

November 25 and 26, 2010

Christmas Shutdown

December 23, 2010 through January 3, 2011

Variances to these hours require ERM's approval.

Because this facility has not been fully operational for some time, potential site hazards may exist such as weak cat walks, ladders and stairs, unstable roofs, weak supports, and other unknown, unmarked hazards. The Contractor may also encounter liquids or solid residuals in pipes, tanks and buildings; flammables, fuel in pipes, tanks and buildings, fluorescent light tubes, smoke detectors, compressed gas cylinders, mercury-containing switches, miscellaneous drums, and polychlorinated biphenyl (PCB)-containing electrical equipment. The Contractor:

- May encounter biological hazards such as microbial growth, *Histoplasma capsulatum* (a fungus commonly found in bird droppings or bat excrement), snakes, spiders and other animals during Work implementation. Contractor is responsible to take all necessary precautions, and comply with all applicable laws and regulations to protect the health and safety of the workers and the environment.
- May encounter lead-affected dust and lead-based painted surfaces during Work implementation. Contractor is then responsible to take all necessary precautions, and comply with all applicable laws and regulations to protect the health and safety of the workers and the environment.
- A Structural Observation Survey Report of the Contop Furnace, Reverb Furnace and the Calcine Highline structures was completed. The observation report is located in Appendix D. The Contractor is responsible for performing the competent person structural survey as required by 20 CFR 1926.850(a).

2.0 SAFETY AND COMPLIANCE REQUIREMENTS

All site workers will receive site-specific safety training and must be in compliance with the Trust's drug and alcohol policy. All site workers must be able to communicate using the English language or make arrangements for effective communication with personnel for whom English *is not* the primary language.

2.1 STATEMENT OF SAFETY OBJECTIVE

A safe and injury-free work environment is ERM's and the Trust's primary objective for this project. Accordingly, all work will be executed in accordance with ERM's Site-Specific Health and Safety Plan (HASP), ERM's health and safety requirements, and all Federal, State, and local safety rules and regulations. A copy of ERM's Site-Specific HASP is provided as a separate document.

2.2 PERMIT REQUIREMENTS

Contractor will apply for and pay the cost of a Demolition Permit from the City of El Paso and/or State of Texas.

The Contractor will sign, submit and pay the cost of a Texas Commission on Environmental Quality (TCEQ) 10-Day Renovation/Demolition Notification Form. Submit this form to the TCEQ following review by the Owner's Representative.

Contractor will submit and pay the cost of any federal, state, or local notifications. Following ERM's review, the form will be submitted to the TCEQ.

Contractor will obtain and pay the cost of all off-site permits for haulage and reclamation.

Contractor will use permitted and licensed haulers for transportation of materials for reclamation.

All other applicable approvals and permits will be obtained by Contractor at Contractor's sole expense. Contractor will pay any penalty imposed as a result of Contractor's activities or failure to comply with applicable federal, state or local regulations and rules and permits. Contractor will not be liable for penalties imposed as a result of conditions existing prior to executing the Contract between Contractor and ERM.

2.3 SITE SECURITY

The Trust will have personnel for entry control at the site 24 hours a day, 7 days a week during structural demolition. The Contractor is responsible for protecting its work areas, scrap, equipment and assets, materials, work and

storage areas and all over valuables that it has at the job site. Additionally, the Contractor shall secure and mark (signage) the job site to keep unauthorized people out of the construction area.

2.4 RESPONSIBILITY FOR DAMAGE

Neither ERM nor ERM's client (the Trust) assume any responsibility whatsoever for the security of any of Contractor's equipment or property from Contract inception to final acceptance. Contractor is fully responsible to provide and fund the security of his property and his facilities for the entire duration of the Contract.

Contractor shall restore roads damaged as a result of construction activities to a condition that is at least equal to that which was found prior to beginning of the Work as determined by ERM. Contractor's use of existing roads will be allowed following approval of such use by ERM.

Contractor is responsible for protecting structures, facilities, equipment not designated for demolition. Contractor will be responsible for damage to structures, facilities, equipment not designated for demolition.

2.5 SAFETY AND COMPLIANCE WORK ITEMS TO BE IMPLEMENTED BY CONTRACTOR DURING PROJECT

Contractor will furnish all labor, materials and equipment to perform all work required for the prevention of environmental pollution in conformance with applicable federal, state and local laws and regulations, during and as the result of the Work described in this Project Manual. For the purpose of this Project Manual, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. Control of environmental pollution requires consideration by Contractor of air, water and land, and involves management of noise and solid and hazardous or potentially hazardous wastes, as well as other potential pollutants.

Under no circumstances shall uncontrolled runoff be permitted (See details in the Construction Stormwater Pollution Prevention Plan).

2.5.1 ERM's Site-Specific Health and Safety Plan

Before implementing the HASP, Contractor will:

- Submit to ERM the names and contact information for the Contractor's health and safety and management personnel; and
- Post emergency phone numbers (e.g., Fire, Police, Ambulance) in a conspicuous location at the facility, and advise site workers of the location.

2.5.2

Behavioral Based Safety System and Implementation

The work will be completed in accordance with the minimum standards of ERM's behavioral based safety system. The demolition-related contractor may use their own behavior-based safety program upon review and approval of the ERM CM and FSO, or the demo-related contractors will be required to follow the ERM behavior-based safety program. For planning purposes, the requirements associated with these systems are described briefly below.

Prior to the start of each work day, each worker will complete a Personal Safety Contract (PSC). By completing their PSCs each day, site workers agree to make a daily commitment to their own safety and the safety of those around them. The PSC helps workers think about proper work techniques, appropriate PPE, and ambient site conditions immediately prior to beginning a work task. The PSC for a particular task is based on the Job Hazard Analysis (JHA) developed for that task. All PSCs must be turned in to the FSO at the end of the work day or shift

In partial fulfillment of BBS requirements, Contractor will:

- Provide documentation of ERM or ERM-approved Contractor BBS training for both field personnel and managers, or else complete ERM or ERM-approved Contractor training prior to mobilization;
- Complete site specific training for all personnel who may on a regular basis visit or complete short duration activities at the site.
- Engage managers and employees in the development of JHAs for each job task prior to mobilization, and submit JHAs to ERM for quality review. If a Contractor performs a task whose hazards were not identified in the site-specific HASP, a JHA will have to be completed by the Contractor prior to the start of such a task and appended to the Site-Specific HASP. The JHA must be submitted to the ERM CM and SSO for review prior to task execution;
- Each worker must complete a Personal Safety Contract (PSC) prior to the start of work each day and turn in the completed PSCs to the FSO at the end of the work day or shift;
- Complete incident and near loss reporting for all actual/potential incidents/losses involving personnel, property, regulatory violations, or environmental releases, including root cause analysis; and
- Complete review verifying the implementation of solutions proposed to address on-site safety concerns.

2.5.3

Compliance with Applicable Laws, Regulations, and Permits

Contractor and Subcontractors shall comply with all applicable current Federal, State and local governmental constraints affecting the work described in this *Project Manual*.

3.0 *GENERAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS*

3.1 *GENERAL REQUIREMENTS*

3.1.1 *Project Work Plans and Decontamination and Demolition Activity Plan*

A Project Work Plan shall be developed, based on the Contractor's proposal, submitted for review, and approval that describes the methods and procedures to perform the decontamination and demolition Work. The project work plan shall be submitted and approved by ERM and The Trust two (2) weeks prior to site mobilization. Detail must, at a minimum, include proposed methods for decontamination and demolition, proposed manpower, proposed equipment, projected timing, plan for coordinating activities when more than one work group will be in an area and JHAs for proposed activities that do not have an existing JHA (existing JHAs are included in the Site-Specific HASP).

3.1.2 *Project Meetings*

Pre-Construction Safety Meetings - Prior to the beginning of on-site work, the, Contractor Superintendent, Contractor Site Safety Officer and other key team members (as determined by ERM, The Trust and the Contractor) will attend one pre-construction safety meeting at the site (to be held the day before work activities begin) conducted by ERM that addresses the following issues:

- Work authorization expectations;
- Safety and health hazards;
- Personal protective measures;
- Respiratory protection program;
- Specific asbestos abatement practices and procedures;
- Emergency procedures;
- Asbestos and non-asbestos waste handling practices and procedures; and
- Internal administrative and inspection procedures.

Daily Safety Meetings - Prior to work each day and again at mid-day (e.g., 12:30 PM), all on-site workers will attend tailgate safety meetings conducted by the Contractor that address the following issues:

- Task JSAs;
- Recognized hazards and mitigation steps;
- Previous results from BBS tool use (e.g., feedback sessions); and
- PSCs.

Regular Progress Meetings - Progress meetings will be held on a daily basis with detailed meetings completed at least weekly. For daily meetings, which will likely be conducted at the same time as the safety meetings, the Contractor

project manager or his designee will provide the ERM CM information regarding:

- Anticipated daily activities;
- Schedule items affecting job activities;
- Delivery issues, delays, or other relevant critical data; and
- All pertinent or requested information regarding project activities.

For weekly meetings, the Contractor will provide the ERM CM:

- *Weekly Progress Meetings* by reviewing previous meeting minutes; and
- *Weekly Progress Meeting* agendas.

The *Weekly Progress Meeting* will be held in ERM's field office. It is anticipated the following personnel will attend the weekly meeting regularly:

- ERM's CM representative;
- ERM's Construction Safety Manager;
- Contractor's Project Manager;
- Contractor's Site Superintendent;
- Contractor's Health and Safety Officer; and
- Subcontractors, as appropriate.

A conceptual agenda is as follows:

- Review Work Plan;
- Review of Hazard Task Assessment Plans;
- Review Project Schedule;
- Review Safety and Health performance;
- Review and approval of minutes of previous meeting;
- Review of work progress since previous meeting;
- Field observations, problems, conflicts;
- Problems impeding the Project Schedule;
- Measures and procedures to maintain Project Schedule;
- Revisions to the Project Schedule;
- Progress and schedule during succeeding work period;
- Coordination of schedules;
- Pending changes and team substitutions;
- Review proposed changes for:
 - Effect on the Project Schedule and on the completion date;

- Effect on other contracts; and
- Other business.

3.1.3

Project Submittals

This section describes and identifies the submittal requirements of the project.

- The list provided in this Section is solely to aid the Contractor in preparation of submittals.
- The inadvertent omission of any submittal requirements from this section and in referenced sections and plans does not relieve the Contractor of the Contractor's obligation to provide each such submittal.

The above submittals are in addition to contractual submittals required by the Contractor in the Contract.

Submittal Requirements

Submit data specified. ERM reserves the right to request additional data at any time as deemed necessary by ERM. Review and acceptance of the Contractor's submittal by ERM does not relieve the Contractor of the responsibility for construction, workmanship, and installation of materials as specified in the Project Manual.

Submittals Required Prior To Mobilization

Submit the following data to, and obtain approval of, the ERM Construction Manger after execution of a contract for the Work has been completed and prior to initiation of mobilization of Contractor personnel and equipment at the site:

- A Project Work Plan that provides the proposed methods for demolition.
- Staff Records: A complete list of workers assigned to the project, including name and evidence of the ability to legally work in the United States. Certification of each worker's compliance with the ERM Drug and Alcohol policy.
- Worker Training Records:
 - Copies of Contractor's staff Occupational, Safety, and Health Administration (OSHA) 40-hour training certificates (this requirement may not apply for some subcontractor workers).
 - Copies of OSHA refresher documentation (this requirement may not apply for some subcontractor workers)
 - Copies of respirator fit test documentation
 - Copies of lead Awareness documentation
 - Copies of cadmium Awareness documentation
 - Copies of arsenic Awareness documentation

- Copies of fall protection training documentation
- Licenses and Registrations for Contractor's staff, workers and subcontractors, including Resilient Floor Covering Institute (RFCI) certification, as applicable;
- Negative initial asbestos exposure assessment per OSHA requirements for any work performed without the use of respirators;
- OSHA required medical examination results;
- Copy of written respirator program that adheres to 29 CFR 1910.134(b);
- Copy of written lead exposure management program that adheres to 29CFR 1926.62 (*Note Cadmium and Arsenic Management plans may also be required based on contractor sampling data*);
- Certificates of Worker Acknowledgement of Exposure to Asbestos;
- Activity Work Plans (Demolition and Asbestos Abatement);
- Project Schedule;
- Regulatory notification information (e.g., ACM);
- Material Safety Data Sheets (MSDS);
- Fire Prevention and Action Plan;
- Traffic Control Plan;
- Information on proposed shoring methods and protective enclosures; and
- Waste contact information, as described in the Waste Management Plan.

Project Submittals During Site Activities

- Project Schedule Updates;
- Regulatory notification information (e.g., ACM);
- Payment of notification fees included in the 10-day National Emissions Standards for Hazardous Air Pollutants (NESHAP) demolition/ renovation form, as applicable;
- Work Authorization Forms;
- Detailed Task-Specific Work Plans;
- JHAs for all proposed tasks;
- Emergency contact list;
- Material Safety Data Sheets;
- Change Orders; and
- Daily Logs.

RESUBMISSIONS

Revise submittals as required and resubmit as specified for initial submittal. Indicate any changes that have been made other than those requested by the Trust.

ERM may request additional data and information to be submitted by the Contractor during any time of the Contract Period if deemed necessary. Review and acceptance of Contractor's submittals by ERM shall not relieve the Contractor of the responsibility for construction, workmanship and installation of materials as specified under the Contract.

3.1.4 *Project Schedule*

The Contractor will comply with the Schedule Constraints described in this section.

Schedule Updates

The Contractor will provide copies of a current/ updated schedule to ERM during Weekly Progress Meetings or more frequently if warranted. Contractor will maintain the project schedule in electronic format for transmittal to ERM.

The Contractor's schedule information will include all activities scheduled during the previous and upcoming periods. This information will be evaluated and compared to the original planned schedule.

Responsibility for Schedule Compliance

The Contractor is required to complete the project within the Project Schedule included in the Contract to the extent that site conditions do not change. The Contractor agrees that if critical delays arise, and completing the project on-schedule appears unlikely, the Contractor will take the following actions at ERM's direction and at no additional cost to ERM:

- Notify the ERM CM immediately regarding the potential delay verbally;
- Submit to ERM for approval, a verbal and then written statement of the steps Contractor intends to take to remove or arrest the delay to the approved schedule;
- Increase personnel in such quantities and crafts to substantially eliminate, in the ERM's judgment, the backlog of work;
- Increase the amount of equipment sufficiently to substantially eliminate, in the ERM's judgment, the backlog of work; and
- Reschedule activities to achieve the greatest practical accomplishment of activities, and comply with the revised schedule.

Schedule Adjustment

If the Contractor desires to change its operations which affect the approved Project Schedule, Contractor will notify ERM in writing of the proposed schedule changes and their rationale. If ERM approves the changes, Contractor will revise and submit for approval all of the affected portions of the schedule. Approved schedule revisions will not increase compensation to the Contractor. Adjustments may consist of changing portions of the activity sequence and/ or activity durations, division of approved activities, or other adjustments.

If completion of any activity, whether critical or not, falls behind more than 100% of its approved duration (e.g., a 5-day task is 6 days behind), Contractor will submit a schedule adjustment for approval.

The Contract completion time will be adjusted only for causes specified in the Contract. In the event the Contractor requests an extension of any Contract completion date, Contractor shall furnish such justification and supporting evidence as ERM may deem necessary for a determination as to whether Contractor is entitled to an extension of time under the provisions of the Contract. ERM will, after receipt of such justification and supporting evidence, make findings of fact and will advise Contractor in writing thereof. If ERM finds that the Contractor is entitled to any extension of any Contract completion date under the provisions of the Contract, ERM's determination as to the total number of days extension shall be based upon the approved Project Schedule and on all data relevant to the extension. Such data shall be included in the next updating of the Project Schedule.

Contractor acknowledges and agrees that actual delays in activities which, according to the Project Schedule, do not affect any Contract completion date and do not have any effect on the Contract completion date or dates will not be the basis for a change therein.

From time to time it may be necessary for the Contract schedule and/or completion time to be adjusted by ERM to reflect the effects of weather, unavoidable delays on the part of ERM or its representatives, and other unforeseeable conditions which may indicate schedule adjustments and/ or completion time extension. Under such conditions, ERM shall direct the Contractor to reschedule the work and/or Contract completion time to reflect the changed conditions, and the Contractor shall revise Contractor's schedule accordingly. No additional compensation shall be made to the Contractor for such schedule changes except for unavoidable overall Contract time extensions beyond the actual completion of all unaffected work in the Contract, in which case the Contractor shall take all possible action to minimize any time extension and any additional cost to ERM.

Changes initiated by ERM that affect the completion dates of the approved Project Schedule will be the sole grounds for extending (or compressing) said completion dates.

Coordinating Schedules

Where work is to be performed under the Contract concurrently with and/or contingent upon work performed on the same facilities or areas under contracts by others, the Contractor's schedule shall be coordinated through ERM.

3.1.5

On Site Facilities

Desk space within the main office building will be made available to the Contractor for one or two people. However, the contractor must provide periodic maintenance and cleaning of the office area. In addition, some temporary facilities may be required.

Temporary Facilities

The Contractor will provide:

- Potable drinking water facilities on-site suitable to support Contractor's operations, visitors, ERM, and other representatives and meeting all State and local health regulations;
- Temporary sanitary facilities in compliance with all applicable Federal, State and local health and safety laws and regulations and shall service, clean and maintain facilities and enclosures; and
- Decontamination showers/change-houses for workers entering leaving exclusion zones, if necessary (i.e. lead, ACM).

At completion of Work, the Contractor will remove all temporary facilities and contents.

Temporary Utilities

Electrical, water and sewer utilities to the office space within the main office building will be provided by the Trust. Water is supplied to the site by the Trust. All other temporary utilities required by the Contractor's work operations are to be provided at the Contractor's sole expense including repair, maintenance and removal.

The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in providing electric power, heat, fire protection and other utilities necessary for the Contractor's use. All requests must be submitted to the Trust for approval before the Contractor can proceed.

The Contractor shall use qualified tradesmen for installation of temporary services and facilities. Temporary services and facilities shall be located where they will serve the entire project adequately and result in minimum interference with the performance of the work. Services shall be relocated, modified and

extended as required during the course of work so as to accommodate the entire work of the project.

Contractor shall clean and repair damage caused by or to temporary utilities and facilities or due to the use of temporary utilities or facilities.

Temporary Electricity and Lighting

At Contractor's sole expense, Contractor shall provide mobile temporary power generation facilities suitable for power and lighting required by the Contractor including adequate artificial lighting for all areas of work when natural light is not adequate for work. The temporary electric power service and distribution system shall be weatherproof, grounded, of sufficient size, capacity, and power characteristics to accommodate the work during the project period. Contractor shall provide temporary lighting sufficient for safe work and traffic conditions in every work area.

- Contractor will comply with National Electric Code, all current federal, state and local codes and regulations, County Health Department Regulations, and utility company requirements. Temporary power shall comply with applicable National Electrical Manufacturers Association (NEMA), National Electrical Contractors Association (NECA), and Underwriters Laboratories (UL) standards and governing regulations for materials and layout of temporary electric service.
- *Temporary Power* - Contractor will comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service. It is the responsibility of the Contractor to determine the means of providing the utility service. Contractor will furnish service to the abatement work area subpanel with minimum 60 amp, two pole circuit breaker or fused disconnect. Subpanel and disconnect shall be sized and equipped to accommodate electrical equipment required for completion of the abatement work. Circuits of adequate size and proper characteristics for each use will be provided. Wiring should be run overhead, and rise vertically where wiring will be least exposed to damage from construction operations.
- *Voltage Differences* - Contractor will furnish identification warning signs at power outlets which are other than 110 to 120 volt power. Contractor will furnish polarized outlets for plug-in type outlets to prevent insertion of 110 to 120 volt plugs into higher voltage outlets. Dry type transformers will be installed where required to provide voltages necessary for abatement work operations.
- *Ground Fault Protection* - Contractor will equip circuits for any purpose with Ground Fault Circuit Interrupter (GFCI), and will locate GFCIs exterior to abatement work area so that circuits are protected prior to entry to abatement work area. Contractor will furnish circuit breaker type GFCI equipped with test button and reset switch for circuits to be used for any purpose in the abatement work area, exterior, or as otherwise required by national electrical code, OSHA or other authority. Contractor will locate in panel exterior to abatement area.

- *Electrical Power Cords* - Contractor will use only grounded extension cords; and will use UL-listed Type S Hard Service indoor/outdoor cords where exposed to abrasion and traffic. Contractor will use single lengths or use waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas of abatement work.
- *Lamps and Light Fixtures*: Contractor will furnish general service incandescent lamps or fluorescent lamps of wattage indicated or required for adequate illumination as required. Contractor will protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Contractor will furnish vapor tight fixtures in abatement work areas and Decontamination Units. Contractor will furnish exterior fixtures where fixtures are exposed to the weather or moisture.

Temporary Heating, Cooling and Ventilating

Contractor shall provide temporary heating, cooling and ventilating as required to maintain adequate environmental conditions for Contractor's facilities. Portable heaters shall be standard approved units complete with controls, and shall conform to American National Standard Institute (ANSI) A 10.109, "*Safety Requirements for Temporary and Portable Space Heating Devices and Equipment Used in the Construction Industry*".

Contractor will pay all costs of installation, maintenance, operation, fuel consumed, and removal of unused fuel after completion of the Work.

On-Site Storage

- On-site offices, storage and parking areas will be located in areas approved by ERM. No equipment or supplies will be stored on site except those designated for use during Contractor's site activities. Contractor is solely responsible for the proper storage of its material and equipment, including hazardous materials.
- Contractor will transport on-site and stage: solid residue, liquid residuals, fuel, and gear oil from piping, process and storage tanks and equipment at a location designated by ERM with appropriate labels.
- Salvaged materials, all of which are the property of the Contractor, will be removed by Contractor from the site in an efficient, neat, and orderly manner. Such material is not to be sold or auctioned on-site. Salvageable materials removed from the site shall be cleaned and managed in accordance with this *Project Manual* and all applicable regulations and to prevent any nuisance conditions from occurring on roadways during transportation.

Temporary Staging

- Space is available for a temporary staging area for Contractor's use. Staging of equipment by Contractor is not to exceed 45 consecutive calendar days without the approval of ERM.

- Contractor is responsible for all aspects of the temporary staging area including management and modifications made to the staging area, compliance with all federal, state and local rules and regulations, Spill Prevention, Control, and Countermeasure (SPCC) planning and implementation, any releases, and security.
- Contractor is responsible for remediation of any contamination of the temporary staging area caused by the Contractor to the satisfaction of ERM at Contractor's expense.
- Contractor is prohibited from leaving any materials or wastes on-site apart from that being segregated for disposal.

3.1.6 *Utility Coordination*

The Contractor is responsible for verifying that all utilities have been located, isolated, disconnected or protected as required prior to the start of demolition in each area. The Contractor will be responsible for repairing damage to any utilities designated to remain in service.

Natural Gas Service - The Contractor is responsible for verifying that all sources of natural gas have been located, isolated, and disconnected prior to the start of demolition.

