

Insulation Group

CertainTeed Corporation
17775 Avenue 23 ½
Chowchilla, CA 93610-9551
559 665-4831



February 27, 2009

Farshad Vakili, P.E.
Project Manager
Permit Renewal Team
Department of Toxic Substances Control
800 Cal Center Drive
Sacramento, California 95826-3200

**Re: Hazardous Waste Facility Amended Closure Plan
CertainTeed Corporation
17775 Avenue 23 ½
Chowchilla, California 93610
CAD093435022**

Dear Mr. Vakili:

Please find enclosed an amended Closure Plan for the Hazardous Waste Facility at the CertainTeed Corporation facility located at 17775 Avenue 23 ½ in Chowchilla, California. CertainTeed will cease using the hazardous waste storage unit for one-year storage on March 1, 2009.

The Closure Plan has been amended to reflect a change in the decontamination procedures of the storage units. The Closure Plan included in the Part B application indicated that decontamination procedures will include complete demolition of the units. However, CertainTeed currently plans to continue to use the concrete containment structures of Hazardous Waste Storage Unit A and Unit B for storage of virgin process materials and for 90-day generator waste accumulation.

It is our understanding that, in accordance with Title 22 of the California Code of Regulations, Section 66270.42(a)(2) and Appendix I of this section, a change in facility closure decontamination procedures constitutes a Class 1* change that is subject to prior approval from the Department of Toxic Substances Control (DTSC). Therefore, as indicated by the schedule in the Closure Plan, CertainTeed will initiate decontamination procedures following receipt of DTSC's approval of the amended plan.

Please do not hesitate to contact me if you have any questions.

Sincerely, 

//Original signed by//

Jeffrey T. Curtin
Principal Process Engineer

Enclosures 1

**RCRA HAZARDOUS WASTE
STORAGE FACILITY
CLOSURE PLAN**



**17775 Avenue 23 ½
Chowchilla, California 93610**

February 27, 2009

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Appendix A	RACER Cost Estimate
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I. INTRODUCTION

This Closure Plan addresses closure of the hazardous waste storage facility at the CertainTeed Corporation ("CertainTeed") facility located at 17775 Avenue 23 ½ in Chowchilla, California ("the facility" or "the site"). The storage facility is operated under a Hazardous Waste Facility Permit (EPA I.D. CAD093435022) issued by the Department of Toxic Substances Control (DTSC). The hazardous waste storage facility consists of two storage units (Unit A and Unit B) used for storage of containers of hazardous waste generated in on-site manufacturing operations. The objective of this Closure Plan is clean closure of the hazardous waste storage facility with no need for post closure care. Following closure, CertainTeed plans to resume use of the units for storage of hazardous materials and 90-day accumulation of hazard wastes generated on-site.

The hazardous waste storage facility will be closed in a manner that:

- Minimizes the need for further maintenance;
- Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, or contaminated rainfall or run-off to the ground or surface waters or to the atmosphere; and
- Complies with the closure requirements set forth in Title 22, Chapter 14, of the California Code of Regulations (CCR).

This Closure Plan is prepared in accordance with the requirements in 22 CCR 66264.112.

II. FACILITY DESCRIPTION

A. Facility Information

Facility name: CertainTeed Corporation

Mailing address: 17775 Avenue 23 ½
Chowchilla, CA 93610

Telephone: (559) 665-4831

County: Madera

The facility is owned and operated by CertainTeed Corporation, whose corporate headquarters is in Valley Forge, Pennsylvania. CertainTeed Corporation is a subsidiary of Saint-Gobain, a publicly-traded international corporation based in France.

Address information for CertainTeed Corporation and Saint-Gobain are as follows:

CertainTeed Corporation	Compagnie de Saint-Gobain
P.O. Box 860	Les Miroirs
750 East Swedesford Road	18, avenue d'Alsace
Valley Forge, Pennsylvania 19482	92400 Courbevoie, France
Telephone: (610) 341-7000	33-1-47-62-30-00

B. General Facility Description

The CertainTeed facility is an approximately 400,000-square-foot facility that houses production, storage, and office operations. The layout of the facility is indicated on Figure 1. The facility is situated on an approximately 152-acre site that consists primarily of undeveloped grassland and is located in the lower San Joaquin Valley, approximately three miles from downtown Chowchilla. The facility is located in a sparsely-developed mixed-use area comprised of industrial, agricultural, and residential properties.

