

**Pond 1 Closure Plan Petition for Review**

**Exhibit D**



*Matthew Rodriguez*  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Barbara A. Lee, Director  
9211 Oakdale Avenue  
Chatsworth, California 91311



*Edmund G. Brown Jr.*  
Governor

November 17, 2015

Mr. David Thaete  
EHS Manager  
Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

DTSC REVIEW OF REQUEST FOR DETERMINATION OF CLASS 2 PERMIT  
MODIFICATION, PHIBRO-TECH INC., 8851 DICE ROAD, SANTA FE SPRINGS,  
EPA IDENTIFICATION NUMBER: CAD 008488025

Dear Mr. Thaete:

The Department of Toxic Substances Control (DTSC) is in receipt of your letter, and supporting documentation, dated July 31, 2015 requesting that DTSC concur with the determination that certain proposed modifications to the existing Hazardous Waste Facility Permit for the Phibro-Tech, Inc. (PTI), facility located at 8851 Dice Road, Santa Fe Springs, California (the Facility), would qualify as Class 2 permit modifications pursuant to California Code of Regulations, title 22, section 66270.42.<sup>1</sup> In your letter, you state that the requested permit modifications (in part) are necessary to allow for continued operation of the Facility while Pond 1 Closure activities commence and would allow facility operations to continue until replacement units are constructed and placed into service.

DTSC has identified closure of Pond 1 as an important activity. The closure of Pond 1, which is required by the 1991 Permit and the 1995 Permit Modification, is a legacy problem that has impeded other aspects of DTSC's regulatory oversight at the Facility, including but not limited to PTI's remediation of soil and groundwater contamination at the Facility. Concurrent with DTSC's review of your letter, DTSC is reviewing the Revised Pond 1 Closure Plan (September 2015) submitted to DTSC on October 2, 2015. As part of the Revised Pond 1 Closure Plan, PTI is required to close and remove four hazardous waste tanks (permitted waste water treatment tanks (W-1, W-2) and variance waste water treatment tanks (W-3, W-4), and related equipment and

<sup>1</sup> Unless otherwise indicated, all references to DTSC regulations will be to title 22 of the California Code of Regulations.

appurtenances. Tanks W-1 and W-2 are hazardous waste tanks located within the structure of the pond. Tanks W-3 and W-4 are hazardous waste tanks operating pursuant to a variance and are located adjacent to Pond 1. The July 31, 2015 letter, and supplemental information, indicates that Tanks W-3 and W-4 must be closed to facilitate the closure of Pond 1.

The revised Pond 1 Closure Plan is limited to activities necessary to implement the closure of Pond 1, including closure activities for Tanks W-1, W-2, W-3 and W-4, and address contamination related to Pond 1. The revised Pond 1 Closure Plan does not authorize construction of new units or equipment. PTI is required to seek permit authorization prior to constructing new units or equipment.

The July 31, 2015 letter, and supplemental information, identified three (3) proposed permit modifications:

- Modification # 1:** Replacement of Tanks W-1 and W-2 and ancillary equipment and filter press FP-#2;
- Modification # 2:** Replacement of Variance Tanks W-3 and W-4; and
- Modification # 3:** Expansion of Two Current Containment Areas to Increase the Aisle Space (Without increase in Unit Storage Capacity)

Two of these modifications are proposed to allow PTI to continue facility operations while Pond 1 closure activities are implemented; and the third permit modification requests to expand the area (but not the authorized storage capacity) of container storage areas to accommodate 30-inch aisle space. The third proposed permit modification request is necessary for PTI's compliance with Section 66264.35. Section 66264.35 requires facilities to maintain adequate aisle space to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency. In correspondence to PTI, DTSC notified PTI that PTI should maintain 30-inch aisle space between containers in container storage areas. As you acknowledge, these changes require a modification to PTI's current permit. The July 31, 2015 letter, and supplemental information, identified all three proposed modifications as Class 2 permit modifications and requested DTSC concurrence.

DTSC has reviewed the submitted information and provides its determination as follows:

**Modification #1:** PTI requests DTSC's concurrence that the construction of a new tank unit with two tanks (W-7 and W-8), would qualify as a Class 2 permit modification. Tanks W-7 and W-8 are proposed to be similar in capacity and operation to W-1 and W-2 and will be operated for the same purpose and in the same manner as tanks W-1 and W-2. Tanks W-7 and W-8 will be placed in a newly constructed secondary containment area. This modification would also close and remove filter press FP-#2 that is authorized under a variance, and construct a new filter press, FP-#2A.

The Modification #1 consists of: 1. the addition of a new tank unit; 2. closure of filter press unit FP-#2; and 3. adding a new unit for filter press FP-#2A. PTI's correspondence refers to the addition of the new tank unit part of this modification as a tank replacement. DTSC has reviewed the information submitted for Modification #1 and determined that the addition of the new tank unit is not considered a tank replacement for the purposes of determining the permit modification classification.

If PTI chooses to submit Modification #1 as a permit modification, DTSC has determined that Modification #1 would qualify as a Class 2 permit modification provided that PTI follows the Class 2 Permit modification procedures set forth in Section 66270.42, additional information is submitted and that the addition of the tank unit does not result in an increase of more than 25% to the Facility's tank capacity.

PTI should submit additional information with PTI's permit modification request, including, but not limited to, the following:

1. As part of the permit modification request, PTI must include an explanation of the reasons for each requested modification;
2. A revised Part A permit application to include new units (Tanks W-7 and W-8, and Filter Press FP-#2A);
3. A Closure Plan that addresses the closure of filter press FP-#2 must be included as part of the modification, or PTI may include the closure of FP-#2 in the Revised Pond 1 Closure Plan. (Closure of Tanks W-1, 2, 3, and 4 will be conducted according to the revised Pond 1 Closure Plan. It is not adequate to refer to the draft September 2014 Part B Permit Application for Closure of FP-#2 because it has not yet been approved);
4. A soil sampling and analysis plan (SAP) specific to the locations of the new units which specifies that prior to construction of the new units, the proposed locations will be characterized consistent with the procedures described in the approved November 22, 2006 Tank Relocation Plan (updated to current analytical methods) and describes how the characterization will be conducted;
5. Information clarifying that the new units and equipment will not be placed in locations where existing contamination exceeds the corrective action cleanup goals unless PTI demonstrates that implementation of the facility wide corrective action would not be compromised by the construction of the new units and equipment.
6. A schedule that clarifies that tanks W-1 and W-2 will be taken out of service and cease operation prior to, or no later than the date that tanks W-7 and W-8 are placed in service and begin operation under the revised permit; and

7. An updated closure cost estimate that addresses the cost to close the new units (W-7, W-8, and FP-#2A). Closure of tanks W-1 and W-2 will be addressed through the Pond 1 Closure Plan. (However, tanks W-1, W-2 and FP-#2 must continue to be included in the Facility Closure Cost Estimate until they are certified closed.)

~~**Modification # 2:** PTI requests DTSC's concurrence that the construction of a new tank unit with two tanks (J-6 and J-7) would qualify as a Class 2 permit modification. Tanks J-6 and J-7 are proposed to be similar in capacity and operation as tanks W-3 and W-4.~~

DTSC has reviewed the information submitted for this permit modification request. PTI's correspondence refers to the addition of the new tank unit as a tank replacement. DTSC has reviewed the information submitted for Modification #2 and determined that the addition of the new tank unit is not considered a tank replacement for the purposes of determining the permit modification classification. DTSC has determined that the modification is not considered a tank or equipment replacement but is a request to add a new tank unit to the Permit.

If PTI chooses to submit a permit modification request for Modification #2, Modification #2 would qualify as a Class 2 permit modification provided that PTI follows the Class 2 Permit modification procedures set forth in Section 66270.42, additional information is submitted and that the addition of the tank unit does not result in an increase of more than 25% the Facility's tank capacity.

PTI should submit additional information with PTI's permit modification request, including, but not limited to, the following:

1. As part of the permit modification request, PTI must include an explanation of the reasons for each requested modification;
2. A revised Part A permit application to include the new tanks (Tanks J-6 and J-7);
3. A closure plan that addresses the closure of the Tanks W-3 and W-4 (Closure of Tanks W-1, 2, 3, and 4 will be conducted according to the revised Pond 1 Closure Plan. It is not adequate to refer to the draft September 2014 Part B Permit Application for Closure of Tanks W-3 and W-4 because it will not yet have been approved);
4. A soil sampling and analysis plan (SAP) specific to the locations of the new tanks which specifies that prior to construction of the new tanks, the proposed location will be characterized consistent with the procedures described in the approved November 22, 2006 Tank Relocation Plan (updated to current analytical methods) and describes how the characterization will be conducted;

5. Information clarifying that the new tanks and equipment will not be placed in locations where existing contamination exceeds the corrective action cleanup goals unless PTI demonstrates that implementation of the facility wide corrective action would not be compromised by the construction of the new tanks and equipment;
6. A schedule that clarifies that tanks W-3 and W-4 will be taken out of service and cease operation prior to, or no later than the date that tanks J-6 and J-7 are placed in service and begin operation under the revised permit; and
7. An updated Closure Cost Estimate that addresses the cost to close the new tank unit. Closure of tanks W-3 and W-4 will be addressed through the Pond 1 Closure Plan. (However, tanks W-3 and W-4 must continue to be included in the Facility Closure Cost Estimate until they are certified closed.)

**Modification #3:** PTI requests DTSC's concurrence that expanding the size (but not the authorized storage capacity) of the container storage areas ERS-1 and ERS-2 would qualify as a Class 2 permit modification. DTSC has reviewed the information submitted for this permit modification request and determined that if PTI chooses to submit a permit modification request for Modification #3, Modification #3 would qualify as a Class 2 permit modification provided that PTI follows the Class 2 Permit modification procedures set forth in Section 66270.42, and additional information is submitted.

PTI should submit additional information with PTI's permit modification request, including, but not limited to, the following:

1. As part of the permit modification request, PTI must include an explanation of the reasons for each requested modification;
2. A closure plan that addresses the closure of the Tanks W-3 and W-4 (Closure of Tanks W-1, 2, 3, and 4 will be conducted according to the revised Pond 1 Closure Plan. It is not adequate to refer to the draft September 2014 Part B Permit Application for Closure of Tanks W-3 and W-4 because it will not yet have been approved);
3. A soil sampling and analysis plan (SAP) specific to the locations of the expanded container storage areas which specifies that prior to construction to expand the container storage areas, the proposed location will be characterized consistent with the procedures described in the approved November 22, 2006 Tank Relocation Plan (updated to current analytical methods) and describes how the characterization will be conducted;
4. Information clarifying that the new tanks and equipment will not be placed in locations where existing contamination exceeds the corrective action cleanup goals unless PTI demonstrates that implementation of the facility wide corrective

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November 17, 2015  
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action would not be compromised by the construction of the new units and equipment;

5. A schedule demonstrating that implementation of the permit modification to expand the areas of the container storage areas will not delay the schedule to implement the revised Pond 1 Closure Plan or the Interim Measures workplan; and
6. An updated Closure Cost Estimate that addresses the new dimensions of the two container storage areas and new cost to close.

Based on DTSC's review of the information submitted, and in consideration of the additional information requested to be submitted described above, DTSC concurs that the proposed permit modifications would constitute Class 2 permit modification(s).

Please note that the conclusions contained in this letter are based on the limited information provided by PTI and do not constitute an approval of any proposed permit modifications. To formally submit a Class 2 permit modification request, PTI must follow the Class 2 Permit modification procedures set forth in Section 66270.42. If PTI submits a Class 2 permit modification(s), DTSC will decide on the merits of the proposed modifications after PTI has complied with applicable procedures set forth in Section 66270.42, and review of the permit modification is complete. Prior to announcing the public comment period required by Section 66270.42 (b)(2), PTI should consult DTSC Public Participation staff regarding the facility mailing list. PTI should also consult the DTSC project manager regarding substance of the documents mailed to parties on the facility mailing list.

If you have any questions, please contact Stephen Baxter at (818) 717-6695, or e-mail at [stephen.baxter@dtsc.ca.gov](mailto:stephen.baxter@dtsc.ca.gov), or Phil Blum at (818) 717-6694, or by e-mail at [phil.blum@dtsc.ca.gov](mailto:phil.blum@dtsc.ca.gov)

Sincerely



Steve Lavinger  
Branch Chief  
Permitting Division

cc: Mr. Phil Blum, Unit Supervisor  
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Mr. Stephen McArdle  
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bcc: (electronically):  
Rizgar Ghazi  
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**Pond 1 Closure Plan Petition for Review**

**Exhibit E**



## Department of Toxic Substances Control



Matthew Rodriguez  
Secretary for  
Environmental Protection

Barbara A. Lee, Director  
8800 Cal Center Drive  
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Edmund G. Brown Jr.  
Governor

April 29, 2016

Mr. David Thaete  
EHS Manager  
Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

REQUEST FOR ADDITIONAL INFORMATION, CLASS 2 PERMIT MODIFICATION  
REQUEST FOR PHIBRO-TECH, INC., 8851 DICE ROAD, SANTA FE SPRINGS,  
CALIFORNIA, CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
IDENTIFICATION NUMBER CAD008488025

Dear Mr. Thaete:

The Department of Toxic Substances Control (DTSC) has received a Class 2 permit modification request titled "*Request for Determination of Class 2 Permit Modification for Wastewater Tank Replacements*" and dated December 18, 2015 (Class 2 Permit Mod Request). The Class 2 Permit Mod Request was prepared by Yorke Engineering, LLC, on behalf of Phibro-Tech, Inc., to request modifications to the existing permit including replacement of tanks and expansion of containment areas at the Phibro-Tech facility located at 8851 Dice Road in Santa Fe Springs (Facility).

DTSC has reviewed the Class 2 Permit Mod Request and is requesting additional information. The following requested information must be submitted as proposed changes to the June 21, 1990 Operations Plan before DTSC can make a permit decision. Additional comments are included in the attached three memorandums.

1. The Class 2 Permit Mod Request includes a revised Part A form as Attachment 3. The revised Part A form does not include latitude and longitude coordinates for the Facility as required by California Code of Regulations (CCR), title 22, section 66270.13(b).<sup>1</sup> Please provide a revised Part A form that includes latitude and longitude coordinates of the Facility.
2. The revised Part A form does not include a topographic map as required by CCR, title 22, section 66270.13(l). Please provide a revised Part A form that includes the required map and all of the required map elements.
3. The revised Part A form includes several references to a Part B Application which is not included in the Class 2 Permit Mod Request. Phibro-Tech, Inc.

<sup>1</sup> Unless otherwise indicated, all references to DTSC regulations will be to title 22 of the California Code of Regulations.

submitted a Part B Application to apply for a renewal of authorization for its hazardous waste facility operations. DTSC's review of Phibro-Tech, Inc.'s Part B Application for renewal of authorization is independent of the Class 2 permit modification request. Please remove all references to information available in that Part B Application. Please provide a revised Part A form that includes all required information specified in CCR, section 66270.13.

4. The revised Part A form specifies process design capacities that are higher than the capacities specified in the currently authorized Part A form signed on June 21, 1990. Specifically, process code S01 increased from 173,086 gallons to 174,000 gallons, and process code S02 increased from 237,500 gallons to 262,500 gallons. Despite the explanation given in the comments section at the end of the Part A form, these are clear increases to the permitted storage volume for containers and tanks and should be explained in the Operations Plan. Please provide proposed revisions to the June 21, 1990 Operations Plan that explain the history of the variance tanks (W-3 and W-4) and the addition of the tanks (J-6 and J-7) as permitted units.
5. The revised Part A form includes waste codes that were not listed in the currently authorized Part A form signed on June 21, 1990. Specifically, federal hazardous waste codes D005, D009, D010, F019, F039, U134, U151 and U219 are listed in the revised Part A form as hazardous waste codes accepted at the Facility but are not listed in the currently authorized Part A form. Additionally, state waste codes are listed in the revised Part A form that are not listed in the currently authorized Part A form. Specifically, state waste codes 133, 134, 162, 171, 172, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 541, 551, 721 and 727 are listed in the revised Part A form as hazardous waste codes accepted at the facility but are not listed in the currently authorized Part A form. Please provide proposed revisions to the June 21, 1990 Operations Plan that describe the additional waste codes or delete them from the revised Part A form.
6. The revised Part A form includes waste codes that are currently not authorized. Since these are additional waste codes, Phibro-Tech, Inc. must either delete them from the revised Part A form or submit the following information as proposed revisions to the June 21, 1990 Operations Plan:
  - a. Chemical and physical analyses of the hazardous waste to be handled at the facility in accordance with CCR section 66270.14(b)(2) and section 66264.13(a);
  - b. Sketches, drawings or data demonstrating compliance with sections 66264.176 and 66264.177(c) as required by sections 66270.15(b) and 66264.172;
  - c. A description of procedures used to ensure incompatible wastes are not placed in the same container and hazardous waste is not placed in unwashed containers that previously held an incompatible waste or material as required by section 66270.15(c).

- d. A written assessment reviewed and certified by an independent, qualified, professional engineer registered in California as to the structural integrity and suitability for handling hazardous waste of each tank system as required by sections 66270.16(a) and 66264.192(b)(2);
  - e. A report on a demonstration of the effectiveness of treatment in a miscellaneous treatment unit based on laboratory or field data as required by section 66270.23(d); and
  - f. A copy of the Waste Analysis Plan as required in sections 66270.14(b)(3), 66264.13(b) and (c), and CCR, division 4.5, chapter 18;
7. Table 3-3 lists 22 CCR Regulatory Reference to section 66270.10 and provides discussion that Part A and Part B information is not applicable because Part A and Part B submittal requirements apply to facilities prior to receipt of a 'Part B permit.' Section II.F of the Hazardous Waste Facility Permit 91-3-TS-002 effective August 2, 1995, requires operation of the facility in accordance with the Operation Plan revised on June 21, 1990, which is the Part B application. Additionally, section 66260.10 defines 'Part B of Permit Application' to mean 'the operation plan described in sections 66270.14 through 66270.23 for a hazardous waste facility.' DTSC requires Part B information to ensure that any proposed changes to the facility meet the minimum standards specified in CCR, title 22. Please revise the table to reflect DTSC's requirement to provide this information.
  8. The Class 2 Permit Mod Request specifies the proposed changes to Hazardous Waste Facility Permit 91-3-TS-002, but fails to specify the proposed changes to the Operation Plan (Part B Application) dated June 21, 1990. The Operation Plan includes a facility plot map, a site map with contours and elevations, locations of past and future storage facilities, specific locations of containers holding reactive and incompatible wastes, facility maps depicting containment structures, a plot map depicting buffer zones between reactive and incompatible wastes, etc. The proposed changes to the container storage areas would result in changes to these maps, depictions and other information specified in the Operation Plan. Please specify all proposed changes to the June 21, 1990 Operations Plan.
  9. CCR, section 66270.15(a)(3) requires submittal of information about the capacity of the containment system relative to the number and volume of containers to be transferred or stored. The Class 2 Permit Mod Request provides this information and provides proposed changes to Hazardous Waste Facility Permit 91-3-TS-002, but does not provide proposed changes to the June 21, 1990 Operations Plan. Please provide proposed changes to the June 21, 1990 Operations Plan that addresses the requirement in section 66270.15(a)(3).
  10. CCR, section 66270.15(b) requires submittal of sketches, drawings, or data demonstrating compliance with sections 66264.176 and 66264.177(c). The Class 2 Permit Mod Request provides drawings that show the proposed boundaries of expanded container storage areas, both of which extend to areas less than 50 feet from the facility's property line. Attachment 1, section 4.2.1 of

- the Class 2 Permit Mod Request states, "It is assumed that any of the facility's approved waste codes in Permit No. 91-3-TS-002 can be managed in this area provided wastes are not incompatible with one another." Since the Facility's approved waste codes include D001, the language is inconsistent with requirements specified in section 66264.176, which prohibits containers storing ignitable or reactive waste from being located less than 50 feet from the Facility's property line. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirms that Facility operations would comply with section 66264.176.
11. CCR, section 66270.15(b) requires submittal of sketches, drawings, or data demonstrating compliance with sections 66264.176 and 66264.177(c). The Class 2 Permit Mod Request provides drawings that show the proposed boundaries of expanded container storage areas, both of which extend to areas less than 50 feet from the facility's property line. Attachment 1, section 5.2.1 of the Class 2 Permit Mod Request states, "It is assumed that any of the facility's approved waste codes in Permit No. 91-3-TS-002 can be managed in this area, provided wastes are not incompatible with one another and provided they are not D001 ignitable characteristic wastes (which must be 50 feet from the property boundary)." CCR, section 66264.176 prohibits containers holding D001 wastes from being located less than 50 feet from the property boundary – this must be reflected in the Operations Plan. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirms that facility operations would comply with section 66264.176.
  12. Attachment 1, section 4.2.1, Modification B of the Class 2 Permit Mod Request proposes to install a roof structure in the southeast corner of the CS-1 Ex area ". . . so that waste materials that may be affected by heat can be shaded from the sun." Unit Drawing C20 in Attachment 2 shows the roof structure sits entirely inside the 50 foot property line mark. CCR, section 66264.176 prohibits containers holding ignitable or reactive wastes from being located less than 50 feet from the property boundary. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirms that facility operations would comply with section 66264.176.
  13. Attachment 1, section 4.2.1 of the Class 2 Permit Mod Request states, "If a waste is received that is incompatible with other waste in CS-1, it will be placed in a different container management area." CCR, section 66264.177(c) requires that storage of containers holding incompatible wastes be separated by means of a dike, berm, wall, or other device. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirm that facility operations would comply with section 66264.177(c).
  14. Attachment 1, section 4.2.4 of the Class 2 Permit Mod Request includes a description of the construction plan for the proposed expanded container storage area CS-1 Ex and Attachment 2 includes details of the plan in Unit Drawing C20. Attachment 7 includes a certification report for CS-1 Ex. CCR, section 66270.15(a)(2) requires the Operations Plan to include a description of how the

design of the container storage area promotes drainage or how the containers are kept from contact with standing liquids in the containment system. CCR, section 66264.175(b)(2) also requires the base of the containment system "... be sloped or the containment system otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids." The Class 2 Permit Mod Request does not include sufficient information to confirm that the proposed container storage area would comply with the requirements in these sections. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirm the proposed container storage areas would comply with sections 66270.15(a)(2) and 66264.175(b)(2).