Electrical Power - The Contractor is responsible for verifying that all electrical power sources have been located, isolated, and disconnected prior to the start of demolition.

Municipal Water/Well Water - The Contractor is responsible for verifying that all water sources have been located, isolated, and disconnected prior to the start of demolition. Below ground water pipe will be considered general utility piping and is not part of the scope for demolition activities.

Municipal/Septic System Sewer Connections - The Contractor is responsible for verifying that all municipal sewer services have been located, isolated and disconnected prior to the start of demolition.

3.1.7 *Stormwater Control*

The Contractor will take sufficient precautions during performance of work to avoid direct discharges and run-off of potential polluting substances into the soil, water supplies, and surface waters and to prevent erosion of land surface. If such surface water discharges occur, activities will be suspended immediately and corrective measures implemented to bring the surface water discharge into compliance at the Contractor's expense. The Contractor is responsible for all corrective measures. The Contractor will implement the Site Stormwater Pollution Prevention Plan (Appendix C) and will be responsible for maintenance and final disposal of the corrective measures at the site for the project.

In addition, the Contractor will have an action plan and sufficient material stockpile (i.e. silt fencing, soil, etc.) onsite to address sudden erosion or flow issues should they arise.

Contractor is responsible for removing debris, dirt and mud from plant roads resulting from on-site activities or truck traffic going to or originating at the Site. Areas that the Contractor can use for equipment rinse down will be designated by ERM.

3.1.8 *Traffic Control Plan*

The Contractor will conduct work to minimize interference with other on-site activities. The Contractor will not close or obstruct roadways or access to the site without prior approval from ERM. The Contractor will develop and implement a Traffic Control Plan for site activities in accordance with state and local Department of Transportation Standards. The traffic control plan must identify traffic plan patterns on-site and along Paisano Drive. In addition, proposed access points to each portion of the work area must be clearly identified. A main entry point for visitors and trucks must be identified. The Contractor must provide on-site traffic control signs as directed by ERM CM or The Trust. The contractor must supply a flag-man to assist trucks entering/exiting the site at Paisano Drive, if this needed is identified by the ERM CM or The Trust. The contractor will be responsible for providing and maintaining adequate signage and traffic control devices as identified in the Traffic Control Plan and/or the ERM CM or The Trust.

3.1.9 *Waterway Protection*

Navigable water ways are near the site, but work is not anticipated to impact the water ways. If this changes, the Contractor will develop and implement a Waterway Protection Plan designed to mitigate potential waterway environmental, safety, and navigational hazards identified in 33 Code of Federal Regulations (CFR) 153 by using protection measures that are in compliance with state and federal guidance for the Protection of Waterways of the United States. Additionally, if the Contractor becomes aware of any hazards to nearby navigable waterways that contractor shall ensure that state and federal agencies are notified of those threats in accordance with the requirements of 33 CFR 153 subpart B and initiate the methods for removal of this material in accordance with 33 CFR 153 subpart C as applicable. Silt fencing and other erosion control measures will be installed as detailed in the SWP3.

3.1.10 *Dust Control*

The Contractor will use basic means (e.g., water truck/wagon, work area limitations, etc.) to control dust. In the event that basic means and methods are not effective in controlling dust as determined by the ERM CM, additional measures must be implemented at no additional Contract cost. Surface runoff resulting from dust control operations will be contained and managed by the Contractor. Under no circumstances is uncontrolled runoff permitted. This

precaution is separate from the specific requirements for Collection, Removal and On-Site Disposal of Asbestos.

3.1.11 *Noise Control*

The Contractor will make every effort to minimize noise caused by the Contractor's operations, and will comply with applicable requirements including local ordinances. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise level. Equipment will not be allowed to idle more than 10 minutes. The Contractor activities at the site are to be performed in accordance with OSHA standards.

3.1.12 *Fire Protection*

The Contractor will prepare and submit a Fire Prevention and Action Plan. The Contractor will provide readily available and approved fire extinguishers and other appropriate fire protection equipment.

The Contractor is responsible for assuring protection against uncontrollable fires during the performance of all demolition activities, including cutting and burning. Burning of any and all debris at the site is prohibited. Open fires for any reason are prohibited.

3.1.13 *Petroleum Storage*

The Contractor will store fuel and other petroleum-containing substances in appropriate labeled containers with secondary containment. Contractor is responsible for preparing and implementing a SPCC Plan, if required. The threshold where an SPCC Plan is required is when the volume of oil/petroleum-based substances is greater than 1,320 gallons of petroleum containing liquids located onsite. Other requirements or thresholds may also apply and will be the responsibility of the Contractor. Fueling on-site is allowed for off road and demolition construction vehicles only.

3.1.14 *Use of Cranes*

The Contractor must develop and submit a detailed Lift Plan that complies with OSHA Standards. The Lift Plan at a minimum must identify the type of crane, lift chart, rigging plan, crane and rigging inspections and certifications, rigger and operator certifications, and a detailed work plan identifying the lift procedures. The Lift Plan must be submitted to ERM one (1) week prior to commencement of lift. The Lift Plan must be reviewed and approved by ERM and The Trust prior to start of lift.

3.1.15 *Scaffolding, Ladders, and Man-lifts*

The Contractor shall furnish scaffolding, ladders and/or staging as necessary. Scaffolding may be of suspension type or standing type such as metal tube and

coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of scaffolding will comply with applicable OSHA provisions. Fall protection will be required for work at heights 5 feet above ground surface or higher. Metal or wood ladders will not be used inside containments. Ladders will **never** be used as platform to work on.

- Equip rungs of metal ladders with an abrasive non-slip surface;
- Furnish nonskid surfaces on scaffold surfaces subject to foot traffic; and
- Where appropriate and approved in writing by ERM the Contractor may use man-lifts to access areas for abatement and/or dismantling. Only qualified workers may operate man-lifts.

3.1.16 *Project Closeout*

The Contractor will submit to ERM the following submittals within 30 days of project completion.

- The Contractor's daily log;
- The Certificate of Completion;
- Releases and occupancy permits, as applicable;
- Fee payment copies and TCEQ invoices, as appropriate;
- Documentation from disposal and recycling facilities for all materials removed from the site including manifests, weight tickets and records of recycling; and
- Notification and amendment copies, as appropriate.

3.2 *TECHINCAL SPECIFICATIONS*

3.2.1 *Asbestos Abatement*

Asbestos definitions of terms, and regulatory codes and regulations are included in Appendix E for reference.

The project includes the abatement of asbestos-containing materials (ACM) as part of the demolition of the Reverb, Calcine Highline and the Contop.

- The abatement of identified ACM includes abatement of mastic and texture on metal panels. Roofing materials, electrical wiring/insulation and components, gaskets, and mastics are assumed to be ACM.
- The Work for this contract involves the disturbance/removal of identified or assumed ACM. The locations and types of ACM known to be present at the worksite are noted in the asbestos survey report found in Appendix A. If suspect materials are identified, notify the ERM CM about the location and quantity of the material within 24 hours of the discovery.
- The Contractor is responsible for personnel air monitoring in compliance with OSHA requirements.

- The disturbance or dislocation of ACM may cause asbestos fibers to be released into the building’s atmosphere, thereby creating a potential health risk to workers and building occupants. Inform all workers, supervisory personnel, subcontractors and consultants who will be at the job site of: (1) the seriousness of the risk; (2) the need to follow proper work procedures, which are described below; and (3) the need to comply with applicable federal, state, and local regulations.
- The Work consists of:
 - Abatement and removal of ACM prior to demolition of the Reverb, Calcine Highline and the Contop.

The table below includes the locations and estimated quantities of identified asbestos-containing materials that will be impacted by interior or full demolition. The locations and estimated quantities are also included in the asbestos survey report.

TABLE 3-1: Locations and Estimated Quantities of Identified Asbestos Containing Materials

| <i>Material</i> | <i>Location (Area) ¹</i> | <i>Category ²</i> | <i>Estimated Quantity ¹</i> |
|-----------------------------------------------|-------------------------------------|------------------------------|----------------------------------------|
| Calcine Highline | | | |
| Texture on metal panels (“Galbestos”) | Adjacent to Reverb Unit | NF | 3,500 s.f. |
| Reverb | | | |
| Black mastic (associated with brown linoleum) | Office Area | NF | 450 s.f. |

NOTES:

- (1) The quantities and locations listed are estimates only. The Contractor will perform work for all abatement required, regardless of actual quantities.
- (2) Denotes category of material for abatement: F-Friable, NF - Non-Friable
- (3) The Work will be performed on behalf of Project Navigator. ERM will perform Construction Management as the Owner’s Representative. ERM will provide Asbestos Consulting services, including on-site project management and air monitoring, which may be performed by an authorized delegate.
l.f. = linear foot
s.f. = square foot

In addition, unknown quantities of gaskets or electrical wiring and components, as well as roofing materials, may be present. These should be handled as ACM until proven otherwise through sampling and analysis.

3.2.1.1 *Asbestos Area Monitoring*

- Project Navigator has contracted for work area air monitoring through ERM. The Asbestos Consultant (herein after understood to be ERM or their authorized designee) will conduct work area air monitoring both outside and inside the regulated area during the abatement work, and will conduct clearance sampling for each containment.
- Area air sampling will include:

- Outside the Regulated Area or Containment Work Area: The Asbestos Consultant will sample air outside of the work area to verify effectiveness of the Work Area isolation.
- Inside the Regulated Area or Containment Work Area: The Asbestos Consultant will monitor airborne fiber concentrations in the Work Area. The purpose of this air monitoring is to detect airborne fiber concentrations that: (1) may exceed the protection levels provided by the respirators in use; or
(2) may exceed the effectiveness of the Work Area isolation procedures to protect the balance of the building interior or the building exterior from contamination by airborne fibers.
- Perimeter Monitoring: For abatements conducted outside, without containment, the Asbestos Consultant will monitor airborne fiber concentrations around the perimeter of the Work Area, including upwind and downwind samples.
- For abatements conducted using glove-bags with or without critical barriers, the Asbestos Consultant will monitor airborne fiber concentrations.
- Area samples will be collected on 25-mm 0.8 micron MCE filters in standard cassettes at a flow rate between 0.5 and 5 liters per minute. Samples will be collected and analyzed by Phase Contrast Microscopy (PCM) in accordance with the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 protocol. The samples will be preserved for at least 60 days.

3.2.1.2 *Asbestos Baseline Monitoring*

The Asbestos Consultant will sample air in the work area prior to completion of preparation activities to establish a baseline concentration for airborne fibers. At least three samples will be collected per work area.

3.2.1.3 *Asbestos Clearance Monitoring*

- Abatement work area clearance: The Asbestos Consultant will monitor airborne fibers in the Containment Work Area containment work area after completion of the removal work and following a successful visual inspection. The Asbestos Consultant will conduct aggressive clearance sampling in containment work areas to verify that the airborne fiber concentrations are equal to or below the specified clearance level.
- Clearance sampling will be conducted, with analysis by PCM. If necessary to distinguish asbestos fibers, Transmission Electron Microscopy (TEM) sampling may be used for clearance purposes.
- Each PCM clearance sample taken inside the containment must meet the "clean air" standard of 0.01 fibers per cubic centimeter (f/cc) or less.
- If any PCM clearance sample fails to meet the clearance standard, then the Contractor will re-clean the Work Area to the satisfaction of the Asbestos Consultant before a second round of clearance sampling is performed.

- After the work area has achieved successful clearance by PCM or TEM, and after the Contractor has removed the containment, the Asbestos Consultant will perform a final visual inspection of the Work Area.

3.2.1.4 *Asbestos Glove-Bag Monitoring*

- The Asbestos Consultant will take baseline samples prior to the start of abatement. At least two area samples during abatement work will be collected, one in the immediate vicinity of the glove-bag work and one at a distance from the glove-bag work (e.g., outside the critical work area).
- Glove-bag work may be completed in a short time, causing short sampling times and therefore low volumes, which mean higher detection limits. The Asbestos Consultant will report exact sample results: do not report below detection limit (BDL) for results for samples taken during glove-bag work.

3.2.1.5 *Protective Clothing*

The Contractor will provide and require the use of protective clothing such as coveralls or similar whole-body clothing, head coverings, gloves, foot coverings, protective eyewear, and steel-toed boots for any employee and authorized person potentially exposed to airborne concentrations of asbestos that exceed the time-weighted average (TWA) and/or excursion limit prescribed by 29 CFR 1926.1101 or for which a required negative exposure assessment is not submitted to the Asbestos Consultant.

- Provide disposable full-body coveralls with disposable head covers (e.g., Tyvek suits or similar), which must be worn by any person in the containment work area. Ensure that sleeves at wrists and cuffs at ankles are secure. Workers performing RFCI removal of floor tile or floor tile mastic will wear disposable coveralls. Protective clothing will be in accordance with the ANSI Z41.
- Provide and require the use of protective safety glasses or goggles in accordance with ANSI Z87.1 Thoroughly clean, decontaminate and bag safety glasses/goggles before removing them from the containment at the end of the abatement.
- Provide and require the use of work boots with non-skid soles, steel toes, and where required by OSHA, other foot protection. Work boots are not to be removed from the containment after being contaminated with ACM. If foot coverings are not used, dispose of boots as *asbestos-contaminated* waste at the end of the abatement.
- Provide hard hats conforming to ANSI 89.1, and as required by OSHA for abatement workers, and provide spares for use by the Owner's Representative and colleagues. Require hard hats to be worn at all times when abatement work is in progress that may potentially cause head injury. Furnish hard hats with plastic strap type suspension. Require hats to remain in the abatement work area throughout the abatement work. Thoroughly clean, decontaminate and bag hats before removing them from abatement work area at the end of the abatement work.

- Provide leather work gloves to workers and authorized personnel and require that they be worn at all times while loading/unloading and transporting materials/equipment. Leather or other cut-resistant gloves must be worn in the abatement work area during removal activities and any other activities involving sharp-edged tools. Do not remove gloves from abatement work area, and dispose of them as contaminated waste at the end of the abatement work. Provide rubber or other chemical-resistant gloves for use during activities involving a solvent.

Provide authorized visitors, including the Asbestos Consultant and/or delegate, and the Client's Representative, with suitable protective clothing, head-gear, eye protection, respiratory protection, and footwear whenever they are required to enter the work area.

3.2.1.6 *Respiratory Protection*

- Respiratory protection will be used at all times when there is any possibility of disturbing ACM, whether intentionally or accidentally. The Contractor will provide respiratory protection for all workers and authorized personnel.
- Anyone in a Work Area where ACM has been disturbed must wear respiratory protection until the area has been cleared for re-occupancy.
- Regardless of airborne fiber concentration, the minimum level of respiratory protection used will be half-face air purifying respirators with high-efficiency particulate air (HEPA) filters.
- Wearing single-use, disposable, or quarter-face respirators for any purpose is strictly prohibited.
- If the work area contains more than one asbestos-containing material, or contains both ACM and another substance or activity requiring respiratory protection, the most stringent requirement for respiratory protection will apply.
- As part of Worker Documentation, the Contractor will provide certification that workers have been included in a medical surveillance program and fit tested in accordance with current OSHA regulations.

3.2.1.7 *Specific Respiratory Protection Requirements*

- The Contractor will provide respiratory protection as indicated below as a minimum requirement.
 - Provide half-face negative pressure air-purifying respirators equipped with HEPA filter cartridges. The HEPA cartridges will be color coded in accordance with ANSI Z88.7-2001.
 - Before solvent usage, the Contractor will review the submitted MSDS, to determine the need for a HEPA/organic vapor filter cartridge combination as recommended on the MSDS.

- The Contractor will supply a powered full face air purifying respirator with HEPA filters approved for asbestos to any abatement worker who requests one.
- The Contractor will ensure that his on-site employees use only those respirators for which training and fit testing have been provided. Maintain documentation of annual fit tests on site.
- Permissible Exposure Limit (PEL). The PEL for asbestos is 0.1 f/cc as an eight hour TWA.

3.2.1.8

Containment Area

- The Contractor will clean movable objects and remove them from the work area before the containment is constructed, unless moving the objects creates a hazard.
- Any non-movable objects that remain in the work area and that will not be disposed of will be protected with two layers of 6.0 mil plastic sheeting. Suspected asbestos-containing debris will be either wet-wiped or vacuumed with a HEPA filtering vacuum prior to completion of containment construction.
- The Contractor will supply electrical power to work areas that is sufficient to perform abatement work.
- The Contractor will supply electrical power through 4-gang outlets for the Owner's Representative's exclusive use while conducting air sampling during baseline sampling, abatement, clearance and dismantling work, as follows:
 - One 4-gang outlet in each abatement work area.
 - One at a clean side of each abatement work area.
 - One at each exhaust location for negative air units
- For clearance sampling
 - Three inside abatement work area.
 - Two outside abatement work area in locations designated by Owner's Representative.

TEMPORARY CONTAINMENT

- Materials include:
 - Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 6.0 mil thick, clear, frosted, or black as indicated. Polyethylene sheeting will be in accordance with ANSI requirements for dart impact and tear resistance. Fire-retardant poly sheeting shall be used where the Contractor identifies a risk of fire.
 - Duct Tape: Provided in 2-inch or 3-inch widths, with an adhesive formulated to adhere firmly to sheet polyethylene.

- Spray Cement: Spray adhesive in aerosol cans formulated to adhere firmly to sheet polyethylene.

CONSTRUCTING CONTAINMENT

- The Work Area is the location where abatement occurs. A Work Area is considered contaminated during the abatement, must be isolated from the balance of the building, and must be decontaminated at the completion of the abatement work.
 - The Contractor will control access to the abatement work area by installing barrier tape and warning signs at reasonable distance from the work area, as determined by the Owner's Representative.
 - Asbestos warning signs will be in English and Spanish in accordance with OSHA 29 CFR 1926.1101 and 29 CFR 1926.62.
- Construct enclosure large enough to: (1) include all of the work surfaces; (2) allow unencumbered movement by the workers; (3) provide unrestricted airflow past the workers; and (4) ensure pathways can be kept free of tripping hazards.
- The enclosure may be any shape that optimizes the flow of ventilation air past the workers.
- The walls, ceilings and floors must be supported in such a manner that portions of the containment will not fall down during normal use.
- Completely isolate the Work Area from other parts of the building by closing all openings with sheet plastic barriers at least 6.0 mil in thickness, or by sealing cracks leading out of Work Area with duct tape. Should the area beyond the Work Area become contaminated with asbestos-containing dust or debris, clean those areas.
- Critical Barriers: Individually seal all ventilation openings (supply and exhaust), lighting fixtures, clocks, doorways, windows, convectors and speakers, and other openings into the Work Area with duct tape alone or with polyethylene sheeting at least 6.0 mil in thickness, taped securely in place with duct tape. Maintain seal until all work, including project decontamination is completed.
- Use polyethylene sheets 6.0 mil in thickness as required, to seal openings completely from the Work Area into adjacent areas. Seal the perimeter of all sheet plastic barriers with duct tape or spray cement.
- The containment will include, at a minimum:
 - Critical barriers; and
 - Floor covering consisting of two layers of 6.0 mil polyethylene.
 - A three-stage wet decontamination unit, to be used by all employees and authorized personnel until final clearance is achieved, consisting of:
 - Clean room;
 - Shower room;

- One shower head for every 10 people working in containment;
 - Hot and cold running water;
 - Waste water filters capable of removing particles down to five micron in size; or, collect waste water for storage and disposal.
 - Dirty room; and
 - Two airlocks.
- If necessary, and as appropriate, a remote three-stage wet decontamination unit may be used. When a remote wet decontamination unit is used, require workers to double-suit for work inside containment.
 - A negative pressure ventilation system:
 - HEPA-filtered air machine units with pre-filters, magnehelic gauges or manometers to measure pressure drop across filters, and audible alarm if unit shuts down due to operation of safety systems.
 - Sufficient number of HEPA-filtered air machine units to provide a negative pressure of at least 0.02 inches of water column differential between the containment and the outside, as evidence by manometric measurements, with at least one additional air machine unit inside containment as back-up.
 - Provide a minimum of four containment air changes per hour.
 - Located so that makeup air enters primarily through the decontamination facilities and circulates throughout the containment. Where necessary, install supplemental makeup air inlets at locations approved by the Owner's Representative, using HEPA filters to cover the openings.
 - Operated continuously for the duration of the project (with Fire Watch supplied by Contractor).
 - Constructed with of wood barrier/exhaust template(s), as appropriate.
 - Exhausted to the outside, unless approved in advance and in writing by the Owner's Representative.
 - For full containments, where possible, a viewing window constructed of Plexiglas that measures approximately 18"x18" and will permit the viewing of at least 51% of the abatement work area, as practical.
 - Place tools, scaffolding, and staging necessary for the abatement work in the area to be regulated before completion of work area isolation.
 - For glove bag worked performed inside a building, place two (2) layers of 6-mil polyethylene as drop cloths beneath the glove-bag area, and place criticals over windows, doors, and other penetrations into the Work Area.
 - Place "EXIT" sign at each exit that may be used in an emergency, and paint directional arrows on walls to direct workers to emergency exits.
 - Where physically practical, the Contractor will construct an equipment decontamination/ waste bag-out unit separate from the personnel decontamination unit.

- Construct a "Wash" area connected to the abatement work area, separated by an airlock system, to be used for cleaning/ decontaminating waste bags and equipment.
 - Connect the Wash area to a Holding Area, separated by an airlock system, where waste, material, and equipment may be held temporarily.
 - Connect the Holding Area to a "Clean" area, separated by an airlock system, through which decontaminated waste and equipment may be passed to the outside.
 - Workers wearing full protective clothing and respirators will enter from the outside into the Holding Area to remove waste and/or equipment.
 - The Contractor will not permit workers to enter or exit the containment through the bag-out unit.
- Where glove-bag removal or exterior wall panel removal will be performed outside, place two (2) layers of 6-mil polyethylene as drop cloths beneath the work area.

WORK AREA LIGHTING

- Where natural lighting or existing building lighting is not adequate, the Contractor will provide temporary lighting:
 - A minimum of one 200-watt incandescent lamp per 1,000 s.f. of floor area, uniformly distributed, for general lighting, or equivalent lighting of a similar nature.
 - Install sufficient temporary lighting, including portable plug-in task lighting, to ensure proper workmanship.
- Install lighting in areas where abatement work or visual inspection is being performed to supply a 100 foot-candle minimum light level.

3.2.1.9

Asbestos Removal

- The Contractor will perform the removal and disposal in accordance with current local, state, and federal regulations.
- The Contractor will not initiate abatement activities or otherwise disturb asbestos at the site until the site preparation has been inspected and verified by the Asbestos Consultant or authorized delegate.
- The Contractor will perform no abatement or disturbance of asbestos-containing materials unless the Asbestos Consultant or authorized delegate is at the job site and has acknowledged that work can commence.
- Once abatement has begun, HEPA-filtered air machines will run continuously to maintain a constant negative pressure until decontamination of the work area is complete and final clearance has been received. Do not turn machines off at the end of the work shift or when abatement temporarily stops. The Contractor will provide a Fire Watch for periods of time when the negative air units are running but no other abatement workers are on site.