The facility conducts fiberglass manufacturing operations and associated support and administrative functions. Fiberglass produced at the facility is used for insulation purposes, and is produced in the form of batts, consisting of fiberglass affixed to a paper backing, and as loose bagged fiberglass fill. The site employs approximately 250 individuals and operates 24 hours a day, 365 days a year, with the exception of occasional maintenance shutdowns.

III. HAZARDOUS WASTE UNITS

A. Permitted Units for Treating, Storing, and Disposing of Hazardous Waste

The hazardous waste storage facility at CertainTeed consists of two storage units, as follows:

Unit A

Unit A is a reinforced concrete containment pad used for storage of roll-off bins. The pad is 40 feet by 66 feet and is surrounded by a one-foot-high concrete berm on three sides and the fourth side is graded and elevated to preclude storm water run-on or run-off while allowing entrance of forklifts or transportation vehicles. The concrete pad is sloped to a central drain and piped to process sump C-11 in the manufacturing building. The largest container in Unit A is 25 cubic yards and the maximum waste capacity of Unit A is 100 cubic yards.

Unit B

Unit B is a reinforced concrete containment pad used for storage of 55-gallon drums. The pad is 20 feet by 40 feet and is surrounded by a six-inch-high concrete berm on three sides and grading on the fourth side to prevent run-on or run-off while allowing vehicle access. The concrete pad is sloped to a central drain and piped to the C-11 process sump. The maximum waste capacity of Unit B is forty 55-gallon drums (11 cubic yards).

CertainTeed does not conduct any hazardous waste treatment or disposal operations.

All hazardous wastes stored in the hazardous waste storage facility are generated on-site during manufacturing operations. These wastes include electrostatic precipitator (EP) dust, furnace slag, and refractory brick, which are regulated as RCRA hazardous wastes, and fiber scrap, which is regulated as non-RCRA hazardous waste. All of these wastes are stored in 20- to 25-cubic-yard roll-off bins. The furnace slag and refractory brick are also stored in 55-gallon drums. CertainTeed also stores drums of virgin process oils in Units A and B, and accumulates waste oil, oily rags, and spent lead-acid batteries in the hazardous waste storage units, all of which are removed from the facility within 90 days of generation and managed in accordance with hazardous waste generator requirements.

B. Maximum Waste Inventory

1. Active Life Inventory

The maximum quantity of wastes stored at the facility is 100 cubic yards in Unit A and 11 cubic yards (forty 55-gallon drums) in Unit B, for a total of 111 cubic yards. The maximum quantities of individual wastes stored during the active life of the facility are as follows:

Waste	EPA Waste Code	CA Waste Code	Maximum Quantity Stored
EP dust	D006, D007, D008	172	100 cubic yards
Furnace slag	D007	181	100 cubic yards
Refractory brick	D007	181	100 cubic yards
Scrap fiber	NA	352	100 cubic yards

2. Maximum Waste Inventory at the Time of Closure

CertainTeed will cease storing hazardous wastes in the permitted units on March 1, 2009, but will continue to use the units only for storage of virgin hazardous materials (process oils) and for accumulation of 90-day generator wastes until commencement of closure activities. After March 1, 2009, the generator wastes accumulated in the units may consist of any hazardous wastes generated from manufacturing operations, including include EP dust, furnace slag, refractory brick, scrap fiber, waste oil, oily rags, and spent lead-acid batteries. All virgin hazardous materials and generator wastes will be removed from the units during closure activities. CertainTeed will resume use of the units for hazardous material storage and generator waste accumulation following completion of closure activities.

The maximum inventory of all wastes that will be present in the units at the time of closure is 100 cubic yards in Unit A and 11 cubic yards in Unit B. The wastes will consist of 90-day generator wastes from manufacturing operations and wastes generated during closure.

IV. CLOSURE ACTIVITIES

A. Hazardous Waste Storage Facility Closure

The objective of this Closure Plan is clean closure of the hazardous waste storage facility with no need for post closure care. All wastes associated with the hazardous waste storage facility will be removed and all structures will be decontaminated. Following completion of closure, the bermed concrete pads will be returned to service for storage of virgin process materials and for 90-day generator waste accumulation.