15. Attachment 7 includes a certification report for CS-1 Ex. CCR, section 66264.175(c) requires a written statement signed by an independent, qualified professional engineer, registered in California, that indicates that the containment system is suitably designed to achieve the requirements of section 66264.175. The certification report does not include the required written statement. Please submit proposed revisions to the June 21, 1990 Operation Plan that meets the requirement in section 66264.175(c) and provides enough information for DTSC to confirm the containment system meets the requirements in section 66264.175(b)(1)-(5).
16. Attachment 7 includes calculations for allowable volume for storage of 55 gallon drums and includes references to a Ramp. Please provide dimensions of the ramp and identify it in Unit Drawing C10. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
17. Attachment 7 includes calculations for allowable volume for storage of 55 gallon drums. Chapter B of the Attachment specifies "Volume of sloped area = 829,440 in.<sup>3</sup>" but does not indicate how this volume was calculated or which area it is based on. Please provide adequate information for DTSC to verify the specified volume. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
18. Attachment 7 includes calculations for allowable volume for storage of 55 gallon drums. Chapter B of the Attachment provides an estimate of volume from pallets of drums (15% of gross) but does not indicate how the volume was calculated. Please provide a drum storage staging plan showing how pallets of drums would be stored in the container storage area so that DTSC can verify the estimate. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
19. Attachment 7 includes calculations for allowable volume for storage of 55 gallon drums. Chapter B of the Attachment specifies the area of the new containment storage area to be 389,641 in<sup>2</sup> but does not indicate how this area was calculated. This area is significantly larger than the additional 1,733 square feet proposed and appears to include a containment area for tanks J-6 and J-7.

Please provide adequate information for DTSC to verify the specified area. The information must include information about the volume displaced by tanks J-6 and J-7 in the containment area and account for the containment of tank contents. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

20. Attachment 7 includes calculations for allowable volume for storage of 55 gallon drums. Chapter B of the Attachment specifies the area for rainfall excludes the area of the proposed roof structure but does not explain how the rainfall would be diverted. Please provide detailed plans on how the rainfall collected on the roof structure would be diverted or include that area in the 25-year, 24-hour rainfall event calculation for  $V_{NR}$ . This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
21. CCR, section 66264.175(b)(1) requires "a base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed." Attachment 1, section 4.2.4 and 5.2.4 state ". . . the floor and interior walls will be coated with a 100% solids Novalac [sic] epoxy lining system (or equal) that is chemically resistant to the types of waste handled by the facility." Please indicate the specific lining material that would be used and provide data sheets or other information that DTSC can review to verify that the coating would be impervious to all wastes that would be handled in the container storage areas. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
22. CCR, section 66270.15(a)(5) requires submittal of a description of "how accumulated liquids can be analyzed and removed to prevent overflow." CCR, section 66264.175(b)(5) requires "spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system." If the collected material is a hazardous waste, it must be managed as a hazardous waste. Please submit revisions to the June 21, 1990 Operations Plan that address the requirements. The revisions must describe how liquids would be collected, analyzed and managed.
23. The Class 2 Permit Mod Request proposes replacement of four tanks but fails to specify the proposed changes to the June 21, 1990 Operations Plan. Please submit proposed revisions to the June 21, 1990 Operations Plan that address all of the changes associated with the replacement tanks.
24. Tables 1-3 and 2-3 list 22 CCR Regulatory Reference to section 66270.10 and provides discussion that Part A and Part B information is not applicable because Part A and Part B submittal requirements apply to facilities prior to receipt of a 'Part B permit.' Section II.F of the Hazardous Waste Facility Permit 91-3-TS-002 effective August 2, 1995, requires operation of the facility in accordance with the Operation Plan revised on June 21, 1990, which is the Part B application. Additionally, section 66260.10 defines 'Part B of Permit Application' to mean 'the

operation plan described in sections 66270.14 through 66270.23 for a hazardous waste facility.' DTSC requires Part B information to ensure that any proposed changes to the facility meet the minimum standards specified in CCR, title 22. Please revise the table to reflect DTSC's requirement to provide this information. Please submit proposed revisions to the June 21, 1990 Operations Plan that address all of the proposed changes associated with replacement of tanks W-1, W-2, W-3 and W-4.

25. Attachment 4 provides a tank design for tanks W-7 and W-8. Chapter A of the Attachment specifies the tank wall thicknesses to be 0.576 in. from 0 to 6 feet, 0.452 in. from 6 to 12 feet, 0.328 in. from 12 to 18 feet and 0.248 in. from 18 to 27 feet; however, Table 1-1 of the Class 2 Permit Mod Request indicates tanks W-7 and W-8 would have a wall thickness of 0.375 in. Please submit specifications for the new tanks that meet or exceed the design specifications in the Tank Certifications in Attachment 4. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
26. Attachment 6 provides a tank design for tanks J-6 and J-7. Chapter A of the Attachment specifies the tank wall thicknesses to be 0.431 in. from 0 to 8 feet and 0.288 in. from 8 feet to the top; however, Table 2-1 of the Class 2 Permit Mod Request indicates tanks J-6 and J-7 would have a wall thickness of 0.375 in. Please submit specifications for the new tanks that meet or exceed the design specifications in the Tank Certifications in Attachment 6. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
27. CCR, section 66270.16(c) requires submittal of "a description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents)." The Class 2 Permit Mod Request fails to provide the required information for proposed tanks W-7, W-8, J-6 and J-7. Please provide the information required under section 66270.16(c) that would meet the minimum design standards specified in section 66264.194(b). This information must be provided as proposed changes to the June 21, 1990 Operations Plan.
28. CCR, section 66270.16(d) requires submittal of "a diagram of piping, instrumentation, and process flow for each tank system." The Class 2 Permit Mod Request fails to provide this information for proposed tanks W-7, W-8, J-6 and J-7. Please provide the information required under section 66270.16(d). This information must be provided as proposed changes to the June 21, 1990 Operations Plan.
29. CCR, section 66270.16(j) requires "for tank systems in which ignitable, reactive, or incompatible wastes are to be transferred, stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of sections 66264.198 and 66264.199." Tables 1.1 and 2.1 of Attachment 1 of the Class 2 Permit Mod Request indicates that ignitable waste would be treated in tanks W-7, W-8, J-6 and J-7. The Class 2 Permit Mod Request fails to provide the required information. Please provide the information required under section 66270.16(j) that would meet the minimum

design standards specified in sections 66264.198 and 66264.199. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

30. CCR, section 66270.16(a) requires " a written assessment that is reviewed and certified by an independent, qualified, professional engineer registered in California as to the structural integrity and suitability for handling hazardous waste of each tank system including the containment system, as required under . . . [section] 66264.192(b)." Attachment 4 of the Class 2 Permit Mod Request is described as the tank certification for tanks W-7 and W-8; however, the attachment does not include a written assessment ". . . attesting that the tank system has sufficient structural integrity and is acceptable for the transferring, storing and treating of hazardous waste and that the tanks and containment system are suitably designed to achieve the requirements . . ." of CCR, division 4.5, chapter 14, article 10, as required by section 66264.192(b). Please provide a written assessment that meets the requirements specified in section 66270.16(a) and the minimum design standards specified in section 66264.192(b). The assessment must include an evaluation of the tank compatibility with the wastes to be handled and the information required under section 66264.192(b)(1)-(6). The assessment must be included as proposed revisions to the June 21, 1990 Operations Plan.
31. CCR, section 66270.16(a) requires " a written assessment that is reviewed and certified by an independent, qualified, professional engineer registered in California as to the structural integrity and suitability for handling hazardous waste of each tank system including the containment system, as required under . . . [section] 66264.192(b)." Attachment 4 of the Class 2 Permit Mod Request is described as the tank certification for tanks W-7 and W-8; however, the attachment does not include a written assessment ". . . attesting that the tank system has sufficient structural integrity and is acceptable for the transferring, storing and treating of hazardous waste and that the tanks and containment system are suitably designed to achieve the requirements . . ." of CCR, division 4.5, chapter 14, article 10, as required by section 66264.192(b). Please provide a written assessment that meets the requirements specified in section 66270.16(a) and the minimum design standards specified in section 66264.192(b). The assessment must include an evaluation of the tank compatibility with the wastes to be handled and the information required under section 66264.192(b)(1)-(6). The assessment must be included as proposed revisions to the June 21, 1990 Operations Plan.
32. CCR, section 66270.16(f) requires ". . . a detailed description of how the tank system(s) will be installed in compliance with sections 66264.192(c), (d), (e) and (f)." Please submit proposed revisions to the June 21, 1990 Operations Plan that addresses the requirements specified in sections 66264.192(c), (e) and (f). The proposed revisions must include provisions for inspection of installed tanks prior to use, tightness tests and protection of ancillary equipment in accordance with

these regulations. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

33. CCR, section 66270.16(g) requires submittal of "detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of sections 66264.193(a), (b), (c), (d), (e), (f) and (j)." Please submit proposed revisions to the June 21, 1990 Operations Plan that provides enough detail for DTSC to verify that the plans meet the minimum design standards specified in section 66264.193(a), (b), (c), (d), (e), (f) and (j). The revisions must include sufficient information to show:

- a. The secondary containment systems are designed, installed, and operated to prevent any migration of wastes or accumulation of liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system; and
- b. The secondary containment systems are capable of detecting and collecting releases and accumulated liquids until the collected material is removed; and
- c. The secondary containment systems are constructed of or lined with materials that are compatible with the wastes to be placed in the tank system and have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions and the stress of daily operation (including stresses from nearby vehicular traffic); and
- d. The secondary containment systems are provided with a foundation or base underlying the tanks capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression or uplift. This base shall be free of cracks or gaps and sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed; and
- e. The secondary containment systems are provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours; and
- f. The secondary containment systems are sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within as timely a manner as is necessary to prevent overflow of the containment system, but within no more than 24 hours; and

- g. Collected hazardous waste from a release is managed as a hazardous waste; and
  - h. Ancillary equipment is provided with secondary containment in accordance with section 66264.193(f);
34. CCR, section 66270.16(i) requires submittal of a "description of controls and practices to prevent spills and overflows, as required under section 66264.194(b)." Please submit proposed revisions to the June 21, 1990 Operations Plan that addresses the requirement for tanks W-7, W-8, J-6 and J-7. The proposed revisions must include appropriate spill prevention controls (e.g., check valves, dry disconnect couplings) and overflow prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank).
35. The Class 2 Permit Mod Request includes Unit Drawing C19 in Attachment 2 that shows a new proposed container pumping area next to proposed tanks W-7 and W-8. CCR, section 66264.175 requires, "Container transfer and storage areas shall have a containment system that is designed and operated in accordance with subsection (b) of this section." CCR, section 66260.10 defines "Transfer" means the loading, unloading, pumping or packaging of hazardous waste." Please provide proposed revisions to the June 21, 1990 Operations Plan that address the containment system requirements for transfer areas. The proposed revisions must include sufficient information necessary for DTSC to verify the containment area meets the requirements of section 66264.175.
36. Attachment 8 includes a certification report for CS-2 Ex. CCR, section 66264.175(c) requires a written statement signed by an independent, qualified professional engineer, registered in California, that indicates that the containment system is suitably designed to achieve the requirements of section 66264.175. The certification report does not meet the requirement of section 66264.175(c). Please submit proposed revisions to the June 21, 1990 Operation Plan that meets the requirement in section 66264.175(c) and provides enough information for DTSC to confirm the containment system meets the requirements in section 66264.175(b)(1)-(5).
37. Attachment 8 includes calculations for allowable volume for storage of 55 gallon drums. Chapter B of the Attachment provides an estimate of volume from pallets of drums (15% of gross) but does not indicate how the volume was calculated. Please provide a drum storage staging plan showing how pallets of drums would be stored in the container storage area so that DTSC can verify the estimate. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
38. Attachment 8 of the Class 2 Permit Mod Request includes containment calculations for CS-2 and references TI&CS Report 14-3-21 which was not included in the request. Please provide a copy of the report. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

39. Attachment 1, section 5.2.4 of the Class 2 Permit Mod Request includes a description of the construction plan for the proposed expanded container storage area CS-2 Ex and Attachment 2 includes details of the plan in Unit Drawing C34. Attachment 8 includes a certification report for CS-2 Ex. CCR, section 66270.15(a)(2) requires the Operations Plan to include a description of how the design of the container storage area promotes drainage or how the containers are kept from contact with standing liquids in the containment system. CCR, section 66264.175(b)(2) also requires the base of the containment system "... be sloped or the containment system otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids." The Class 2 Permit Mod Request does not include sufficient information to confirm that the proposed container storage area would comply with the requirements in these sections - for example, planned elevations in the proposed expanded area are not depicted. Please submit proposed revisions to the June 21, 1990 Operations Plan that confirm the proposed container storage areas would comply with sections 66270.15(a)(2) and 66264.175(b)(2).
40. Attachment 8 of the Class 2 Permit Mod Request includes containment calculations for CS-2. Figure A-2 of the Attachment depicts container storage areas that are not authorized or proposed in the Class 2 Permit Mod Request. Please remove references to these container storage areas.
41. The Class 2 Permit Mod Request includes a proposal to replace Wastewater Filter Press FP-#2 with a new filter press FP-#2A. CCR, section 66270.23(a) requires submittal of a detailed description of miscellaneous units including physical characteristics, materials of construction, and "detailed plans and engineering reports describing how the unit will be located designed, constructed, operated, maintained, monitored, inspected and closed to comply with the requirements of sections 66264.601 and 66264.602. . ." The Class 2 Permit Mod Request does not include this required information. Please provide the required information as proposed revisions to the June 21, 1990 Operation Plan. The information must include the volume and physical and chemical characteristics of the waste in the filter press, including its potential for migration through soil, air or containing structures; and its potential for the emission of gases, aerosols and particulates as required under CCR, section 66264.601(a)(1), (b)(1) and (c)(1).
42. CCR, section 66270.23(d) requires "for any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data." Please provide a report on the effectiveness of the treatment for proposed filter press FP-#2A as a proposed revision to the June 21, 1990 Operations Plan.
43. CCR, section 66270.23(b) requires submittal of "detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the

environmental performance standards of section 66264.601." CCR, section 66270.23(c) requires submittal of "information on the potential pathways of exposure of humans or environmental receptors to waste constituents, hazardous constituents and reaction products, and on the potential magnitude and nature of such exposures." Please provide the information required by section 66270.23(b) and (c) for filter press FP-#2A as proposed revisions to the June 21, 1990 Operations Plan. The assessments and exposure information must provide enough detail for DTSC to determine whether the proposed filter press would meet the environmental performance standards specified in section 66264.601 for prevention of releases that may have adverse effects on human health or the environment due to migration into groundwater or subsurface environment, surface water, soil surface or air. The proposed revisions must include plans to inspect, monitor, detect and respond to releases of hazardous waste or constituents to the environment from filter press FP-#2A. These plans must meet all of the requirements specified in sections 66264.15, 66264.33, 66264.75, 66264.76, 66264.77, 66264.601 and 66264.801 as required by section 66264.602.

44. CCR, section 66265.195 requires daily tanks inspections. Please provide an inspection form and schedule for tanks W-7, W-8, J-6 and J-7 as proposed revisions to the June 21, 1990 Operations Plan. The form and schedule must comply with all of the requirements specified in section 66264.195.
45. CCR, section 66270.14(b)(8)(A) requires "a description of procedures, structures or equipment used at the facility to prevent hazards in unloading operations (for example, ramps, special forklifts)." This information is required due to the proposal of new tanks, transfer areas and storage areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(A). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.
46. CCR, section 66270.14(b)(8)(B) requires "a description of procedures, structures or equipment used at the facility to prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches)." This information is required due to the proposal of new tanks, transfer areas and storage areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(B). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.
47. CCR, section 66270.14(b)(8)(C) requires "a description of procedures, structures or equipment used at the facility to prevent contamination of water supplies." This information is required due to the proposal of new tanks, transfer areas and storage areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(C). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.

48. CCR, section 66270.14(b)(8)(D) requires "a description of procedures, structures or equipment used at the facility to mitigate effects of equipment failure and power outages. . ." This information is required due to the addition of new handling areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(D). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.
49. CCR, section 66270.14(b)(8)(E) requires "a description of procedures, structures or equipment used at the facility to prevent undue exposure of personnel to hazardous waste (for example, protective clothing). . ." This information is required due to the proposal of new tanks, transfer areas and storage areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(E). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.
50. CCR, section 66270.14(b)(8)(F) requires "a description of procedures, structures or equipment used at the facility to prevent releases to the atmosphere." This information is required due to the addition of new handling areas at the facility. Please provide a description of procedures that address the requirements specified in section 66270.14(b)(8)(F). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan.
51. CCR, section 66270.14(b)(9) requires "a description of precautions to prevent accidental ignition or reaction of ignitable, reactive or incompatible wastes as required to demonstrate compliance with section 66264.17 including documentation demonstrating compliance with section 66264.17(c)." This information is required due to the proposal of new tanks, transfer areas and storage areas at the facility. Please provide a description of precautions that address the requirements specified in sections 66270.14(b)(9) and 66264.17(c). The description must be submitted as proposed changes to the June 21, 1990 Operations Plan. The description must include a designation of "No Smoking" and other appropriate signs related to open flames in proposed areas where there is a hazard from reactive or ignitable waste. The description must include precautions to prevent ignition of ignitable wastes from sources of spontaneous ignition and radiant heat. The description must include precautions to prevent reactions that generate heat, produce flammable byproducts, cause risk of fire or explosion, threaten structural integrity, or pose threat to human health or the environment. The description must also include documentation of compliance in accordance with section 66264.17(c).
52. CCR, section 66270.14(b)(7) requires a copy of the contingency plan specified in CCR, division 4.5, chapter 14, article 4 beginning with section 66264.50. Please provide proposed revisions to the contingency plan located in the June 21, 1990 Operations Plan that are consistent with the proposed changes described in the Class 2 Permit Mod Request. The proposed revisions to the contingency plan must address all of the requirements specified in CCR, division 4.5, chapter 14,

article 4 and section 66264.196. Incidentally, the contingency plan must be immediately amended as required by section 66264.54 whenever the plan fails in an emergency, the facility design or operation changes in a way that changes the response needed, the list of emergency coordinators changes, or the list of emergency equipment changes. These amendments are mandatory and must be completed through a permit modification as specified in CCR, division 4.5, chapter 20, appendix I.

53. The Class 2 Permit Mod Request includes a "Closure Plan for Class 2 Permit Mod Equipment" in Attachment 9. The elements of the Closure Plan must be submitted as an amended Closure Plan to replace the approved April 1990 Closure Plan. Please submit an amended Closure Plan that meets the requirements of CCR, division 4.5., chapter 14, article 7. The proposed Closure Plan must address the closure of the entire facility, and not limited to the equipment proposed in the Class 2 Permit Mod Request. DTSC will review the amended Closure Plan in its entirety to ensure that it is consistent with sections 66264.111 through 66264.115 and the applicable requirements of CCR, division 4.5, chapter 14, article 6 and sections 66264.178, 66264.197 and 66264.601. CCR, section 66264.112(b) specifies contents that must be included in the Closure Plan. Please ensure that the amended Closure Plan includes the contents identified. The amended Closure Plan must be submitted as proposed changes to the June 21, 1990 Operations Plan.
54. Section 9.0 of the Closure Plan submitted with the Class 2 Permit Mod Request indicates that a closure schedule is provided in Figure CP-3; however, the figure could not be located. Please ensure that the amended Closure Plan includes a detailed schedule for closure of each hazardous waste management unit as required by section 66264.112(b)(6). The detailed schedule must include estimates of time required to complete each closure activity specified in the amended Closure Plan; for example, estimates of time required to remove containerized waste inventory, remove waste inventory in tanks, tanks cleaning, decontamination procedures, confirmation sampling procedures, etc. The detailed schedule must comply with the requirements specified in section 66264.113(a) and (b).
55. CCR, section 66264.112(b)(3) requires "an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure . . ." Section 3.3 of Attachment 9 of the Class 2 Permit Mod Request states, ". . . there is no increase in waste inventory over that in the currently approved closure plan and closure cost estimate." However, the currently approved closure plan identifies a maximum inventory that is different from the proposed permitted capacity identified in Attachment 3 of the Class 2 Permit Mod Request. The currently approved closure plan identifies 157,800 gallons in storage and treatment tanks and 95,000 gallons in containers, while the Part A form in Attachment 3 proposes 174,000 gallons in containers, 137,200 gallons per day in

- treatment tanks and 262,500 gallons in tank storage. Please ensure that the amended Closure Plan includes an accurate estimate of maximum inventory.
56. Section 4.1 of Attachment 9 of the Class 2 Permit Mod Request specifies that attainment of the closure performance standard for lined containment areas in good condition ". . . will be based on wipe samples showing inorganic or organic constituents of concern as described for metal tanks above." The referenced information is missing from the section. Please include in the amended Closure Plan proposed criteria that would be used to determine whether the container storage areas would be decontaminated.
57. Section 4.1 of Attachment 9 of the Class 2 Permit Mod Request proposes that closure generated hazardous waste from pipes, pipe components and small miscellaneous pieces of equipment would be subject to the hazardous debris alternative treatment standards. These treatment standards are applicable to disposal facilities for hazardous waste that is being disposed in a hazardous waste landfill. Please remove any indication in the amended Closure Plan that any hazardous waste would be treated to a "clean debris surface" without being disposed in a hazardous waste landfill. Pipes, pipe components and small miscellaneous pieces of equipment that are ancillary to hazardous waste management units must be closed in the same manner as the unit.
58. Section 4.1 of Attachment 9 of the Class 2 Permit Mod Request proposes "Metallic equipment (e.g., filter press frames) may be designated as closure waste and sent for off-site disposal or scrap metal recycling if there is no reuse alternative." CCR, section 66260.10 excludes any metal contaminated with hazardous waste from the definition of scrap metal. CCR, section 66264.601 requires miscellaneous units to be closed in a manner that will ensure protection of human health and the environment. Please include in the amended Closure Plan proposed criteria that would be used to determine whether the miscellaneous equipment would be decontaminated.
59. CCR, section 66270.14(b)(15) requires "the most recent closure cost estimate for the facility prepared in accordance with section 66264.142 and a copy of the documentation required to demonstrate financial assurance under section 66264.143." The Class 2 Permit Mod Request includes closure cost estimates for newly added equipment as Attachment 10; however, the cost estimate does not comply with the requirements specified in section 66264.142. Please provide a closure cost estimate for the cost of closing the entire facility in accordance with section 66264.142. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.
60. CCR, section 66270.14(b)(17) requires ". . . a copy of the insurance policy or other documentation which comprises compliance with the requirements of section 66264.147." Please provide the required information as part of proposed revisions to the June 21, 1990 Operations Plan.
61. CCR, section 66270.25 contains submittal requirements for equipment that contains or contacts hazardous wastes with organic concentrations of at least

Mr. David Thaete  
April 29, 2016  
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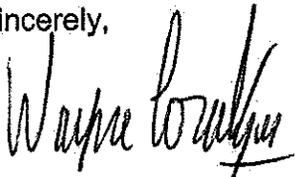
10 percent by weight. Please certify that the facility does not process or handle such wastes. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

62. CCR, section 66270.27 contains submittal requirements for tanks and containers that manage hazardous waste with an average volatile organic concentration greater than or equal to 500 parts per million by weight. Please certify that no tank or container would manage hazardous waste containing an average volatile organic concentration greater than or equal to 500 parts per million by weight. This information must be submitted as proposed changes to the June 21, 1990 Operations Plan.