3.2.1.9.1 *Products*

- Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water that results in wetting of the ACM and retardation of fiber release during disturbance of the material.
- Mastic Remover/Solvent: Provide a low- or non-odor mastic remover with a flash point above 140 degrees Fahrenheit as determined by ASTM International (ASTM) D92.
- Removal Encapsulant: Provide a penetrating encapsulant designed specifically for removal of ACM. Use an encapsulant that will meet or exceed the results produced by use of amended water, as described above.
- Sprayer: Provide a hand pump type pressure-can garden sprayer fabricated out of either metal or plastic, equipped with a metal wand at the end of a hose that can deliver a stream or spray of liquid under pressure.

3.2.1.9.2 *General*

- Set-up and management of the regulated area will be under the supervision of a TDSHS-licensed asbestos contractor supervisor.
- Before the start of abatement work, comply with the requirements for protective clothing in the Health and Safety Plan.
- Clean any existing dust or debris from the floor, walls, and other surfaces in the immediate location of the abatement work before starting abatement work: damp-mop the surfaces or use a HEPA-filtered vacuum.
- Construct the containment to comply with the Containment Area Section of these technical specifications.
- Do not allow eating, drinking, smoking, chewing gum tobacco or gum, dipping, or applying cosmetics in the regulated area.

3.2.1.9.3 *Wet Removal*

- Thoroughly wet ACM to be removed, prior to stripping and/or tooling, to reduce fiber dispersal into the air. Use a fine spray (mist) of amended water or removal encapsulant to wet the ACM. Saturate material sufficiently to wet to the substrate without causing excessive dripping. Allow time for amended water or removal encapsulant to penetrate material thoroughly. If amended water is used, spray material repeatedly during the abatement process to maintain a continuously wet condition. If a removal encapsulant is used, apply in strict accordance with manufacturer's written instructions.
 - Mist work continuously with amended water whenever necessary to reduce airborne fiber levels.
 - Regularly remove wet ACM and water from the Work Area floor to minimize slip-trip-fall hazards.

3.2.1.9.4 *Asphaltic Roofing Materials*

- Asbestos-containing asphaltic roofing materials may be demolished in place. The Contractor will dispose of the demolition debris as Category I/II ACM unless the ACM can be isolated from the rest of the debris after demolition and disposed of separately.
- Should the roofing materials be abated:
 - Mist roofing materials with water during cutting and stripping process, as consistent with roof safety to avoid slips, trips and falls; and
 - Double-bag or double-wrap roofing materials and lower carefully to the ground.
- Verification sampling will be performed as appropriate.

3.2.1.9.5 *Flooring Materials*

- Address flooring materials/mastic as follows:
 - Remove all ACM flooring materials in containment, to include critical areas, 5-foot splashguards, negative air units and a negative pressure differential of at least 0.02 inches of water column, and a three-stage decontamination unit.
 - Non-ACM floor tile above ACM floor tile or mastic must be removed in containment.
 - Spray asbestos-containing flooring materials/mastic with amended water or mastic remover.
 - During removal of the flooring materials/mastic, continually wet the material.
 - Remove the mastic using low odor mastic remover such as Chem-Safe Clear:
 - Mastic remover/solvents with a flash point of 140 degrees Fahrenheit or below will not be used.
 - Mastic remover must be approved by the Asbestos Consultant prior to use.
 - A buffer or wire brush may be used to remove the mastic.
 - At no time will mastic remover cover a floor area larger than 20 square feet, unless otherwise authorized by the Asbestos Consultant.
 - Use rags or other absorbent material to clean the residual solvent/mastic mix from the floor. Mastic-stained float (leveling compound) may be removed if necessary.

3.2.1.9.6 *Textured Metal Panels*

- Texture on metal panels may be abated by removing the metal panel itself or may be removed in full containment.
- Use a drop cloth, extending from the base of the wall at least three feet in all directions.

- Mist the panels to control the spread of any dust generated during removal of the panels.
- Remove panels in as intact a state as possible and wrap them before placing them directly into a lined roll off box.

3.2.1.10

Asbestos Waste Management

- Once the ACM is removed, it will be double-bagged and labeled in accordance with OSHA guidelines. Pre-printed Generator Labels will be placed on each bag before the bags are removed from the regulated area.
- The Contractor will provide as a minimum, individual 6.0 mil thick, leak-tight, manufactured polyethylene bags.
- Provide disposal bags with the attached labels in accordance with OSHA and United States Department of Transportation (USDOT) regulatory requirements. Labels will be lettered with indelible ink.
 - First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE FIBERS IS
HAZARDOUS TO YOUR HEALTH

- Second Label: Provide in accordance with U.S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 171 and 172. Hazardous Substances.
- Third Label: Provide the name of the waste generator (Owner's name), the location from which the waste was generated and the names and addresses of the contractor and transporter. This label must be legible, durable, and able to repel dirt and moisture. The label must be placed directly on disposal bags.
- Provide, at a minimum, 6.0 mil polyethylene sheeting for double-wrapping large sections of rigid waste material.
- Regulate the area between the bag-out decontamination unit and the prepared waste receptacle with barrier tape during bag-out operations. The waste dumpster, roll-off or trailer will remain secured at all other times.
- Dispose of the waste in an approved landfill. The waste will be transported to the landfill in lined closed-top receptacles. Provide verification of disposal at the landfill to the CM by using the TCEQ Waste Manifest.

3.2.1.10.1 *Final Visual Clearance*

- After the asbestos abatement Work Area has passed clearance, the Contractor will decontaminate and remove any equipment remaining inside the Work Area, and then remove the containment and/or criticals and/or drop cloths. All polyethylene, duct tape, and HEPA pre-filters will be disposed of as ACM waste, in accordance with waste disposal requirements (above).
- Contaminated waste water from the decontamination unit(s) filters will be mixed with ACM waste or rags, double-bagged, and disposed of as ACM waste.
- The Asbestos Consultant or authorized delegate together with the Contractor Supervisor will perform a final visual clearance walk-through of the Work Area to ensure that the area is in an acceptable condition.

3.2.1.11 *Abatement Contractor Responsibilities*

- Must be aware of and comply with all applicable guidance, codes and regulations including but not limited to those attached.
- Illegible submittals will be rejected and returned for re-submittal.
- Schedule submittals according to general flow of work and to allow for adequate and timely review of submittals by the Asbestos Consultant.
- The Contractor is responsible for preparing and submitting the ten-day notification as well as any necessary amendments. The draft 10-day noticed will be reviewed by the Asbestos Consultant prior to submittal to TCEQ. Copies of all correspondence to and/or for the Owner will be provided to the Asbestos Consultant.
- Verify field measurements, construction criteria, catalog numbers and similar data.
- Coordinate submittals with requirements of work and Contract Documents.
- Contractor's responsibility for errors or omissions is not relieved by the Asbestos Consultant's review.
- Contractor's responsibility for deviations from requirements of Contract Documents is not relieved by the Asbestos Consultant's review, unless the Asbestos Consultant is notified of deviations in writing at time of submittal, and gives written approval of specific deviations.
- The Contractor is responsible for demarcating the asbestos abatement areas and limiting access to registered/licensed individuals.
- Do not begin work that requires submittals until they have been reviewed by the Asbestos Consultant.
- If required, reproduce and distribute copies after the Asbestos Consultant's review.
- The Contractor will maintain all records required by regulatory requirements.

3.2.1.12

Asbestos Consultant's Responsibilities

- Review submittals in a timely manner or indicate in writing reasons for reviews that require additional time.
- Review submittals for conformance with project design concept and information given in the abatement specifications.
- Indicate results of review and return submittals to Contractor for distribution.
- Asbestos Consultant is not responsible for job site safety or the ways and means utilized by the Contractor.
- Asbestos Consultant is not responsible for verification of field measurements, construction criteria, catalog number and other similar data.
- Review of separate items does not constitute review of an assembly in which items function.

3.2.2

Building Rinsing and Demolition

Rinsing of the buildings is to be completed prior to demolition and during demolition as needed to reduce the amount of dust generated. Rinsing of the Reverb and Calcine High Line is to be completed from man lifts. Personnel are not to be working on the structures. Rinsing shall be conducted using conventional methods, such as low pressure water hoses, misting fans, etc. Wash water from facility rinsing will drain to sumps in the vicinity of each facility being washed. Sump pumps will be turned off during demolition activities. A vacuum truck will then extract the wash water before the sump is full. The vacuum truck will transport the water to one of two 750,000 gallon tanks located near the RCC. Water will be stored in and transferred between the tanks as needed in preparation for reuse, analysis, or treatment.

Demolition shall be conducted using conventional methods, unless otherwise approved by ERM and the Trust. A combination of mechanical demolition (shear, grapple, concrete hammer and loader) and hand-demolition methods (saws and cutting torches) are the expected methods of demolition.

Demolition shall proceed in an orderly manner, planned to prevent the buildup of significant quantities of construction and demolition (C&D) debris or recyclables at the plant property. Good housekeeping of the demolition site is expected and required by ERM.

Rinsing and demolition will consist of process structures, process equipment, support systems, facilities, utilities systems, buildings and associated appurtenances for:

- Calcine Highline;
- Reverbatory Furnace; and
- Contop Furnace.

The Contractor shall demolish all structures to grade or top of concrete slab at grade, if a slab exists at grade. Concrete slabs, foundations, piers and pads that exist above grade, except those that are specifically identified to be left in place, shall be demolished and removed.

The vaults beneath the furnaces shall be cleaned if visibly stained and all gross dust accumulations shall be removed. The contractor is responsible for collecting and transporting, of liquids if present. Berm walls surrounding pads or surrounding tanks and vessels shall be broken off flush with surrounding grade to prevent retention of stormwater. Reinforcing bars, bolts, and pump and equipment pads shall be broken off or torch-cut flush with surrounding pad grade if pad or slab is to remain. It will not be necessary to repair rough concrete created by removal of such projections.

In addition all process equipment and piping, and structural supports including pipe racks will be removed. All power and light poles and pole-mounted transformers servicing the demolished facilities are to be removed and disposed according regulations. At completion of demolition, with the exception of identified structures and equipment, it is expected that all buildings, process structures, equipment, utilities and associated appurtenances will have been demolished and removed from the demolition areas. The areas will be left clean, OSHA compliant.

During the progress of the Work, fill, cover or enclose by fence all trenches, holes, openings or voids, or otherwise protect in a manner that complies with all applicable federal, state and local rules and regulations.

Prior to the start of demolition and removal of each structure, the Contractor must verify that all collection, removal and on-site disposal of asbestos has been completed. The Asbestos Consultant shall countersign the certificate as evidence that the asbestos removal and disposal has been properly performed. A task authorization from will be completed and signed by ERM prior to any building demolition.

Remove and dispose all non-PCB containing electrical transformers, oil-containing electrical equipment prior to demolition of buildings containing these materials.

If the Contractor's examination of facility conditions indicates the need for rodent and insect control, employ a certified exterminator and treat all structures in accordance with governing health regulations for rodent and insect control prior to demolition.

Conduct operations to minimize damage by falling debris, or other causes, to persons, adjacent buildings, structures, roadways, and other facilities.

With the exception of ferrous materials, all debris must be recycled or stored on-site for later disposal by the Trust.

3.2.3 *Tank, Equipment and Piping Demolition*

Perform the Work in accordance with all applicable federal, state, and local rules and regulations concerning the handling and staging of all tank contents. If a conflict exists between this section and the rules and regulations, the rules and regulations shall take precedence.

Contractor shall inspect the tanks and piping prior to initiating work to verify that the work can be performed safely under existing conditions. Contractor will furnish all labor, materials, equipment and incidentals required to remove, containerize and store on-site the liquid and sludge contents of tanks and piping. The Trust will provide off-site transportation and disposal if necessary.

Pipes in pipe racks located over a bermed concrete pad may be sheared. Should torch-cutting be planned, the Contractor must make the first cuts mechanically and test the pipe atmosphere for flammability.

Pipes located outside of bermed concrete pads must be opened by the Contractor (e.g., drilling at low points) to ensure that the piping is empty prior to proceeding with further demolition. Any retained material must be removed, containerized (containers to be provided by the Trust) and stored on-site in an area designated by the Trust.

Where piping enters the subsurface at a non-paved location, the pipe shall be cut off six (6) inches below surrounding grade.

Where piping enters the subsurface at a paved location (process pad), it shall be cut off flush with the pad.

The Contractor will confirm that all electrical power to the tanks or their ancillary equipment has been de-energized and the wiring is disconnected prior to initiating the work.

Contractor will confirm that all natural gas lines are checked and purged prior to cutting, and that other piping that could be pressurized with liquids or gasses are safe for demolition.

3.2.4 *Waste Management*

Detailed waste management requirements are included in the Waste Management Plan (Appendix B).

3.2.5 *Site Restoration*

The Contractor will rough grade all areas to meet existing surrounding contours and grades and affect drainage using uniform slopes to final drainage facilities.

The Contractor will be responsible for locating and protecting any bench marks, fences, roads, power panels, aboveground and underground utilities, sampling wells, and all other structures prior to any grading activities. The Contractor will be responsible to repair any damage incurred to laydown areas, material handling areas and roads. All repairs will match pre-existing installations and grade.

Soil will not be removed from the Site without authorization from ERM. The Contractor will not be permitted to bring fill materials from other offsite demolition projects for purposes of supplementing lack of on-Site fill. The Contractor will provide grading to acceptable condition for drainage of rainwater run off.

Figure

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, LLC
15810 Park Ten Place, Suite 300
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Asbestos Survey Report
Appendix A

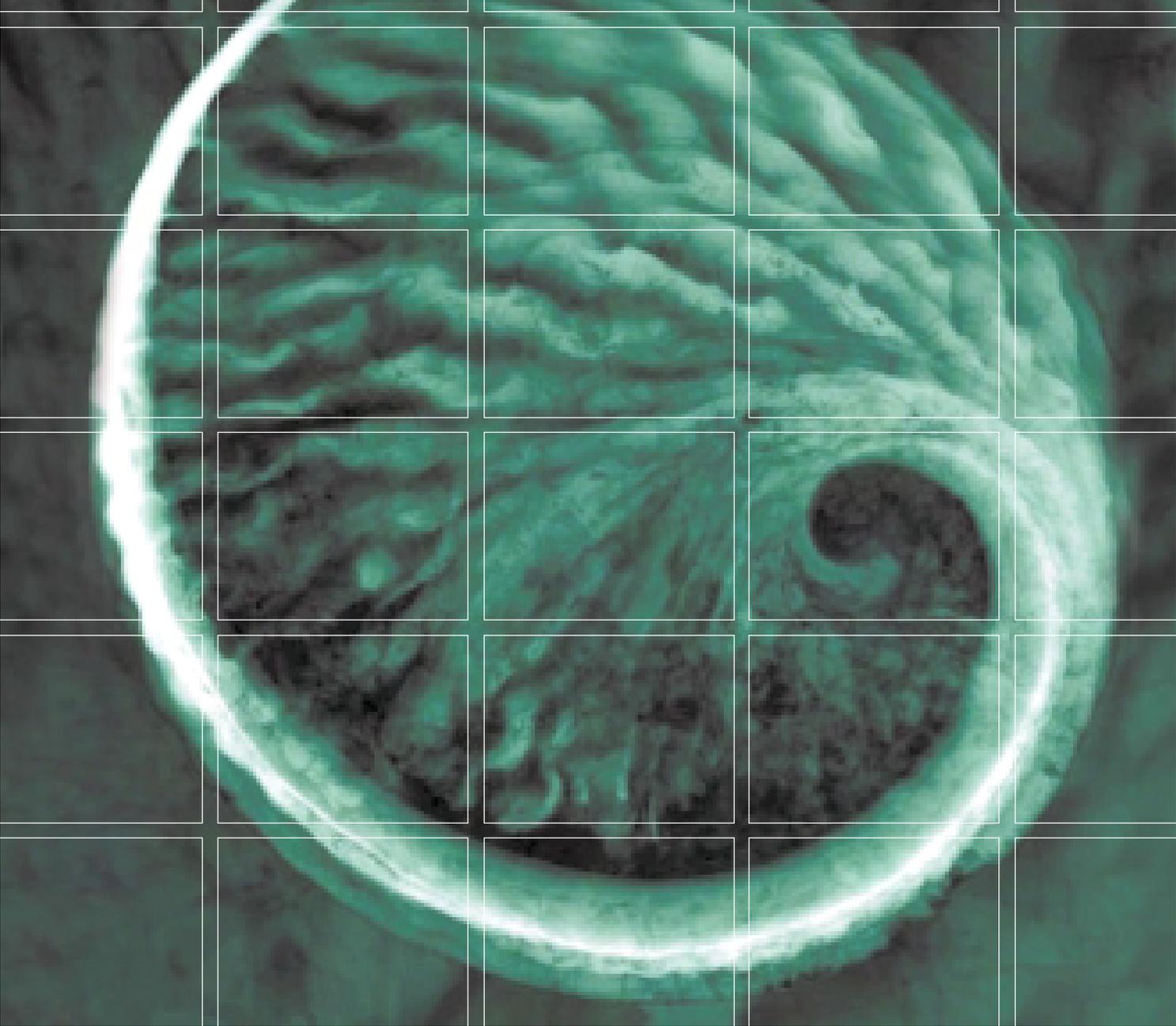
October 12, 2010
Project No. 0118148

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Waste Management Plan
Appendix B

October 12, 2010
Project No. 0118148

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Waste Management Plan – Contop and Old Reverb Asset Recovery

**Texas Custodial Trust c/o Project Navigator, Ltd.,
Trustee
El Paso, Texas**

October 12, 2010

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Project Navigator, LTD.

Waste Management Plan – Contop and Old Reverb Asset Recovery

October 12, 2010

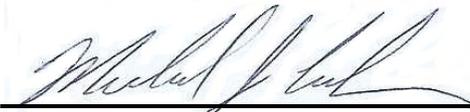
Project No. 0118148
Texas Custodial Trust c/o Project Navigator, Ltd., Trustee
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INTRODUCTION

This Waste Management Plan (WMP) has been prepared for use during the asset recovery and demolition at the former ASARCO Smelter facility in El Paso, Texas, currently managed by Texas Custodial Trust, care of Project Navigator, Ltd., Trustee (the Trust).

Identified below are contractor submittal requirements, anticipated waste stream descriptions, waste labeling and transportation requirements, and recordkeeping requirements.

Asset recovery and demolition activities will be conducted with a focus on recycle/reuse and disposal of waste materials on-site in approved facilities. This plan addresses the requirements for the management of recyclables and waste being transported off-site.

WASTE SUBMITTAL REQUIREMENTS

The Contractor is required to submit the name, address, telephone number, facility contact person, internet contact address, and facility qualifications in electronic Excel (.xls) spreadsheet format for each of the following prior to mobilization. Contractor must submit a list of disposal facilities for the Trust's approval prior to disposal.

- Each recycling transporter approved by the Trust to transport material to off-site recycling facility(s) and the material to be transported by that transporter.
- Each off-site recycling facility approved by the Trust to recycle material from the Work and the material to be recycled at that facility.
- Each waste transporter approved by the Trust to transport waste from the site to off-site waste disposal facility(s) and the waste to be transported by that transporter.
- Each off-site waste disposal facility approved by the Trust to treat, if necessary, and dispose of waste from the site and the waste to be treated, if necessary, and disposed of at that facility.
- For subcontractors, include information describing each subcontractor tier and clear continuous lines of contract authority and responsibility.

Contractor is required to provide the following submittals during the Work:

- Recycled Material and Waste Manifests.
 - Contractor will be responsible for preparing a manifest for each shipment off site.
 - All profiles and draft manifests must be submitted to ERM for review and approval.
- Obtain ERM Authorized Agent signature of each manifest prior to loading the subject material for shipment from the site.
- Maintain a copy of each manifest by classification and in sequence order, and a log of all manifests as an electronic Excel (.xls) spreadsheet file, in the Contractor's office at the site.
- Submit a copy of each waste trip ticket issued by the approved and designated recycling or disposal facility indicating acceptance of that load at the facility, the weight of the load (tons), fee for disposal, and the completed manifest.
- Submit a copy of the manifest log to ERM weekly.
 - Progress Reports
 - Submit a report to the ERM weekly describing the volume and weight of each material recycled and disposed of off site and each corresponding transporter, recycling facility, and waste disposal facility involved in the prior week, to date, and projected to complete the Work.

- Submit a report of compliance with waste management operations, containment operations and problems, and resolution, or proposed resolution, of each current and prior unresolved problem.
- Completion Report
 - Submit a comprehensive waste management report, including transporter, recycler, and disposal facility identification data; summary and records of characterization and classification sampling and analysis; summary and records of material and waste classification, removal, salvage for reuse by ERM, manifests, and recycling or disposal
 - Include a description of the results of implementation of spill response actions.

3.0 PROJECT WASTE STREAMS

Waste materials anticipated at the site will be categorized as described in this section.

3.1 NONHAZARDOUS - RECYCLE

Nonhazardous materials that are suitable for recycling: Scrap metal including various types of ferrous metals, copper, aluminum, and other metals.

3.2 NONHAZARDOUS – DISPOSAL ON SITE

Nonhazardous waste anticipated to be managed and/or disposed of on site:

- Construction and demolition debris including wood, glass, plastic, paper, gypsum board, non-asbestos roof materials, non-asbestos ceramic and vinyl floor tile, carpet, non-asbestos insulation, miscellaneous light metals, and other materials used in construction;
- Concrete, broken masonry, and broken brick; and
- Wash water and non-oily liquids.

3.3 NONHAZARDOUS – DISPOSAL ON OR OFF SITE

Nonhazardous waste to be disposed of either on-site or off-site:

- Friable and non-friable asbestos containing material (ACM);
- Trash and office debris; and
- Nonhazardous oily liquids.

3.4 HAZARDOUS & UNIVERSAL

Hazardous and Universal Wastes may include the following (disposed either on-site or off-site depending on material):

- Hazardous oily residuals;
- Solids from equipment and facility decontamination;
- Furnace brick;
- Light ballasts and capacitors with or without PCBs;
- Lead containing paint;
- Mercury-containing materials, including switches, thermostats, manometers, batteries, smoke detectors, and gauges;
- Computer equipment;
- Fluorescent, mercury, and sodium-vapor lamps;
- Ozone Depleting Substances; and
- Transformers with or without PCBs.