Closure activities conducted at the hazardous waste storage facility are described below. Structures and equipment are depicted for Unit A and Unit B on Figures 2 and 3, respectively.

1. Waste Removal

As required by DTSC, CertainTeed will cease storage of hazardous waste in the units by March 1, 2009. Any wastes generated on-site more than 90 days prior to this date will be removed. Wastes that were generated on-site less than 90 days prior to March 1, 2009 or that are generated after this date will be accumulated in the units until commencement of decontamination activities or expiration of the 90-day accumulation period, whichever comes first. All wastes will be shipped by a licensed hauler to a permitted off-site treatment or disposal facility. Hazardous materials stored in Units A or B will be relocated to another area on the site prior to commencement of decontamination activities.

All 90-day generator wastes from manufacturing operations will be removed from the units and shipped off-site for recycling or disposal at the following waste management facilities:

Waste	Transporter	Off-Site Waste Management Facility
EP dust	Clean Harbors	Clean Harbors, Buttonwillow, CA
Furnace slag	Clean Harbors	Clean Harbors, Buttonwillow, CA
Refractory brick	Clean Harbors	Clean Harbors, Buttonwillow, CA
Scrap fiber	Safety-Kleen	Clean Harbors, Buttonwillow, CA
Waste oil	Safety-Kleen	Safety-Kleen, Fresno, CA
Oily rags	Safety-Kleen	Safety-Kleen, Fresno, CA
Spent lead-acid batteries	Safety-Kleen	Safety-Kleen, Fresno, CA

The manufacturing wastes will be characterized in accordance with existing waste profiles that CertainTeed has developed for routine operations unrelated to closure.

2. Decontamination

The concrete pads, drain boxes, sumps, and exposed equipment (e.g., pumps and control boxes) will be steam-cleaned and then rinsed with clean water. The drain line between the drain box

and the sump in Unit A will be rinsed with clean water. Rinse solutions will be retained for sampling and analysis to assess effectiveness of decontamination.

3. Inspection

The concrete pads, berms, drain boxes, and sumps will be visually inspected for evidence of deterioration that may potentially have allowed hazardous constituents to escape the containment areas during waste storage. Surface soils surrounding the units will be visually inspected for evidence of staining or other indications of potential releases from the units. Any areas suspected to have been impacted by releases of hazardous constituents will be demarcated.

4. Sampling and Analysis

Sampling and analysis will be conducted to evaluate the potential for residual soil contamination resulting from releases of hazardous constituents from the storage units, and to assess the effectiveness of decontamination procedures. A description of sampling and analysis procedures is presented in Section ** of this Closure Plan.

Media selected for sampling include soil, concrete, and rinse water. No ground water samples are planned because the depth to ground water is approximately 100 feet and the hazardous waste constituents are relatively immobile. The results of soil sampling and analysis will be evaluated to confirm that ground water sampling is not warranted.

The soil and concrete sample results will be used to assess the potential for residual contamination. Concentrations will be compared to USEPA Region IX Preliminary Remediation Goals (PRGs) for industrial soils. If waste constituents concentrations detected in the samples exceed PRGs, additional sampling will be conducted to delineate the extent of contamination.

The rinse water will be sampled to assess the effectiveness of decontamination procedures and the need for additional cleaning or rinsing. If elevated waste constituent concentrations persist following additional cleaning or rinsing cycles, a human health risk assessment will be conducted to assess whether the residual concentrations present a significant risk to potentially exposed populations.

5. Remediation of Residual Contamination

In the event that sampling results indicate that residual hazardous constituents have significantly impacted soils in the vicinity of the waste storage units, impacted soils will be removed and shipped off-site for disposal. If the concrete has been impacted such that residual hazardous constituents present a significant risk to potentially exposed populations, the concrete containment structures will be partially or wholly demolished to remove the contamination, and the concrete rubble will be characterized and transported off-site for disposal.