Please submit proposed changes to the June 21, 1990 Operations Plan that address all of the information requested above and all of the comments listed in the attached memorandums.

If you have any questions, please contact me at (916) 255-3883 or via email at [wayne.lorentzen@dtsc.ca.gov](mailto:wayne.lorentzen@dtsc.ca.gov).

Sincerely,



Wayne Lorentzen, P.E.  
Department of Toxic Substances Control  
Permitting Division  
8800 Cal Center Drive  
Sacramento, California 95826

Enclosures

cc: Mr. David Thaete  
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Matthew Rodríguez  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Barbara A. Lee, Director  
8800 Cal Center Drive  
Sacramento, California 95826



Edmund G. Brown Jr.  
Governor

### MEMORANDUM

TO: Wayne Lorentzen, P.E.  
Senior Hazardous Substances Engineer  
Permitting Division, Sacramento Office  
Hazardous Waste Management Program

VIA: Perry Myers, P.E. *PM*  
Senior Hazardous Substances Engineer  
Engineering and Special Projects Office

FROM: Yujie Jin, Ph.D., P.E. *YJ*  
Hazardous Substances Engineer  
Engineering and Special Projects Office

Jesus Sotelo, P.E.  
Hazardous Substances Engineer  
Engineering and Special Projects Office

SUBJECT: REVIEW OF REQUEST FOR DETERMINATION OF CLASS 2 PERMIT  
MODIFICATION FOR WASTEWATER TANK REPLACEMENTS,  
PHIBRO-TECH INC., SANTA FE SPRINGS, CALIFORNIA, (SITE CODE:  
DTSC300142)

DATE: APRIL 7, 2016



#### DOCUMENT REVIEWED

1. *Request for Determination of Class 2 Permit Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218, San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.
2. *Attachment 1 Description of Modified Equipment, Class 2 Permit Modification Request Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218,

San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.

3. *Attachment 4 Tank Certification-Tanks W7 and W8, Class 2 Permit Modification Request Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218, San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.
4. *Attachment 6 Tank Certification-Tanks J6 and J7, Class 2 Permit Modification Request Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218, San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.
5. *Attachment 7 Certification Report CS-1 EX ( TI&CS Report No. 15-10-24), Class 2 Permit Modification Request Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218, San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.
6. *Attachment 8 Certification Report CS-2 EX ( TI&CS Report No. 15-10-9), Class 2 Permit Modification Request Modification for Wastewater Tank Replacements*, dated December 18, 2015, prepared by Yorke Engineering LLC, 31726 Rancho Viejo Rd. Suite 218, San Juan Capistrano, California for Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California.

## INTRODUCTION

The Engineering and Special Projects Office (ESPO) of the Department of Toxic Substances Control (DTSC) has completed its review of the above listed document. If you have any questions or comments regarding this memorandum, please contact Yujie Jin at (916) 255-3661 or via email at [Yujie.Jin@dtsc.ca.gov](mailto:Yujie.Jin@dtsc.ca.gov) or Jesus Sotelo at (916) 255-6670 or via email at [Jesus.Sotelo@dtsc.ca.gov](mailto:Jesus.Sotelo@dtsc.ca.gov).

## PROJECT SUMMARY

Phibro-Tech Inc.(PTI) is located at 8851 Dice Road in Santa Fe Springs, Los Angeles County, California (Site). It is situated on approximately 4.8 acres in an industrialized section of the city. Surrounding PTI directly to the north, west, and east are other industrial complexes. Directly south of PTI are a set of railroad tracks, with additional industrial facilities south of the railroad tracks. The nearest residential neighborhood is approximately 1000 feet to the north.

PTI is an inorganic chemical manufacturing plant using certain hazardous waste as primary raw material. The facility is RCRA-permitted to treat, store, and transfer both United States Environmental Protection Agency (EPA) and California hazardous waste.

Phibro-Tech Inc. submitted a Class 2 Permit Modification Request for 1) constructing replacement wastewater treatment tanks to replace and close the existing wastewater treatment tanks under the revised Pond 1 closure Plan; and 2) to increase the surface area of two existing container storage areas to allow wider aisle space between rows of containers without increasing the allowable storage capacity.

ESPO has the following comment(s) and recommendation(s) on the Tank design and container storage area expansion:

## **COMMENTS AND RECOMMENDATIONS**

### **General Comments:**

1. Pursuant to California Code of Regulations (CCR) title 22 Section 66264.192 k(3) "...tank system secondary containment shall be provided with a leak detection system that is designed and operated...". Please describe your approach to leak detection.
2. The Class 2 Modification outlines a pumping station for Tanks W7 and W8. It is not clear whether the pumping station would have its own foundation and its own secondary containment. Please clarify or provide design and calculations. ESPO also recommends that a California licensed engineer should review the design of the sizing of the pumps, foundation, and required secondary containment.
3. The Class 2 Modification outlines a filter press but does not provide specifications of size, capacity and required secondary containment details. Please provide the design details of this filter press.
4. The Class 2 Modification does not outline or specify secondary containment for any incompatible hazardous waste in the container storage area in attachment 7. Please provide details regarding how incompatible wastes will be handled and stored within the same container and tank secondary containment area.

### **Specific Comments:**

1. Request for Determination of Class 2 Permit Modification, Page 4 of 20. Please clarify whether the proposed permanent container pumping station is located in the new secondary containment. If it is located in the secondary containment, please exclude the associated displaced volume from the secondary containment volume.
2. Attachment 1, Description of Modified Equipment, Page 10. Modification B. Please provide details on how the roof structure will be installed and supported that demonstrates sufficient seismic resistance and uplift resistance due to wind on the structure. If the structure is not to be fixed to the secondary containment

bottom, ESPO is concerned that the roof structure may move during strong wind events and therefore would not provide shade for materials that may be affected by heat.

3. Attachment 4 Tank Certification-Tanks W7 and W8. Upon ESPO's review of the design of Tanks W7 and W8, it was noted that the full tank liquid height was used for the structural calculations. ESPO also noted that the tank domes would likely be impacted by a sloshing wave during a seismic event. Please provide structural calculations with regard to the strength of the tank's dome to withstand the loads created by the sloshing wave. ESPO recommends that tank fill height be limited by the required sloshing wave height to prevent damage to the tank wall and/or tank dome, e.g. the sloshing wave height for tanks W7 and W8 is approximately 4.655 ft. ( 55.862 inch in the calculations) reducing the working height of the tank to 22.345 ft. rather than 27 ft. Otherwise, please provide a structural evaluation of the tank's dome to support the hydrostatic load caused by the sloshing wave.
4. Attachment 6 Tank Certification- Tanks J6 and J7. Upon ESPO's review of the design of Tanks J6 and J7, it was noted that the full tank liquid height was used for the structural calculations. ESPO also noted that the tank domes would likely be impacted by a sloshing wave during seismic event. Please provide structural calculations with regard to the strength of the tank's dome to withstand the loads created by the sloshing wave. ESPO recommends that tank fill height be reduced by the required sloshing wave height to prevent damage to the tank wall and tank dome connection, e.g. the sloshing wave height for Tanks J6 and J7 is approximately 3.657 ft. ( 43.886inch in the calculations) reducing the working height of the tank to 14.509 ft. rather than 18.167 ft. Otherwise, please provide a structural evaluation of the roof to support the hydrostatic load caused by the sloshing wave.
5. Attachment 7 Certification Report CS-1 EX.
  - An error was encountered during our review with regards to the available secondary containment volume for the containers. Please take into consideration the displaced container volumes which will reduce the total Net Volume of Containment.
  - Roof structure. In the calculation on page B2, the covered area is excluded from the calculation of rain volume. Please provide the reason behind this exclusion.
  - Page B1.  $V_{EXG}=829,440 \text{ in}^3+5,642,600 \text{ in}^3$ . The number outlined in the text is  $5,642,600 \text{ in}^3$ . It should be  $5,642,000 \text{ in}^3$  and therefore  $V_{EXG}$  should be  $6,471,440 \text{ in}^3$  instead of  $6,472,040 \text{ in}^3$ . Please revise the subsequent calculation in this section.
  - Please exclude the tank secondary containment volume from the container storage secondary containment volume. Please correct and provide revised calculations.

- Page B1. This page shows that  $A_{EX}=564,260 \text{ in}^2$  (NO RAMP) and volume of sloped area  $=829,440 \text{ in}^3$ . However the calculation only states that "Calculated from measurements and Auto Cad data" and does not show how the area and volume are calculated. Please provide the detailed calculation. Please also clarify and identify the "NO RAMP" area and "Sloped area" in figure C20.
6. Attachment 8 Certification Report CS-1 EX. Page B-1.
- The calculation sheet states "See TI&CS Report 14-3-21". TI&CS Report 14-3-21 is not provided in the document
  - Page B-11, Elevation column, 17th row. The elevation of 6.75 conflicts with Fig A-1 which indicates that elevation is 0.
  - Page B-3. The calculation states that "Maximum number of 300 gallon totes that can be stored in area CS-2 is 278". Please correct 278 as 277.
  - Please subtract the displaced container volume from the total Net Volume of Containment, 8,329 gallons, in the calculation.



Matthew Rodriguez  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control



Edmund G. Brown Jr.  
Governor

Barbara A. Lee, Director  
9211 Oakdale Avenue  
Chatsworth, California 91311

### MEMORANDUM

TO : Wayne Lorentzen, PE  
Project Manager  
Brownfields and Environmental Restoration Program - Chatsworth.

FROM : Raymond Grutzmacher, PG *RG*  
Engineering Geologist  
Geological Services Branch – Chatsworth GSU

CONCUR : Craig Christmann, PG *Alie Campbell for CC*  
Senior Engineering Geologist  
Geological Services Branch – Chatsworth GSU

DATE : April 28, 2016

SUBJECT: Appendix A of Attachment 9 (Sampling and Analysis Plan for  
Facility Closure)  
Phibro-Tech, Inc.  
Santa Fe Springs, California 90670  
Dated: December 18, 2015

PCA: 25040

Site Code 300142-33

Log No.: 20035895 MPC Code: 43

GSU staff was requested to review the above referenced Sample and Analysis Plan (SAP), which is Appendix A of Attachment 9 to Closure Procedures for Newly Added Equipment document and provide comments on the content and conclusions presented therein. The SAP was prepared for Phibro-Tech, Inc. (PTI) by Yorke Engineering, LLC (Yorke). The SAP discusses specific field sampling procedures and laboratory analytical tests to be used during implementation of the Closure Plan during closure activities at the subject property located at 8851 Dice Road, Santa Fe Springs, CA (Site). GSU also reviewed and commented on the 20-page letter/document regarding PTI's application for a Class 2 permit modification to the 1001 Part B permit 91-3-TS-002 (letter).

The SAP was reviewed for internal consistency and for conformance with DTSC guidance and generally accepted professional practice. Based on our review, GSU has the following comments. Questions regarding this memo should be directed to Ray Grutzmacher at (818) 717-6621.

Mr. Wayne Lorentzen  
April 28, 2016  
Page 2 of 2

Letter Comments:

- 1) If import fill material is required, it needs to be analyzed for contamination following DTSC Information Advisory for Clean Imported Fill Material dated October 2001.
- 2) Laboratory analysis of any sample collected below filter presses that used hydraulic oils should additionally be analyzed for TPH and for PCBs.
- 3) Page 8 of 20, Section 5. There appears to be a typographical error in this paragraph that discusses Closure procedures for Tanks W-7 and W-8. GSU believes this should be Tanks W01 and W-2. Please either correct or elaborate.
- 4) Page 11 of 20, Section 3 of Modification #2 – "Replacement of Tanks W-3 and W-4". The paragraph above Table 203 suggests that a 3-stage clarifier exists at the Site that operates under a hazardous waste permit variance issued by DTSC on February 23, 1988. GSU could not find other references to this clarifier and was not able to locate a clarifier on the figures provided. Please elaborate on this clarifier and show the location on the appropriate figures.

SAP Comments, Appendix A:

- 1) Page 6, Section 3.6.2. The discussion on soil sampling and analysis states that "background samples will be collected from concrete locations that had not been exposed to hazardous waste or hazardous materials." GSU believes this statement is referring to background soil locations. Please correct or explain.
- 2) Page 8, Sections 3.7.1 and 3.7.2. These sections reference other sections (4.7.2 and 4.6) that do not exist in the SAP. Please correct these statements.
- 3) Page 8, Section 3.8. The SAP states that "A determination will first be made if samples should be collected from on-site monitoring wells... ". Please request that they clarify that the determination will be made by DTSC.
- 4) Page 11, Section 5.5. GSU requires that duplicate samples be obtained at a rate of 5% of the samples and not one duplicate sample per sampling round.
- 5) Table 1A indicates that Method 5035 extraction will be performed using EnCore samplers. GSU prefers that extraction be done in the field using Methanol and sodium bisulfate for soils analyzed for VOCs that require preservation. This same reference is also made in other attachments, such as Attachment 11.



Matthew Rodriguez  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Barbara A. Lee, Director  
8800 Cal Center Drive  
Sacramento, California 95826-3200

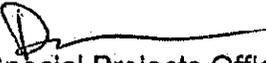


Edmund G. Brown Jr.  
Governor

### FINANCIAL ASSURANCE COST ESTIMATE REVIEW MEMORANDUM

TO: Wayne Lorenzen, P.E.  
Project Manager

VIA: Tamara Zielinski, P.E.  
Permitting Division

Perry Myers, P.E.   
Engineering and Special Projects Office

FROM: William Kilgore, P.E.   
Engineering and Special Projects Office

SUBJECT: REVIEW OF ATTACHMENTS 9 AND 10, CLOSURE PROCEDURES  
AND CLOSURE COST ESTIMATE FOR NEWLY ADDED EQUIPMENT,  
REQUEST FOR DETERMINATION OF CLASS 2 PERMIT MODIFICATION  
FOR WASTEWATER TANK REPLACEMENTS, PHIBRO-TECH  
FACILITY (Site Code 300142-33, EPA ID CAD008488025)

DATE: April 11, 2016

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#### Documents Reviewed

- The result of this review is limited to the following documents, or sections thereof:
1. Attachment 9 – Closure Procedures for Newly Added Equipment, Request for Determination of Class 2 Permit Modification for Wastewater Tank Replacements, Phibro-Tech, Inc. CAD 008 488 025, Santa Fe Springs, California , December 18, 2015
  2. Attachment 10 – Closure Cost Estimate for Newly Added Equipment, Request for Determination of Class 2 Permit Modification for Wastewater Tank Replacements, Phibro-Tech, Inc. CAD 008 488 025, Santa Fe Springs, California , December 18, 2015

## **Background Cost Estimate Review Findings**

Department of Toxic Substances Control (DTSC) Cost Estimating Work Group (CEWG) engineering staff reviewed the Closure cost estimate related material included in Attachments 9 and 10 of the Request for Determination of Class 2 Permit Modification for Waste Water Tank Replacements, dated December 18, 2015. The purpose of the review was to provide a preliminary evaluation of the financial assurance cost estimate and its compliance with the financial assurance requirements established for the facility by California Code of Regulations, Title 22, sections 66264.142 and 66264.144. These regulations require that the owner or operator prepare and submit to the Department a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements established in the approved Closure Plan and, if necessary, the Post-Closure Plan.

The Phibro-Tech Inc. facility (Facility) treats, stores, and transfers inorganic hazardous wastes transported to the Facility. Its primary purpose is to reclaim metals from etchants used for printed circuit board manufacture. The scope of work for the Closure Plan Financial Assurance Cost Estimate for the permit modification includes closure of new tanks W-7, W-8, J-6, and J-7; expanded containment storage areas CS-1 and CS-2; new filter press 2A; and a container pumping station adjacent to tanks W-7 and W-8.

## **Cost Estimate Review Findings**

1. The closure cost estimate must be developed and presented as a complete stand-alone document. It must include the complete closure costs and not prorate costs for only the additions, or refer to other documents for costs associated with the subject units. It must include all costs attributable to the closure of the units.

The cost estimate must include the costs to remove, transport, treat, and dispose of the material contained in the tanks and containers. Section 3.3 of Attachment 9 states that no closure costs are allocated for inventory elimination since the new tanks and tanks to be replaced are identically sized and the expanded container storage areas will have the same maximum waste inventory as the previous old container storage areas.

It is unclear whether costs for transportation, treatment and disposal of the wastes in the tanks and containers have been included in a closure cost estimate for the Facility.

2. For the purposes of financial assurance and consistent with the provisions of Title 22, Section 66264.142(a)(1-2), the cost estimate should include the cost to remove, transport and dispose of the containment structures for both the tank

Wayne Lorenzen  
Phibro-Tech, Inc.  
April 11, 2016  
Page 3 of 3

systems and the container storage areas. If the Facility operator is aware of historical releases from the current units beyond the existing containments, costs for characterization of the nature and extent of the releases and their remediation should be included in the cost estimate.

3. It should be clarified whether secondary containment provisions or structures will be required and constructed for the new filter press.

**Pond 1 Closure Plan Petition for Review**

**Exhibit F**

Final  
Signed 9/30/88  
M. J. ...

ATTACHMENT 14

MODIFIED CLOSURE/POST-CLOSURE PLAN

FOR

SOUTHERN CALIFORNIA CHEMICAL

8851 Dice Road  
Santa Fe Springs, CA 90670

INTRODUCTION

A revised Hazardous Waste Facility Closure Plan for Southern California Chemical (SCC), submitted on June 29, 1988, has been modified by the United States Environmental Protection Agency (EPA), Region IX and by the California Department of Health Services (DHS), in accordance with section 265.112(d)(4), Title 40, Code of Federal Regulations (40 CFR) and section 67212 (f) of the California Code of Regulations, Title 22, Division 4, Chapter 30, (Title 22). This modified Closure Plan shall be the approved plan which SCC must implement to properly close their hazardous waste management facility, listed as Pond #1. A brief explanation of why each section of the revised plan was modified is found at the beginning of each modified section. Missing components of a RCRA Closure Plan are identified and underlined in each modified section.

The activities in this modified Closure Plan are to be conducted in concert with the overall facility investigation at SCC specified by the final "Administrative Order on Consent" (3008(h) ORDER) issued by EPA pursuant to section 3008(h) of the Resource Conservation and Recovery Act (RCRA). In any event where there is conflict between activities of the modified Closure Plan and the Order, the Order shall take precedence unless EPA and DHS determine otherwise.

Listed below are documents which shall be considered part of the modified Closure Plan by reference. These documents provide necessary background and supporting information for implementation of the plan. The complete title and name of the author of the document is listed with the common name or acronym by which each document shall be referred to throughout the modified Closure Plan.

MODIFIED CLOSURE PLAN  
Southern California Chemical

-2-

Rev. 2

Reference 1: RFA REPORT

RCRA Facility Assessment Report, Southern California Chemical; A.T. Kearney & Science Applications International Corporation, September 1987.

Reference 2: CME REPORT

Comprehensive Groundwater Monitoring Evaluation of Southern California Chemical Company; Regional Water Quality Control Board (Region 4, Los Angeles), June 3, 1988.

Reference 3: SCC PLAN

Closure/Post-Closure Plan, Pond Number One; Southern California Chemical Company, June 29, 1988.

Reference 4: 3008(h) ORDER

Final Administrative Order on Consent [pursuant to section 3008(h) of the Resource Conservation and Recovery Act]; United States Environmental Protection Agency, Region IX.

Reference 5: HAR

Hydrogeologic Assessment [Report] of Pond Number 1, Southern California Chemical; J.H. Kleinfelder & Associates, October 1985.

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I. FACILITY DESCRIPTION

Owner/Operator Name: Southern California Chemical,  
A Division of CP Chemicals, Inc.