WASTE LABELING, PLACARDING, AND MANIFESTING REQUIREMENTS

The Contractor will mark, label, placard, package, manifest and manage wastes in accordance with all applicable federal, state and local laws, regulations and ordinances as follows:

- Containerizing and Labeling Hazardous Wastes: Mark each container with capacity of 119 gallons or less and containing hazardous waste in accordance with the requirements of 49 CFR 172.304, including the generator's name and address, the EPA identification number, and the manifest tracking number.
- Containerizing and Labeling Wastes that are DOT-Classified Hazardous Materials: Package, label, mark, apply shipment placard, and prepare proper shipping papers in accordance with the applicable DOT regulations for hazardous waste and Universal Waste which meets the definition of hazardous materials in 49 CFR 171 through 180. Stage the storage containers on-site in a secure area approved by ERM while contents are being characterized prior to transport and recycling or disposal.
- Manage ACM abatement waste, ACM-affected residuals, LCP abatement waste, and LCP-affected residuals in accordance with the Asbestos Abatement Plan.
- Store liquids and oil residuals in DOT-approved storage containers approved for both on-site storage and off-site transport of liquids and oil residuals and Contractor will to the extent practical, limit the number of containers used for liquid storage.
- The Contractor will inform all workers, supervisory personnel, subcontractors, and ERM who will be at the job site of the nature and the seriousness of the hazards present at the Site and the need to comply with the applicable federal, state, and local regulations.
- Light Ballasts and Capacitors
 - Assume that all light ballasts and capacitors contain PCBs and represent a hazard to workers.
 - Remove, handle and properly dispose of potential PCB-containing light ballasts and capacitors in accordance with applicable TCEQ requirements for Universal Waste and PCB waste.
 - Recycle ballasts and capacitors or dispose of at a disposal facility(s) approved for that purpose by ERM in accordance with Federal, State, and local regulations.
- Transformers and Rectifiers
 - Confirm that the transformers on-site do not contain PCBs.
 - Remove, handle and properly dispose of transformers in accordance with applicable TCEQ regulations for Universal Waste and PCB waste.
 - Recycle or dispose of transformers and/or rectifiers.
- Mercury Containing Equipment
 - Assume that all switches, thermostats, manometers and gauges contain mercury.

- Remove, handle, store, and properly dispose of equipment potentially containing mercury in an intact condition.
 - Recycle or dispose of equipment potentially containing mercury at a Trust approved disposal location and in accordance with local, state, and federal regulations.
- Lamps
 - Remove, handle, store, and properly dispose of all lamps, including fluorescent, mercury and sodium vapor, and other types, intact in accordance with applicable TCEQ regulations for Universal Waste.
 - Recycle or dispose of in appropriate containers.
- Ozone-Depleting Substances
 - Prior to dismantlement/demolition, all equipment containing ozone-depleting substances (ODS) shall be evaluated in accordance with 40 CFR 82 requirements.
- Containerizing And Labeling Universal Wastes
 - Label or mark each container of Universal Waste with the following phases applicable to the type of Universal Waste contained:
 - "Universal Waste – Mercury – Containing Equipment"
 - "Universal Waste – Mercury Thermostat(s)"
 - "Universal Waste – Lamps"
 - "Universal Waste – Battery(ies)"
 - "Universal Waste – Paint and Paint – Related Waste"

ON-SITE WASTE STORAGE

It is anticipated that the majority of waste streams will be disposed of in on-site cells to be completed after the demolition phase is complete. As such, waste materials will be stored on site in an area designated by the Trust and ERM. Waste storage will be performed in accordance with TCEQ authorizations. Waste will be labeled and managed as described in this Plan. Inspections of waste storage area(s) will be performed weekly and documented in the project file.

WASTE SHIPMENT REQUIREMENTS

Prior to transporting any material off-site ERM will assist in verifying the following:

- The disposal or recycling facility has been approved by the Trust;
- The material has been properly characterized;
- The Contractor has completed the appropriate documentation;
- The profile for each shipment has been signed by either the Trust Project Manager or designated representative;
- The profile has been approved for receipt of waste from the designated disposal facility;
- The load leaving the site has been inspected by ERM immediately prior to leaving the site;
- The Trust Project Manager or designated representative has signed the corresponding manifest(s); and
- A gate pass has been obtained from either the Trust Project Manager or designated representative for that shipment to track all waste or material transportation into and out of the site.

It is the Contractor's sole responsibility to ensure that all trucks leaving the site are not overloaded; the loads are properly contained and meet all local, state and federal regulations. Please note, however, that if there is a question by ERM or the Trust as to the suitability of the load or vehicle to be on public roadways, the vehicle will be held on-site by ERM or the Trust until the suitability can be confirmed by the contractor.

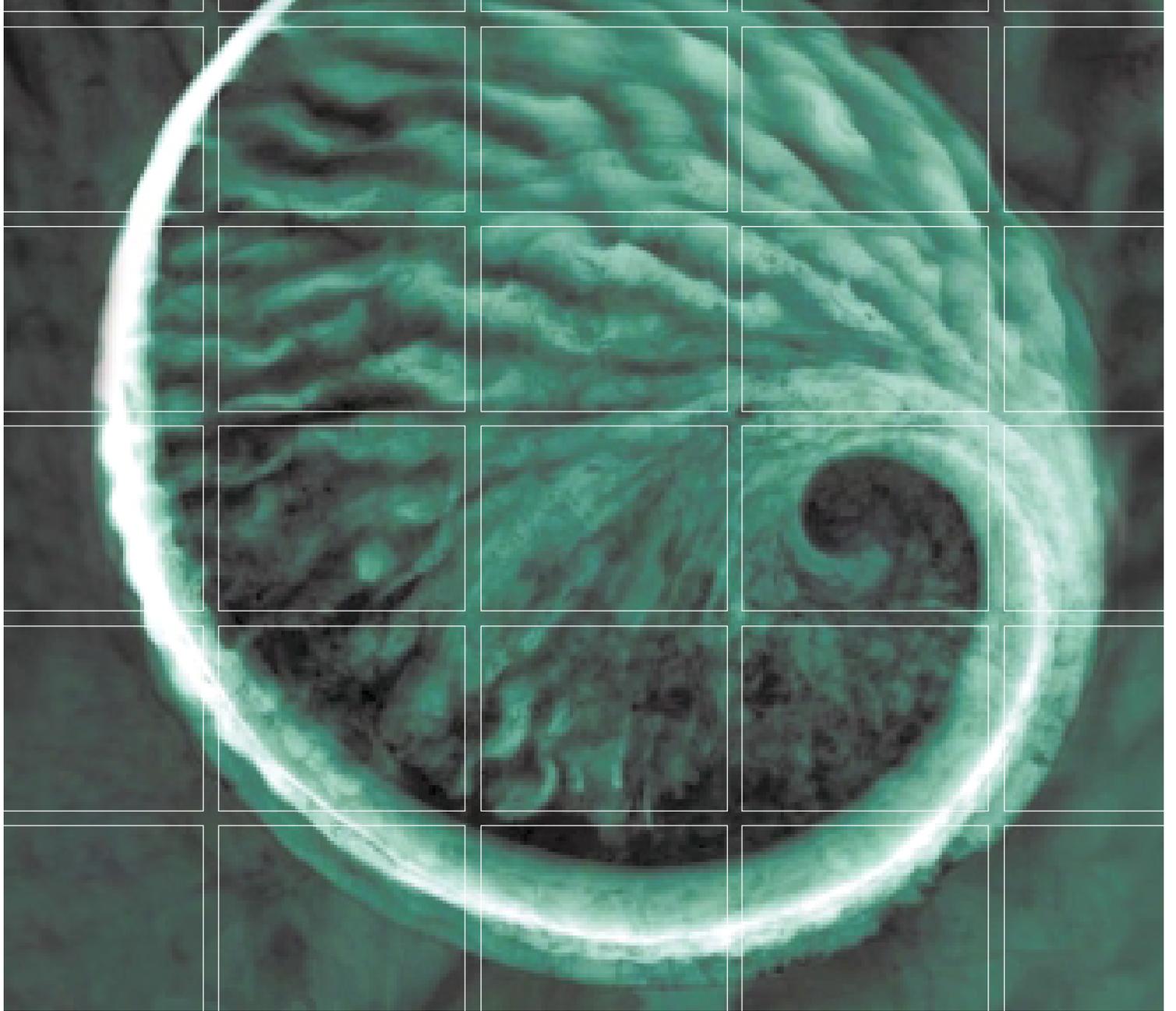
ERM will implement a gate pass system to track all waste or material transportation into and out of the site.

NO WASTES OR OTHER MATERIALS, INCLUDING SCRAP FOR RECYCLE, WILL BE TRANSPORTED OFF-SITE UNTIL AUTHORIZED BY ERM.

Stormwater Pollution Prevention Plan
Appendix C

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, LLC
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**Construction Stormwater Pollution
Prevention Plan for Asset Recovery
and Demolition
Former ASARCO Smelter**

**Texas Custodial Trust c/o Project Navigator, Ltd., Trustee
El Paso, Texas**

October 12, 2010

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Project Navigator, Ltd.

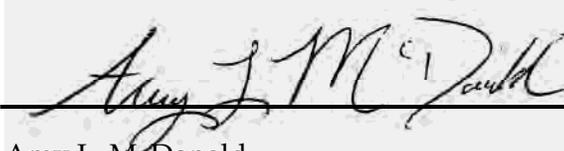
Construction Stormwater Pollution
Prevention Plan for Asset Recovery
and Demolition
Former ASARCO Smelter

October 12, 2010

Project No. 0118148
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El Paso, Texas



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1.0 INTRODUCTION

This Construction Stormwater Pollution Prevention Plan (SWP3) has been prepared for use during the asset recovery and demolition (Construction Activity) at the former ASARCO Smelter facility in El Paso, Texas, currently managed by Texas Custodial Trust, care of Project Navigator, Ltd., Trustee.

1.1 SITE DESCRIPTION

The former ASARCO smelting facility (the Site) is a total of 260 acres in area with approximately 150 acres included in the plant area. The Site is currently inactive. The site consists of numerous buildings, paved surfaces, above ground storage tanks, stacks, pipes, and material stockpile areas associated with the smelting operations.

1.2 CONSTRUCTION SUMMARY

The planned Construction Activity (including demolition, clearing, grading, and excavating activities) will result in land disturbance greater than five acres. This plan has been prepared to guide the construction contractor in reducing sediment runoff.

The construction activities for the Site will entail removing or demolishing the existing structures, grading the site to drain and preparing the site for environmental investigation and remediation.

The total number of acres disturbed by the construction activity is anticipated to be greater than five acres. Thus, the activities are considered a "large construction activity" under the TPDES General Permit No. TXR150000 for construction sites, which is attached in Appendix A (hereafter referred to as the Construction General Permit or CGP). Coverage under the CGP is authorized seven days after the completed Notice of Intent (NOI) is postmarked for delivery to TCEQ or after receipt confirmation of the electronic NOI submittal. Prior to start of construction, the SWP3 must be implemented and the NOI must be posted at the construction site in an area readily available for public viewing. A copy of the NOI must also be provided to the municipal separate storm sewer system (MS4), the City of El Paso Public Utilities Stormwater Code Compliance, at P.O. Box 511, El Paso, TX 79961 at least two days prior to the start of construction. A stormwater discharge permit must also be obtained from the City of El Paso.

1.2 OBJECTIVES AND STRUCTURE

The objectives of this SWP3 are to:

- Identify and address potential sources of stormwater pollution that are reasonably expected to affect the quality of stormwater discharges from the construction site; and

- Describe the practices that will be implemented to reduce the pollutants in stormwater discharges that may occur during the construction activities.

This SWP3 describes the following:

- Project/Site Description;
- Best Management Practices (BMPs), including erosion and sediment controls, stabilization practices, and other general controls;
- Inspections;
- Maintenance;
- Non-Stormwater Discharges; and
- Certification.

2.0 PROJECT/SITE DESCRIPTION

2.1 EXISTING SITE CONDITIONS

In general, existing ground cover at the site includes buildings, plant structures, railroads, asphalt and unvegetated areas used for material storage (see Figure 2-1). The site is covered under a Multi-Sector General Permit for plant-related operations. The site is generally flat, with some topographical variation within the site. All stormwater is captured through a network of sumps and stored in onsite ponds. The onsite storage capacity is sufficient to contain up to a 100-year storm without discharging stormwater offsite.

2.1.1 Potential Pollutants and Sources

Potential pollutants in the stormwater may include construction and material debris, disturbed soils containing contaminants of concern summarized in Table 2-1, and structural materials containing asbestos and lead. A list of the constituents of concern potentially present in the site soil is provided in Table 2-1.

2.2 CONSTRUCTION ACTIVITIES

The construction activities will consist of removing or demolishing the existing structures, removing all slabs and paved areas, grading the site to drain and preparing the site for environmental investigation and remediation. Figure 2-1 shows the existing site, the structures and facilities proposed for removal and the proposed final site configuration.

The following areas associated with the construction activity are shown on the figures as listed below (as required per Part III.F.1(g) of the CGP):

- Areas where soil disturbance will occur;
- Locations of planned structural controls;
- Locations where stabilization practices will be used;
- Drainage patterns anticipated after construction completion;
- Surface waters adjacent or in close proximity to construction;
- Locations where stormwater discharges from the site directly to adjacent surface waters or a municipal separate storm sewer system; and
- Vehicle and equipment wash areas.

2.2.1 *Sequence of Major Activities*

The estimated duration of the construction project is approximately two years. An anticipated timeline of construction activities includes:

- Mobilization and Implementation of BMPs – 1 to 2 weeks;
- Asset recovery and demolition activities, including asbestos containing material abatement, collection and disposing of debris and final grading - 1 to 2 years; and
- Demobilization – 1 to 2 weeks.

2.2.2 *Estimated Total Site Area, Total Disturbed Area*

The entire Site is approximately 260 acres. It is estimated that less than 100 acres of the Site may potentially be disturbed during the construction activity. All construction activities are anticipated to be conducted on the site; however, if any support activities occur off site, the SWP3 will be amended and additional control measures, if necessary, will be included in the plan.

2.2.3 *Run-Off Coefficients*

Surface cover following completion of construction activities is anticipated to be more permeable compared to the pre-construction surface cover. The existing rainfall-run-off coefficient “C” of the construction area will decrease as impervious materials will be removed and replaced with a permeable crushed stone cover.

2.2.4 *Other Industrial Discharges*

There will be no discharges associated with industrial activity at the construction site covered under this SWP3 other than discharges related to the construction activity.

2.2.5 *Endangered or Threatened Species or Critical Habitats*

There are no known historic places, endangered or threatened species, or critical habitats in the construction site.

3.0 *BEST MANAGEMENT PRACTICES*

BMPs will be implemented at the construction site to reduce transport of soil, sediment, and construction debris to stormwater. Examples of the best management practices that will be used include:

- Silt fencing around stock piles;
- Truck and equipment rinse areas;
- Inlet protection devices; and
- Sedimentation ponds.

3.1 *SOIL AND SEDIMENT EROSION CONTROL MEASURES*

Soil and sediment will be retained on site by using erosion and sediment transport control measures, including silt fences, inlet protection barriers, truck and equipment wash areas, and sedimentation ponds. All structural controls will be placed in an area prior to initiation of any soil-disturbing activities. The location and extent of the structural controls will be reevaluated continuously throughout the project. If excavation extends beyond the original extent of the controls, they will be adjusted as necessary to remain effective. Off-site material storage areas (including overburden and stockpiles of dirt, borrow areas, etc) will not be used. If an on-site stockpile of soil or aggregate material is utilized, it will be placed within the area surrounded by silt fence.

Stormwater will be collected in existing onsite sedimentation ponds, which have the capacity to store rainfall from a 100-year storm. The entire site drains to these ponds. The water will be allowed to evaporate or discharged in accordance with the site Multi Sector General Permit.

3.2 *STABILIZATION MEASURES*

Disturbed soils resulting from the construction activities will be covered with stone following completion of construction activities in work areas to reduce erosion. Stabilization measures will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, in accordance with the timeframe as specified in the CGP. As required, the completion dates of major construction activities are referenced herein and will be recorded in the field documents such as daily logs and project schedule updates.

3.3

STRUCTURAL CONTROLS

Structural controls, to reduce sediment and construction debris transport via stormwater run-off are described in Section 3.1. These include items such as silt fences around stockpiles, inlet protection devices, truck and equipment rinsing areas (fully contained), and sedimentation ponds.

3.4 *OTHER CONTROLS*

3.4.1 *Construction Management*

Construction management activities that will be performed to reduce stormwater pollution include:

- To the extent practicable, soil disturbing activities will be planned to occur during predicted dry-weather days;
- Efforts will be made to reduce the amount of dust generated during construction activities by rinsing structures prior to demolition and collecting the rinse water. Surfaces where dust may be generated will be wetted in limited quantities such that run off is not generated from the dust control activities;
- Field activities will be coordinated to reduce the amount of time an excavation area is open; and
- Decontamination of vehicle and site equipment from active work zones will be performed in a contained area.

3.4.2 *Waste Materials*

Construction waste materials, such as trash, construction debris, and other floatable material originating from construction materials will be collected and stored in secure dumpsters or drums. If new concrete is needed on site, concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site, unless they are using a properly designed and designated concrete washout area.

3.4.3 *Hazardous Materials*

Hazardous materials encountered or generated at the site will be managed and disposed of appropriately. Debris, slag, soil, sediment, and other waste generated by the construction activities will be classified for disposal purposes in accordance with applicable state or federal regulations prior to onsite treatment and disposal or transport to a pre-qualified off-site permitted disposal facility.

3.4.4 *Sanitary Waste*

Sanitary waste from portable toilets will be regularly collected by a licensed sanitary waste management contractor.

3.4.5 *On- & Off-site Vehicle Tracking and Soil Accumulation*

Decontamination of vehicles and equipment used in active work zones where soil is being disturbed will be performed prior to leaving the construction site, as needed. Loose sediments will be removed from vehicles (e.g. pressure washing or removing loose material with shovels) to reduce on-site and off-site vehicle tracking and sediment accumulations, if required. Removed material will be collected and managed accordingly. In addition, the entrance to the construction site and/or site roads will be cleaned daily, as needed, to remove any excess mud, dirt, or rock tracked from the site.

3.4.6 *Dust Control*

Dust control will be implemented as dictated by site conditions and other project plans.

3.4.7 *Good Housekeeping*

Construction equipment and materials will be stored on site at various locations depending on the specific construction activity occurring. The locations will be primarily driven by safety considerations during demolition. Standard spill prevention activities will apply to all staging and storage areas.

Spill prevention measures during the construction activities will include:

- Performing routine, undocumented inspections throughout the day during construction activities; and
- Clearly labeling drums, totes, and other containers that hold any materials that could potentially impact stormwater.

All spills and or releases will be properly responded to in accordance with good spill prevention and response measures. Potential responses include but are not limited to:

- Application of absorbent materials;
- Construction of containment berms; and
- Excavation and disposal of contaminated soils.

Materials spilled and or released will be properly contained, recovered, and disposed to reduce the potential impact to stormwater run-off. Spill incidents greater than Reportable Quantities as determined by 30 TAC 327.4 and 40 CFR 302.4 will be responded to and reported in accordance with state and federal regulations.

INSPECTIONS

Qualified personnel or a designee will perform inspections of the construction site at least once every 14 days and within 24 hours of a storm event of 0.5 inches or more to evaluate the effectiveness of the stormwater management controls and measures. The following items will be inspected:

- Equipment and material storage area;
- Loading/unloading areas;
- Sediment and erosion controls;
- Dust control; and
- Locations where vehicles enter or exit the site for evidence of off-site sediment tracking.

The inspections will be documented on the form provided in Appendix B. In the event of flooding or other uncontrollable situations that prohibit access to the inspection sites, inspections will be conducted as soon as access is practicable. Completed inspection forms will be maintained in project files maintained in the field.

The SWP3 will be modified, as necessary, based on inspection results. The revisions will be completed within seven days of the inspection, and when existing BMPs are modified, an implementation schedule will be included.

MAINTENANCE

The BMPs (erosion and sediment controls, stabilization measures, and structural controls, as described in Section 3.0) will be maintained to remain operational and effective throughout the duration of soil disturbing activities that could potentially affect stormwater.

- Sediment will be removed from behind the silt fencing or inlet protection barriers (such as hay bales) when it reaches one-half of the height of the fence or bale.
- If it is determined through inspection that sediment resulting from construction activities has discharged via stormwater from the construction site, off-site accumulations will be removed, as necessary, to minimize impacts. If it is determined through inspections that the BMPs are not operating effectively, maintenance and repairs will be conducted within 24 hours of the inspection report.
- Control measures that have been improperly installed or have been disabled, run-over, removed, or otherwise rendered ineffective will be replaced or repaired, as necessary.
- Documentation of the maintenance performed will be maintained in project files maintained in the field.

6.0

NON-STORMWATER COMPONENTS OF DISCHARGE

The following non-stormwater discharges from the construction site are allowed under the CGP:

- Discharges from fire fighting activities;
- Uncontaminated fire hydrant flushings;
- Vehicle, external building, and pavement wash water where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred, and where the purpose is to remove mud, dirt, and dust;
- Uncontaminated water used to control dust;
- Potable water sources including waterline flushings;
- Uncontaminated air conditioning condensate;
- Uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
- Lawn watering and similar irrigation drainage.

BMPs for product-specific non-stormwater discharges are summarized in Table 6-1.

SWP3 UPDATES, TRAINING, AND CERTIFICATION

The SWP3 will be revised or updated whenever the following occur:

- There is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants that has not been addressed in the SWP3; or
- Results of inspections indicate the SWP3 is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under the CGP.

The facility personnel will train operators or representatives who have control over construction plans and specifications and/or day-to-day construction operations on the following components of the SWP3:

- Objectives of the SWP3;
- Best Management Practices;
- Inspections and maintenance; and
- Recordkeeping and updating of SWP3.

A training signature sheet will be maintained in Appendix C.

As required in Part III.D of the CGP, this SWP3 will be retained at the construction site and made readily available for review and inspection. In addition, the following information and SWP3 certification will be posted near the main entrance of the construction site (see Appendix D):

- TPDES general permit number;
- Name and telephone number of the operator;
- Brief description of the project;
- Location of the SWP3; and
- Certification of the SWP3.

POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____

Date: _____

Tables

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.

15810 Park Ten Place, Suite 300

Houston, Texas 77084-5140

(281) 600-1000

TABLE 2-1

Constituents Potentially Present in Soil and Sediment

Texas Custodial Trust c/o Project Navigator, Ltd., Trustee
El Paso, Texas

| |
|-----------|
| Arsenic |
| Cadmium |
| Chromium |
| Copper |
| Lead |
| Manganese |
| Mercury |
| Nickel |
| Selenium |
| Zinc |

TABLE 6-1

Product Specific and Spill Prevention Practices

Texas Custodial Trust c/o Project Navigator, Ltd., Trustee
El Paso, Texas

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Petroleum Products: | <p>Onsite vehicles involved in construction activities will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.</p> |
| Fertilizers: | <p>Fertilizer is to be applied only in the minimum amounts described in the specifications. The fertilizer will be applied with a tackifier or mulch to limit exposure to stormwater. Fertilizer will generally not be stored on site. If on-site storage is necessary, fertilizer will be kept in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic container to avoid spills. Fertilizer use is not anticipated during the construction activities.</p> |
| Concrete Trucks: | <p>Concrete trucks will wash out or discharge surplus concrete or drum wash water at a designated washout area. The washout area will be bermed to divert surface runoff. Excess concrete and cement in the washout area will be excavated and disposed of before the berms are removed.</p> |
| Spill Prevention Practices | |
| <p>In addition to the good housekeeping and material management practices discussed in this Plan, the following practices will be followed for spill prevention and cleanup:</p> <ul style="list-style-type: none"> • Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies. • Materials and equipment necessary for spill cleanup will be kept in the material storage area on-site. Equipment and materials will include but not be limited to brooms, rags, gloves, goggles, trash containers, and absorbent pads, booms, and/or materials. • All spills will be cleaned up immediately after discovery. • The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance. • Spill of toxic or hazardous materials at or above reportable quantities will be reported to the appropriate agency. • The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included. • The construction manager is responsible for the day-to-day site operations and will be the spill prevention and cleanup coordinator. | |

Figures

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

TPDES General Permit No. TXR150000
Appendix A

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000



TCEQ Docket No. 2007-1588-WQ
TPDES General Permit No. TXR150000

**TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY**
P.O. BOX 13087
Austin, TX 78711-3087

This is a renewal of TPDES
General Permit No. TXR150000,
issued March 5, 2003.