6. Management of Closure Wastes

Wastes generated as a result of closure activities are anticipated to consist primarily of soil cuttings from soil sampling, disposable personal protective equipment, disposable sampling equipment, cleaning water, and rinse water. With the exception of the cleaning water and the rinse water, wastes generated during closure will be managed as hazardous waste unless sampling and analysis, as specified in Section V of this plan, confirms that one or more waste

streams are nonhazardous. These wastes will be transported by Clean Harbors to the Clean Harbors facility located in Buttonwillow, California, approximately 150 miles from the CertainTeed facility. It is estimated that closure activities will result in approximately one to two drums of wastes that will be shipped off-site for disposal

Cleaning water and rinse water will be collected for direct reuse as process water in CertainTeed's manufacturing operations. CertainTeed attempts to capture and reuse all water streams generated on-site as a water conservation measure. CertainTeed's process water system is not sensitive to the presence of hazardous constituents that may potentially be present in the cleaning and rinse waters resulting from previous waste storage in the hazardous waste units, because the water is used as make-up water in processes that involve the same constituents. Reuse of these water streams is consistent with CertainTeed's practice of using storm water run-off and washdown water from the hazardous waste units as make-up water in the manufacturing processes. Although sampling and analysis of these water streams generated from closure activities is not necessary for assessing suitability as process water, the rinse water will be sampled and analyzed as a means of assessing effectiveness of cleaning procedures.

V. SAMPLING AND ANALYSIS PLAN

A. Sampling Procedures

1. Soil and Concrete Sampling

Preliminary sampling locations for Unit A and Unit B are presented on Figures 2 and 3, respectively. These sampling locations will be modified or supplemented with additional sample locations if the results of the inspections indicate the suspect areas of impact by releases of hazardous constituents. In addition, two soil samples will be collected from on-site areas of undisturbed soils that are at least 50 feet away from the hazardous waste units and any manufacturing or ancillary support buildings or equipment in order to assess local background concentrations of naturally-occurring constituents.

Prior to collection of any samples, locations of underground utilities will be identified by review of facility maps and notification to the Underground Service Alert (USA). In addition, a private utility locating company will perform a subsurface utility clearance in the vicinity of the proposed sampling locations using a combination of magnetic, electromagnetic, and ground penetrating radar equipment to identify the presence of buried utility lines, pipes, or other significant features.

Soil samples in the interior portion of the units (indicated as S1 and S7 on Figures 2 and 3, respectively) will be collected by coring the concrete and using a hand trowel or hand auger to collect a soil sample directly beneath the concrete. The upper surface of the concrete will be chipped to allow collection of a concrete sample. At all other sampling locations, samples will be collected using a hand auger at depths of approximately 6 inches to 12 inches below ground surface.

2. Rinse Water Sampling

The rinse water will be retained in the sumps designed to capture drainage from the storage units. Samples will be collected manually by dipping the sample containers approximately one inch beneath the water surface.

3. Equipment Decontamination

All sampling equipment will be decontaminated before each use at each sampling location either by steam cleaning or by washing with a laboratory grade detergent followed by two distilled water rinses.

4. Sample Management

All samples will be collected in clean placed in clean laboratory-provided sample containers. Immediately after collection, each sample will be capped, sealed, labeled, recorded on a chain-of-custody form, and stored in a cooler with ice pending delivery to a California state-certified laboratory. Each sample cooler will include at least quality control sample for every ten samples of each medium, or for the total number of samples of each medium, whichever is less. The quality control sample will consist of a duplicate sample or an equipment blank (if any non-disposable sampling equipment is used).

B. Sample Analyses

1. Parameters and Rationale

Samples collected during closure will be analyzed for waste constituents associated with the wastes permitted for storage in the hazardous waste units, as described below.

(a) *Metals*

Waste streams stored at the facility contain residual metals because they originate from glass processing operations, and the glass is melted in a furnace that is lined with metal-bearing refractory brick. All closure samples will be tested for total metals. Samples of closure wastes destined for off-site disposal may also be tested for soluble metals using the Toxicity Characteristic Leaching Procedure (TCLP) and the Waste Extraction Test (WET), depending on the results of the total metals analyses.

(b) *pH*

Samples of closure wastes destined for off-site disposal will be analyzed for pH to evaluate waste classification.

(c) *Phenol and Formaldehyde*

Wet scrap fiber wastes consist of fiberglass that contains water and a phenol and formaldehyde-based binding agent used in the fiberglass production processes. All samples collected for evaluation of residual waste constituents or effectiveness of decontamination procedures will thus be evaluated for phenol and formaldehyde.