EPA Facility ID #: CAD 008 488 025

Facility Address: 8851 Dice Road  
Santa Fe Springs, CA 90670-0118

Mailing Address: Same

Facility Contact: Milt Giorgetta,  
Plant Manager

Phone Number: (213) 638-8036

Southern California Chemical (SCC) is an inorganic chemical manufacturer and spent material recycler (SIC Code 2819) located in an industrialized area of Santa Fe Springs, California. The facility has been in operation on the 3.4 acre site since 1959. Since 1984, the facility has been owned and operated by CP Chemicals, Incorporated of Fort Lee, New Jersey. SCC's current business entails the manufacture of inorganic solutions such as ferric chloride, copper sulfate, copper oxide, and ammonia-based metal etchants. These materials are returned to SCC in spent condition for recycling from the original customers. Other compatible waste streams such as acids, alkaline solutions, and metal-bearing solutions are also accepted for treatment or recycling. SCC is currently operating under interim status, which was granted to the facility on December 16, 1981. SCC intends to submit a RCRA Part B application prior to November 8, 1988.

No topographic map was included with the SCC Closure Plan, and no other reference document includes one. This information shall be provided by SCC in the revised Facility Description to be submitted to DHS and EPA.

No listing of all other Hazardous Waste Management Units and their wastestreams was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

No Hydrogeologic background information was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

No corrective action for groundwater or the groundwater monitoring system was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

#### SURFACE IMPOUNDMENT DESCRIPTION

The hazardous waste management unit to be closed is a concrete lined surface impoundment commonly known as Pond #1. Pond #1 was constructed in 1975 by modifying the former zinc pond (Pond #8). The Pond #1 construction consisted of relining Pond #8 with a 6" thick layer of reinforced concrete and extending the height of it's walls. The structure is 37' x 37' x 3' deep with 1' of its depth below grade and 2' above grade. Pond #1 is located toward the northwest portion of the SCC facility and has a capacity of 36,000 gallons.

The pond was taken out of service in July 1985, in accordance with SCC's July 30, 1985 Closure Plan submittal. All liquids and sludges were removed and the unit was cleaned of any residual wastes. The inactive unit has since been used as a secondary containment structure for two 30,000 gallon wastewater treatment tanks. However, the 1985 closure plan had not been approved for by DHS or EPA before closure activities had been carried out by SCC, and a Closure Plan was again required by the DHS "Complaint For Administrative Penalties" and subsequent "Consent Order" effective on August 28, 1987.

No engineering drawings or schematics showing piping, discharge points, or line connections for Pond #1 were provided with the SCC closure Plan. Any lines or equipment attached to Pond #1 which are still in use must be indicated. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

No information on maximum quantities of liquid wastes or sludges which were disposed of from Pond #1 was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

Pond #1 treated aqueous effluent resulting from on-site treatment processes, contaminated rainwater, drum rinsewater, and general facility wash water. However, records of all wastes which were specifically treated in this unit are unavailable. Typically, the treated effluent stream was of a high pH (10-14), and is believed to have contained varying concentrations of the following constituents (not all of which are hazardous):

| <u>CONSTITUENT</u>       | <u>EPA WASTE CODE / CHARACTERISTIC</u> |
|--------------------------|--|
| ammonium chloride        | ----                                   |
| ammonium sulfate         | ----                                   |
| copper                   | ----                                   |
| copper ammonium chloride | ---- / toxic                           |
| arsenic                  | D004 / toxic                           |
| free ammonia             | ----                                   |
| ammonium bifluoride      | ---- / toxic, corrosive                |
| cadmium                  | D006 / toxic                           |
| chromium (+3, +6)        | D007 / toxic                           |
| ferrous hydroxide        | ----                                   |
| iron                     | ----                                   |
| lead                     | D008 / toxic                           |
| nickel                   | ----                                   |
| nickel sulfate           | ---- / toxic                           |
| sodium chloride          | ----                                   |
| sodium hydroxide         | ---- / toxic, corrosive                |
| sodium sulfide           | D003 / toxic, flammable                |

Acidic solutions, some containing varying concentrations of heavy metals, were also added to the effluent stream for neutralization.

Metals were removed by the addition of a reducing agent such as sodium sulfide. This material would form an insoluble metal sulfide compound and then precipitate from the solution. The resulting supernatant liquid at the surface of Pond #1 would then be filter pressed for removal of any suspended solids, polish filtered, and then discharged to the sanitary sewer via a three-stage clarifier. Precipitated sludges were periodically removed and transported to a Class I disposal site. Effluent discharge from Pond #1 was made under authorization of the Los Angeles County Sanitation District's Industrial Waste Discharge Permit No. 10342 and Addendum.

No information on general site security or closure-specific site security was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

No liner or leachate collection systems design information for Pond #1 was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

No run-on or run-off control information for pond #1 was provided with the SCC Closure Plan. This information shall be provided by SCC in detail in the revised Facility Description to be submitted to DHS and EPA.

All items which were not provided with the SCC Closure Plan must be provided in a detailed revised Facility Description which is to be submitted to DHS and EPA within 30 days of the modified Closure Plan approval.

## II. CLOSURE PROCEDURES

The procedures in this section shall describe the steps SCC will take to properly close Pond #1 in a way that is consistent with the forthcoming overall facility investigation required by the 3008(h) order. This section was modified due to the issuance of the 3008(h) ORDER and comments by SCC requesting that closure activities be integrated with the 3008(h) ORDER.

### GENERAL PROCEDURES

Since SCC depends heavily on the continued use of its wastewater treatment system to conduct normal operations, it has been determined that the two wastewater treatment tanks located in the unit must be relocated as part of closure. For this reason, the time necessary to complete closure activities will need to be extended in accordance with 40 CFR 265.113(b)(1)(ii)(C). The general closure procedures for Pond #1 shall be as follows:

- o Site Characterization/Tank Relocation Plan *Done/Not Required*
- o Impoundment Characterization *Done*
- o Concrete and Soil Removal, Soil Stabilization *Not Required*
- o Interim Cover/Final Cover *Done / To be done at facility closure*
- o Closure Certification *At the time of closure*
- o Post-Closure Care & Maintenance *At the time of closure*

### SITE CHARACTERIZATION/TANK RELOCATION PLAN

*Done*  
*self-sufficient*  
*Done*

The two (2) 30,000 gallon wastewater treatment tanks currently located in Pond #1 must be removed from the unit in order to proceed with soil sampling activities. However, due to the critical role they play in normal facility activities, they must remain in continuous service throughout closure of Pond #1. Therefore the tanks shall be relocated to accommodate this need prior to commencing sampling activities for Pond #1.

Information gathered from the HAR, the RFA REPORT, and the recent 3008(h) ORDER has indicated that soil contamination exists or is likely to exist in various areas throughout the SCC facility. To place the tanks over an already contaminated area would be counterproductive for SCC in light of forthcoming facility-wide corrective actions. For this reason, SCC shall develop a

proposal for the tank relocation phase of the closure. The Tank Relocation Plan must be submitted to DHS and EPA within 60 days after the modified Closure Plan approval. The Tank Relocation plan shall include the following:

1. Diagrams of at least three (3) proposed relocation areas.

The diagrams (drawings, sketches, or photographs) shall show the dimensions of the proposed area, and its proximity to existing units, buildings, property lines, facility traffic routes, etc. Diagrams shall be drawn to scale with the scale and a north arrow indicated on them.

2. Summary of area history.

Background information on each proposed area shall indicate known or suspected past as well as present activities. SCC will propose tank relocation areas which are known or expected to be free of contamination or can be easily decontaminated.

3. Sampling, Analysis, and Characterization Plan

Each location must be characterized to determine the lateral and vertical extent of contamination, and types of contaminants present. A sampling and analysis protocol must be developed that is consistent with the requirements for Pond #1 (see "sampling and analysis plan" in section III). SCC must submit within 60 days after the modified Closure Plan approval the Sampling and Analysis Plans for tank relocation and Pond #1 closure as one plan to ensure consistency. This Sampling and Analysis Plan will be a subset of the plans required under the 3008(h) Order.

4. Secondary containment design

Since the secondary containment design for the relocated tanks could vary based on location, the proposal shall outline the sizes, capacities, dimensions, construction methods and materials proposed for each proposed tank relocation area.

Once the proposal has been approved by the agencies, SCC shall begin sampling activities (see "Closure Schedule", section IV). When sampling and analysis activities have been completed, SCC shall prepare a report which indicates which area is best suited for the tank relocation based on analysis results. This report shall include laboratory data, diagrams of contaminated zones (lateral and vertical extent), and discuss remediation alternatives if necessary and their feasibility for each area.

DONE

Soil in the proposed tank areas, if contaminated, shall be cleaned up to meet EPA-established preliminary cleanup performance standards.

The preliminary cleanup performance standards for soil shall be based on EPA-established exposure limit criteria as follows:

|  |                |
|--|----------------|
| Trivalent Chromium (Cr +3)   | 1000 mg/kg     |
| Hexavalent Chromium (Cr +6)  | 6 mg/kg        |
| Cadmium  | 9 mg/kg        |
| All other contaminants from Priority Pollutants List in 40 CFR Part 423 and Xylene | Non-detectable |

In anticipation of a relocation area approval, SCC shall secure necessary permits and authorizations from local agencies which are also involved in environmental compliance. SCC shall also submit a revised Part A Application to DHS and EPA as part of the approval request for tank relocation (see "Closure Schedule"). The tanks shall be relocated and operational within 365 days from the modified Closure Plan approval (see schedule).

#### IMPOUNDMENT CHARACTERIZATION

The site characterization portion of this modification is focused at Pond #1, and the soil immediately around and beneath it. This is required in accordance with 40 CFR 265.112(b)(4). This section has been modified due to a lack of detail and ambiguous wording in some portions of the SCC plan.

The primary intent of the characterization for the unit is to determine:

- 1) the horizontal and vertical extent of soil contamination existing as a result of past operation of the unit;
- 2) the types and levels of contamination found so as to provide reference information for Post-Closure groundwater monitoring activities.

*[Handwritten signatures and initials on the right margin, including "Dane" and "RFI"]*

A characterization report shall be developed to include: sampling and analysis QA/QC documentation, soil boring logs, analysis results, discussion of results, diagrams showing zones of contamination (lateral and vertical extent) in the sampling locations, documentation of any unusual conditions or events which impact sampling activities, and amount of soil to be removed. Also, a discussion on proposed corrective action for the area shall be included with the report. This discussion shall provide detail on procedures for concrete and soil removal (see next section). *D/E*

The constituents to be analyzed for are listed in the section entitled "Sampling and Analysis Plan" of section III. The characterization report is to be submitted to DHS and EPA within 425 days of the modified Closure Plan approval.

#### CONCRETE & SOIL REMOVAL, SOIL STABILIZATION

The concrete structure shall be broken up, removed, and disposed of as hazardous waste. *No need new* *Disposal facility*

*Not feasible*  
The actual amount of soil to be removed shall depend upon the extent of soil contamination observed, and the feasibility of the removal activities. SOC shall include this information in the characterization report. The soil removal activities must be approved by DHS and EPA prior to constructing the interim cover. The soil removed shall also be disposed of as hazardous waste, unless analysis shows otherwise. Proposed disposal locations shall be indicated in the report.

The remaining contaminated soil shall be stabilized to a bearing capacity sufficient to support the interim cover in accordance with 40 CFR 265.228(a)(2)(ii).

#### INTERIM COVER/FINAL COVER

*wh*  
Within 470 days of the modified Closure Plan approval for Pond #1, construction of the interim cover shall commence over the contaminated soil which was left in place. This cover shall be constructed of an impermeable material which will prevent the infiltration of liquids into the contaminated area. It shall be graded or paved to prevent the accumulation of standing liquids. Interim cover design and construction plans shall be submitted to DHS and EPA within 425 days after approval of the modified Closure Plan as part of the site characterization report. DHS and EPA will review and modify or approve this plan prior to implementation.

Guidance for developing the interim cover may be obtained from the handbook entitled "Remedial Action at Waste Disposal Sites", EPA/625/6-85/006, October 1985.

SCC shall also provide design and construction plans for a final cover in accordance with 40 CFR 265.228(a)(2)(iii). Guidance for cover design can be found in EPA/600/2-87/039, "Design, Construction, and Maintenance of Cover Systems for Hazardous Waste", U.S. Army Engineer Waterways Experiment Station, May, 1987. Any requirements for a final cover will be made a part of the overall SCC facility corrective action activities. Final cover design and construction plans will be submitted in accordance with the schedule set forth in the 3008(h) Order.

The design and construction of the final cover must comply with the requirements of the following:

- o 40 CFR 265.228(a)(2)(iii);
- o Title 22, California Code of Regulations, Section 67316(b)(3);
- o Title 23, California Code of Regulations, Section 2581(a).

Within 60 days after completion of the interim cover construction, the owner/operator and an independent registered professional engineer in California shall certify the completion of interim closure activities.

#### CLOSURE CERTIFICATION

All closure activities shall be certified by the owner/operator (SCC) and an independent registered professional engineer in California within 60 days of closure completion as specified by the 3008(h) Order. This is in conformance with the requirements of 40 CFR Part 265.115.

#### POST-CLOSURE CARE & MAINTENANCE

Because of the known soil and groundwater contamination in the vicinity of the unit, ~~closure with waste in place must follow the requirements for a hazardous waste landfill.~~ It was necessary to modify this section because the SCC submittal lacked detail regarding major facets of Post-Closure including:

- o Survey Plat (40 CFR 265.116)
- o Post-Closure care (40 CFR 265.228, 265.310)
- o Post-Closure use of property (40 CFR 265.117)
- o Maintenance activities (40 CFR 265.228)
- o Groundwater Monitoring (40 CFR 265 Subpart F)
- o Post-Closure Plan (40 CFR 265.118)
- o Post-Closure care period contact person/office (40 CFR 265.118)
- o Post-Closure notices (40 CFR 265.119)
- o Certification of Post-Closure completion (40 CFR 265.120)

→ The proposals in the SCC Plan to construct a combination secondary containment structure and cover system over the closed unit do not conform with design concepts currently accepted by EPA and DHS for covers. In addition to this, no supporting documentation has been provided to demonstrate the merit of this concept.

After the Closure activities are complete, the Post-Closure period will begin. During this period, inspection and maintenance of the cover and continuing groundwater monitoring will be required under Interim Status standards, 40 CFR 265.228(b), and 265.117-265.120. Similar California regulations are found in 22 CCR 67316(c) and 67288(m)-(s). In addition, the Post-Closure activities must comply with the State Water Resources Control Board regulations in Title 23, CCR, Article 5 (Water Quality Monitoring for Classified Waste Management Units). The owner and operator will be required to submit an application for a Post-Closure permit which will formalize the interim status standards into a site-specific permit.

In general, post-closure uses of the property on which hazardous wastes remain after closure are restricted to those which will not disturb the integrity of the final cover or the facility's monitoring systems. However, certain activities may be approved if they will not increase the hazard, or the potential hazard to human health or the environment, or it is necessary to reduce a threat to human health or the environment. Such a modification would be considered a major modification to the post-closure permit and would be subject to public review.

A complete, detailed Post-Closure Plan must be submitted to DHS and EPA by SCC in conjunction with requirements of the 3008(h) Order.

### III. CLOSURE ACTIVITY PROTOCOL

#### PERSONNEL HEALTH & SAFETY PLAN

The contents of the facility Health and Safety Plan shall apply to all aspects of the closure from tank relocation to the interim cover construction. It shall focus on any areas, routes or locations on the facility where hazardous wastes generated from closure activities would be encountered. These will include, but not be limited to Pond #1, background sampling locations, equipment and personnel decontamination areas, and waste collection areas for onsite/offsite treatment and offsite disposal.

The Health & Safety Plan shall be submitted to DHS and EPA within 30 days of the modified Closure Plan Approval. Attached to this Closure Plan is a copy of "Appendix B. Generic Site Safety Plan" which delineates the requirements to be addressed in the Health & Safety Plan for the SCC facility closure.

#### SAMPLING & ANALYSIS PLAN FOR POND #1

Within 60 days of the Modified Closure Plan approval, SCC shall submit to DHS and EPA a detailed sampling location diagram with a complete Sampling and Analysis Plan for Pond #1. The diagram (drawn to scale) shall include the following:

o At least four (4) proposed sampling locations on the unit floor for taking vertical soil borings. These shall be located where cracks or other observable surface anomalies exist. The SCC Plan specified six because two of the concrete cores were to be used as concrete structural test samples. Since all the concrete shall be disposed of, the additional two are not required.

o Color photographs of the sampling locations shall be submitted with the diagram. They are to show the sampling locations clearly marked, and their locations in reference to each other and the tanks. Samples from each of the four soil borings shall be analyzed at depths of 1', 1.5', 2', 3', 5', and every 5' interval thereafter to a maximum depth of 40' or until groundwater is encountered, whichever happens first.

Vertical soil borings shall also be taken around the three accessible sides of the unit's perimeter to observe any potential lateral soil contamination from the unit. Nine (9) borings (3 on each side) as identified in the SCC Plan, figure 1 shall be made to obtain samples for analysis purposes. [note that the SCC Plan dated June 29 specified nine (9) sampling locations, while the intent of the May 30, DHS letter to SCC was three (3) sampling locations at a minimum. Upon obtaining clarification of this misunderstanding, SCC proposed three (3) sampling locations in the July 1, 1988 submittal. DHS and EPA have since determined that nine (9) perimeter sampling locations would be more appropriate for characterization purposes.]

The sampling depths for analysis around the unit shall be the same as those within the unit (1', 1.5', 2', 3', 5', etc.) Any concrete cores removed from the unit or perimeter to provide access to the soil shall be disposed of as a hazardous waste.

MODIFIED CLOSURE PLAN  
Southern California Chemical

Due to the nature and variety of past waste management activities on the SCC site, there is reason to believe that it may be difficult to obtain representative background soil samples. In addition to the four (4) background sample locations proposed in the SCC Plan, fig. 2, two (2) offsite background sampling locations shall be proposed by SCC for a total of six (6) proposed background sampling locations. These proposed locations shall be submitted along with the sampling location diagram for the unit.

Background soil samples shall be analyzed at the following depths: 5', 15', 25' and 40'. Additional samples may be taken and preserved in the event that additional data is needed to adequately characterize the background. No soil samples for the background, perimeter, or unit shall be composited.

All samples taken shall be handled, preserved and analyzed according to all applicable protocols detailed in EPA document SW-846, Test Methods for Evaluating Solid Waste. The test methods shall be identified in the Sampling and Analysis Plan to be submitted within 60 days of approval of the modified Closure Plan. The sampling and analysis plan shall be approved or modified, if necessary, by both DHS and EPA prior to any soil boring activities taking place.

#### Drilling and Sampling Procedure

The 8" Diameter Hollow Stem Auger (HSA) equipment with the California Split-spoon sampler shall be used as specified in the SCC Plan sections on "Subsurface Investigation" and "Drilling... Procedure". This information shall be resubmitted to DHS and EPA as part of the Sampling and Analysis Plan which is due within 60 days of the modified Closure Plan approval.

Rinsewaters from decontamination of sampling equipment shall be managed as a hazardous waste and temporarily stored in drums or tanks until properly disposed of. These containers or tanks shall be clearly marked as hazardous waste. This information shall be submitted to DHS and EPA in the Facility Decontamination Plan which is due within 30 days of the modified Closure Plan approval.

~~Because of the unavailability of accurate wastestreams records for Pond #1, it will be necessary to analyze soil samples for the following constituents (Xylene and other organics from the priority pollutants listing were found in groundwater samples):~~

- o 40 CFR Part 423, Appendix A-  
Priority Pollutants
- o Constituents allegedly placed in Pond #1  
(numbers refer to Priority Pollutants).

ammonium chloride  
ammonium sulfate  
copper (#120)  
copper ammonium chloride  
arsenic (#115)  
free ammonia  
ammonium bifluoride  
cadmium (#118)  
~~chromium (#119) per 3 and 6~~  
ferrous hydroxide  
iron  
lead (#122)  
nickel (#124)  
nickel sulfate  
sodium chloride  
sodium hydroxide  
sodium sulfide

- o Xylene
- o soil pH

SCC shall analyze all samples (background, pond and pond perimeter) for the above listed constituents. However, SCC may propose a method in the Sampling and Analysis Plan which will reduce the above list of constituents into a more relevant list. A reduction of the constituents to be analyzed for must receive approval from DHS and EPA. EP Toxicity testing criteria shall be used for the heavy metals listed. SCC shall analyze the above listed compounds for their cation and anion species using methods outlined in SW-846, Test Methods for Evaluating Solid Waste as proposed in the comments submitted to DHS on August 28, 1988.

Should soil contamination of a non-uniform distribution be identified after these samples have been analyzed, SCC shall propose methods to better identify the "hot spots" (areas where levels of localized contamination are decidedly higher than in surrounding areas) and define the extent of contamination. These methods are subject to DHS and EPA review and modification or approval.

Immediately after the drilling and sampling activities are completed, the open boreholes (unit floor, perimeter, and background) shall be filled with a concrete grout or similar material. This material shall be capable of preventing any liquids entrance into the subsurface via the drilling/sampling locations.

### Analysis Report

The analysis report shall be submitted to both DHS and EPA as soon as possible once analytical data has been generated from the lab, but not more than 425 days after the modified Closure Plan approval. The following items shall be included in the report:

- o Soil boring logs (unit, perimeter, background)
- o Soil analysis (unit, perimeter, background)
- o Soil analysis summary
- o Diagrams showing all sampling locations
- o Details of sample identification/preservation
- o Chain of custody records
- o Extent of contamination
- o Proposed amount of soil to be removed

### FACILITY DECONTAMINATION PLAN

A decontamination area shall be identified and used for all aspects of the site characterization to prevent the inadvertent spreading of hazardous constituents and cross-contamination of drilling and sampling equipment. All rinsewaters from cleaning equipment shall be collected in a suitable container(s) and managed as hazardous waste. All contaminated clothing, rags, or other solid materials shall be placed in drums or a hazardous waste dumpster and managed in accordance with 40 CFR 265.170-177. The designated decontamination area shall be clearly marked.