GENERAL PERMIT TO DISCHARGE WASTES

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

Construction sites that discharge storm water associated with construction activity

located in the state of Texas

may discharge to surface water in the state

only according to effluent limitations, monitoring requirements and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of storm water and certain non-storm water discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit and the authorization contained herein shall expire at midnight on March 5, 2013.

EFFECTIVE DATE: March 5, 2008

ISSUED DATE: **FEB 15 2008**

Buddy Cozic

For the Commission

TPDES GENERAL PERMIT NUMBER TXR150000 RELATING TO STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES

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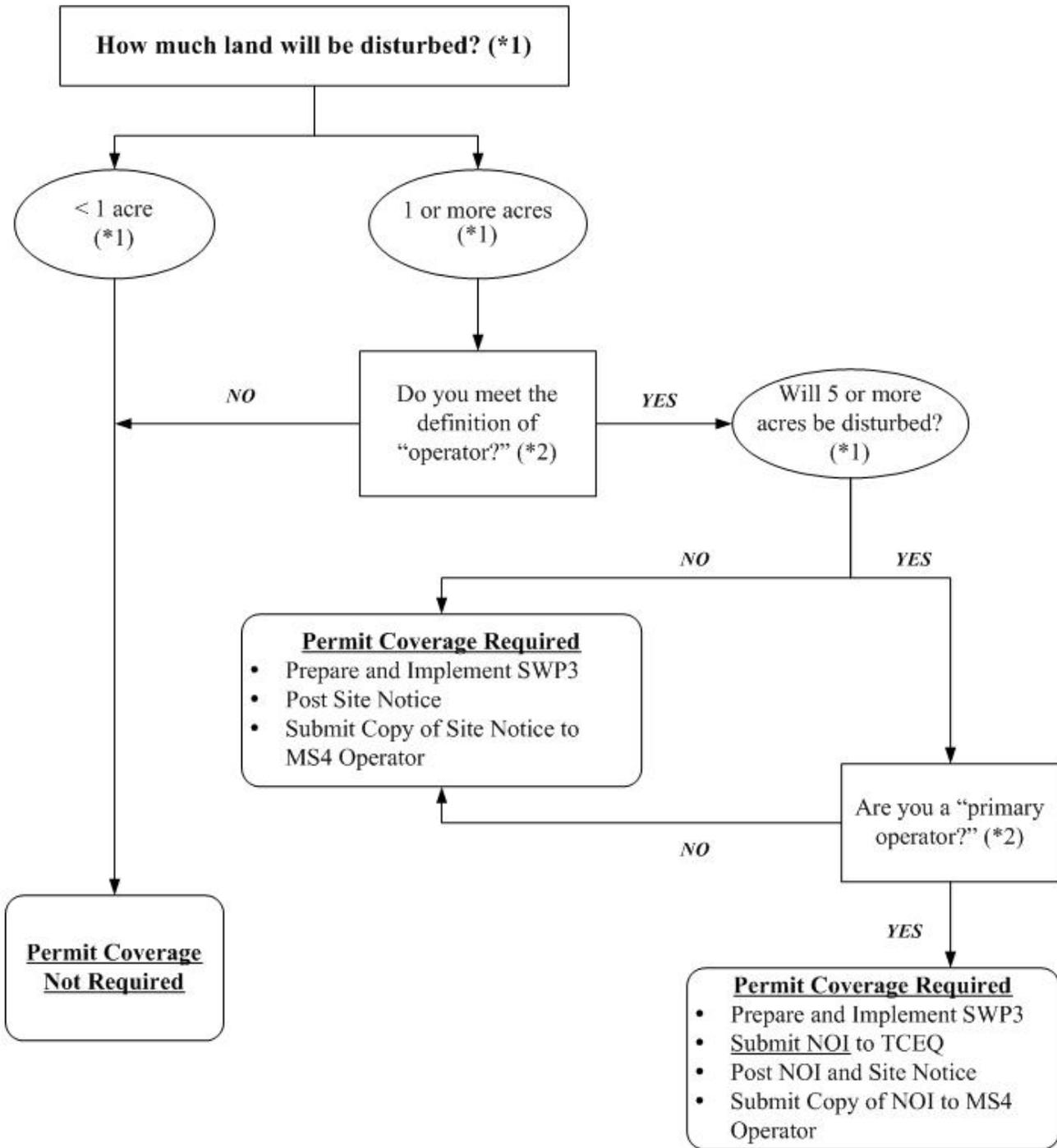
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Part I. Flow Chart and Definitions

Section A. Flow Chart to Determine Whether Coverage is Required



(*1) To determine the size of the construction project, use the size of the entire area to be disturbed, and include the size of the larger common plan of development or sale, if the project is part of a larger project (refer to Part I.B., "Definitions," for an explanation of "larger common plan of development or sale").

(*2) Refer to the definitions for "operator," "primary operator," and "secondary operator" in Part I., Section B. of this permit.

Section B. Definitions

Arid Areas - Areas with an average annual rainfall of 0 to 10 inches.

Best Management Practices (BMPs) - Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Commencement of Construction - The initial disturbance of soils associated with clearing, grading, or excavation activities, as well as other construction-related activities (e.g., stockpiling of fill material, demolition)

Common Plan of Development - A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development (also known as a “common plan of development or sale”) is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities. A common plan of development does not necessarily include all construction projects within the jurisdiction of a public entity (e.g., a city or university). Construction of roads or buildings in different parts of the jurisdiction would be considered separate “common plans,” with only the interconnected parts of a project being considered part of a “common plan” (e.g., a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.). Where discrete construction projects occur within a larger common plan of development or sale but are located ¼ mile or more apart, and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development or sale, provided that any interconnecting road, pipeline or utility project that is part of the same “common plan” is not included in the area to be disturbed.

Discharge – For the purposes of this permit, the drainage, release, or disposal of pollutants in storm water and certain non-storm water from areas where soil disturbing activities (e.g., clearing, grading, excavation, stockpiling of fill material, and demolition), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

Edwards Aquifer - As defined under Texas Administrative Code § 213.3 of this title (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil’s River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the Texas Commission on Environmental Quality and the

appropriate regional office. The Edwards Aquifer Map Viewer, located at http://www.tceq.state.tx.us/compliance/field_ops/eapp/mapdisclaimer.html, can be used to determine where the recharge zone is located.

Edwards Aquifer Contributing Zone - The area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards Aquifer. The contributing zone is located upstream (upgradient) and generally north and northwest of the recharge zone for the following counties: all areas within Kinney County, except the area within the watershed draining to Segment 2304 of the Rio Grande Basin; all areas within Uvalde, Medina, Bexar, and Comal Counties; all areas within Hays and Travis Counties, except the area within the watersheds draining to the Colorado River above a point 1.3 miles upstream from Tom Miller Dam, Lake Austin at the confluence of Barrow Brook Cove, Segment 1403 of the Colorado River Basin; and all areas within Williamson County, except the area within the watersheds draining to the Lampasas River above the dam at Stillhouse Hollow reservoir, Segment 1216 of the Brazos River Basin. The contributing zone is illustrated on the Edwards Aquifer map viewer at http://www.tceq.state.tx.us/compliance/field_ops/eapp/mapdisclaimer.html.

Facility or Activity – For the purpose of this permit, a construction site or construction support activity that is regulated under this general permit, including all contiguous land and fixtures (e.g., ponds and materials stockpiles), structures, or appurtenances used at a construction site or industrial site described by this general permit.

Final Stabilization - A construction site status where any of the following conditions are met:

- (a) All soil disturbing activities at the site have been completed and a uniform (i.e., evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (b) For individual lots in a residential construction site by either:
 - (1) the homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) the homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization. If temporary stabilization is not feasible, then the homebuilder may fulfill this requirement by retaining perimeter controls or other best management practices, and informing the homeowner of the need for removal of temporary controls and the establishment of final stabilization.
- (c) For construction activities on land used for agricultural purposes (e.g. pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to surface water and areas that are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.

- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
- (1) Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and
 - (2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

Hyperchlorination of Waterlines – Treatment of potable water lines or tanks with chlorine for disinfection purposes, typically following repair or partial replacement of the waterline or tank, and subsequently flushing the contents.

Indian Country Land – (from 40 CFR 122.2) (1) all land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (2) all dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

Indian Tribe - (from 40 CFR 122.2) any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation.

Large Construction Activity - Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.)

Municipal Separate Storm Sewer System (MS4) - A separate storm sewer system owned or operated by the United States, a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, that discharges to surface water in the state.

Notice of Change (NOC) – Written notification to the executive director from a discharger authorized under this permit, providing changes to information that was previously provided to the agency in a notice of intent form.

Notice of Intent (NOI) - A written submission to the executive director from an applicant requesting coverage under this general permit.

Notice of Termination (NOT) - A written submission to the executive director from a discharger authorized under a general permit requesting termination of coverage.

Operator - The person or persons associated with a large or small construction activity that is either a primary or secondary operator as defined below:

Primary Operator – the person or persons associated with a large or small construction activity that meets either of the following two criteria:

- (a) the person or persons have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- (b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a storm water pollution prevention plan (SWP3) for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

Secondary Operator – The person whose operational control is limited to the employment of other operators or to the ability to approve or disapprove changes to plans and specifications. A secondary operator is also defined as a primary operator and must comply with the permit requirements for primary operators if there are no other operators at the construction site.

Outfall - For the purpose of this permit, a point source at the point where storm water runoff associated with construction activity discharges to surface water in the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other water of the U.S. and are used to convey waters of the U.S.

Permittee - An operator authorized under this general permit. The authorization may be gained through submission of a notice of intent, by waiver, or by meeting the requirements for automatic coverage to discharge storm water runoff and certain non-storm water discharges.

Point Source – (from 40 CFR §122.2) Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant - Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into any surface water in the state. The term "pollutant" does not include tail water or runoff water from irrigation or rainwater runoff from cultivated or uncultivated rangeland, pastureland, and farmland. For the purpose of this permit, the term "pollutant" includes sediment.

Pollution - (from Texas Water Code §26.001(14)) The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Rainfall Erosivity Factor (R factor) - the total annual erosive potential that is due to climatic effects, and is part of the Revised Universal Soil Loss Equation (RUSLE).

Semiarid Areas - areas with an average annual rainfall of 10 to 20 inches

Separate Storm Sewer System - A conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), designed or used for collecting or conveying storm water; that is not a combined sewer, and that is not part of a publicly owned treatment works (POTW).

Small Construction Activity - Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.)

Storm Water (or Storm Water Runoff) - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Associated with Construction Activity - Storm water runoff from a construction activity where soil disturbing activities (including clearing, grading, excavating) result in the disturbance of one (1) or more acres of total land area, or are part of a larger common plan of development or sale that will result in disturbance of one (1) or more acres of total land area.

Structural Control (or Practice) - A pollution prevention practice that requires the construction of a device, or the use of a device, to capture or prevent pollution in storm water runoff. Structural controls and practices may include but are not limited to: silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State - Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHW) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Temporary Stabilization - A condition where exposed soils or disturbed areas are provided a protective cover or other structural control to prevent the migration of pollutants. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either permanent stabilization can be achieved or until further construction activities take place.

Waters of the United States - (from 40 CFR, Part 122, Section 2) Waters of the United States or waters of the U.S. means:

- (a) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) all interstate waters, including interstate wetlands;
- (c) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) all impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) the territorial sea; and
- (g) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Part II. Permit Applicability and Coverage

Section A. Discharges Eligible for Authorization

1. Storm Water Associated with Construction Activity

Discharges of storm water runoff from small and large construction activities may be authorized under this general permit.

2. Discharges of Storm Water Associated with Construction Support Activities

Examples of construction support activities include, but are not limited to, concrete batch plants, rock crushers, asphalt batch plants, equipment staging areas, material storage yards, material borrow areas, and excavated material disposal areas. Discharges of storm water runoff from construction support activities may be authorized under this general permit, provided that the following conditions are met:

- (a) the activities are located within one (1)-mile from the boundary of the permitted construction site and directly support the construction activity;
- (b) a storm water pollution prevention plan is developed according to the provisions of this general permit and includes appropriate controls and measures to reduce erosion and discharge of pollutants in storm water runoff from the construction support activities; and
- (c) the construction support activities either do not operate beyond the completion date of the construction activity or are authorized under separate TPDES authorization. Separate TPDES authorization may include the TPDES Multi Sector General Permit, TXR050000 (related to storm water discharges associated with industrial activity), separate authorization under this general permit if applicable, coverage under an alternative general permit if available, or authorization under an individual water quality permit.

3. Non-Storm Water Discharges

The following non-storm water discharges from sites authorized under this general permit are also eligible for authorization under this general permit:

- (a) discharges from fire fighting activities (fire fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
- (b) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
- (c) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
- (d) uncontaminated water used to control dust;

- (e) potable water sources including waterline flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
 - (f) uncontaminated air conditioning condensate;
 - (g) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
 - (h) lawn watering and similar irrigation drainage.
4. Other Permitted Discharges

Any discharge authorized under a separate NPDES, TPDES, or TCEQ permit may be combined with discharges authorized by this general permit, provided those discharges comply with the associated permit.

Section B. Concrete Truck Wash Out

The washout of concrete trucks associated with off-site production facilities may be conducted at regulated construction sites in accordance with the requirements of Part V of this general permit.

Section C. Limitations on Permit Coverage

1. Post Construction Discharges.

Discharges that occur after construction activities have been completed, and after the construction site and any supporting activity site have undergone final stabilization, are not eligible for coverage under this general permit. Discharges originating from the sites are not authorized under this general permit following the submission of the notice of termination (NOT) for the construction activity.

2. Prohibition of Non-Storm Water Discharges

Except as otherwise provided in Part II.A. of this general permit, only discharges that are composed entirely of storm water associated with construction activity may be authorized under this general permit.

3. Compliance With Water Quality Standards

Discharges to surface water in the state that would cause or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses are not eligible for coverage under this general permit. The executive director may require an application for an individual permit or alternative general permit (see Parts II.H.2. and 3.) to authorize discharges to surface water in the state from any activity that is determined to cause a violation of water quality standards or is found to cause, or contribute to, the loss of a designated use. The executive director may also require an application for an individual permit considering factors described in Part II.H.2. of this general permit.

4. Discharges to Water Quality-Impaired Receiving Waters.

New sources or new discharges of the constituents of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standards and are listed on the EPA approved Clean Water Act Section 303(d) list. Constituents of concern are those for which the water body is listed as impaired.

Discharges of the constituents of concern to impaired water bodies for which there is a total maximum daily load (TMDL) are not eligible for this permit unless they are consistent with the approved TMDL. Permittees must incorporate the limitations, conditions, and requirements applicable to their discharges, including monitoring frequency and reporting required by TCEQ rules, into their storm water pollution prevention plan in order to be eligible for coverage under this general permit.

5. Discharges to the Edwards Aquifer Recharge Zone

Discharges cannot be authorized by this general permit where prohibited by 30 Texas Administrative Code (TAC) Chapter 213 (relating to Edwards Aquifer). **In addition, commencement of construction (i.e., the initial disturbance of soils associated with clearing, grading, or excavating activities, as well as other construction-related activities such as stockpiling of fill material and demolition) at a site regulated under 30 TAC Chapter 213, may not begin until the appropriate Edwards Aquifer Protection Plan has been approved by the TCEQ's Edwards Aquifer Protection Program.**

- (a) For new discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone, operators must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of this general permit.
- (b) For existing discharges located within the Edwards Aquifer Recharge Zone, the requirements of the agency-approved Water Pollution Abatement Plan under the Edwards Aquifer Rules are in addition to the requirements of this general permit. BMPs and maintenance schedules for structural storm water controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in storm water runoff are in addition to the requirements in this general permit for this pollutant.

For discharges from large construction activities located on the Edwards Aquifer recharge zone or the Edwards Aquifer contributing zone, applicants must submit a copy of the NOI to the appropriate TCEQ regional office. For discharges from small construction activities located on the Edwards Aquifer recharge zone or the Edwards Aquifer contributing zone, and for discharges from large construction activities by operators not required to submit an NOI under this general permit, applicants must submit a copy of the construction site notice to the appropriate TCEQ regional office where required by the Edwards Aquifer Rules at 30 TAC Chapter 213:

Counties:

Contact:

Comal, Bexar, Medina, Uvalde,
and Kinney

TCEQ
Water Program Manager
San Antonio Regional Office
14250 Judson Rd.
San Antonio, Texas
(210) 490-3096

Williamson, Travis, and Hays

TCEQ
Water Program Manager
Austin Regional Office
2800 South IH 35, Suite 100
Austin, Texas 78704-5712
(512) 339-2929

6. Discharges to Specific Watersheds and Water Quality Areas

Discharges otherwise eligible for coverage cannot be authorized by this general permit where prohibited by 30 TAC Chapter 311 (relating to Watershed Protection) for water quality areas and watersheds.

7. Protection of Streams and Watersheds by Other Governmental Entities

This general permit does not limit the authority or ability of federal, other state, or local governmental entities from placing additional or more stringent requirements on construction activities or discharges from construction activities. For example, this permit does not limit the authority of a home-rule municipality provided by Texas Local Government Code §401.002.

8. Indian Country Lands

Storm water runoff from construction activities occurring on Indian Country lands are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of storm water require authorization under federal National Pollutant Discharge Elimination System (NPDES) regulations, authority for these discharges must be obtained from the U.S. Environmental Protection Agency (EPA).

9. Oil and Gas Production

Storm water runoff from construction activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline, are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of storm water require authorization under federal NPDES regulations, authority for these discharges must be obtained from the EPA.

10. Storm Water Discharges from Agricultural Activities

Storm water discharges from agricultural activities that are not point source discharges of storm water are not subject to TPDES permit requirements. These activities may include clearing and cultivating ground for crops, construction of fences to contain livestock, construction of stock ponds, and other similar agricultural activities. Discharges of storm water runoff associated with the construction of facilities that are subject to TPDES regulations, such as the construction of confined animal feeding operations, would be point sources regulated under this general permit.

11. Other

Nothing in Part II of the general permit is intended to negate any person's ability to assert the force majeure (act of God, war, strike, riot, or other catastrophe) defenses found in 30 TAC § 70.7.

Section D. Deadlines for Obtaining Authorization to Discharge

1. Large Construction Activities

- (a) New Construction - Discharges from sites where the commencement of construction occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction - Operators of large construction activities continuing to operate after the effective date of this permit, and authorized under TPDES general permit TXR150000 (issued March 5, 2003), must submit an NOI to renew authorization under this general permit within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the previous TPDES permit.

2. Small Construction Activities

- (a) New Construction - Discharges from sites where the commencement of construction occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction - Discharges from ongoing small construction activities that commenced prior to the effective date of this general permit, and that would not meet the conditions to qualify for termination of this permit as described in Part II.E. of this general permit, must meet the requirements to be authorized, either under this general permit or a separate TPDES permit, within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the previous TPDES permit.

Section E. Obtaining Authorization to Discharge

1. Automatic Authorization for Small Construction Activities With Low Potential for Erosion:

If all of the following conditions are met, then a small construction activity is determined to occur during periods of low potential for erosion, and a site operator may be automatically authorized under this general permit without being required to develop a storm water pollution prevention plan or submit a notice of intent (NOI):

- (a) the construction activity occurs in a county listed in Appendix A;
- (b) the construction activity is initiated and completed, including either final or temporary stabilization of all disturbed areas, within the time frame identified in Appendix A for the location of the construction site;
- (c) all temporary stabilization is adequately maintained to effectively reduce or prohibit erosion, permanent stabilization activities have been initiated, and a condition of final stabilization is completed no later than 30 days following the end date of the time frame identified in Appendix A for the location of the construction site;
- (d) the permittee signs a completed construction site notice (Attachment 1 of this general permit), including the certification statement;
- (e) a signed copy of the construction site notice is posted at the construction site in a location where it is readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and maintained in that location until completion of the construction activity;
- (f) a copy of the signed and certified construction site notice is provided to the operator of any municipal separate storm sewer system (MS4) receiving the discharge at least two days prior to commencement of construction activities;
- (g) any supporting concrete batch plant or asphalt batch plant is separately authorized for discharges of storm water runoff or other non-storm water discharges under an individual TPDES permit, another TPDES general permit, or under an individual TCEQ permit where storm water and non-storm water is disposed of by evaporation or irrigation (discharges are adjacent to water in the state); and
- (h) any non-storm water discharges are either authorized under a separate permit or authorization, or are not considered to be a wastewater.

Part II.G. of this general permit describes how an operator may apply for and obtain a waiver from permitting, for certain small construction activities that occur during a period with a low potential for erosion, where automatic authorization under this section is not available.

2. Automatic Authorization For All Other Small Construction Activities:

Operators of small construction activities not described in Part II.E.1. above may be automatically authorized under this general permit, and operators of these sites shall not be required to submit an NOI, provided that they meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit, that covers either the entire site or all portions of the site for which the applicant is the operator, and implement that plan prior to commencing construction activities;
- (b) sign and certify a completed construction site notice (Attachment 2 of this general permit), post the notice at the construction site in a location where it is safely and readily available for viewing by the general public, local, state, and federal authorities, prior to commencing construction, and maintain the notice in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public; local, state, and federal authorities); and
- (c) provide a copy of the signed and certified construction site notice to the operator of any municipal separate storm sewer system receiving the discharge at least two days prior to commencement of construction activities.

Operators of small construction activities as defined in Part I of this general permit shall not submit an NOI for coverage unless otherwise required by the executive director.

As described in Part I (Definitions) of this general permit, large construction activities include those that will disturb less than five (5) acres of land, but that are part of a larger common plan of development or sale that will ultimately disturb five (5) or more acres of land, and must meet the requirements of Part II.E.3. below.