(d) *Acute Aquatic Toxicity*

Samples of closure wastes destined for off-site disposal will be analyzed for acute aquatic toxicity to evaluate non-RCRA hazardous waste characteristics.

2. Analytical Test Methods

The following analytical test methods will be used for analysis of samples collected as part of closure activities:

Metals:	EPA Method 6010C
TCLP extraction:	EPA Method 1311
WET:	22 CCR 66261 Appendix II
pH:	EPA Method 9045D
Phenol:	EPA Method 8270D
Formaldehyde	EPA Method 8315A
Aquatic toxicity:	Static Acute Bioassay Procedures for Hazardous Waste Samples ¹

¹California Department of Fish and Game, Water Pollution Control Laboratory, revised November 1988.

3. Waste Analysis Requirements Pertaining to Land Disposal Restrictions

The facility will analyze wastes destined for off-site disposal using the TCLP to evaluate applicable land disposal restrictions. The analytical results and associated treatment standard comparisons will be used to identify appropriate off-site treatment and disposal options and provide notices of restricted wastes, as applicable.

VI. CLOSURE SCHEDULE

The closure of the hazardous waste facility will be conducted in accordance with the following schedule:

ITEM	COMPLETION DATE
Facility ceases storing wastes in the storage units <i>(Note: Units continue to be used for 90-day generator storage until commencement of decontamination procedures)</i>	March 1, 2009
CertainTeed submits closure plan	March 1, 2009
DTSC reviews and comments on closure plan.	June 1, 2009
Facility incorporates DTSC's comments into final closure plan.	July 1, 2009
All wastes removed from the units	July 15, 2009
Containment structures and related equipment are decontaminated.	July 30, 2009
Containment structures and soils surrounding Units A and B are inspected and sampling locations are finalized.	August 15, 2009
Sampling investigations conducted.	August 30, 2009
Residual materials generated during closure shipped off-site for disposal.	October 15, 2009
Closure report prepared and submitted to DTSC.	October 15, 2009
DTSC issues closure approval	January 15, 2010

VII. POST-CLOSURE PLAN/CONTINGENT POST-CLOSURE PLAN

The closure plan is based on clean closure of the facility, and no post closure monitoring or action is anticipated.

VIII. CLOSURE COSTS

A. Closure Cost Estimate

The closure cost estimate is based on the assumption that significant contamination is confirmed to be present in the concrete during sampling and requires removal. This cost estimate is consistent with estimates previously provided to DTSC, and are extremely conservative. The closure cost estimates for Units A and B are presented below.

UNIT A CLOSURE	
Task	Cost
Submittal of Final Closure plan	\$20,000
Sampling and Analyses Plan	\$10,000
Final Disposal and residual waste removal	\$75,000
Concrete removal and soil confirmation sampling	\$80,000
Concrete disposal	100,000
Decontamination	11,000
Closure Report	10,000
Total Unit A Closure Costs	\$306,000
UNIT B CLOSURE	
Task	Cost
Submittal of Final Closure plan	\$5,000
Sampling and Analyses Plan	\$8,000
Final Disposal and residual waste removal	\$50,000
Concrete removal and soil confirmation sampling	\$30,000
Concrete disposal	25,000
Decontamination	5,000
Closure Report	10,000
Total Unit B Closure Costs	\$143,000
Total Unit A and Unit B Closure Costs	\$449,000

A second independent cost estimate has been prepared using Remedial Action Cost Engineering and Requirements (RACER) system software (version 2007). RACER is a parametric cost modeling system based on generic engineering solutions for environmental projects, technologies, and processes. The generic engineering solutions were derived from historical project information, industry data, government laboratories, construction management agencies, vendors, contractors, and engineering analysis.

The RACER cost estimate for closure of the hazardous waste storage facility at CertainTeed is presented in Appendix A. As indicated in Appendix A, the total cost estimated developed using RACER is \$201,000, which is significantly lower than the costs outlined above. Because RACER cost estimates are generally conservative, the discrepancy between the two cost estimates suggests that the inflation adjustments that have been made since the permit was first issued have been overly conservative.

B. Financial Responsibility

Letters of credit showing that CertainTeed Corporation has performance and security bond credit amounts of \$2,000,000.00 and \$449,000.00, respectively, are presented in Appendix B.