A complete facility and equipment decontamination plan shall be submitted to DHS and EPA within 30 days of the approval of the modified Closure Plan. Guidance in developing the plan may be found in EPA/600/2-85/028, Guide for Decontaminating Buildings, Structures, and Equipment at Superfund Sites, March 1985. DHS and EPA must review and modify or approve this plan prior to implementation.

### GROUNDWATER MONITORING PLAN

The SCC plan does not make reference to any ongoing groundwater monitoring activities. The recent Comprehensive Groundwater Monitoring Evaluation (CME) report by the California Regional Water Quality Control Board (CRWQCB) lists a number of potential deficiencies in the existing system which must be corrected by SCC.

The revised Groundwater Monitoring Plan shall be resubmitted to DHS, EPA, and the RWQCB as stipulated in the 3008(h) Order.

IV. CLOSURE SCHEDULE

SCC failed to submit a detailed schedule of activities for the closure of the unit. The schedule listed below is provided to show relevant milestones for major closure activities and a compliance schedule for the submittal of documents to DHS and EPA. SCC must submit within 30 days of after modified Closure Plan approval a detailed schedule for dates or time periods of specific closure activities, which includes but is not limited to background sampling, submittal of samples to lab, moving tanks, disposing of hazardous wastes, pouring concrete, etc.

ACTIVITY/ITEM

DAYS AFTER CP APPROVAL

SCC to submit the following:  
Detailed facility description,  
Facility Decontamination Plan,  
Health & Safety Plan,  
Closure Schedule.

within 30 days

SCC to submit the following:  
Tank Relocation Proposal,  
Sampling & Analysis Plan,  
Revised Cost Estimate for Closure.

within 60 days

SCC to submit evidence of  
Financial Responsibility compliance

within 90 days

SCC receives approval for and  
begins sampling activities for tank  
relocation.

within 105 days

SCC to submit the following:  
Report on tank relocation proposal  
activity,  
Revised Part A Application,  
Permit applications & other  
information to local agencies.

within 165 days

SCC receives approval of final tank  
relocation area.

within 210 days

SCC submits interim cap design for  
approval.

within 240 days

SCC receives approval of interim  
cap design.

within 300 days

|  |                 |
|--|-----------------|
| SCC to complete construction of new tank area and begin operations;<br>Begin characterization for Pond #1. | within 365 days |
| SCC submits characterization report for Pond #1, and corrective action proposal for approval.              | within 425 days |
| SCC receives approval for proposed corrective action, and begins implementation.                           | within 470 days |
| Complete interim cover construction.   | within 560 days |
| Certification of interim closure.  | within 620 days |

#### V. CLOSURE AND POST-CLOSURE COST ESTIMATES

The proposed closure and post-closure cost estimates submitted by the facility in the SCC Plan were not detailed and it is not known if these figures reflect the "worst-case" closure scenario. SCC shall submit revised detailed cost estimates to reflect the activities specified in this modification to the agencies within 60 days of the modified Closure Plan approval. Closure cost estimates shall include activities from tank relocation to certification as shown in the above schedule. Cost estimates shall be based on all closure work being done by a third party.

#### VI. FINANCIAL RESPONSIBILITY

SCC shall demonstrate compliance with 40 CFR sections 265.143, 265.147, 265.148, and 264.151 as well as Title 22, Article 17, COR, financial responsibility, within 30 days of the revised closure cost estimate submittal and within 30 days of any further revision to the estimates.

If SCC can not provide proof of liability coverage, a written report will be submitted to the DHS Financial Responsibility Unit on a quarterly basis. This report is due on the 10th day of every third month following the date of the modified Closure Plan approval. This report shall include, but need not be limited to:

1. The current financial statement(s) of any company and/or parent corporations which demonstrates to the Department's satisfaction that they cannot meet the requirements.
2. A report on attempts to secure financial assurance and responses from financial institutions contacted.

3. Documentation of SCC's attempts, during the reporting quarter, to obtain liability insurance from at a minimum, those insurance carriers identified in writing to the facility by DHS during the quarter. This documentation must include, but need not be limited to:
  - a. The names and contact persons of all insurance carriers to which written applications for liability coverage has been made, and copies of all such applications;
  - b. The written responses of each insurance carrier regarding whether or not coverage is available, in what types and amount, and at what premiums; and,
  - c. Copies of all documents submitted to and received from all insurance carriers contacted.

If at any time DHS determines that SCC is able to comply with the financial liability requirements of Article 17, Title 22, CCR, DHS will notify SCC in writing. Within 30 days of the issuance of such notice SCC must submit to DHS evidence of financial assurance and/or liability coverage pursuant to Article 17, Title 22, CCR.

APPENDICES

APPENDIX A: FACILITY DIAGRAM

APPENDIX B: GENERIC SITE SAFETY PLAN

**Pond 1 Closure Plan Petition for Review**

**Exhibit G**

STATE OF CALIFORNIA — CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, Governor

## DEPARTMENT OF TOXIC SUBSTANCES CONTROL

1011 N. GRANDVIEW AVENUE  
GLENDALE, CA 91201  
(818) 551-2800

RECEIVED

JUL 03 1995



June 30, 1995

CERTIFIED MAIL

Return Receipt Requested  
Z 778 891 787Mr. Ed E. Vigil  
Environmental and Safety Manager  
PHIBRO-TECH, INC.  
8851 Dice Road  
Santa Fe Springs, CA 90670

Dear Mr. Vigil:

**COMPLETION OF CORRECTIVE MEASURES STUDY AND DETERMINATION OF  
CLASS 3 PERMIT MODIFICATION ON CORRECTIVE ACTION FOR PHIBRO-TECH,  
INC., dba SOUTHERN CALIFORNIA CHEMICAL, SANTA FE SPRINGS,  
CALIFORNIA EPA ID NUMBER CAD 008 488 025**

The Department of Toxic Substances Control (DTSC) has made a decision to modify the corrective action section of your existing State hazardous waste facility permit No. 91-3-TS-002 for the facility located in Santa Fe Springs, California. Phibro-Tech, Inc. (PTI) prepared a Corrective Measures Study (CMS) Report, dated February 19, 1993, and subsequently revised August 27, 1993, that identified remedial options to address soil and groundwater contamination at its Santa Fe Springs facility. The data and information contained in the CMS Report and the revision were evaluated and considered by DTSC together with the U.S. Environmental Protection Agency (U.S.EPA) formal decisions summary letter, dated August 9, 1993, and their consultant's technical review of the revised CMS, dated October 20, 1993, during the remedy selection process. There was sufficient information to make a remedy selection and review and evaluation of the CMS Report are complete. This is reflected in the attached Statement of Basis and the modified permit.

This letter serves as notification of our decision. Enclosed is a copy of the signed and modified permit and Notice of Final Permit Modification Decision. This action constitutes the final permit modification decision and is made in accordance with the requirements of the California Code of Regulations, Title 22, Division 4.5, Section 66271.14 (22 CCR, 66271.14). Since DTSC was authorized by the U.S. EPA in August 1992 to implement the Federal Resource Conservation and Recovery Act (RCRA) program, a Federal permit decision is not necessary. The state permit No. 91-3-TS-002 and this state permit modification will supersede the Federal RCRA permit (issued to the Facility on July 29, 1991) for those activities subject to the approved State Hazardous Waste Management Program.

PTI 06816

Mr. Ed E. Vigil  
June 30, 1995  
Page 3

cc: (cont.)

Mr. John Norman  
Water Replenishment District of  
Southern California  
12621 East 166th Street  
Cerritos, California 90701

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Fees Unit  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
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Mr. Jim Ross  
California Regional Water Quality Control Board  
Los Angeles Region  
101 Centre Plaza Drive  
Monterey Park, California 91754-2156

Mr. Paul Pua  
South Coast AQMD  
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Diamond Bar, California 91765-4182

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Environmental Services Division  
Department of Fish & Game  
1416 Ninth Street, 13th Floor  
Sacramento, California 95814

California Environmental Protection Agency  
Department of Toxic Substances Control

**HAZARDOUS WASTE FACILITY PERMIT MODIFICATION**

Facility:

Phibro-Tech, Inc.  
a.k.a. Entech Recovery, Inc.  
a.k.a. Southern California Chemical  
Santa Fe Springs Facility  
8851 Dice Road  
Santa Fe Springs, CA 90670

|                                 |                |
|---------------------------------|----------------|
| HAZARDOUS WASTE FACILITY PERMIT |                |
| Permit No.: 91-3-TS-002         |                |
| Permit Modification No. 02      |                |
| EPA ID Number:                  | CAD008488025   |
| Effective Date:                 | August 2, 1995 |

Operator:

Phibro-Tech, Inc.  
a.k.a. Entech Recovery, Inc.  
a.k.a. Southern California Chemical  
Santa Fe Springs Facility  
8851 Dice Road  
Santa Fe Springs, CA 90670

*Pursuant to Section 25200 of the California Health and Safety Code, this Hazardous Waste Facility Permit Modification is hereby issued to Phibro-Tech, Inc.*

*The approval of this Permit Modification is subject to the modified permit conditions as specified in the Part V - Corrective Action - which consists of total 84 pages.*



*Jose Kou*  
\_\_\_\_\_  
Jose Kou, Chief  
Facility Permitting Branch  
Department of Toxic Substances Control  
Region 3, Glendale

Date: June 30, 1995

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**PERMIT NO. 91-3-TS-002**

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STATE HAZARDOUS WASTE MANAGEMENT FACILITY  
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O. LIST OF FIGURES

- Figure 1 - Underground Storage Tank Remediation Area
- Figure 2 - Halogenated VOC Remediation Area

P. LIST OF ATTACHMENTS

- 1 Scope of Work for Progress Reports
- 2 Scope of Work for Groundwater Remediation Workplan and Conceptual Design Plan for Bioventing and Soil Vapor Extraction Systems
- 3 Scope of Work for Construction Completion Reports
- 4 Scope of Work for Operation and Maintenance Plans
- 5 Scope of Work for Corrective Measure Completion Reports
- 6 Deed Restriction Notice
- 7 Modified Closure/Post Closure Plan for Pond 1
- 8 October 15, 1992 Amended General Industrial Activities Storm Water Permit

**MODIFIED PART V - CORRECTIVE ACTION  
STATE HAZARDOUS WASTE MANAGEMENT FACILITY  
PERMIT NO. 91-3-TS-002**

**A. AUTHORITY**

Section 25200.10 of the California Health and Safety Code (H&SC) requires that any permits issued by the Department of Toxic Substances Control ("Department") include corrective action for all releases of hazardous waste or constituents from a solid waste management unit ("SWMU") or a hazardous waste management unit ("HWMU") at a facility, regardless of the time at which the waste was released at the facility. This Section also requires that corrective action be taken beyond the facility boundary where necessary to protect human health and/or the environment.

Failure to comply with any term or condition set forth in this Part of the Permit in the time or manner specified herein will subject the owner or operator to possible enforcement action and penalties pursuant to Section 66270.30(a) of Title 22 of the California Code of Regulations (22 CCR 66270.30(a)) and Section 25187 of the H&SC.

In addition, failure to submit the information required in the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for termination of this Permit pursuant to 22 CCR 66270.43.

Compliance by the owner or operator with the terms of this Part of the Permit shall not relieve the owner or operator of its obligation to comply with any other applicable local, state or federal laws and regulations including, but not limited to, waste discharge requirements, cleanup and abatement orders or any other enforcement orders issued by the Los Angeles Regional Water Quality Control Board.

This Permit supersedes the Federal Permit for a Hazardous Waste Management Facility issued by the U.S. Environmental Protection Agency ("U.S. EPA") to the facility effective July 29, 1991.

**B. STATEMENT OF PURPOSE**

The purpose of this Part of the Permit is to require that the facility owner or operator implement the corrective measures selected by the Department to remediate, monitor and/or contain soil and groundwater contamination at the Phibro-Tech, Inc. (a.k.a. Southern California Chemical, a.k.a. Entech Recovery, Inc.) facility ("Facility") in Santa Fe Springs, California. This Part of the Permit also

includes a schedule of compliance and financial responsibility requirements for corrective measure implementation.

### C. BACKGROUND

In 1987, contractors for the U.S. EPA conducted a RCRA Facility Assessment ("RFA") at the Facility. The RFA was conducted to identify areas where the potential for chemical releases was significant (e.g., sumps, ponds, etc). Sixty SWMU's and one area of concern were identified in the RFA Report.

In December of 1988, U.S. EPA and the Facility signed a consent agreement (Administrative Order on Consent, Docket No. RCRA-09-89-0001). The consent agreement required the owner or operator to conduct a RCRA Facility Investigation ("RFI"), Corrective Measures Study ("CMS") and human health risk assessment at the Facility. The purpose of the RFI was to characterize the nature and extent of soil and groundwater contamination at the Facility. The purpose of the CMS was to identify and evaluate remedial alternatives to address the contamination. The purpose of the human health risk assessment was to evaluate potential impacts to human health from the soil and groundwater contamination identified at the Facility.

The RFI showed that there is soil and groundwater contamination at the Facility. Ground water in the present uppermost saturated zone beneath the Facility, identified by the owner or operator as the Hollydale Aquifer, contains elevated levels of: (1) heavy metals, including chromium and cadmium, (2) halogenated volatile organic compounds ("VOCs"), including trichloroethene ("TCE") and 1,2-dichloroethane ("1,2-DCA"), (3) aromatic VOCs, including benzene, toluene, ethylbenzene and xylenes and (4) chlorides. Soils at the Facility contain elevated levels of (1) heavy metals, including lead, cadmium, chromium, copper, and zinc, (2) halogenated VOC's, including TCE, 1,2-DCA and tetrachloroethene ("PCE"), (3) aromatic VOC's, including benzene, toluene, ethylbenzene and xylenes, (4) polychlorinated biphenyls ("PCB's"), (5) petroleum hydrocarbons, including diesel fuel, gasoline and an unidentified heavy hydrocarbon believed to be crude oil, and (6) chlorides.

Based upon the findings of the RFI, CMS, risk assessment and other information, the Department is requiring that the owner or operator implement corrective measures to address the releases from the Facility. Corrective measures included in this Permit are summarized as follows: pumping and treating contaminated ground water, quarterly monitoring to track groundwater quality and identify any new releases should they occur, a soil vapor survey to determine the

nature and extent of halogenated VOC contamination, in-situ soil vapor extraction if needed to cleanup soils contaminated with halogenated VOC's, in situ bioventing to cleanup hydrocarbon contaminated soils in the former underground fuel storage tank area, containment measures to prevent human contact with contaminated soils, berming to contain surfacewater runoff, vadose zone monitoring to identify contaminant migration in subsurface soils, surfacewater sampling to measure contaminants in surface water discharged from the Facility and deed restrictions to prevent future residential and other sensitive uses of the property.

These corrective measures are protective of human health and the environment even though they do not completely eliminate all contamination from soils at the Facility. The soil contaminants remaining in place after treatment will be paved, monitored and deed restricted to ensure that they do not come into contact with people. The Department has authority to require additional remedial action if these remaining contaminants are shown to be a potential threat to human health and/or the environment.

D. PROJECT COORDINATOR

1. The owner or operator shall designate a Project Coordinator within 14 days of the effective date of this Permit Modification and shall notify the Department in writing of the Project Coordinator it has selected. The Project Coordinator shall be responsible for overseeing the implementation of corrective action at the Facility in accordance with this Part of the Permit and for designating a person to act in his/her absence. The Department will also designate a Project Coordinator. All communications between the owner or operator and the Department, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Part of the Permit shall be directed through the Project Coordinators.
2. The owner or operator must provide at least 7 days written notice to the Department prior to changing Project Coordinator.

E. WORK TO BE PERFORMED

The owner or operator is required to perform the following work in the time and manner specified in this Part of the Permit. All work undertaken shall be performed, at a minimum, in a manner consistent with: the attached Scopes of Work; any Department approved plans, workplans,

specifications or schedules of compliance; and applicable State and local laws and implementing regulations. All attachments to this Permit are incorporated by reference as if fully set forth herein.

The Department may also require the owner or operator to investigate, mitigate and/or take other applicable action to address any actual or potential threats to human health and/or the environment, newly identified releases of hazardous waste and/or hazardous constituents, or newly identified SWMUs.

The owner or operator shall complete the work specified in this Part of the Permit in accordance with the approved schedules of compliance. Schedules of compliance may provide for implementation of tasks beyond the termination date of this Permit. All corrective measures shall continue until the cleanup standards are achieved.

This Permit does not limit the Department's authority to implement the selected corrective measure(s) or to take any other appropriate action from the laws and regulations of the State of California, or any other legal authority, including the filing of a civil action seeking a judicial order directing the owner or operator to implement the selected corrective measure(s).

Nothing in this Permit shall be constructed to excuse the owner or operator from participating or other-wise cooperating with any area-wide effort to investigate and/or remediate groundwater contamination.

#### 1. Deed Restrictions

- a. The Department has prepared a deed restriction notice for the Facility which is provided in Attachment 6 to this Part of the Permit. Within 14 days of the effective date of this Permit Modification, the owner or operator shall sign and record the deed restriction notice with the County of Los Angeles. The limits included in the deed restriction notice are summarized below. Unless the property owner can adequately demonstrate otherwise to the Department, the following requirements would apply:

- ▶ Prohibits the facility or property from being used for residential or for other sensitive purposes.
- ▶ Prohibits use of the underlying shallow groundwater for domestic use.

- ▶ Requires full paving of property for any commercial or industrial uses.
  - ▶ Requires minimization of any below grade earth moving activities.
  - ▶ Requires prior Department notification before excavated soils may be removed from the property.
  - ▶ Requires that the site cover be adequately inspected and maintained to prevent infiltration into the subsurface.
- b. Within 10 days after recording the deed restriction notice with the County of Los Angeles, the owner or operator shall provide a copy of the signed deed notice and written confirmation to the Department that the deed restriction notice has been recorded.

## 2. Groundwater Remediation

- a. Establishment of wells MW-4 and MW-9 as compliance points, well MW-1S as an upgradient background monitoring point, and the cleanup standards as discussed below is based on existing information. The Department may establish additional points of compliance, cleanup standards and/or upgradient monitoring points for any Facility derived contaminants if future data indicates that the Maximum Contaminant Levels ("MCL's") for drinking water have been exceeded.
- b. The cleanup standards for ground water in monitoring well MW-4 are listed below. To demonstrate that the standards have been achieved, PTI must provide the Department with a minimum of four consecutive quarters of data below the standards. The Department may revise these cleanup standards based on the promulgation of new MCL's, recommended public health levels and/or other applicable standards for ground water.

Cadmium: Less than 5 micrograms per liter  
( $\mu\text{g/l}$ )

Total Chromium: Less than 50  $\mu\text{g/l}$

Hexavalent Chromium: Less than 50  $\mu\text{g/l}$

Halogenated Volatile Organic Compounds (VOCs):

|                                    |   |           |     |      |
|------------------------------------|---|-----------|-----|------|
| Tetrachloroethene (PCE)            | : | Less than | 5   | µg/l |
| Trichloroethene (TCE)              | : | Less than | 5   | µg/l |
| 1,1-Dichloroethene (1,1-DCE)       | : | Less than | 6   | µg/l |
| 1,1-Dichloroethane (1,1-DCA)       | : | Less than | 5   | µg/l |
| 1,2-Dichloroethane (1,2-DCA)       | : | Less than | 0.5 | µg/l |
| trans-1,2-Dichloroethene (1,2-DCE) | : | Less than | 10  | µg/l |
| 1,1,1-Trichloroethane (1,1,1-TCA)  | : | Less than | 200 | µg/l |
| Methylene Chloride                 | : | Less than | 5   | µg/l |

or

Four consecutive quarters of data from monitoring well MW-4 that are statistically at or below the corresponding halogenated VOC compound concentration observed in monitoring well MW-1S or a suitable replacement well as specified in the Department approved corrective action groundwater monitoring plan.

The Department must review and approve in writing any statistical method or approach before it can be used to demonstrate that the halogenated VOC cleanup standard has been achieved.

- c. The cleanup standards for ground water in monitoring well MW-9 are listed below. To demonstrate that the standards have been achieved, PTI must provide the Department with a minimum of four consecutive quarters of data below the standards. The Department may revise these cleanup standards based on the promulgation of new MCL's, recommended public health levels and/or other applicable standards for ground water.

Halogenated Volatile Organic Compounds (VOCs):

|                                     |           |     |      |
|-------------------------------------|-----------|-----|------|
| Tetrachloroethene (PCE):            | Less than | 5   | µg/l |
| Trichloroethene (TCE):              | Less than | 5   | µg/l |
| 1,1-Dichloroethene (1,1-DCE):       | Less than | 6   | µg/l |
| 1,1-Dichloroethane (1,1-DCA):       | Less than | 5   | µg/l |
| 1,2-Dichloroethane (1,2-DCA):       | Less than | 0.5 | µg/l |
| trans-1,2-Dichloroethene (1,2-DCE): | Less than | 10  | µg/l |
| 1,1,1-Trichloroethane (1,1,1-TCA):  | Less than | 200 | µg/l |
| Methylene Chloride:                 | Less than | 5   | µg/l |

or

Four consecutive quarters of data from monitoring well MW-9 that are statistically at or below the corresponding halogenated VOC compound concentration observed in monitoring well MW-1S or a suitable replacement well as specified in the Department approved corrective action groundwater monitoring plan.

The Department must review and approve in writing any statistical method or approach before it can be used to demonstrate that the halogenated VOC cleanup standard has been achieved.