3. Authorization for Large Construction Activities:

Operators of large construction activities that qualify for coverage under this general permit must meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit that covers either the entire site or all portions of the site for which the applicant is the operator, and implement that plan prior to commencing construction activities;
- (b) primary operators must submit a Notice of Intent (NOI), using a form provided by the executive director, at least seven (7) days prior to commencing construction activities, or if utilizing electronic submittal, prior to commencing construction activities. If an additional primary operator is added after the initial NOI is submitted, the new primary operator must submit an NOI at least seven (7) days before assuming operational control, or if utilizing electronic NOI submittal, prior to assuming operational control. If the primary operator changes after the initial NOI is submitted, the new primary operator must submit a paper NOI or an electronic NOI at least ten (10) days before assuming operational control;
- (c) all primary operators must also post a copy of the signed NOI at the construction site in a location where it is readily available for viewing by the general public, local,

state, and federal authorities prior to commencing construction activities, and must maintain the NOI in that location until completion of the construction activity;

- (d) all operators of large construction activities must post a site notice in accordance with Part III.D.2. of this permit. The site notice must be located where it is safely and readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction, and must be maintained in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public; local, state, and federal authorities); and
 - (e) all primary operators must provide a copy of the signed NOI to the operator of any municipal separate storm sewer system (MS4) receiving the discharge and to any secondary operator, at least seven (7) days prior to commencing construction activities, and must list in the SWP3 the names and addresses of all MS4 operators receiving a copy.
 - (f) All persons meeting the definition of “secondary operator” in Part I of this permit are hereby notified that they are regulated under this general permit, but are not required to submit an NOI, provided that another operator(s) at the site has submitted an NOI, or is required to submit an NOI and the secondary operator has provided notification to the operator(s) of the need to obtain coverage (with records of notification available upon request). Any secondary operator notified under this provision may alternatively submit an NOI under this general permit, may seek coverage under an alternative TPDES individual permit, or may seek coverage under an alternative TPDES general permit if available.
4. Waivers for Small Construction Activities:

Part II.G. describes how operators of certain small construction activities may obtain a waiver from coverage.

5. Effective Date of Coverage

- (a) Operators of small construction activities as described in either Part II.E.1. or II.E.2. above are authorized immediately following compliance with the applicable conditions of Part II.E.1. or II.E.2. Secondary operators of large construction activities as described in Part II.E.3. above are authorized immediately following compliance with the applicable conditions in Part II.E.3. For activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator’s responsibilities under that rule. Construction may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.
- (b) Primary operators of large construction activities as described in Part II.E.3. above are provisionally authorized seven (7) days from the date that a completed NOI is

postmarked for delivery to the TCEQ, unless otherwise notified by the executive director. If electronic submission of the NOI is provided, and unless otherwise notified by the executive director, primary operators are authorized immediately following confirmation of receipt of the NOI by the TCEQ. Authorization is non-provisional when the executive director finds the NOI is administratively complete and an authorization number is issued for the activity. For activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

- (c) Operators are not prohibited from submitting late NOIs or posting late notices to obtain authorization under this general permit. The TCEQ reserves the right to take appropriate enforcement actions for any unpermitted activities that may have occurred between the time construction commenced and authorization was obtained.

6. Notice of Change (NOC)

If relevant information provided in the NOI changes, an NOC must be submitted at least 14 days before the change occurs, if possible. Where 14-day advance notice is not possible, the operator must submit an NOC within 14 days of discovery of the change. If the operator becomes aware that it failed to submit any relevant facts or submitted incorrect information in an NOI, the correct information must be provided to the executive director in an NOC within 14 days after discovery. The NOC shall be submitted on a form provided by the executive director, or by letter if an NOC form is not available. A copy of the NOC must also be provided to the operator of any MS4 receiving the discharge, and a list must be included in the SWP3 that includes the names and addresses of all MS4 operators receiving a copy.

Information that may be included on an NOC includes, but is not limited to, the following: the description of the construction project, an increase in the number of acres disturbed (for increases of one or more acres), or the operator name. A transfer of operational control from one operator to another, including a transfer of the ownership of a company, may not be included in an NOC. A transfer of ownership of a company includes changes to the structure of a company, such as changing from a partnership to a corporation or changing corporation types, so that the filing number (or charter number) that is on record with the Texas Secretary of State must be changed.

An NOC is not required for notifying TCEQ of a decrease in the number of acres disturbed. This information must be included in the storm water pollution prevention plan (SWP3) and retained on site.

7. Signatory Requirement for NOI Forms, Notice of Termination (NOT) Forms, NOC Letters, and Construction Site Notices

NOI forms, NOT forms, NOC letters, and Construction Site Notices that require a signature must be signed according to 30 TAC § 305.44 (relating to Signatories for Applications).

8. Contents of the NOI

The NOI form shall require, at a minimum, the following information:

- (a) the TPDES CGP authorization number for existing authorizations under this general permit, where the operator submits an NOI to renew coverage within 90 days of the effective date of this general permit;
- (b) the name, address, and telephone number of the operator filing the NOI for permit coverage;
- (c) the name (or other identifier), address, county, and latitude/longitude of the construction project or site;
- (d) the number of acres that will be disturbed by the applicant;
- (e) confirmation that the project or site will not be located on Indian Country lands;
- (f) confirmation that a SWP3 has been developed, that it will be implemented prior to construction, and that it is compliant with any applicable local sediment and erosion control plans;
- (g) name of the receiving water(s);
- (h) the classified segment number for each classified segment that receives discharges from the regulated construction activity (if the discharge is not directly to a classified segment, then the classified segment number of the first classified segment that those discharges reach); and
- (i) the name of all surface waters receiving discharges from the regulated construction activity that are on the latest EPA-approved CWA § 303(d) list of impaired waters.

Section F. Terminating Coverage

1. Notice of Termination (NOT) Required

Each operator that has submitted an NOI for authorization under this general permit must apply to terminate that authorization following the conditions described in this section of the general permit. Authorization must be terminated by submitting a Notice of Termination (NOT) on a form supplied by the executive director. Authorization to discharge under this general permit terminates at midnight on the day the NOT is postmarked for delivery to the TCEQ. If electronic submission of the NOT is provided, authorization to discharge under this permit terminates immediately following confirmation of receipt of the NOT by the TCEQ. Compliance with the conditions and requirements of this permit is required until an NOT is submitted.

The NOT must be submitted to TCEQ, and a copy of the NOT provided to the operator of any MS4 receiving the discharge (with a list in the SWP3 of the names and addresses of all MS4 operators receiving a copy), within 30 days after any of the following conditions are met:

- (a) final stabilization has been achieved on all portions of the site that are the responsibility of the permittee;
- (b) a transfer of operational control has occurred (See Section II.F.4. below); or
- (c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.

2. Minimum Contents of the NOT

The NOT form shall require, at a minimum, the following information:

- (a) if authorization was granted following submission of an NOI, the permittee's site-specific TPDES authorization number for the construction site;
- (b) an indication of whether the construction activity is completed or if the permittee is simply no longer an operator at the site;
- (c) the name, address, and telephone number of the permittee submitting the NOT;
- (d) the name (or other identifier), address, county, and latitude/longitude of the construction project or site; and
- (e) a signed certification that either all storm water discharges requiring authorization under this general permit will no longer occur, or that the applicant to terminate coverage is no longer the operator of the facility or construction site, and that all temporary structural erosion controls have either been removed, will be removed on a schedule defined in the SWP3, or have been transferred to a new operator if the new operator has applied for permit coverage. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal.

3. Termination of Coverage for Small Construction Sites and for Secondary Operators at Large Construction Sites

Each operator that has obtained automatic authorization and has not been required to submit an NOI must remove the site notice upon meeting any of the conditions listed below, complete the applicable portion of the site notice related to removal of the site notice, and submit a copy of the completed site notice to the operator of any MS4 receiving the discharge (or provide alternative notification as allowed by the MS4 operator, with documentation of such notification included in the SWP3), within 30 days of meeting any of the following conditions:

- (a) final stabilization has been achieved on all portions of the site that are the responsibility of the permittee;
- (b) a transfer of operational control has occurred (See Section II.F.4. below); or

- (c) the operator has obtained alternative authorization under an individual or general TPDES permit.

Authorization to discharge under this general permit terminates immediately upon removal of the applicable site notice. Compliance with the conditions and requirements of this permit is required until the site notice is removed.

4. Transfer of Operational Control

Coverage under this general permit is not transferable. A transfer of operational control includes changes to the structure of a company, such as changing from a partnership to a corporation, or changing to a different corporation type such that a different filing (or charter) number is established with the Texas Secretary of State.

When the primary operator of a large construction activity changes or operational control is transferred, the original operator must submit a Notice of Termination (NOT) within ten (10) days prior to the date that responsibility for operations terminates, and the new operator must submit an NOI at least ten (10) days prior to the transfer of operational control, in accordance with condition (a) or (b) below. A copy of the NOT must be provided to the operator of any MS4 receiving the discharge in accordance with Section II.F.1. above.

Operators of regulated construction activities who are not required to submit an NOI must remove the original site notice, and the new operator must post the required site notice prior to the transfer of operational control, in accordance with condition (a) or (b) below. A copy of the completed site notice must be provided to the operator of any MS4 receiving the discharge, in accordance with Section II.F.3. above.

A transfer of operational control occurs when either of the following criteria is met:

- (a) Another operator has assumed control over all areas of the site that have not been finally stabilized; and all silt fences and other temporary erosion controls have either been removed, scheduled for removal as defined in the SWP3, or transferred to a new operator, provided that the permitted operator has attempted to notify the new operator in writing of the requirement to obtain permit coverage. Record of this notification (or attempt at notification) shall be retained by the operator in accordance with Part VI of this permit. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal.
- (b) A homebuilder has purchased one or more lots from an operator who obtained coverage under this general permit for a common plan of development or sale. The homebuilder is considered a new operator and shall comply with the requirements listed above, including the development of a SWP3 if necessary. Under these circumstances, the homebuilder is only responsible for compliance with the general permit requirements as they apply to lot(s) it has operational control over, and the original operator remains responsible for common controls or discharges, and must amend its SWP3 to remove the lot(s) transferred to the homebuilder.

Section G. Waivers from Coverage

The executive director may waive the otherwise applicable requirements of this general permit for storm water discharges from small construction activities under the terms and conditions described in this section.

1. Waiver Applicability and Coverage

Operators of small construction activities may apply for and receive a waiver from the requirements to obtain authorization under this general permit, where all of the following conditions are met. This waiver from coverage does not apply to non-storm water discharges. The operator must insure that any non-storm water discharges are either authorized under a separate permit or authorization, or are not considered to be a wastewater.

- (a) the calculated rainfall erosivity (R) factor for the entire period of the construction project is less than five (5);
- (b) the operator submits to the TCEQ a signed waiver certification form, supplied by the executive director, certifying that the construction activity will commence and be completed within a period when the value of the calculated rainfall erosivity R factor is less than five (5); and
- (c) the waiver certification form is postmarked for delivery to the TCEQ at least two (2) days before construction activity begins.

2. Steps to Obtaining a Waiver

The construction site operator may calculate the R factor to request a waiver using the following steps:

- (a) Estimate the construction start date and the construction end date. The construction end date is the date that final stabilization will be achieved.
- (b) Find the appropriate Erosivity Index (EI) zone in Appendix B of this permit.
- (c) Find the EI percentage for the project period by adding the results for each period of the project using the table provided in Appendix D of this permit, in EPA Fact Sheet 2.1, or in USDA Handbook 703, by subtracting the start value from the end value to find the percent EI for the site.
- (d) Refer to the Isoerodent Map (Appendix C of this permit) and interpolate the annual isoerodent value for the proposed construction location.
- (e) Multiply the percent value obtained in Step (c) above by the annual isoerodent value obtained in Step (d). This is the R factor for the proposed project. If the value is less than 5, then a waiver may be obtained. If the value is five (5) or more, then a waiver may not be obtained, and the operator must obtain coverage under Part II.E.2. of this permit.

Alternatively, the operator may calculate a site-specific R factor utilizing the following online calculator: <http://ei.tamu.edu/index.html>, or using another available resource.

The waiver certification form is not required to be posted at the small construction site.

3. Effective Date of Waiver

Operators of small construction activities are provisionally waived from the otherwise applicable requirements of this general permit two (2) days from the date that a completed waiver certification form is postmarked for delivery to TCEQ.

4. Activities Extending Beyond the Waiver Period

If a construction activity extends beyond the approved waiver period due to circumstances beyond the control of the operator, the operator must either:

- (a) recalculate the rainfall erosivity (R) factor using the original start date and a new projected ending date, and if the R factor is still under five (5), submit a new waiver certification form at least two (2) days before the end of the original waiver period; or
- (b) obtain authorization under this general permit according to the requirements delineated in either Part II.E.2. or Part II.E.3. at least two (2) days before the end of the approved waiver period.

Section H. Alternative TPDES Permit Coverage

1. Individual Permit Alternative

Any discharge eligible for coverage under this general permit may alternatively be authorized under an individual TPDES permit according to 30 TAC Chapter 305 (relating to Consolidated Permits). Applications for individual permit coverage should be submitted at least three hundred and thirty (330) days prior to commencement of construction activities to ensure timely issuance.

2. Individual Permit Required

The executive director may suspend an authorization or deny an NOI in accordance with the procedures set forth in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), including the requirement that the executive director provide written notice to the permittee. The executive director may require an operator of a construction site, otherwise eligible for authorization under this general permit, to apply for an individual TPDES permit in the following circumstances:

- (a) the conditions of an approved total maximum daily load (TMDL) limitation or TMDL implementation plan on the receiving stream;

- (b) the activity being determined to cause a violation of water quality standards or being found to cause, or contribute to, the loss of a designated use of surface water in the state: and
- (c) any other consideration defined in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges) including 30 TAC §205.4(c)(3)(D), which allows the commission to deny authorization under the general permit and require an individual permit if a discharger “has been determined by the executive director to have been out of compliance with any rule, order, or permit of the commission, including non-payment of fees assessed by the executive director.”

Additionally, the executive director may cancel, revoke, or suspend authorization to discharge under this general permit based on a finding of historical and significant noncompliance with the provisions of this general permit, relating to 30 TAC §60.3 (Use of Compliance History). Denial of authorization to discharge under this general permit or suspension of a permittee’s authorization under this general permit shall be done according to commission rules in 30 TAC, Chapter 205 (relating to General Permits for Waste Discharges).

- 3. Any discharge eligible for authorization under this general permit may alternatively be authorized under a separate general permit according to 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), if applicable.

Section I. Permit Expiration

- 1. This general permit is issued for a term not to exceed five (5) years. All active discharge authorizations expire on the date provided on page one (1) of this permit. Following public notice and comment, as provided by 30 TAC §205.3 (relating to Public Notice, Public Meetings, and Public Comment), the commission may amend, revoke, cancel, or renew this general permit.
- 2. If the executive director publishes a notice of the intent to renew or amend this general permit before the expiration date, the permit will remain in effect for existing, authorized discharges until the commission takes final action on the permit. Upon issuance of a renewed or amended permit, permittees may be required to submit an NOI within 90 days following the effective date of the renewed or amended permit, unless that permit provides for an alternative method for obtaining authorization.
- 3. If the commission does not propose to reissue this general permit within 90 days before the expiration date, permittees shall apply for authorization under an individual permit or an alternative general permit. If the application for an individual permit is submitted before the expiration date, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit. No new NOIs will be accepted nor new authorizations honored under the general permit after the expiration date.

Part III. Storm Water Pollution Prevention Plans (SWP3)

Storm water pollution prevention plans must be prepared to address discharges authorized under Parts II.E.2. and II.E.3. that will reach Waters of the United States, including discharges to MS4s and privately owned

separate storm sewer systems that drain to Waters of the United States, to identify and address potential sources of pollution that are reasonably expected to affect the quality of discharges from the construction site, including off-site material storage areas, overburden and stockpiles of dirt, borrow areas, equipment staging areas, vehicle repair areas, fueling areas, etc., used solely by the permitted project. The SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in storm water associated with construction activity and non-storm water discharges described in Part II.A.3., in compliance with the terms and conditions of this permit.

Individual operators at a site may develop separate SWP3s that cover only their portion of the project, provided reference is made to the other operators at the site. Where there is more than one SWP3 for a site, permittees must coordinate to ensure that BMPs and controls are consistent and do not negate or impair the effectiveness of each other. Regardless of whether a single comprehensive SWP3 is developed or separate SWP3s are developed for each operator, it is the responsibility of each operator to ensure compliance with the terms and conditions of this general permit in the areas of the construction site where that operator has control over construction plans and specifications or day-to-day operations.

Section A. Shared SWP3 Development

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site is encouraged. Operators must independently obtain authorization, but may work together to prepare and implement a single, comprehensive SWP3 for the entire construction site.

1. The SWP3 must clearly list the name and, for large construction activities, the general permit authorization numbers, for each operator that participates in the shared SWP3. Until the TCEQ responds to receipt of the NOI with a general permit authorization number, the SWP3 must specify the date that the NOI was submitted to TCEQ by each operator. Each operator participating in the shared plan must also sign the SWP3.
2. The SWP3 must clearly indicate which operator is responsible for satisfying each shared requirement of the SWP3. If the responsibility for satisfying a requirement is not described in the plan, then each permittee is entirely responsible for meeting the requirement within the boundaries of the construction site where they perform construction activities. The SWP3 must clearly describe responsibilities for meeting each requirement in shared or common areas.

Section B. Responsibilities of Operators

1. Secondary Operators and Primary Operators with Control Over Construction Plans and Specifications

All secondary operators and primary operators with control over construction plans and specifications must:

- (a) ensure the project specifications allow or provide that adequate BMPs are developed to meet the requirements of Part III of this general permit;
- (b) ensure that the SWP3 indicates the areas of the project where they have control over project specifications, including the ability to make modifications in specifications;

- (c) ensure all other operators affected by modifications in project specifications are notified in a timely manner so that those operators may modify their best management practices as necessary to remain compliant with the conditions of this general permit; and
 - (d) ensure that the SWP3 for portions of the project where they are operators indicates the name and site-specific TPDES authorization numbers for permittees with the day-to-day operational control over those activities necessary to ensure compliance with the SWP3 and other permit conditions. If the party with day-to-day operational control has not been authorized or has abandoned the site, the person with control over project specifications is considered to be the responsible party until the authority is transferred to another party and the SWP3 is updated.
2. Primary Operators with Day-to-Day Operational Control

Primary Operators with day-to-day operational control of those activities at a project that are necessary to ensure compliance with an SWP3 and other permit conditions must ensure that the SWP3 accomplishes the following requirements:

- (a) meets the requirements of this general permit for those portions of the project where they are operators;
- (b) identifies the parties responsible for implementation of best management practices (BMPs) described in the SWP3;
- (c) indicates areas of the project where they have operational control over day-to-day activities; and
- (d) includes, for areas where they have operational control over day-to-day activities, the name and site-specific TPDES authorization number of the parties with control over project specifications, including the ability to make modifications in specifications.

Section C. Deadlines for SWP3 Preparation, Implementation, and Compliance

The SWP3 must be prepared prior to obtaining authorization under this general permit, and implemented prior to commencing construction activities that result in soil disturbance. The SWP3 must be prepared so that it provides for compliance with the terms and conditions of this general permit.

Section D. Plan Review and Making Plans Available

1. The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3. The SWP3 must be made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site.

2. In addition to the requirement to post the NOI, a primary operator of a large construction activity must post the site notice provided in Attachment 4 of this permit near the main entrance of the construction site. An operator of a small construction activity seeking authorization under this general permit and a secondary operator of a large construction activity must post the site notice required in Part II.E.1., 2., or 3. of this permit in order to obtain authorization (see Attachments 1, 2, and 3). If the construction project is a linear construction project (e.g. pipeline or highway), the notices must be placed in a publicly accessible location near where construction is actively underway. Notices for these linear sites may be relocated, as necessary, along the length of the project. The notices must be readily available for viewing by the general public; local, state, and federal authorities; and contain the following information:
 - (a) the site-specific TPDES authorization number for the project if assigned;
 - (b) the operator name, contact name, and contact phone number;
 - (c) a brief description of the project; and
 - (d) the location of the SWP3.
3. This permit does not provide the general public with any right to trespass on a construction site for any reason, including inspection of a site; nor does this permit require that permittees allow members of the general public access to a construction site.

Section E. Revisions and Updates to SWP3s

The permittee must revise or update the SWP3 whenever the following occurs:

1. a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the SWP3;
2. changing site conditions based on updated plans and specifications, new operators, new areas of responsibility, and changes in BMPs; or
3. results of inspections or investigations by site operators, operators of a municipal separate storm sewer system receiving the discharge, authorized TCEQ personnel, or a federal, state or local agency approving sediment and erosion plans indicate the SWP3 is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under this general permit.

Section F. Contents of SWP3

The SWP3 must include, at a minimum, the information described in this section.

1. A site or project description, which includes the following information:
 - (a) a description of the nature of the construction activity;
 - (b) a list of potential pollutants and their sources;

- (c) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site;
- (d) the total number of acres of the entire property and the total number of acres where construction activities will occur, including off-site material storage areas, overburden and stockpiles of dirt, and borrow areas that are authorized under the permittee's NOI;
- (e) data describing the soil or the quality of any discharge from the site;
- (f) a map showing the general location of the site (e.g. a portion of a city or county map);
- (g) a detailed site map (or maps) indicating the following:
 - (i) drainage patterns and approximate slopes anticipated after major grading activities;
 - (ii) areas where soil disturbance will occur;
 - (iii) locations of all major structural controls either planned or in place;
 - (iv) locations where temporary or permanent stabilization practices are expected to be used;
 - (v) locations of construction support activities, including off-site activities, that are authorized under the permittee's NOI, including material, waste, borrow, fill, or equipment storage areas;
 - (vi) surface waters (including wetlands) either at, adjacent, or in close proximity to the site;
 - (vii) locations where storm water discharges from the site directly to a surface water body or a municipal separate storm sewer system; and
 - (viii) vehicle wash areas.

Where the amount of information required to be included on the map would result in a single map being difficult to read and interpret, the operator shall develop a series of maps that collectively include the required information.

- (h) the location and description of support activities authorized under the permittee's NOI, including asphalt plants, concrete plants, and other activities providing support to the construction site that is authorized under this general permit;
- (i) the name of receiving waters at or near the site that may be disturbed or that may receive discharges from disturbed areas of the project;

- (j) a copy of this TPDES general permit, and
 - (k) the notice of intent (NOI) and acknowledgement certificate for primary operators of large construction sites, and the site notice for small construction sites and for secondary operators of large construction sites.
2. A description of the best management practices (BMPs) that will be used to minimize pollution in runoff.

The description must identify the general timing or sequence for implementation. At a minimum, the description must include the following components:

(a) General Requirements

- (i) Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.
- (ii) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.
- (iii) Controls must be developed to minimize the offsite transport of litter, construction debris, and construction materials.

(b) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where it is possible.

- (i) Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.
- (ii) The following records must be maintained and either attached to or referenced in the SWP3, and made readily available upon request to the parties listed in Part III.D.1 of this general permit:
 - (A) the dates when major grading activities occur;
 - (B) the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (C) the dates when stabilization measures are initiated.

- (iii) Erosion control and stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily ceased. Stabilization measures that provide a protective cover must be initiated as soon as practicable in portions of the site where construction activities have permanently ceased. Except as provided in (A) through (D) below, these measures must be initiated no more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased:
 - (A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.
 - (B) Where construction activity on a portion of the site has temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary erosion control and stabilization measures are not required on that portion of site.
 - (C) In arid areas, semiarid areas, and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased or is precluded by arid conditions, erosion control and stabilization measures must be initiated as soon as practicable. Where vegetative controls are not feasible due to arid conditions, the operator shall install non-vegetative erosion controls. If non-vegetative controls are not feasible, the operator shall install temporary sediment controls as required in Paragraph (D) below.
 - (D) In areas where temporary stabilization measures are infeasible, the operator may alternatively utilize temporary perimeter controls. The operator must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site to the extent practicable. The operator must continue to inspect the BMPs at the frequency established in Section III.F.7.(a) for unstabilized sites.
 - (iv) Final stabilization must be achieved prior to termination of permit coverage.
- (c) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from storm water runoff, including the general timing or sequence for implementation of controls.

- (i) Sites With Drainage Areas of Ten or More Acres
 - (A) Sedimentation Basin(s)

- (1) A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin. Capacity calculations shall be included in the SWP3.
 - (2) Where rainfall data is not available or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site.
 - (3) If a sedimentation basin is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site. In determining whether installing a sediment basin is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins.
- (B) Perimeter Controls: At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.
- (ii) Controls for Sites With Drainage Areas Less than Ten Acres:
- (A) Sediment traps and sediment basins may be used to control solids in storm water runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.
 - (B) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed

acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.

3. A Description of Permanent Storm Water Controls

A description of any measures that will be installed during the construction process to control pollutants in storm water discharges that may occur after construction operations have been completed must be included in the SWP3. Permittees are only responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site or prior to submission of an NOT.

4. Other Required Controls and BMPs

- (a) Permittees shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and the generation of dust. The SWP3 shall include a description of controls utilized to accomplish this requirement.
- (b) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.
- (c) The SWP3 must include a description of potential pollutant sources from areas other than construction (such as storm water discharges from dedicated asphalt plants and dedicated concrete batch plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.
- (d) Permittees shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (i.e., runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.
- (e) Permittees shall design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site.

5. Documentation of Compliance with Approved State and Local Plans

- (a) Permittees must ensure that the SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or storm water management site plans or site permits approved by federal, state, or local officials.
- (b) SWP3s must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or storm water management site plans or site permits approved by state or local official for which the permittee receives written notice.

- (c) If the permittee is required to prepare a separate management plan, including but not limited to a Water Pollution Abatement Plan or Contributing Zone Plan in accordance with 30 TAC Chapter 213 (related to the Edwards Aquifer), then a copy of that plan must be either included in the SWP3 or made readily available upon request to authorized personnel of the TCEQ. The permittee shall maintain a copy of the approval letter for the plan in its SWP3.

6. Maintenance Requirements

- (a) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of storm water controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.
- (b) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the operator must replace or modify the control as soon as practicable after making the discovery.
- (c) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- (d) If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must work with the owner or operator of the property to remove the sediment.

7. Inspections of Controls

- (a) Personnel provided by the permittee must inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site. Sediment and erosion control measures identified in the SWP3 must be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid or semi-arid areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater.

As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection. The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).

- (b) Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may provide inspection personnel with limited access to the areas described in Part III.F.8.(a) above. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls must be inspected at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches, but representative inspections may be performed. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described in Part III.F.8.(a) above. The conditions of the controls along each inspected 0.25 mile portion may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile portion to either the end of the next 0.25 mile inspected portion, or to the end of the project, whichever occurs first.

As an alternative to the above-described inspection schedule of once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, the inspection must occur on a specifically defined day, regardless of whether or not there has been a rainfall event since the previous inspection. The inspections may occur on either schedule provided that the SWP3 reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).

- (c) In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- (d) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.
- (e) A report summarizing the scope of the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWP3 must be made and retained as part of the SWP3. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

Actions taken as a result of inspections must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.

- 8. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-storm water components of the discharge, as listed in Part II.A.3. of this permit.
- 9. The SWP3 must include the information required in Part III.B. of this general permit.

Part IV. Storm Water Runoff from Concrete Batch Plants

Discharges of storm water runoff from concrete batch plants at regulated construction sites may be authorized under the provisions of this general permit provided that the following requirements are met for concrete batch plant(s) authorized under this permit. If discharges of storm water runoff from concrete batch plants are not covered under this general permit, then discharges must be authorized under an alternative general permit or individual permit. This permit does not authorize the discharge or land disposal of any wastewater from concrete batch plants at regulated construction sites. Authorization for these wastes must be obtained under an individual permit or an alternative general permit.

Section A. Benchmark Sampling Requirements

- 1. Operators of concrete batch plants authorized under this general permit must sample the storm water runoff from the concrete batch plants according to the requirements of this

section of this general permit, and must conduct evaluations on the effectiveness of the SWP3 based on the following benchmark monitoring values:

| Benchmark Parameter | Benchmark Value | Sampling Frequency | Sample Type |
|----------------------------|-----------------------------|---------------------------|--------------------|
| Oil and Grease | 15 mg/L | 1/quarter (*1)(*2) | Grab (*3) |
| Total Suspended Solids | 100 mg/L | 1/quarter (*1)(*2) | Grab (*3) |
| pH | 6.0 - 9.0 Standard Units | 1/quarter (*1)(*2) | Grab (*3) |
| Total Iron | 1.3 mg/L | 1/quarter(*1)(*2) | Grab (*3) |

(*1) When discharge occurs. Sampling is required within the first 30 minutes of discharge. If it is not practicable to take the sample, or to complete the sampling, within the first 30 minutes, sampling must be completed within the first hour of discharge. If sampling is not completed within the first 30 minutes of discharge, the reason must be documented and attached to all required reports and records of the sampling activity.

(*2) Sampling must be conducted at least once during each of the following periods. The first sample must be collected during the first full quarter that a storm water discharge occurs from a concrete batch plant authorized under this general permit.

- January through March
- April through June
- July through September
- October through December

For projects lasting less than one full quarter, a minimum of one sample shall be collected, provided that a storm water discharge occurred at least once following submission of the NOI or following the date that automatic authorization was obtained under Section II.E.2., and prior to terminating coverage.

(*3) A grab sample shall be collected from the storm water discharge resulting from a storm event that is at least 0.1 inches of measured precipitation that occurs at least 72 hours from the previously measurable storm event. The sample shall be collected downstream of the concrete batch plant, and where the discharge exits any BMPs utilized to handle the runoff from the batch plant, prior to commingling with any other water authorized under this general permit.

2. The permittee must compare the results of sample analyses to the benchmark values above, and must include this comparison in the overall assessment of the SWP3’s effectiveness. Analytical results that exceed a benchmark value are not a violation of this permit, as these values are not numeric effluent limitations. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. The operator must investigate the cause for each exceedance and must document the results of this investigation in the SWP3 by the end of the quarter following the sampling event.

The operator's investigation must identify the following:

- (a) any additional potential sources of pollution, such as spills that might have occurred,
- (b) necessary revisions to good housekeeping measures that are part of the SWP3,
- (c) additional BMPs, including a schedule to install or implement the BMPs, and
- (d) other parts of the SWP3 that may require revisions in order to meet the goal of the benchmark values.

Background concentrations of specific pollutants may also be considered during the investigation. If the operator is able to relate the cause of the exceedance to background concentrations, then subsequent exceedances of benchmark values for that pollutant may be resolved by referencing earlier findings in the SWP3. Background concentrations may be identified by laboratory analyses of samples of storm water runoff to the permitted facility, by laboratory analyses of samples of storm water run-off from adjacent non-industrial areas, or by identifying the pollutant is a naturally occurring material in soils at the site.

Section B. Best Management Practices (BMPs) and SWP3 Requirements

Minimum Storm Water Pollution Prevention Plan (SWP3) Requirements – The following are required in addition to other SWP3 requirements listed in this general permit (including, but not limited to Part III.F.7. of this permit):

1. Description of Potential Pollutant Sources - The SWP3 must provide a description of potential sources (activities and materials) that may reasonably be expected to affect the quality of storm water discharges associated with concrete batch plants authorized under this permit. The SWP3 must describe practices that that will be used to reduce the pollutants in these discharges to assure compliance with this general permit, including the protection of water quality, and must ensure the implementation of these practices.

The following must be developed, at a minimum, in support of developing this description:

- (a) Drainage – The site map must include the following information:
 - (1) the location of all outfalls for storm water discharges associated with concrete batch plants that are authorized under this permit;
 - (2) a depiction of the drainage area and the direction of flow to the outfall(s);
 - (3) structural controls used within the drainage area(s);
 - (4) the locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal

of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and

- (5) the locations of the following: any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
 - (b) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to storm water and that have a potential to affect the quality of storm water discharges associated with concrete batch plants that are authorized under this general permit.
 - (c) Spills and Leaks - A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to storm water and that drain to storm water outfalls associated with concrete batch plants authorized under this general permit must be developed, maintained, and updated.
 - (d) Sampling Data - A summary of existing storm water discharge sampling data must be maintained, if available.
2. Measures and Controls - The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" from Part IV.B.1.(a) of this permit, and a schedule for implementation of the measures and controls. This must include, at a minimum:
- (a) Good Housekeeping - Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.
 - (1) Operators must prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to storm water. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement or aggregate is being handled or otherwise processed in the area.
 - (2) Operators must prevent the exposure of fine granular solids, such as cement, to storm water. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.
 - (b) Spill Prevention and Response Procedures - Areas where potential spills that can contribute pollutants to storm water runoff, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment.

Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.

- (c) Inspections - Qualified facility personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) must be identified to inspect designated equipment and areas of the facility specified in the SWP3. The inspection frequency must be specified in the SWP3 based upon a consideration of the level of concrete production at the facility, but must be a minimum of once per month while the facility is in operation. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to storm water at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.
 - (d) Employee Training - An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for storm water pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one training prior to the initiation of operation of the concrete batch plant.
 - (e) Record Keeping and Internal Reporting Procedures - A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of storm water discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.
 - (f) Management of Runoff - The SWP3 shall contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.
3. Comprehensive Compliance Evaluation – At least once per year, one or more qualified personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) shall conduct a compliance evaluation of the plant. The evaluation must include the following.
- (a) Visual examination of all areas draining storm water associated with regulated concrete batch plants for evidence of, or the potential for, pollutants entering the drainage system. These include but are not limited to: cleaning areas, material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, and truck wash down and equipment cleaning areas. Measures implemented to reduce pollutants in runoff (including structural controls and implementation of management practices) must be evaluated to determine if they are effective and if they are implemented in accordance with the terms of this permit

and with the permittee's SWP3. The operator shall conduct a visual inspection of equipment needed to implement the SWP3, such as spill response equipment.

- (b) Based on the results of the evaluation, the following must be revised as appropriate within two weeks of the evaluation: the description of potential pollutant sources identified in the SWP3 (as required in Part IV.B.1., "Description of Potential Pollutant Sources"); and pollution prevention measures and controls identified in the SWP3 (as required in Part IV.B.2., "Measures and Controls"). The revisions may include a schedule for implementing the necessary changes.
- (c) The permittee shall prepare and include in the SWP3 a report summarizing the scope of the evaluation, the personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWP3, and actions taken in response to the findings of the evaluation. The report must identify any incidents of noncompliance. Where the report does not identify incidences of noncompliance, the report must contain a statement that the evaluation did not identify any incidence(s), and the report must be signed according to 30 TAC Section 305.128, relating to Signatories to Reports.
- (d) The Comprehensive Compliance Evaluation may substitute for one of the required inspections delineated in Part IV.B.2.(c) of this general permit.

Section C. Prohibition of Wastewater Discharges

Wastewater discharges associated with concrete production including wastewater disposal by land application are not authorized under this general permit. These wastewater discharges must be authorized under an alternative TCEQ water quality permit or otherwise disposed of in an authorized manner. Discharges of concrete truck washout at construction sites may be authorized if conducted in accordance with the requirements of Part V of this general permit.

Part V. Concrete Truck Wash Out Requirements

This general permit authorizes the wash out of concrete trucks at construction sites regulated under Sections II.E.1., 2., and 3. of this general permit, provided the following requirements are met. Authorization is limited to the land disposal of wash out water from concrete trucks that are associated with off-site production facilities. Wash out water associated with on-site concrete production facilities must be authorized under a separate TCEQ general permit or individual permit.

1. Direct discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.
2. Concrete truck wash out water shall be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters, or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent direct discharge to surface waters. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.
3. Wash out of concrete trucks during rainfall events shall be minimized. The direct discharge

- of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck washout as the result of rain.
4. The discharge of wash out water shall not cause or contribute to groundwater contamination.
 5. If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated map.

Part VI. Retention of Records

The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted as required by Part II.E.3. For activities in which an NOT is not required, records shall be retained for a minimum period of three (3) years from the date that the operator terminates coverage under Section II.F.3. of this permit. Records include:

1. A copy of the SWP3;
2. All reports and actions required by this permit, including a copy of the construction site notice;
3. All data used to complete the NOI, if an NOI is required for coverage under this general permit; and
4. All records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.

Part VII. Standard Permit Conditions

1. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued, and is grounds for enforcement action, for terminating coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit.
2. Authorization under this general permit may be suspended or revoked for cause. Filing a notice of planned changes or anticipated non-compliance by the permittee does not stay any permit condition. The permittee must furnish to the executive director, upon request and within a reasonable time, any information necessary for the executive director to determine whether cause exists for revoking, suspending, or terminating authorization under this permit. Additionally, the permittee must provide to the executive director, upon request, copies of all records that the permittee is required to maintain as a condition of this general permit.
3. It is not a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.
4. Inspection and entry shall be allowed under Texas Water Code Chapters 26-28, Texas Health and Safety Code §§361.032-361.033 and 361.037, and 40 Code of Federal Regulations (CFR) §122.41(i). The statement in Texas Water Code §26.014 that commission entry of a facility shall occur according to an establishment's rules and regulations concerning safety, internal security, and

fire protection is not grounds for denial or restriction of entry to any part of the facility or site, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.

5. The discharger is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§26.136, 26.212, and 26.213 for violations including but not limited to the following:
 - a. negligently or knowingly violating the federal Clean Water Act (CWA), §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA, §402, or any requirement imposed in a pretreatment program approved under CWA, §§402(a)(3) or 402(b)(8);
 - b. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.
6. All reports and other information requested by the executive director must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).
7. Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.

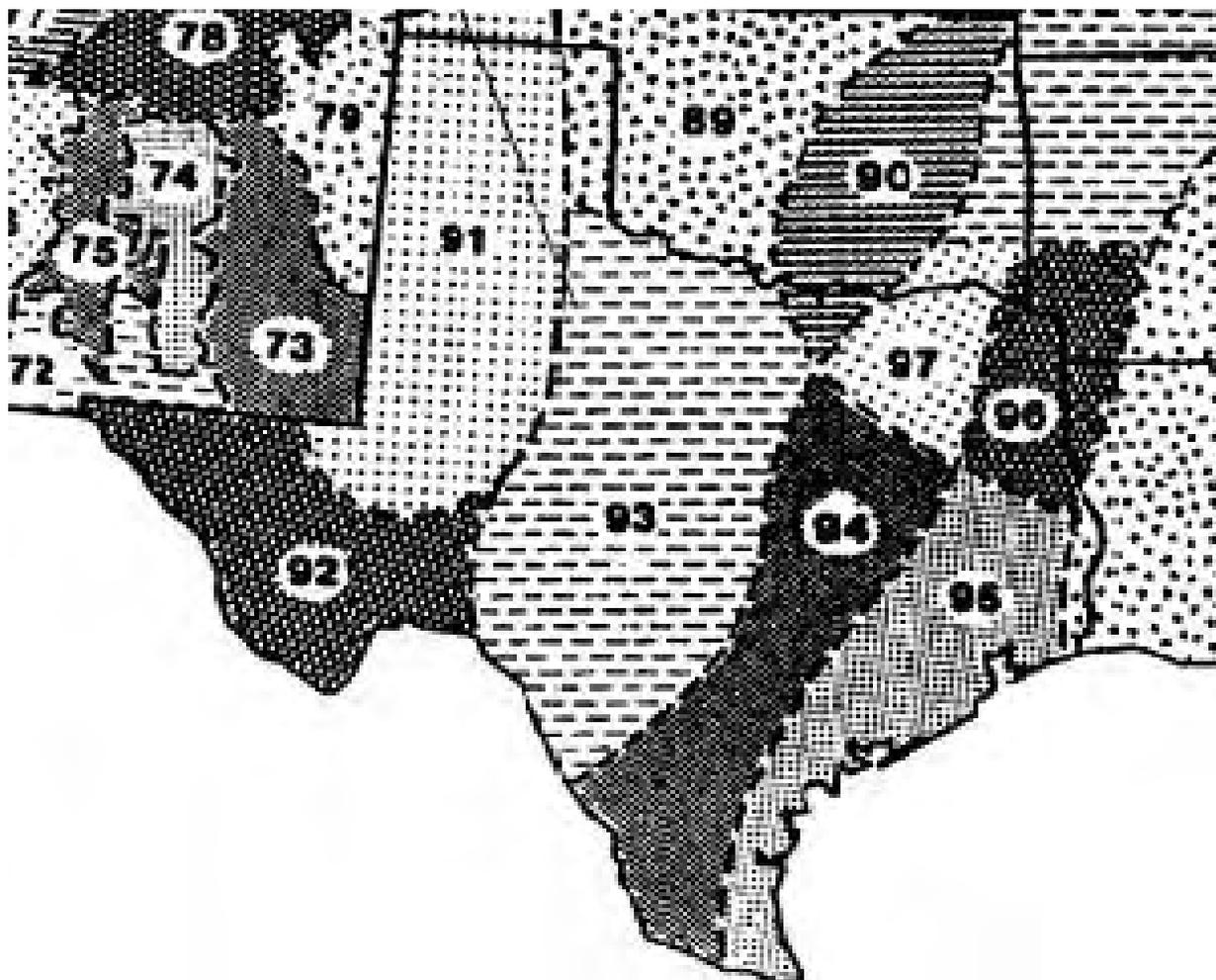
Part VIII. Fees

1. A fee of must be submitted along with the NOI:
 - a. \$325 if submitting a paper NOI, or
 - b. \$225 if submitting a NOI electronically.
2. Fees are due upon submission of the NOI. An NOI will not be declared administratively complete unless the associated fee has been paid in full.
3. No separate annual fees will be assessed. The Water Quality Annual fee has been incorporated into the NOI fees as described above.

Appendix A: Automatic Authorization
Periods of Low Erosion Potential by County – Eligible Date Ranges

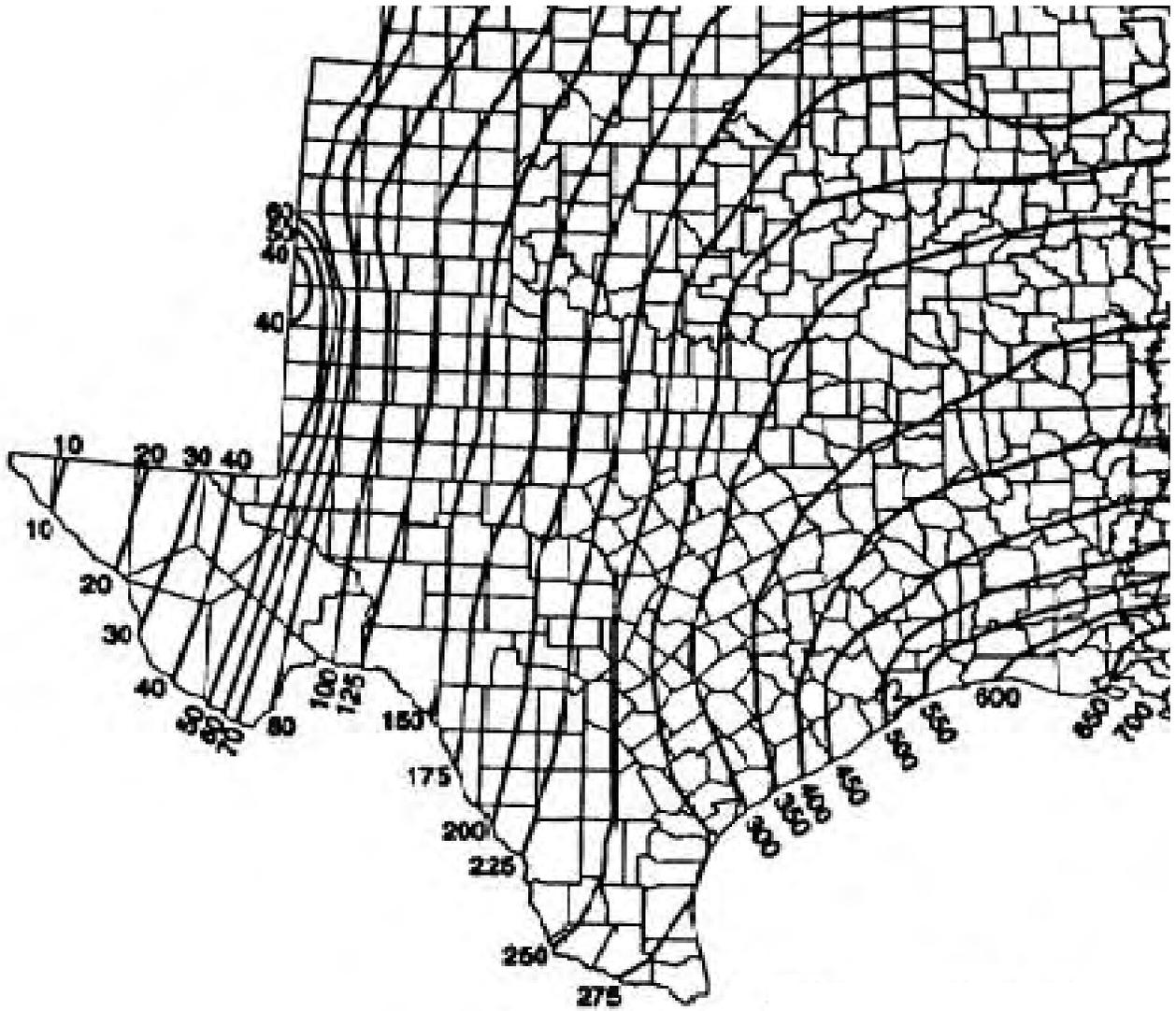
| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Andrews: Nov. 15 - Apr. 30 | Kerr: Dec. 15 - Feb. 14 |
| Archer: Dec. 15 - Feb. 14 | Kimble: Dec. 15 - Feb. 14 |
| Armstrong: Nov. 15 - Apr. 30 | King: Dec. 15 - Feb. 14 |
| Bailey: Nov. 1 - Apr. 30, or Nov. 15 - May 14 | Kinney: Dec. 15 - Feb. 14 |
| Baylor: Dec. 15 - Feb. 14 | Knox: Dec. 15 - Feb. 14 |
| Borden: Nov. 15 - Apr. 30 | Lamb: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30 |
| Brewster: Nov. 15 - Apr. 30 | Loving: Nov. 1 - Apr. 30, or Nov. 15 - May 14 |
| Briscoe: Nov. 15 - Apr. 30 | Lubbock: Nov. 15 - Apr. 30 |
| Brown: Dec. 15 - Feb. 14 | Lynn: Nov. 15 - Apr. 30 |
| Callahan: Dec. 15 - Feb. 14 | Martin: Nov. 15 - Apr. 30 |
| Carson: Nov. 15 - Apr. 30 | Mason: Dec. 15 - Feb. 14 |
| Castro: Nov. 15 - Apr. 30 | Maverick: Dec. 15 - Feb. 14 |
| Childress: Dec. 15 - Feb. 14 | McCulloch: Dec. 15 - Feb. 14 |
| Cochran: Nov. 1 - Apr. 30, or Nov. 15 - May 14 | Menard: Dec. 15 - Feb. 14 |
| Coke: Dec. 15 - Feb. 14 | Midland: Nov. 15 - Apr. 30 |
| Coleman: Dec. 15 - Feb. 14 | Mitchell: Nov. 15 - Apr. 30 |
| Collingsworth: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28 | Moore: Nov. 15 - Apr. 30 |
| Concho: Dec. 15 - Feb. 14 | Motley: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30 |
| Cottle: Dec. 15 - Feb. 14 | Nolan: Dec. 15 - Feb. 14 |
| Crane: Nov. 15 - Apr. 30 | Oldham: Nov. 15 - Apr. 30 |
| Crockett: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30 | Parmer: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30 |
| Crosby: Nov. 15 - Apr. 30 | Pecos: Nov. 15 - Apr. 30 |
| Culberson: Nov. 1 - May 14 | Potter: Nov. 15 - Apr. 30 |
| Dallam: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30 | Presidio: Nov. 1 - Apr. 30, or Nov. 15 - May 14 |
| Dawson: Nov. 15 - Apr. 30 | Randall: Nov. 15 - Apr. 30 |
| Deaf Smith: Nov. 15 - Apr. 30 | Reagan: Nov. 15 - Apr. 30 |
| Dickens: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30 | Real: Dec. 15 - Feb. 14 |
| Dimmit: Dec. 15 - Feb. 14 | Reeves: Nov. 1 - Apr. 30, or Nov. 15 - May 14 |
| Donley: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28 | Runnels: Dec. 15 - Feb. 14 |
| Eastland: Dec. 15 - Feb. 14 | Schleicher: Dec. 15 - Feb. 14 |
| Ector: Nov. 15 - Apr. 30 | Scurry: Nov. 15 - Apr. 30 |
| Edwards: Dec. 15 - Feb. 14 | Shackelford: Dec. 15 - Feb. 14 |
| El Paso: Jan. 1 - Jul. 14, or May 15 - Jul. 31, or Jun. 1 - Aug. 14, or Jun. 15 - Sept. 14, or Jul. 1 - Oct. 14, or Jul. 15 - Oct. 31, or Aug. 1 - Apr. 30, or Aug. 15 - May 14, or Sept. 1 - May 30, or Oct. 1 - Jun. 14, or Nov. 1 - Jun. 30, or Nov. 15 - Jul. 14 | Sherman: Nov. 15 - Apr. 30 |
| Fisher: Dec. 15 - Feb. 14 | Stephens: Dec. 15 - Feb. 14 |
| Floyd: Nov. 15 - Apr. 30 | Sterling: Nov. 15 - Apr. 30 |
| Foard: Dec. 15 - Feb. 14 | Stonewall: Dec. 15 - Feb. 14 |
| Gaines: Nov. 15 - Apr. 30 | Sutton: Dec. 15 - Feb. 14 |
| Garza: Nov. 15 - Apr. 30 | Swisher: Nov. 15 - Apr. 30 |
| Glasscock: Nov. 15 - Apr. 30 | Taylor: Dec. 15 - Feb. 14 |
| Hale: Nov. 15 - Apr. 30 | Terrell: Nov. 15 - Apr. 30 |
| Hall: Feb. 1 - Mar. 30 | Terry: Nov. 15 - Apr. 30 |
| Hansford: Nov. 15 - Apr. 30 | Throckmorton: Dec. 15 - Feb. 14 |
| Hardeman: Dec. 15 - Feb. 14 | Tom Green: Dec. 15 - Feb. 14 |
| Hartley: Nov. 15 - Apr. 30 | Upton: Nov. 15 - Apr. 30 |
| Haskell: Dec. 15 - Feb. 14 | Uvalde: Dec. 15 - Feb. 14 |
| Hockley: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30 | Val Verde: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30 |
| Howard: Nov. 15 - Apr. 30 | Ward: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30 |
| Hudspeth: Nov. 1 - May 14 | Wichita: Dec. 15 - Feb. 14 |
| Hutchinson: Nov. 15 - Apr. 30 | Wilbarger: Dec. 15 - Feb. 14 |
| Irion: Dec. 15 - Feb. 14 | Winkler: Nov. 1 - Apr. 30, or Nov. 15 - May 14 |
| Jeff Davis: Nov. 1 - Apr. 30 or Nov. 15 - May 14 | Yoakum: Nov. 1 - Apr. 30, or Nov. 15 - May 14 |
| Jones: Dec. 15 - Feb. 14 | Young: Dec. 15 - Feb. 14 |
| Kent: Nov. 15 - Jan. 14 or Feb. 1 - Mar. 30 | Wheeler: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28 |
| | Zavala: Dec. 15 - Feb. 14 |