- d. In order to maximize the cleanup of the affected Hollydale Aquifer, thereby protecting it and other aquifers having beneficial use, the owner or operator shall design, construct, operate and maintain a groundwater remediation system to meet all groundwater cleanup standards required by this Part of the Permit. This includes the cleanup standards specified in paragraphs V.E.2.b. and V.E.2.c. of this Part of the Permit as well as any additional cleanup standards that may be imposed in the future.
- e. Within 60 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Groundwater Remediation ("CAGWR") Workplan. The purpose of the CAGWR Workplan is to describe the groundwater remediation system and how it will be constructed. The CAGWR Workplan shall be developed in a manner consistent with the Scope of Work contained in Attachment 2 to this Part of the Permit.
- f. The groundwater remediation system shall, unless the Department specifies otherwise, include the following elements:
  - i. Pumping of contaminated ground water from the Hollydale and any other affected aquifers. The owner or operator shall propose pumping rates and location(s) to maximize groundwater extraction and contaminant removal given site-specific conditions.
  - ii. Treatment of extracted ground water to remove contaminants such that it meets requirements of any selected disposal option or combination of options. Halogenated and aromatic VOCs shall be treated at the wellhead to meet disposal limitations, e.g. effluent discharge limits for discharge into the sewer system. Metals may be removed at

the wellhead for direct disposal of treated ground water by various options or the extracted ground water may be used on-site and disposed through the sewer system per industrial wastewater discharge permit.

Extracted ground water to be disposed through the sewer system must be treated such that concentrations of TCE, benzene, toluene, ethylbenzene, xylene and other VOCs, cadmium and chromium all meet the applicable effluent discharge limits specified in the industrial waste discharge permit for the facility. The method or combination of methods chosen to dispose of contaminated ground water shall be such as to allow removal of contaminants from the aquifer or aquifers to be maximized.

- iii. On-site storage of extracted ground water in tanks. The owner or operator shall propose the number, size and location of the storage tanks. The owner or operator shall design, construct, operate and maintain the ground water storage tanks in accordance with the requirements contained in 22 CCR 66262.34.
- iv. Maximization of groundwater extraction rates and contaminant removal by appropriate disposal of treated groundwater including but not limited to on-site industrial use of all extracted ground water prior to discharge into the sewer system. On-site reuse and discharge into the sewer system is a limiting factor to complete cleanup of site-derived contaminants in the Hollydale and other affected aquifers and that additional disposal options should be proposed in the CAGWR by the owner or operator as supplemental means in order to maximize extraction and contaminant removal.

For that portion of the extracted ground water that may be disposed by supplemental means such as re-injection, the owner or operator shall obtain all necessary authorizations and permits. The Los Angeles County Sanitation Districts has indicated that on-site industrial use must be made of any extracted ground water to be discharged through the industrial wastewater system. If the Los Angeles County Sanitation Districts requirements change or if the Department determines that use of the sewer is impractical or not sufficiently effective, the owner or operator will be required to

shift any ground water disposal deficits to other disposal means(s) which will be described in the CAGWR.

- v. On-site use of extracted ground water for any purpose that does not create an unacceptable risk to human health or the environment, provided applicable permits are obtained. On-site use of extracted ground water shall be limited to industrial processes that minimize exposure of the extracted ground water to the atmosphere (e.g., in tanks) unless the extracted ground water is treated at the wellhead to remove halogenated and aromatic VOC's. Using extracted ground water for drum washing is prohibited unless the owner or operator receives written authorization from the Department for such use. To obtain such authorization, the owner or operator must adequately demonstrate to the Department that using the extracted ground water for drum washing will not result in the creation of an unacceptable risk to human health or the environment.
- g. The owner or operator must meet all applicable regulatory requirements for disposal of extracted ground water from the Facility. The extracted ground water that is to be disposed as wastewater through discharge into the sewer system must, at a minimum, meet the requirements of the Los Angeles County Sanitation Districts. These requirements include, but are not limited to, effluent discharge limits specified in the industrial wastewater discharge permit for the Facility. The owner or operator shall contact the Los Angeles County Sanitation District in writing during preparation of the CAGWR Workplan to determine if a modification to the existing industrial wastewater discharge permit will be needed for the groundwater remediation system. The owner or operator shall send a copy of this written correspondence to the Department Project Coordinator.
- h. Upon receiving written approval of the CAGWR Workplan from the Department, the owner or operator shall proceed with the full design and construction of the groundwater remediation system.
- i. The owner or operator shall submit a Corrective Action Groundwater Remediation Construction Completion Report ("CAGWRCCR") to the Department in accordance with a schedule contained in the

Department approved CAGWR Workplan. The purpose of the CAGWRCCR is to document how the groundwater remediation system was constructed and to provide notification that construction work has been completed. The CAGWRCCR shall be developed in a manner consistent with the Scope of Work contained in Attachment 3 to this Part of the Permit.

- j. The owner or operator shall submit a Corrective Action Groundwater Remediation Operation and Maintenance ("CAGWRO&M") Plan to the Department in accordance with a schedule contained in the Department approved CAGWR Workplan. The CAGWRO&M Plan shall be developed in a manner consistent with the Scope of Work contained in Attachment 4 to this Part of the Permit.
- k. The CAGWRO&M Plan shall specify how the ground water remediation system will be operated and maintained and include, unless the Department specifies otherwise, the following provisions:
  - i. Specification of approximate pumping rates.
  - ii. A contingency for cycling pumps on and off if necessary to increase removal efficiency.
  - iii. Periodic monitoring of extracted ground water at the well head to determine contaminant concentrations.
  - iv. Where extracted ground water is to be used on-site a description of how it will be used on-site and what will be done to protect the health and safety of facility workers during operation of the groundwater remediation system.
- l. Upon receiving written approval of the CAGWRO&M Plan from the Department, the owner or operator shall begin full scale operation of the groundwater remediation system.
- m. The owner or operator may petition the Department to stop extracting ground water when there are at least four consecutive quarters of groundwater data showing that contaminant concentrations meet all groundwater cleanup standards required by this Part of the Permit or when the owner or operator can provide an alternative demonstration showing why the groundwater extraction should cease which uses at least twelve consecutive quarters of groundwater data from wells MW-4, MW-9 and any other compliance point wells. This includes the cleanup standards specified in paragraphs V.E.2.b.

and V.E.2.c. of this Part of the Permit as well as any additional cleanup standards that may be imposed in the future. Groundwater extraction shall continue until the Department provides the owner or operator with written notice to cease pumping operations. The owner or operator shall start extracting ground water again, as directed by the Department, if future data shows that the cleanup standards required by this Part of the Permit are exceeded.

### 3. Groundwater Monitoring

- a. The owner or operator shall design, construct, operate and maintain a groundwater monitoring system to meet the requirements specified in this Part of the Permit.
- b. Within 60 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Groundwater Monitoring Plan ("CAGWMP") for the Facility. The purpose of the CAGWMP is to fully describe the corrective action groundwater monitoring program, which includes, but is not limited to, procedures for groundwater sampling, quality assurance and data assessment.
- c. The CAGWMP shall, at a minimum, include the following information:
  - i. Description and purpose of monitoring tasks;
  - ii. Data quality objectives;
  - iii. List of monitoring parameters;
  - iv. Rationale for selection of monitoring parameters;
  - v. Description and listing of wells to be sampled;
  - vi. Rationale for selection of monitoring wells;
  - vii. Appropriately scaled map showing monitoring well network;
  - viii. Listing of Gage Aquifer wells to be inspected and gauged for the presence of ground water;
  - ix. Monitoring and reporting schedule;

- x. Analytical test methods and detection limits;
- xi. Name of analytical laboratory;
- xii. Laboratory quality control (include laboratory QA/QC procedures in appendices)
- xiii. Sample collection procedures and equipment;
- xiv. Field quality control procedures:
  - duplicates (10% of all field samples)
  - blanks (field, equipment, etc.)
  - equipment calibration and maintenance
  - equipment decontamination
  - sample containers
  - sample preservation
  - sample holding times (must be specified)
  - sample packaging and shipment
  - sample documentation (field notebooks, sample labeling, etc);
- xv. Criteria for data acceptance and rejection;
- xvi. Description of data evaluation procedures including any proposed statistical methods;
- xvii. General contingencies for further action if site conditions change. The CAGWMP shall, at a minimum, include contingency procedures that specify what will happen if facility-derived contaminants are detected above MCL's in any monitoring wells. The contingency procedures shall include, but are not limited to: written notification of the Department within 7 days of discovery, resampling of the well(s) to confirm the "hit" and, if required by the Department, development of additional corrective measures to address the contamination. The corrective measure proposal must be submitted to the Department for review and approval prior to implementation; and
- xviii. Contingencies for further action if the Gage Aquifer resaturates. The CAGWMP shall, at a minimum, specify that if the owner or operator detects water in monitoring well 6A or other wells in the Gage Aquifer, the owner or operator shall:
  - (1) Immediately take samples of the Gage Aquifer ground water and analyze the samples for, at a minimum, metals including hexavalent chromium, volatile

organic compounds (SW846 Method 8240), semi-volatile compounds (SW846 Method 8270), total petroleum hydrocarbons (diesel and gasoline), pH and other general water quality parameters (e.g., chlorides, sulfates).

- (2) Notify the Department of the situation orally within 72 hours of discovery and in writing within 7 days of discovery.
  - (3) Submit a report to the Department within 30 days of discovery summarizing any findings, actual or potential threats to human health and/or the environment and any proposed response action.
- d. The CAGWMP shall be consistent with all Department and U.S. EPA guidance for groundwater sampling and analysis.
- e. The ground water monitoring system shall, unless the Department specifies otherwise, meet the following performance standards:
- i. Include a sufficient number of monitoring points installed at appropriate locations and depths in the uppermost unsaturated aquifer, herein identified as the Gage Aquifer, as necessary to assure the earliest possible indication of ground water resaturation.
  - ii. Include a sufficient number of monitoring points installed at appropriate locations and depths to yield ground water samples from the current uppermost saturated aquifer, herein identified as the Hollydale Aquifer, as necessary to represent the quality of water passing Facility boundaries, points of compliance and background locations, and to assure the earliest possible indication of any additional releases from the Facility into the uppermost saturated aquifer.
  - iii. Include a sufficient number of monitoring points installed at locations and depths appropriate to yield groundwater samples from the current uppermost saturated aquifer as necessary to provide the data needed to adequately evaluate changes in water quality at the Facility which result from groundwater extractions.

- iv. Include a minimum of at least one monitoring point installed at a location and depth appropriate to assure that the Jefferson Aquifer is not being impacted by elevated concentrations of site-derived cadmium, chromium and halogenated VOC's from the Hollydale Aquifer. Special precautions, including specialized construction methods, must be taken to ensure that cross-contamination does not occur between the Hollydale Aquifer and the Jefferson Aquifer during well construction.
- v. New groundwater monitoring wells shall utilize short-screened, depth-staggered wells placed in clusters to assess hydrogeochemistry and groundwater pressure gradients while minimizing dilution and cross-contamination.
- vi. All monitoring wells shall be cased and constructed in a manner that maintains the integrity of the monitoring well borehole and prevents the bore hole from acting as a conduit for contaminant transport.
- vii. The sampling interval of each monitoring well shall be appropriately screened and fitted with a filter pack to enable collection of representative groundwater samples.
- viii. The annular space of each monitoring well above and below the sampling interval shall be appropriately sealed to prevent entry of contaminants from the surface, entry of contaminants from the unsaturated zone, cross-contamination of saturated zones and contamination of samples.
- ix. All monitoring wells shall be adequately developed to assure that representative groundwater samples may be collected.
- f. The CAGWMP shall include a proposal for the installation of additional monitoring wells needed to meet the performance standards specified in Paragraph V.E.3.e. of this Part of the Permit. The proposal shall be included as an addendum to the CAGWMP. The proposal shall, at a minimum, discuss the number, location (map), depth, rationale for location selection, drilling methods, screened interval, well materials, development methods, construction schedule and other pertinent design details for the proposed wells.

The proposal shall also include an evaluation of the slope of the clay layer separating the Gage Aquifer from the Hollydale Aquifer. The evaluation shall use existing data and include a map showing the clay layer surface elevations and slope directions. The purpose of this evaluation is to support the siting of new wells in the Gage Aquifer and to identify potential flow directions for any contaminants released into the subsurface soils.

- g. The owner or operator shall, unless the Department specifies otherwise, sample each groundwater monitoring well used or installed as required in this Part of the Permit on a quarterly basis.
- h. The owner or operator shall, unless the Department specifies otherwise, gauge each monitoring well in the Gage Aquifer for the presence of ground water on a monthly basis during the rainy season (December to April) and quarterly for the remainder of the year (July and October).
- i. Parameters for corrective action ground water monitoring shall, unless the Department specifies otherwise, include those that are representative of known or potential Facility derived contaminants, representative of potential regional contaminants and those that are necessary to measure changes in water quality (e.g., pH, chlorides, sulfates, etc).
- j. The groundwater monitoring system for Pond 1 shall, unless the Department specifies otherwise, meet the requirements of 22 CCR Sections 66264.90 through 66264.100. In accordance with the requirements specified in 22 CCR 66264.99 (e) (6), the owner or operator shall sample the Pond 1 monitoring wells (upgradient and downgradient) for the constituents listed in Appendix IX (Ground Water Monitoring List) of 22 CCR 66264 at least annually. The Department may adjust the Pond 1 groundwater monitoring schedule and/or list of monitoring parameters if the Department determines that such changes are justified.
- k. The owner or operator shall implement the CAGWMP, including the CAGWMP addendum, upon receiving written approval from the Department. Corrective action groundwater monitoring shall continue for a minimum of at least 30 years from the effective date of this Permit Modification or until the owner or operator receives written notice from the Department to cease groundwater monitoring activities.

4. **Soil Vapor Survey/Extraction to Address Halogenated Volatile Organic Compounds in Soils**

- a. Within 120 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Soil Vapor Survey ("CASVS") Workplan. The purpose of the CASVS is to fully define the nature and extent of halogenated VOC contamination. The CASVS Workplan shall, at a minimum, describe the soil vapor monitoring system, how the system will be constructed and how the vapor sampling will be done.
- b. The soil vapor survey shall be initially focused in the halogenated VOC remediation area shown on Figure 2 to this Part of the Permit. The establishment of the halogenated VOC remediation area is tentative since it is based on existing soil matrix data. Although the soil matrix data is a good indicator of a halogenated VOC problem, it is not generally representative of the full extent of contamination. The Department may reduce or expand the halogenated VOC remediation area depending on the findings from the soil vapor survey.
- c. The CASVS Workplan shall, at a minimum, include the following information:
  - i. Purpose of the workplan;
  - ii. Conceptual design of proposed soil vapor monitoring system including rationale for selection of monitoring points.
  - iii. Schematic diagrams for key components;
  - iv. An appropriately scaled facility map showing monitoring system;
  - v. Tables listing number and type of major components with approximate dimensions.
  - vi. A description of the wastes generated by the soil vapor survey and how they will be managed.
  - vii. Project management (e.g., management approach levels of authority and responsibility, lines of communication and the qualifications of key personnel who will direct the soil vapor survey (including contractor personnel)).

- viii. Project schedule;
  - ix. List and description of the permits needed to construct and operate the soil vapor monitoring system. Indicate on the project schedule when the permit applications will be submitted to the applicable agencies and an estimate of the permit issuance date.
  - x. Data quality objectives;
  - xi. List of monitoring parameters;
  - xii. Rationale for selection of monitoring parameters;
  - xiii. Analytical test methods and detection limits;
  - xiv. Laboratory quality control (include laboratory QA/QC procedures in appendices)
  - xv. Sample collection procedures and equipment;
  - xvi. Field quality control procedures:
    - duplicates (10% of all field samples)
    - blanks (field, equipment, etc.)
    - equipment calibration and maintenance
    - equipment decontamination
    - sample containers
    - sample preservation
    - sample holding times (must be specified)
    - sample packaging and shipment
    - sample documentation (field notebooks, sample labeling, etc);
  - xvii. Criteria for data acceptance and rejection;  
and
  - xviii. Description of data evaluation procedures including any proposed statistical methods, models, etc.
- d. The CASVS Workplan shall be consistent with all Department and U.S. EPA guidance for soil vapor sampling and analysis.
- e. The owner or operator shall submit a Corrective Action Soil Vapor Survey (CASVS) Report to the Department in accordance with a schedule contained in the Department approved CASVS Workplan. The CASVS Report shall be prepared in a manner that describes the entire soil vapor survey and clearly presents the basic results. Contour maps, tables, charts and other graphical methods shall be used

whenever possible to describe the survey findings. The CASVS Report shall clearly present an evaluation of the soil vapor survey results including a modeled estimate of potential impacts to ground water.

- f. After Department evaluation of the Soil Vapor Survey Report and within 60 days of a written request from the Department, the owner or operator shall submit to the Department a conceptual design plan for a soil vapor extraction ("SVE") system. The Corrective Action Soil Vapor Extraction Conceptual Design Plan ("CASVECDP") shall describe the SVE system and how it will be constructed at the Facility. The CASVECDP shall be developed in a manner consistent with the Scope of Work contained in Attachment 2 to this Part of the Permit.
- g. If required by the Department, the owner or operator shall design, construct, operate and maintain a SVE system to meet the cleanup standards specified in Paragraph V.E.4.h. of this Part of the Permit.
- h. The cleanup standard is to reduce halogenated VOC, especially TCE, vapor levels in soils to concentrations that are protective of ground water. The cleanup standard shall be met in the halogenated VOC remediation area shown in Figure 2 to this Part of the Permit or an alternative area specified by the Department.

The Department may require additional investigation and/or remediation if new information indicates that other areas of volatile contaminants pose a potential threat to human health and/or the environment.

- i. Upon receiving written approval of the CASVECDP from the Department, the owner or operator shall proceed with the full design and construction of the SVE system.
- j. The owner or operator shall submit a Corrective Action Soil Vapor Extraction Construction Completion Report ("CASVECCR") to the Department in accordance with a schedule contained in the Department approved CASVECDP. The purpose of the CASVECCR is to document how the SVE system was constructed and to provide notification that construction work has been completed. A separate CASVECCR may be needed for each phase of SVE system construction if there are multiple elements. The CASVECCR shall be developed in a

manner consistent with the Scope of Work contained in Attachment 3 to this Part of the Permit.

- k. The owner or operator shall submit a Corrective Action Soil Vapor Extraction Operations and Maintenance Plan ("CASVEO&MP") to the Department in accordance with a schedule contained in the Department approved CASVECDP. The CASVEO&MP shall specify how the SVE system will be operated, maintained and monitored. The CASVEO&MP shall be developed in a manner consistent with the Scope of Work contained in Attachment 4 to this Part of the Permit. At a minimum, the CASVEO&MP shall require the owner or operator to determine system effectiveness and any "rebound" effects by periodically shutting down the SVE system for successive variable time periods, beginning with a minimum of 5 consecutive days, and then collecting soil gas data from all monitoring probes or wells. Soil gas monitoring data shall be collected when the SVE system is not operating.

Evaluation of portable photo-ionization detector data obtained from the monitoring network may be used as a screening tool to track system effectiveness

- l. Upon receiving written approval of the CASVEO&MP from the Department, the owner or operator shall begin full scale operation of the SVE system.
- m. The owner or operator may petition the Department to shut down the SVE system when the owner or operator can demonstrate that the cleanup standard specified in paragraph V.E.4.h. of this Part of the Permit has been achieved. The demonstration shall include, at a minimum, the following performance based information:
- i. A quantitative analysis of halogenated VOC soil vapor data showing that VOC's, especially TCE, concentrations have been reduced to levels that are protective of ground water.

The analysis shall include the development and analysis of halogenated VOC soil vapor isoconcentration plots for equilibrium conditions. The isoconcentration plots must show a definitive reduction in area over time.

The analysis shall include time verses concentration graphs showing variations in outlet concentrations from each soil gas

monitoring probe or well. The graphs must show any rebound effects and clearly indicate that asymptotic concentrations have been reached.

Soil gas data used to demonstrate that the cleanup standard has been obtained must be analyzed in a mobile laboratory at the Facility.

ii. Fate and transport modeling to demonstrate that any measured residual soil vapor concentrations will not impact ground water. The Department must provide the owner or operator with written approval of any fate and transport model before the model can be used to demonstrate that the cleanup standard has been achieved.

iii. If required by the Department, results of confirmation soil matrix sampling from fine-grained zones where long-term or differential halogenated VOC effects might be expected (e.g., clay/silt or organic-rich soils).

n. If required by the Department, soil vapor extraction shall continue until the Department provides the owner or operator with written notice to cease operations.

5. **Soil Remediation in Former Underground Storage Tank Area**

a. Soils which have been contaminated by releases from the former underground storage tank ("UST") system, which was comprised of a 10,000 gallon gasoline tank, a 10,000 gallon diesel tank and associated piping and dispensers, must be remediated as required in H&SC Sections 25280 to 25299.6 and applicable provisions of California Title 23, Chapter 16 regulations.

b. The owner or operator shall design, construct, operate and maintain an in-situ bioventing system in the UST remediation area to meet the soil cleanup standards specified below:

Aromatic Hydrocarbons:

|          |       |       |
|----------|-------|-------|
| Benzene: | 0.001 | mg/kg |
| Toluene: | 1     | mg/kg |

|                |      |       |
|----------------|------|-------|
| Ethylbenzene:  | 0.68 | mg/kg |
| Total Xylenes: | 1.75 | mg/kg |

Hydrocarbon Mixtures:

|                                    |     |       |
|------------------------------------|-----|-------|
| Total Petroleum Hydrocarbon (TPH): | 100 | mg/kg |
|------------------------------------|-----|-------|

TPH is a generic indicator of hydrocarbons that in this case is primarily related to diesel fuel.

UST area soils are contaminated from near surface to at least 37 feet below ground surface. This includes a portion of the currently unsaturated Gage Aquifer. The soil clean-up standards for the UST area soils are based on protecting re-saturating ground water in the Gage Aquifer from petroleum based fuels, including aromatic hydrocarbon and hydrocarbon mixtures, contained in the soil. The Department may revise these clean-up standards based on new information.