**Appendix B:
Erosivity Index (EI) Zones in Texas**



Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix C: Isoerodent Map



Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix D: Erosivity Indices for EI Zones in Texas

Periods:

| | 1/1 | 1/15 | 2/1 | 2/15 | 3/1 | 3/15 | 4/1 | 4/15 | 5/1 | 5/15 | 6/1 | 6/15 | 7/1 | 7/15 | 8/1 | 8/15 | 9/1 | 9/15 | 10/1 | 10/15 | 11/1 | 11/15 | 12/1 | 12/15 |
|----------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|-------|------|-------|------|-------|
| EI#: 89 | 0 | 0 | 1 | 1 | 2 | 3 | 4 | 7 | 12 | 18 | 27 | 38 | 48 | 55 | 62 | 69 | 76 | 83 | 90 | 94 | 97 | 98 | 99 | 100 |
| 90 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 13 | 21 | 29 | 37 | 46 | 54 | 60 | 65 | 69 | 74 | 81 | 87 | 92 | 95 | 97 | 98 | 99 |
| 91 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 6 | 16 | 29 | 39 | 46 | 53 | 60 | 67 | 74 | 81 | 88 | 95 | 99 | 99 | 100 | 100 |
| 92 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 6 | 16 | 29 | 39 | 46 | 53 | 60 | 67 | 74 | 81 | 88 | 95 | 99 | 99 | 100 | 100 |
| 93 | 0 | 1 | 1 | 2 | 3 | 4 | 6 | 8 | 13 | 25 | 40 | 49 | 56 | 62 | 67 | 72 | 76 | 80 | 85 | 91 | 97 | 98 | 99 | 99 |
| 94 | 0 | 1 | 2 | 4 | 6 | 8 | 10 | 15 | 21 | 29 | 38 | 47 | 53 | 57 | 61 | 65 | 70 | 76 | 83 | 88 | 91 | 94 | 96 | 98 |
| 95 | 0 | 1 | 3 | 5 | 7 | 9 | 11 | 14 | 18 | 27 | 35 | 41 | 46 | 51 | 57 | 62 | 68 | 73 | 79 | 84 | 89 | 93 | 96 | 98 |
| 96 | 0 | 2 | 4 | 6 | 9 | 12 | 17 | 23 | 30 | 37 | 43 | 49 | 54 | 58 | 62 | 66 | 70 | 74 | 78 | 82 | 86 | 90 | 94 | 97 |
| 97 | 0 | 1 | 3 | 5 | 7 | 10 | 14 | 20 | 28 | 37 | 48 | 56 | 61 | 64 | 68 | 72 | 77 | 81 | 86 | 89 | 92 | 95 | 98 | 99 |
| 106 | 0 | 3 | 6 | 9 | 13 | 17 | 21 | 27 | 33 | 38 | 44 | 49 | 55 | 61 | 67 | 71 | 75 | 78 | 81 | 84 | 86 | 90 | 94 | 97 |

* Each period begins on the date listed in the table above and lasts until the day before the following period. The final period begins on December 15 and ends on December 31.

Table adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Attachment 1



**SMALL CONSTRUCTION SITE NOTICE:
LOW POTENTIAL FOR EROSION
FOR THE
Texas Commission on Environmental Quality (TCEQ)
Storm Water Program
TPDES GENERAL PERMIT TXR150000**

The following information is posted in compliance with **Part II.E.1.** of the TCEQ General Permit Number TXR150000 for discharges of storm water runoff from small construction sites automatically authorized based on low rainfall erosivity. Additional information regarding the TCEQ storm water permit program may be found on the internet at:
http://www.tceq.state.tx.us/nav/permits/wq_construction.html

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: (Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized) | |

For Small Construction Sites Authorized Under Part II.E.1., the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an automatic authorization based on low rainfall erosivity under Part II.E.1. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. Construction activities at this site shall occur within a time period listed in Appendix A of the TPDES general permit for this county, that period beginning on _____ and ending on _____. I understand that if construction activities continue past this period, all storm water runoff must be authorized under a separate provision of the general permit. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

Date Notice Removed
MS4 operator notified per Part II.F.3.

SMALL CONSTRUCTION SITE NOTICE

FOR THE Texas Commission on Environmental Quality (TCEQ) Storm Water Program TPDES GENERAL PERMIT TXR150000

The following information is posted in compliance with **Part II.E.2.** of the TCEQ General Permit Number TXR150000 for discharges of storm water runoff from small construction sites. Additional information regarding the TCEQ storm water permit program may be found on the internet at:
http://www.tceq.state.tx.us/nav/permits/wq_construction.html

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized</i> | |
| Location of Storm Water Pollution Prevention Plan: | |

For Small Construction Activities Authorized Under Part II.E.2. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.D.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A storm water pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

_____ Date Notice Removed
_____ MS4 operator notified per Part II.F.3.

Attachment 3



LARGE CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Storm Water Program
TPDES GENERAL PERMIT TXR150000
“SECONDARY OPERATOR” NOTICE

This notice applies to secondary operators of construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of storm water runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.E.2. of the general permit. Additional information regarding the TCEQ storm water permit program may be found on the internet at: http://www.tceq.state.tx.us/nav/permits/sw_permits.html

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Site-Specific TPDES Authorization Number: | |
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site's location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i> | |
| Location of Storm Water Pollution Prevention Plan (SWP3): | |

For Large Construction Activities Authorized Under Part II.E.3. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.E.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A storm water pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

Date Notice Removed

MS4 operator notified per Part II.F.3.

Attachment 4



LARGE CONSTRUCTION SITE NOTICE

FOR THE
 Texas Commission on Environmental Quality (TCEQ)
 Storm Water Program
TPDES GENERAL PERMIT TXR150000

“PRIMARY OPERATOR” NOTICE

This notice applies to construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of storm water runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.E.2. of the general permit. This notice shall be posted along with a copy of the signed Notice of Intent (NOI), as applicable. Additional information regarding the TCEQ storm water permit program may be found on the internet at: http://www.tceq.state.tx.us/nav/permits/sw_permits.html

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Site-Specific TPDES Authorization Number: | |
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site’s location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i> | |
| Location of Storm Water Pollution Prevention Plan: | |

Weekly Inspection and Maintenance Form
Appendix B

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

ASARCO El Paso Smelter

Form No. 1
Weekly Inspection and Maintenance Form
Page 1 of 2

Check One:

- Wet Inspection
- Dry Inspection

| Area/Equipment | Observations |
|---------------------------------|--------------|
| Silt Fencing | |
| Vehicle Entrances/Exits of Site | |
| Equipment Storage Areas | |
| Inlet Protection Barriers | |
| Sedimentation Ponds | |

Items to look for:

- Damaged silt fencing;
- Evidence of off-site sediment tracking;
- Spilled material;
- Obstructions of stormwater conveyances; and
- Sediment and erosion control measures in good working order.

Form No. 1
Weekly Inspection and Maintenance Form
Page 2 of 2

Report any improvements to the SWP3 or BMPs, and describe any follow-up action (and schedule) determined to be necessary to correct the situation and/or prevent its recurrence:

Date of Inspection:

Signature:

Maintenance Performed (if required):

Date Completed:

Signature:

SWP3 Training Record
Appendix C

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

Construction Site Notice
Appendix D

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, Inc.
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

Attachment 1



**SMALL CONSTRUCTION SITE NOTICE:
LOW POTENTIAL FOR EROSION
FOR THE
Texas Commission on Environmental Quality (TCEQ)
Storm Water Program
TPDES GENERAL PERMIT TXR150000**

The following information is posted in compliance with **Part II.E.1.** of the TCEQ General Permit Number TXR150000 for discharges of storm water runoff from small construction sites automatically authorized based on low rainfall erosivity. Additional information regarding the TCEQ storm water permit program may be found on the internet at:
http://www.tceq.state.tx.us/nav/permits/wq_construction.html

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: (Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized) | |

For Small Construction Sites Authorized Under Part II.E.1., the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an automatic authorization based on low rainfall erosivity under Part II.E.1. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. Construction activities at this site shall occur within a time period listed in Appendix A of the TPDES general permit for this county, that period beginning on _____ and ending on _____. I understand that if construction activities continue past this period, all storm water runoff must be authorized under a separate provision of the general permit. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

Date Notice Removed

MS4 operator notified per Part II.F.3.

SMALL CONSTRUCTION SITE NOTICE

FOR THE Texas Commission on Environmental Quality (TCEQ) Storm Water Program TPDES GENERAL PERMIT TXR150000

The following information is posted in compliance with **Part II.E.2.** of the TCEQ General Permit Number TXR150000 for discharges of storm water runoff from small construction sites. Additional information regarding the TCEQ storm water permit program may be found on the internet at:
http://www.tceq.state.tx.us/nav/permits/wq_construction.html

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized</i> | |
| Location of Storm Water Pollution Prevention Plan: | |

For Small Construction Activities Authorized Under Part II.E.2. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.D.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A storm water pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

_____ Date Notice Removed
_____ MS4 operator notified per Part II.F.3.

Attachment 3



LARGE CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Storm Water Program
TPDES GENERAL PERMIT TXR150000
“SECONDARY OPERATOR” NOTICE

This notice applies to secondary operators of construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of storm water runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.E.2. of the general permit. Additional information regarding the TCEQ storm water permit program may be found on the internet at: http://www.tceq.state.tx.us/nav/permits/sw_permits.html

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Site-Specific TPDES Authorization Number: | |
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site's location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i> | |
| Location of Storm Water Pollution Prevention Plan (SWP3): | |

For Large Construction Activities Authorized Under Part II.E.3. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.E.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A storm water pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

Date Notice Removed

MS4 operator notified per Part II.F.3.

Attachment 4



LARGE CONSTRUCTION SITE NOTICE

FOR THE
 Texas Commission on Environmental Quality (TCEQ)
 Storm Water Program
TPDES GENERAL PERMIT TXR150000

“PRIMARY OPERATOR” NOTICE

This notice applies to construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of storm water runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.E.2. of the general permit. This notice shall be posted along with a copy of the signed Notice of Intent (NOI), as applicable. Additional information regarding the TCEQ storm water permit program may be found on the internet at: http://www.tceq.state.tx.us/nav/permits/sw_permits.html

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Site-Specific TPDES Authorization Number: | |
| Operator Name: | |
| Contact Name and Phone Number: | |
| Project Description: <i>Physical address or description of the site’s location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i> | |
| Location of Storm Water Pollution Prevention Plan: | |

Structural Observation Survey Report
Appendix D

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, LLC
15810 Park Ten Place, Suite 300
Houston, Texas 77084
(281) 600-1000

Asbestos Definitions, Codes, and Regulations
Appendix E

October 12, 2010
Project No. 0118148

Environmental Resources Management Southwest, LLC
15810 Park Ten Place, Suite 300
Houston, Texas 77084
(281) 600-1000

ACRONYMS

| | |
|-------------------|---------------------------------------------------------|
| µg/dl | micrograms per deciliter |
| µg/m ³ | micrograms per cubic meter |
| µm | microns |
| ACM | Asbestos-Containing Materials |
| ACBM | Asbestos-Containing Building Material |
| AIA | American Institute of Architects |
| ASTM | ASTM International |
| CIH | Certified Industrial Hygienist |
| CFR | Code of Federal Regulations |
| DOT | Department of Transportation |
| EPA | Environmental Protection Agency |
| f/cc | fibers per cubic centimeter |
| HEPA | High Efficiency Particulate Air |
| HUD | Department of Housing and Urban Development |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |
| NIOSH | National Institute for Occupational Safety and Health |
| OSHA | Occupational Safety and Health Administration |
| PCB | Polychlorinated Biphenyls |
| PEL | Permissible Exposure Limit |
| ppm | parts per million |
| RCM | ERM Remediation & Construction Management |
| RCRA | Resource Conservation and Recovery Act |
| TCLP | Toxicity Characteristic Leaching Process |
| TDSHS | Texas Department of State Health Services |
| TWA | Time-Weighted Average |

DEFINITIONS - ASBESTOS ABATEMENT

Aerosol: A system consisting of particles, solid or liquid, suspended in air.

Air Cell: Insulation normally used on pipes and duct work that is comprised of corrugated cardboard which is frequently comprised of asbestos combined with cellulose or refractory binders.

Air Monitoring: The process of measuring the fiber content of a specific volume of air.

Amended Water: Water to which a surfactant has been added to decrease the surface tension to 35 dynes or less.

Asbestos: The asbestiform varieties of serpentinite (chrysotile), crocidolite (riebeckite), amosite (cummingtonite-grunerite), anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection, both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

ACM: Any asbestos-containing material containing more than 1 percent by area of asbestos of any type or mixture of types.

ACBM: Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.

Asbestos-Containing Waste Material: Any material which is, or is suspected of being, or any material contaminated with, an asbestos-containing material which is to be removed from the abatement work area for disposal.

Asbestos Debris: Pieces of ACBM that can be identified by color, texture, or composition; or any dust, if the dust is determined by an accredited inspector to be ACM.

Authorized Visitor: The ERM and authorized representative thereof, testing lab personnel, the abatement designer, emergency personnel or a representative of any federal, state and local regulatory or other agency having authority over the abatement work.

Barrier: Any surface that seals off the abatement work area to inhibit the movement of fibers.

Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.

CIH: An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

Containment: A portion of the regulated area that has been sealed by one 6-mil polyethylene sheet and critical layer by placing under a negative pressure ventilation system.

Critical Layer: One layer of 6-mil polyethylene sheet adhered to penetrations allowing access to areas outside of the containment.

Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

Disposal Bag: A properly labeled 6-mil polyethylene bag used for transporting asbestos waste from the abatement work site to disposal site.

Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix.

Penetrating encapsulant: an encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.

Removal encapsulant: a penetrating encapsulant specifically designed to minimize fiber release during removal of asbestos-containing materials rather than for in situ encapsulation.

Encapsulation: Treatment of asbestos-containing materials, with an encapsulant.

Enclosure: The construction of an air-tight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.

Friable Asbestos Material: Material that contains more than 1.0 percent asbestos by area and can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

Glovebag: A sack (typically constructed of 6-mil polyethylene or polyvinylchloride plastic) with inward projecting long-sleeve gloves, which are designed to enclose an object from which ACM is to be removed.

HEPA: High-Efficiency Particulate Air refers to a filtering system capable of trapping and retaining 99.97 percent of monodispersed particles 0.3 μm in diameter or larger.

HEPA Filter: Filter capable of trapping and retaining 99.97 percent of asbestos fibers greater than 0.3 μm in diameter.

HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of

collecting and retaining asbestos fibers. Filters should be of 99.97 percent efficiency for retaining fibers of 0.3 μm or larger.

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Negative Pressure Ventilation System: A pressure differential and ventilation system, utilizing HEPA filtered negative air machines.

PEL (Asbestos): The PEL for asbestos is 0.1 f/cc as an eight-hour TWA.

Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the abatement work area at a lower pressure than any adjacent area, and which cleans recirculated air or generates a constant air flow from adjacent areas into the abatement work area.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Regulation: The term "Regulation" includes laws, statutes, ordinances and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the abatement work, whether they are lawfully imposed by authorities having jurisdiction or not.

Repair: Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

TWA: The average concentration of a contaminant in air during a specific time period.

Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

Abatement Work Area: The area where asbestos-related abatement work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. The abatement work area is a Regulated Area as defined by 29 CFR 1926.1101.

Wrap and Cut: A 3-stage process involving:

- Removing ACM insulation from pipe in 10-foot increments using a glovebag;
- Wrapping remaining ACM insulation on pipe with 2 layers of 6-mil polyethylene sheet; and
- Cutting approximately 10-foot sections of pipe for disposal.

Wet Removal: Application of amended water to ACM or LCP during the removal or dismantling process.

CODES, REGULATIONS, AND STANDARDS

- A. Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, meet the more stringent requirements. These will apply throughout the course of the abatement work.
- B. State Requirements: which govern abatement work or hauling and disposal of the contaminated waste materials include but are not limited to the following:
TAHPR, Part 295, Section 31 through 71
- C. Federal Regulations:
1. OSHA, U.S. Department of Labor, including but not limited to:
 - Occupational Exposure to Asbestos, 29 CFR 1926.1101;
 - Respiratory Protection, 29 CFR 1910.134;
 - Construction Industry Standards, 29 CFR 1926;
 - Access to Employee Exposure and Medical Records, 29 CFR 1910.20;
 - Hazard Communication, 29 CFR 1910.1200;
 - Specifications for Accident Prevention Signs and Tags, 29 CFR 1910.145; and
 - Safety Training and Education, 29 CFR 1926.21.
 2. U.S. EPA, including but not limited to:
 - NESHAP for Asbestos, 40 CFR 61 Subpart M, Sections 140-150;
 - Interpretive Rule Governing Roof Removal Operations, 40 CFR 61, Subpart M;
 - Appendix A;
 - PCB Disposal, 40 CFR 761, Subpart D; and
 - Transport and Disposal of Asbestos Waste, 40 CFR 763, Subpart E, Appendix D.
 3. U.S. DOT, including but not limited to:
 - Hazardous Materials Regulations, 49 CFR 100 – 199;
 - Transportation of Hazardous Materials, 49 CFR 107, Subpart G;
 - General Information, Regulations and Definitions, 49 CFR 171; and
 - Carriage of Hazardous Materials by Public Highway, 49 CFR 177.
 4. NIOSH

D. Local Requirements: Abide by local requirements that govern asbestos abatement work, the hauling and disposal of the contaminated waste materials, demolition work, and the hauling and disposal of demolition debris.

E. Standards

Standards that apply to abatement work or hauling and disposal of the contaminated waste materials include but are not limited to the following:

1. ANSI
2. ASTM
3. AIA Service Corporation
4. General Services Administration
5. HUD

NOTIFICATIONS, PERMITS AND LICENSES

A. Notifications: Submit notification of the asbestos abatement and demolition activities to the TDSHS postmarked at least 14 days (or 10 working days) prior to the project start date. Send notification to the following address:

Texas Department of State Health Services
1100 West 49th Street
Austin, Texas 78756

Post notifications required by applicable federal, state and local regulations at the job site.

B. Permits: Contaminated waste is to be transported by an entity which is permitted, licensed or registered by the DOT.

C. Licenses: Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the abatement work of this contract.

D. Regulations: Post notices required by applicable federal, state and local regulations at the job site.