- c. The UST remediation area is located in the center of the facility and is roughly a square bounded by soil borings UST-SB3, UST-SB4, UST-SB5, UST-SB1, UST-SB2, and UST-SB-7. The UST remediation area is shown in Figure 1 to this Part of the Permit.
- d. Within 120 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Bioventing Conceptual Design Plan ("CABCDP"). The CABCDP shall describe the bioventing system and how it will be constructed at the Facility. The CABCDP shall be developed in a manner consistent with the Scope of Work contained in Attachment 2 to this Part of the Permit.
- e. Upon receiving written approval of the CABCDP from the Department, the owner or operator shall proceed with the full design and construction of the bioventing system.
- f. The owner or operator shall submit a Corrective Action Bioventing Construction Completion Report ("CABCCR") to the Department in accordance with a schedule contained in the Department approved CABCDP. The purpose of the CABCCR is to document how the bioventing system was constructed and to provide notification that construction work has been completed. The CABCCR shall be developed in

a manner consistent with the Scope of Work contained in Attachment 3 to this Part of the Permit.

- g. The owner or operator shall submit a Corrective Action Bioventing Operations and Maintenance Plan ("CABO&MP") to the Department in accordance with a schedule contained in the Department approved CABCDP. The CABO&MP shall, at a minimum, specify how the bioventing system will be operated and maintained, and how the vadose zone will be monitored during bioventing system operations. The CABO&MP shall be developed in a manner consistent with the Scope of Work contained in Attachment 4 to this Part of the Permit.
- h. Upon receiving written approval of the CABO&MP from the Department, the owner or operator shall begin full scale operation of the bioventing system.
- i. The owner or operator may submit a Corrective Action Bioventing Completion ("CABC") Report to the Department when the owner or operator believes that the UST area soil cleanup standards have been attained or when, after a minimum of three years of bioventing, the owner or operator can provide an alternative demonstration showing why the bioventing should cease. The CABC Report shall, at a minimum, include an UST closure certification as well as data and other information showing that the cleanup standards have been attained or include an alternative demonstration of why bioventing should cease. The UST closure certification shall be signed by the owner or operator and by an independent California registered civil engineer or geologist or engineering geologist. The CABC Report shall be developed in a manner consistent with the Scope of Work contained in Attachment 5 to this Part of the Permit. The bioventing system shall continue to operate until the Department provides the owner or operator with written notice to cease operations.
- j. Within 60 days after cessation of bioventing operations at the former UST area, the owner or operator shall submit to the Department written certification from the Los Angeles County Department of Public Works and/or the Los Angeles Regional Water Quality Control Board stating that the soil cleanup meets the applicable requirements of Title 23, Chapter 16 regulations. The Department may require that the owner or operator reactivate the bioventing system and/or take other action if the former UST area cleanup does not

meet the applicable requirements of California Title 23, Chapter 16 regulations.

**6. Containment Measures**

- a. The owner or operator shall design, install, operate and maintain a containment system (e.g., sumps, berms, etc) capable of containing contaminated runoff, accidental spills or tank overfillings and able to prevent infiltration (for all practical purposes) of liquids into subsurface soils at any time during the operating life of the Facility. Containment measures shall be constructed in a manner that meets the requirements of 22 CCR 66264.25.
- b. Within 180 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Containment System ("CACS") Report. The purpose of the CACS Report is to: (1) evaluate the ability of the current system of sumps to contain contaminated runoff and chemical spills from the Facility, (2) evaluate the ability of the existing site cover (paving) to prevent (for all practical purposes) infiltration of water into subsurface soils, and (3) describe proposed improvements to the Facility that would prevent infiltration (for all practical purposes) into subsurface soils and contain contaminated runoff and chemical spills.
- c. The CACS Report shall, at a minimum, include:
  - i. A description of the site cover including type, thickness and age of paving material;
  - ii. A description of the current site drainage collection system;
  - iii. An evaluation of all active sumps and associated piping to assess overall condition and integrity;
  - iv. A description of areas, including secondary containment areas and sumps, that are damaged and in need of repair;
  - v. Appropriately scaled maps showing drainage flow patterns, site drainage collection system including active sumps and existing berms, areas of surface ponding, damaged paved areas including secondary containment areas, sumps and berms that are in need of repair and paving material descriptions (e.g., type, thickness, age);

- vi. An estimate of facility area that currently drains into sumps;
  - vii. An estimate of facility area that currently drains off-site;
  - viii. An estimate of current run-off storage capacity;
  - ix. Identification of activities and locations which involve transit of waste and non-waste water through or into below-grade conduits, collection or storage devices;
  - x. An evaluation of the spatial relationship between waste and non-waste water crossing through or into below-grade conduits, collection or storage devices and areas of residual soil contamination;
  - xi. A description of current contingency procedures to address heavy run-off periods;
  - xii. An evaluation of the current drainage collection systems ability to contain off-site run-off;
  - xiii. An evaluation of the ability of the current site cover to prevent infiltration into the subsurface; and
  - xiv. A description of proposed improvements to the Facility that would prevent infiltration into subsurface soils and contain off-site runoff.
- d. The Department will evaluate the CACS Report and may require the owner or operator to make improvements to the drainage collection system and/or site cover.
- e. After Department evaluation of the CACS Report and within 45 days of a written request from the Department, the owner or operator shall submit to the Department a conceptual design plan for constructing improvements to the containment system. The Corrective Action Containment System Conceptual Design ("CACSCD") Plan shall describe the improvements and how they will be constructed at the Facility. The Department will specify what improvements shall be included in the CACSCD Plan. At a minimum, the Department will require that the owner or operator pave all unpaved areas of the Facility, berm the facility perimeter (except for employee parking lot located adjacent to Dice Road) and reconstruct or repair any leaking sumps,

- damaged secondary containment areas and/or damaged paved areas.
- f. The CACSCD Plan shall, unless otherwise specified by the Department, include the following information:
- i. Purpose of the plan;
  - ii. Conceptual design and summary description of proposed project;
  - iii. An appropriately scaled facility map showing construction areas;
  - iv. Tables listing number and type of major components with approximate dimensions;
  - v. A description of the wastes generated by the construction and how they will be managed;
  - vi. Project management (e.g., management approach, levels of authority and responsibility, lines of communication and the qualifications of key personnel who will direct the project (including contractor personnel));
  - vii. Project schedule; and
  - viii. List and description of the permits needed to construct and operate the containment system. Indicate on the project schedule when the permit applications will be submitted to the applicable agencies and an estimate of the permit issuance date.
- g. Upon receiving written approval of the CACSCD Plan from the Department, the owner or operator shall construct the improvements to the containment system and begin full scale operations as soon as construction work has been completed.
- h. The containment system shall be operated and maintained until the Department provides the owner or operator with written notice to cease operations.
7. Pond 1 Closure Status Report
- a. The existing Modified Closure/Post Closure Plan for Pond 1, which was approved by the Department in September 1988, requires the relocation of two wastewater treatment tanks currently located in Pond 1, the excavation and proper disposal of the

con- crete lining and underlying contaminated soil and the installation of an interim and final cover over the Pond 1 area. Full implementation of the Modified Closure/Post Closure Plan was delayed pending the completion of the facility investigation. Since the facility investigation has now been completed, the approved Modified Closure/Post Closure Plan for Pond 1 given in Attachment 7 must now be implemented. The schedule included in the Modified Closure/Post Closure Plan was keyed to the September 1988 approval date and is now obsolete. To address this concern, the Department has required that the owner or operator submit a revised implementation schedule to the Department for the Modified Closure/Post Closure Plan.

- b. Within 180 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Pond 1 Closure Status Report. The Pond 1 Status Report shall include, unless the Department specifies otherwise, a description of significant Pond 1 closure activities and work completed to date, and a description how this work has been coordinated with the corrective action requirements of this Part of the Permit.

**8. Operation, Maintenance and Inspection of Site Cover**

- a. The owner or operator shall at all times properly operate and maintain all facilities and systems of treatment and control in accordance with 22 CCR 66270.30(e). All equipment, pipes, and lines used at the Facility to handle, transfer, pump, or store hazardous wastes and any other liquids shall be maintained in a manner that prevents the leaking and spilling of such hazardous wastes and/or liquids. This is particularly important since soils contaminated with metals are being left in place under the facility pavement.
- b. Within 240 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Site Cover Operation, Maintenance and Inspection ("CASCOMI") Plan that describes how the owner or operator will inspect, operate and maintain the site cover. The owner or operator shall operate and maintain the site cover in a manner that prevents (for all practical purposes) infiltration of liquids into the subsurface and contains contaminated runoff and chemical spills.

- c. The CASCOMI Plan shall, at a minimum, include:
- i. A description of the purpose;
  - ii. A description of how the inspection program will be organized and managed;
  - iii. A description of the sump system and how it will be operated, maintained and inspected;
  - iv. Annual integrity testing of all active sumps;
  - v. Inspection frequency;
  - vi. Step-by-step instructions for the inspector that identify what to look for during an inspection;
  - vii. A map that specifies the exact route of the inspector;
  - viii. A description of how problems identified during an inspection will be addressed;
  - ix. An example inspection checklist; and
  - x. Documentation requirements (e.g., inspection checklists shall be compiled and stored at the facility).
- d. The owner or operator shall implement the CASCOMI Plan upon receiving written approval from the Department. Operation, maintenance and inspection of the site cover shall continue until the owner or operator receives written notification from the Department to stop.

#### 9. Vadose Zone Monitoring

- a. The owner or operator shall design, construct, operate and maintain a vadose zone monitoring system to meet the requirements specified in this Part of the Permit. The vadose zone is the unsaturated region between the land surface and the water table. The purpose of vadose zone monitoring is to provide early detection of contaminant migration from units that manage or transport process or waste water at the Facility. These units all actively manage process or waste water and thus pose a higher threat to leak and cause migration of existing contaminants through the subsurface soil. Vadose monitoring is also needed to assess the ability of the facility cover element of the corrective action to prevent infiltration into the subsurface.

Vadose  
Zone  
Plan

- b. Within 240 days of the effective date of this Permit Modification, the owner or operator shall submit to the Department a Corrective Action Vadose Zone Monitoring ("CAVZM") Plan for the Facility. The purpose of the CAVZM Plan is to fully describe the corrective action vadose monitoring program. Vadose zone monitoring is required for, at a minimum, all active sumps, all active clarifiers, Pond 1, Pond 2, filter press, the sewer outlet connection area, and any other subsurface units that are designed to accumulate rainfall.
- c. The CAVZM Plan shall, at a minimum, include the following information:
- i. Purpose of plan;
  - ii. Conceptual design of proposed vadose zone monitoring system including rationale for selection of monitoring points;
  - iii. Schematic diagrams for key components;
  - iv. An appropriately scaled facility map showing monitoring locations;
  - v. A description of the wastes generated by the installation and operation of the vadose zone monitoring system and how they will be managed;
  - vi. Project management (e.g., management approach levels of authority and responsibility, lines of communication and the qualifications of key personnel who will direct vadose zone monitoring program (including contractor personnel));
  - vii. Construction schedule;
  - viii. A listing and description of the permits needed to construct and operate the vadose zone monitoring system. Indicate on the project schedule when the permit applications will be submitted to the applicable agencies and an estimate of the permit issuance date;
  - ix. Data quality objectives for sampling;
  - x. Description of monitoring tasks;
  - xi. List of monitoring parameters;

Vadose  
Zone  
Monitoring  
Locations

- xii. Rationale for selection of monitoring parameters;
- xiii. Description and listing of monitoring points to be sampled;
- xiv. Appropriately scaled map showing monitoring locations;
- xv. Monitoring and reporting schedule;
- xvi. Analytical test methods and detection limits;
- xvii. Name of analytical laboratory;
- xviii. Laboratory quality control (include laboratory QA/QC procedures in appendices);
- xix. Sample collection procedures and equipment;
- xx. Field quality control procedures:
  - duplicates (10% of all field samples)
  - blanks (field, equipment, etc.)
  - equipment calibration and maintenance
  - equipment decontamination
  - sample containers
  - sample preservation
  - sample holding times (must be specified)
  - sample packaging and shipment
  - sample documentation (field notebooks, sample labeling, etc);
- xxi. Criteria for data acceptance and rejection; and
- xxii. Description of data evaluation procedures including any proposed statistical methods;
- xxiii. Contingencies for further action if leakage is detected. The CAVZM Plan shall, at a minimum, specify that if the owner or operator detects contaminant migration from any vadose monitoring point, the owner or operator shall:
  - (1) Confirm the release and comply with Section V.L.1. of this Part of the Permit (response to leaks or spills).
  - (2) Take samples of released liquid and/or soils for laboratory analysis as needed to determine the nature and extent of the release. Samples shall be analyzed

for constituents that would likely be found in the waste management units near the point of release. These constituents could include metals such as hexavalent chromium, volatile organic compounds (SW846 Method 8240), semi-volatile compounds (SW846 Method 8270), total petroleum hydrocarbons (diesel and gasoline), pH, chlorides, and sulfates;

- (3) Notify the Department of the situation orally within 72 hours of discovery and in writing within 7 days of discovery; and
  - (4) Submit a report to the Department within 30 days of discovery summarizing any findings including the nature and extent of the release, actual or potential threats to human health and/or the environment, and any actions that have been taken or are planned to address the release.
- d. The CAVZM Plan shall be consistent with all Department and U.S. EPA guidance for vadose zone monitoring.
  - e. The owner or operator shall implement the CAVZM Plan upon receiving written approval from the Department. Vadose zone monitoring shall continue until the owner or operator receives written notification from the Department to stop.

#### 10. Surface Water Monitoring

The October 15, 1992 Amended General Industrial Activities Storm Water ("AGIASW") Permit is incorporated as a condition of this Permit in accordance with the requirements of Section 25204.5 of the California Health and Safety Code. The AGIASW Permit is provided in Attachment 8 to this Part of the Permit. The Department will first look to the Los Angeles Regional Water Quality Control Board to enforce and implement the AGIASW Permit.

#### 11. Modification of Facility Closure Plan

- a. The April 1990 Closure Plan, which is referenced in this Permit, describes the process for closing the facility after industrial operations have stopped. Within 360 days of the effective date of this Permit Modification, the owner or operator shall submit a revised facility closure plan to

the Department for review and comment. The owner or operator must revise the April 1990 Closure Plan to be consistent with the corrective action requirements contained in this Part of the Permit. At a minimum, the revised plan must provide for the closure of all permitted hazardous waste management units at the facility as required in applicable California regulations and specify that (1) the facility will be fully paved after final closure and (2) the final site cover shall be constructed to prevent accumulation of water on-site and infiltration into subsurface soils.

- b. The owner or operator shall initiate a permit modification to incorporate the revised facility closure plan into this Permit. To make such a modification, the owner or operator must use the procedures for a Class 1 permit modification with prior agency approval in accordance with 22 CCR §66270.42.

## 12. Financial Assurance for Corrective Action

- a. Section 25200.10 of the H&SC requires that permits include financial assurance for Corrective Action. Within 360 days of the effective date of this Permit Modification, the owner or operator shall submit a Corrective Action Financial Assurance ("CAFA") Plan to the Department. The CAFA Plan shall, at a minimum, specify how the owner or operator will provide financial assurance for the operation and maintenance of the ground water remediation system, soil bioventing system, soil vapor extraction system (if required), containment system (site cover and sumps) and for all monitoring activities required by this Part of the Permit.
- b. The FA plan shall, at a minimum, contain a cost estimate for operation and maintenance of each system discussed above including the assumptions used to make the cost estimate, specify which financial mechanism will be used and when the mechanism will be established. The financial assurance mechanism may include a performance or surety bond, a trust fund, a letter of credit, financial test and corporate guarantee equivalent to that in 22 CCR §66265.143 or any other mechanism acceptable to the Department.
- c. The owner or operator shall implement the FA plan upon receiving written approval from the Department.

13. **Potential or Immediate Threats/Newly Identified Releases/Newly Identified SWMU'S**

- a. In the event the owner or operator identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new SWMU'S not previously identified, the owner or operator shall notify the Department orally within 72 hours of discovery and notify in writing within 7 days of such discovery summarizing the findings including the immediacy and magnitude of any potential threat(s) to human health and/or the environment. Remedialization of existing soil contamination shall be considered a new release.
- b. The Department may require the owner or operator to investigate, mitigate and/or take other appropriate action to address any immediate or potential threats to human health and/or the environment, newly identified releases of hazardous waste and/or hazardous constituents, or newly identified SWMU'S. Upon written request by the Department, the owner or operator shall submit to the Department any required documents which may include, but are not limited to, Interim Measure and/or RCRA Facility Investigation Workplans. The required documents shall be developed in a manner consistent with the applicable Scope of Work appended to this Permit Modification or with other guidance to be provided by the Department. The Department will review the required documents and notify the owner or operator in writing of the Department's approval or disapproval, including any comments and/or modifications, in accordance with the Agency Approval/Reporting/ Proposed Contractor/Additional Work section of this Part of the Permit. Upon approval of a workplan, the owner or operator shall implement it in accordance with the provisions and schedule contained therein. If the Department determines that immediate action is required, the Department's Project Coordinator may orally authorize the owner or operator to act prior to the Department's receipt or approval of any required workplans.

F. **AGENCY APPROVAL/REPORTING/PROPOSED CONTRACTOR/ADDITIONAL WORK**

1. **Agency Approvals**

- a. The Department will provide the owner or operator with its written approval, approval with

conditions or modifications, disapproval, or disapproval with comments for any plan, workplan, report (except progress reports), specification or schedule submitted pursuant to or required by this Part of the Permit. The Department will provide the owner or operator with reasons which detail why the Department has approved, with conditions or modifications, any document required under this Part of the Permit.

- b. The owner or operator shall revise any plan, workplan, report, specification or schedule in accordance with the Department's written comments. The owner or operator shall submit to the Department any revised submittals in accordance with a due date specified by the Department. Revised submittals are subject to the Department approval or disapproval, with comments or modification.
- c. Upon receipt of the Department's written approval, the owner or operator shall commence work and implement any approved plan or workplan in accordance with the schedule and provisions contained therein.
- d. Any Department approved plan, workplan, report, specification, or schedule, shall be deemed incorporated into this Permit. Any non-compliance with such approved workplans, reports, specifications or schedules shall be considered non-compliance with this Permit. Prior to this written approval, no plan, workplan, report, specification or schedule shall be construed as approved and final. Verbal advice, suggestions, or comments given by the Department representatives will not constitute an official approval, nor shall any verbal approval or verbal assurance be considered binding.

## 2. Reporting

- a. Beginning with the first full month following the effective date of this Permit Modification, until suspended by the Department in writing, the owner or operator shall provide the Department with signed bi-monthly progress reports of all corrective action activities conducted and to be conducted pursuant to this Part of the Permit. The owner or operator shall submit progress reports to the Department by the tenth day of the month following each bi-monthly period. The progress reports shall conform to the requirements contained in Attachment 1 to this Part of the Permit. At the discretion of the Department, the

frequency of progress reporting may be adjusted to be consistent with site-specific activities.

- b. Any reports, documents or other information submitted to the Department by the owner or operator pursuant to this Part of the Permit shall be signed and certified by a responsible corporate officer of the owner or operator or a duly authorized representative in accordance with 22 CCR §66270.11. In addition, any technical reports shall be certified by an independent California registered civil engineer, geologist or engineering geologist.
- c. Three copies of all documents, including but not limited to, workplan(s), reports, and other correspondence to be submitted pursuant to this Part of the Permit shall be hand delivered, sent by certified mail, return receipt requested, or by overnight express mail to the Department Project Coordinator or to other addressees she/he designates. Submittals specifically exempted from the copy requirement outlined above are all progress reports, and any other correspondence of less than 15 pages, of which one copy is required. All submittals required by this Permit shall be printed on recycled paper and shall be copied double-sided whenever practicable.
- d. Unless otherwise specified, all reports, correspondence, approvals, disapprovals, notices or other submissions relating to or required under this Part of the Permit shall be in writing and shall be sent to the respective Project Coordinators.
- e. The owner or operator shall, unless otherwise specified by the Department, send one copy of all correspondence, findings, notifications, proposals, reports, or plans required by this Part of the Permit to each of the following persons at the same time as it is submitted to the Department:

Executive Officer  
Los Angeles Regional Water Quality Control Board  
101 Centre Plaza Drive  
Monterey Park, California 91754

### 3. Proposed Contractor/Consultant

- a. All work performed pursuant to this Part of the Permit shall be under the direction and supervision of a California registered professional civil engineer, hydrologist, or

geologist with expertise in hazardous waste site cleanup. The owner or operator's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which they are responsible.

- b. Within 14 days of the effective date of this Permit Modification, the owner or operator shall notify the Department Project Coordinator in writing of the name, title, and qualifications of the engineer, hydrologist, or geologist, and of any contractors or consultants and their personnel to be used in carrying out this Part of the Permit.

#### 4. Additional Work

- a. The Department may determine or the owner or operator may propose that certain tasks, including investigatory work, remedial action, engineering evaluation, or procedure/methodology modifications are necessary in addition to, or in lieu of, the tasks and deliverables included in any workplan or plan approved by the Department.
- b. The Department shall request in writing that the owner or operator perform the additional work and will specify the basis and reasons for the Department's determination that the additional work is necessary.
- c. Within 14 days after the receipt of such determination, the owner or operator shall have the opportunity to meet or confer with the Department to discuss the additional work which the Department has requested.
- d. If required by the Department, the owner or operator shall submit a workplan to the Department for the additional work. Such workplan shall be submitted to the Department according to a schedule established by the Department. Upon approval of a workplan, the owner or operator shall implement it in accordance with the provisions and schedule contained therein.

#### G. QUALITY ASSURANCE

1. Workplans shall contain quality assurance/quality control and chain of custody procedures for all sampling, monitoring and analytical activities.

2. The name(s), addresses and telephone numbers of the analytical laboratories the owner or operator proposes to use must be specified in the applicable workplan(s).
3. All workplans required under this Part of the Permit shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).
4. The owner or operator shall ensure that data of appropriate quality are obtained by its consultant or contract laboratories. The owner or operator shall ensure that laboratories used by the owner or operator have in place a quality assurance program and perform analyses according to the latest approved edition of "Test Methods for Evaluating Solid Waste, (SW-846)", or other methods deemed satisfactory by the Department. If methods other than standard methods are to be used, the owner or operator shall specify all such methods in the applicable workplan. The Department may reject any data that does not meet the requirements of the approved workplan or the analytical methods, and may require resampling and analysis.
5. The Department may conduct a performance and quality assurance/quality control audit of the laboratories chosen by the owner or operator before, during or after sample analyses. Upon request by the Department, the owner or operator shall have its selected laboratory perform analyses of samples provided by the Department to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or quality assurance/quality control, resampling and analysis may be required.

## H. SAMPLING/ACCESS

### 1. Sampling

The owner or operator shall notify the Department in writing at least 14 days prior to beginning each separate phase of field work approved under any workplan required by this Part of the Permit. If the owner or operator believes it must commence emergency field activities without delay, the owner or operator may seek emergency telephone authorization from the Department Project Coordinator or if the Project Coordinator is unavailable, his/her immediate supervisor, to commence such activities immediately. At the request of the Department, the owner or operator shall provide or allow the Department or its authorized representative to take split or duplicate samples of all samples collected by the owner or operator pursuant to this Part of the Permit.

## 2. Access

- a. The Department, its contractors, employees, and/or any U.S. EPA representatives are authorized to enter and freely move about the Facility pursuant to this Part of the Permit for the purposes of: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts required under this Part of the Permit; reviewing the progress of the owner or operator in carrying out the terms of this Part of the Permit; conducting such tests, sampling or monitoring as the Department or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to the Department by the owner or operator. The owner or operator shall provide the Department and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of this Part of the Permit and shall permit such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Part of the Permit.
- b. To the extent that work being performed pursuant to this Part of the Permit must be done on property not owned or controlled by the owner or operator, the owner or operator shall use its best efforts to obtain access agreements necessary to complete work required by this Part of the Permit from the present owner(s) of such property within 30 days of approval of any workplan for which access is required. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from the owner or operator to the present owner(s) of such property requesting access agreement(s) to allow the owner or operator and the Department and its authorized representatives access to such property and the payment of reasonable sums of money in consideration of granting access. The owner or operator shall provide the Department Project Coordinator with a copy of any access agreement(s). In the event that agreements for access are not obtained within 30 days of approval of any workplan for which access is required, or of the date that the need for access became known to the owner or operator, the owner or operator shall notify the Department in writing within 14 days thereafter regarding both the efforts undertaken to obtain access and its failure to obtain such agreements. In the event the Department obtains access, the owner or operator shall undertake approved work on such property.

- c. Nothing in this Part of the Permit shall be construed to limit or otherwise affect the owner or operator's liability and obligation to perform corrective action including corrective action beyond the facility boundary, notwithstanding the lack of access. The Department may determine that additional on-site measures must be taken to address releases beyond the Facility boundary if access to off-site areas cannot be obtained.

#### I. RECORD PRESERVATION

1. The owner or operator shall retain, during the term of this Permit and any reissued permits, all data, records and documents gathered or generated during any corrective action activities including those required under the December 1988 Administrative Order on Consent (Docket No. RCRA-09-89-0001) and those undertaken pursuant to this Part of the Permit. All such documents shall be stored in a centralized location at the Facility (or other location approved by the Department) and be made available to the Department, U.S. EPA or their representatives upon request. The owner or operator shall notify the Department in writing at least 90 days prior to final expiration of this Permit, and shall provide the Department with the opportunity to take possession of any such records. Such written notification shall reference this Permit (including expiration date) and shall be addressed to the Department Project Coordinator.
2. The owner or operator shall obtain copies of all data, records and documents gathered or generated by any agent, consultant, or contractor employed by the owner or operator to carry out the terms of this Part of the Permit.

#### J. DISPUTE RESOLUTION

1. The Department and the owner or operator shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion.
2. If the owner or operator disagrees, in whole or in part, with any written decision by the Department relating to the Department modification of interim deliverables submitted by the owner or operator or to additional work required by the Department pursuant to this Part of the Permit, the owner or operator's Project Coordinator shall orally notify the Department Project Coordinator of the dispute. The Project Coordinators shall attempt to resolve the dispute informally.

3. If the Project Coordinators cannot resolve the dispute informally, the owner or operator may pursue the matter formally by placing its objections in writing. The owner or operator's written objections must be directed to Chief, Facility Management Branch, California EPA, Department of Toxic Substances Control, Region 3, with a copy to the Department Project Coordinator, within 14 days of the owner or operator's receipt of the Department decision. The owner or operator's written objection must set forth the specific points of the dispute and the basis for the owner or operator's position.
4. The Department and the owner or operator shall have 14 days from the Department's receipt of the owner or operator's written objections to attempt to resolve the dispute through formal discussions. This time period may be extended by the Department for good cause. During such time period, the owner or operator will have an opportunity to meet or confer with the Department to discuss the dispute and the owner or operator's objections.
5. After the formal discussion period, the Chief, Facility Management Branch, California EPA, Department of Toxic Substances Control, Region 3., will provide the owner or operator with his/her written decision on the dispute. The written decision will reflect any agreements reached during the formal discussion period, state the reasons for the Chief's decision, and respond to the arguments presented by the owner or operator in objecting to the Department action. The decision shall be incorporated into and become an enforceable part of this Permit. The decision is not subject to further dispute resolution under Section V.J. of this Part of the Permit.
6. If the owner or operator fails to follow any of the requirements contained in this Part of the Permit then it shall have waived its right to further consideration of the disputed issue.
7. Notwithstanding the invocation of this dispute resolution procedure, the owner or operator shall proceed, at the direction of the Department, to take any action required by those portions of an approved workplan and of this Part of the Permit that the Department determines are not substantially affected by the dispute.

#### K. MODIFICATION

Any requests for a compliance date modification or revision of an approved workplan (or plan) requirement must be in writing. Such requests must be timely and provide

justification for any proposed compliance date modification or workplan revision. The Department has no obligation to approve such requests, but if it does so, such approval will be in writing and signed by the Chief, Facility Management Branch, California EPA, Department of Toxic Substances Control, Region 3. Any approved compliance date or workplan modification shall be incorporated by reference into this Permit and become an enforceable part of this Permit.

## **I. SPECIAL CONDITIONS**

### **1. Response to Leaks or Spills**

- a. In the event of leaks or spills from any of the waste management units such as a tank system, secondary containment system, sump system, subsurface piping, or if any system becomes unfit for continued use, the owner or operator shall remove that system from service immediately and comply with the applicable requirements of 22 CCR 66264.196(b)(1) through (7).
- b. If a waste management unit has been extensively repaired, the owner or operator shall submit to the Department certification of major repairs as specified in 22 CCR 66264.196(b)(7) within seven (7) days after returning the system to use.
- c. Spilled or leaked waste and accumulated precipitation must be removed from any and all trench, sump or collection area within twenty-four (24) hours after its discovery.
- d. The collected material from a leak, a spill or accumulated precipitation at any solid waste management unit or its containment system shall be managed as hazardous waste unless the owner or operator has established in accordance with the requirements of 22 CCR 66261.3(d) that the collected material is not a hazardous waste. The owner or operator shall comply with the applicable requirements of 22 CCR 66261.4(c), 66264.175(b)(5), 66264.178 and 66264.193(c)(4) concerning the collected material.

### **2. New Waste System Requirements**

- a. If the owner or operator wishes to construct any new waste management units which require pavement removal, soil excavation or that manage liquids, other than those required by this Part of the Permit, the owner or operator shall notify the Department in writing at least 30 days prior to the planned start of construction. Waste management

units include, but are not limited to, tanks, sumps, drum storage areas, etc. The notification shall, at a minimum, include the following information:

- i. Purpose of proposal;
  - ii. Description of proposed project;
  - iii. Appropriately scaled facility map showing location of the proposed new construction;
  - iv. Summary of existing soil contamination in construction area;
  - v. Condition of paving in proposed construction area;
  - vi. Approximate volume of soil to be excavated;
  - vii. Measures that will be taken to prevent infiltration into subsurface soils and to meet applicable requirements for containing releases from new hazardous waste management units;
  - viii. Project schedule;
  - ix. A description of the wastes generated by the construction and how they will be managed; and
  - x. Project management (e.g., management approach, levels of authority and responsibility, lines of communication and the qualifications of key personnel who will direct the project (including contractor personnel)).
- b. The owner or operator shall obtain and keep on file at the Facility a written certification of construction by those persons required to certify the design of any new waste management systems. The certification shall include all as-built design drawings and installation activity reports on the preparation of the foundations, installations, pipe fitting, backfill and compaction of earth, grading, off-site disposal and operation testing.

#### M. FACILITY SUBMITTAL SUMMARY

Below is a summary of the major reporting requirements contained in this Part of the Permit. The summary is provided as a general guide and thus does not contain all requirements. Please refer to the specific language of this Part of the Permit to fully determine all requirements.

Facility Submission Requirements

Designate Project Coordinator  
and Notify Department in Writing

Due Date  
14 days from  
effective date  
of Permit  
Modification

Notify Department in Writing  
of Contractors to Carry Out  
Terms of Corrective Action.

14 days from  
effective date  
of Permit  
Modification

Submit first Progress Report

10th day of month  
following the  
effective date  
of the Permit  
Modification

Submit Progress Reports

Bimonthly

Record Deed Restriction Notice

14 days from  
effective date  
of Permit  
Modification

Submit Corrective Action Ground  
Water Remediation Workplan

60 days from  
effective date  
of Permit  
Modification

Submit Corrective Action  
Ground Water Monitoring Plan

60 days from  
effective date  
of Permit  
Modification

Submit Corrective Action Soil  
Vapor Survey Workplan

120 days from  
effective date  
of Permit  
Modification

Submit Corrective Action  
Bioventing Conceptual Design  
Plan

120 days from  
effective date  
of Permit  
Modification

Submit Corrective Action  
Containment System Report

180 days from  
effective date  
of Permit  
Modification

Submit Pond 1 Closure  
Status Report

180 days from  
effective date  
of Permit  
Modification

|  |     |  |
|--|-----|--|
| Submit Corrective Action<br>Vadose Zone Monitoring Plan  | 240 | days from<br>effective date<br>of Permit<br>Modification |
| Submit Corrective Action Site<br>Cover Operation, Maintenance<br>and Inspection Plan   | 240 | days from<br>effective date<br>of Permit<br>Modification |
| Submit Corrective Action Surface<br>Water Sampling Plan  | 300 | days from<br>effective date<br>of Permit<br>Modification |
| Submit revised Facility Closure<br>Plan  | 360 | days from<br>effective date<br>of Permit<br>Modification |
| Submit Corrective Action Financial<br>Assurance Plan   | 360 | days from<br>effective date<br>of Permit<br>Modification |
| Verbal Notification of immediate<br>or potential threats to human<br>health or environment, newly<br>identified releases or newly-<br>discovered SWMU's  | 72  | hours after<br>discovery                                 |
| Written Notification of immediate<br>or potential threats to human<br>health or environment, newly<br>identified releases or newly-<br>discovered SWMU's | 10  | days after<br>discovery                                  |

**N. DEFINITIONS**

The following definitions shall apply to this Part of the Permit:

"Aromatic VOC's or Aromatic Volatile Organic Compounds" include, but are not limited to, benzene, toluene, ethylbenzene and xylenes.

"Bioventing" means the introduction of air and nutrients into subsurface soils to promote biological growth and hydrocarbon degradation. This is usually accomplished by installing wells into the vadose zone and pumping air into the subsurface.

"BTEX" is an abbreviation for the compounds benzene, toluene, ethylbenzene and xylene.

**"Corrective Action"** means those actions taken to investigate and clean-up contaminant releases from hazardous waste treatment, storage, and disposal facilities.

**"Corrective Measures Study" or "CMS"** means a study conducted by the facility owner or operator to identify and evaluate alternative remedies to address contaminant releases at a site.

**"Days"** means calendar days unless otherwise specified.

**"Department" or "the Department"** means the California Environmental Protection Agency, Department of Toxic Substances Control, Region 3.

**"U.S. EPA"** means the U.S. Environmental Protection Agency, Region 9.

**"Facility"** means all contiguous property under the control of the owner or operator seeking a permit under Section 25200.10 of the Health and Safety Code.

**"Halogenated VOC's or Halogenated Volatile Organic Compounds"** include, but are not limited to, the following compounds: Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1-Dichloroethene (1,1-DCE), 1,1-Dichloroethane (1,1-DCA), 1,2-Dichloroethane (1,2-DCA), trans-1,2-Dichloroethene (1,2-DCE), Carbon Tetra Chloride, 1,1,1-Trichloroethane (1,1,1-TCA), Chloroform and Methylene Chloride.

**"Hazardous constituent"** means any constituent identified in Appendix VIII of 22 CCR 66261, or any constituent identified in Appendix IX of 22 CCR 66264.

**"Hazardous waste"** means a hazardous waste as defined in 22 CCR §66261.3. Hazardous waste includes extremely hazardous waste, acutely hazardous waste, RCRA hazardous waste, non-RCRA hazardous waste, and special waste.

**"In-situ treatment"** means treatment of contamination in place.

**"Maximum Contaminant Level" or "MCL"** means the maximum permissible level of a contaminant in water delivered to any user of a public water system. MCL's are enforceable standards.

**"RCRA Facility Assessment" or "RFA"** means a detailed regulatory agency review of records and information on the facility to identify and characterize all solid waste management units at the site; this includes a site inspection to examine all parts of the facility and identify areas of potential contamination.

"RCRA Facility Investigation" or "RFI" means an in-depth study conducted by the facility owner or operator to: determine the nature and extent of contamination at a RCRA treatment, storage, or disposal facility; identify preliminary alternatives for cleaning up the site; and support the technical and cost evaluation of cleanup alternatives.

"Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

"Resource Conservation and Recovery Act" or "RCRA" means a federal law that established a regulatory system to track hazardous waste from the time of generation to disposal. The law requires facilities to obtain a permit if they treat, store or dispose of hazardous waste. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

"Solid Waste Management Unit" or "SWMU" means any discernible unit at a facility in which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

"Vadose Zone" means the unsaturated region between the land surface and the ground water table.

**Pond 1 Closure Plan Petition for Review**

**Exhibit H**



Department of Toxic Substances Control



Alan C. Lloyd, Ph.D.  
Agency Secretary  
CalEPA

5796 Corporate Avenue  
Cypress, California 90630



Arnold Schwarzenegger  
Governor

December 2, 2005

Mr. Mark Alling  
West Coast General Manager  
Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

CERTIFIED MAIL  
7005 0390 0006 5295 1099

POND 1 CLOSURE SCHEDULE ACCEPTANCE, PHIBRO-TECH, INCORPORATED  
8851 DICE ROAD, SANTA FE SPRINGS CALIFORNIA 90670  
(EPA ID NO. CAD008488025)

Dear Mr. Alling:

The Department of Toxic Substances Control (DTSC) has received the electronic mail dated September 19, 2005 from Mr. Zachary Walton on behalf of Phibro-Tech, Inc., to which was attached a proposed schedule for the implementation of the Pond 1 Closure Plan, relocation of wastewater treatment tanks W1 and W2, and Phibro-Tech's proposed permit modification for construction/operation of an oily waste water treatment system. Phibro-Tech's proposed schedule is enclosed for reference as enclosure A. This letter addresses the portion of the schedule regarding implementation of the Pond 1 Closure Plan and relocation of wastewater treatment tanks W1 and W2. As you are aware, the approved 1988 Modified Closure/Post Closure Plan for Pond 1 requires relocation of the tanks W1 and W2 as part of the implementation of the Pond 1 Closure Plan. DTSC will address Phibro-Tech's schedule for its proposed Permit modification concerning the oily waste water treatment system in a separate letter because, among other things, this activity is not part of the Pond 1 Closure Plan.

Section E.7.a on page 52.a-14 of the Hazardous Waste Facility Permit Modification for the Phibro-Tech Facility in Santa Fe Springs, effective August 2, 1995 states "... the approved Modified Closure/Post Closure Plan for Pond 1 given in Attachment 7 must now be implemented." This same section further requires that the "... owner or operator submit a revised implementation schedule to DTSC for the Modified Closure/Post Closure Plan." Thus, implementation of the Modified Closure/Post Closure Plan for Pond 1 is a permit requirement and is not optional. DTSC hereby approves the proposed schedule that Phibro-Tech submitted on September 19, 2005.

DTSC has not yet received the relocation plan for Tanks W1/W2 (as required by page 8 of the Modified Closure/Post Closure Plan for Pond 1), which Phibro-Tech's schedule showed would be submitted on October 1, 2005. Please submit this plan by December 30, 2005. In addition, DTSC has not received the sampling plan for characterization of

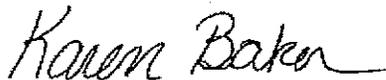
Mr. Mark Alling  
December 2, 2005  
Page 2

soil beneath Pond 1 (as required by page 10 of the Modified Closure/Post Closure Plan for Pond 1), which the schedule proposed to be submitted on November 1, 2005. Please submit it by February 1, 2006.

We also want to point out that although the activities specified in your schedule and in the Modified Closure/Post Closure Plan for Pond 1 essentially match, there is a problem with the nomenclature used in the proposed schedule, most important of which is that the schedule does not reflect that Phibro-Tech already has an approved closure plan for Pond 1. As a result, DTSC has modified the proposed schedule to clarify the submittals that are required pursuant to the 1988 Modified Closure/Post Closure Plan for Pond 1. Please see enclosure B for the DTSC modified schedule.

If you have any questions regarding this letter or need clarifications, please contact Mr. Aaron Yue at (714) 484-5439 or Ms. Kathy San Miguel at (714) 484-5380.

Sincerely,



Ms. Karen Baker, C.E.G., C.H.G., Chief  
Geology, Permitting and Corrective Action Branch

Enclosures

cc: Mr. Larry Bowerman, Chief  
RCRA Corrective Action Office  
United States Environmental Protection Agency  
Region IX  
75 Hawthorne Street (WST-5)  
San Francisco, California 94105

Mr. Dwight Glover  
President  
Phibro - Tech, Inc.  
One Parker Plaza  
Fort Lee, New Jersey 07024

Mr. Steven Cohen  
Vice President and General Counsel  
Phibro -Tech, Incorporated  
One Parker Plaza, 14<sup>th</sup> Floor  
Fort Lee, New Jersey 07024

Mr. Mark Alling  
December 2, 2005  
Page 3

cc: Mr. Marty Voss  
EH&S Manager  
Phibro - Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

Mr. Zachary R. Walton  
Attorney at Law  
Paul Hastings, Janofsky & Walker LLP  
55 Second Street, 24<sup>th</sup> Floor  
San Francisco, California 94105-3441

Mr. Edward A. "Chip" Vitarelli  
Environmental Analyst  
Paul Hastings, Janofsky & Walker LLP  
55 Second Street, 24<sup>th</sup> Floor  
San Francisco, California 94105-3441

Ms. Marilee Hanson  
Office of Legal Counsel  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, California 95812-0806

Ms. Barbara Coler, Chief  
Permitting and Corrective Action Division  
Department of Toxic Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, CA 94710

Mr. Watson Gin, Chief  
Hazardous Waste Management Program  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, California 95812-0806

Mr. Aaron Yue  
Unit Chief  
Geology and Corrective Action Branch  
Department of Toxic Substances Control  
5796 Corporate Avenue  
Cypress, California 90630

Mr. Mark Ailing  
December 2, 2005  
Page 4

cc: Mr. Jose Marcos  
Engineering Geologist  
Geology and Corrective Action Branch  
Department of Toxic Substances Control  
5796 Corporate Avenue  
Cypress, California 90630

Ms. Kathy San Miguel  
Project Manager  
Geology and Corrective Action Branch  
Department of Toxic Substances Control  
5796 Corporate Avenue  
Cypress, California 90630

Reading File

**Enclosure A – Phibro-Tech Proposed Pond 1 Closure Schedule –  
Submitted September 19, 2005**

Page 1 of 2

**Phibro-Tech, Inc.  
Santa Fe Springs, CA  
(EPA ID # CAD 008488025)**

Proposed schedule for submittal and approval of:

- Relocation plan for wastewater treatment tanks W1/W2 (to be renamed W7/W8)
- Pond 1 closure plan
- Permit modification for construction/operation of oily water treatment system

| Activity/Item  | Date             |
|--|------------------|
| Submit relocation plan for Tanks W1/W2 (includes sampling plan for soil underneath area where new tanks W7/W8 and required secondary containment will be constructed)  | October 1, 2005  |
| Submit closure plan for Pond 1 (includes plan for removal and closure of tanks W1/W2, and sampling plan for characterization of soil underneath Pond 1)  | November 1, 2005 |
| DTSC approval of relocation plan for tanks W1/W2   | January 1, 2006  |
| Begin construction of new tanks W7/W8 and secondary containment  | January 15, 2006 |
| Submit permit modification for construction of oily water treatment system (includes sampling plan for soil underneath where new tanks and required secondary containment will be constructed). Note: CEQA review will be handled by City of Santa Fe Springs due to necessary modification of Conditional Use Permit) | February 1, 2006 |
| DTSC approval of closure plan for Pond 1 and removal and closure of tanks W1/W2  | May 1, 2006      |
| Complete construction of new tanks W7/W8 and secondary containment   | May 15, 2006     |
| Begin closure of tanks W1/W2 and Pond 1  | June 1, 2006     |
| Submit final cap design and proposed soil cleanup standards for Pond 1   | July 1, 2006     |
| DTSC approval of permit modification for oily water treatment system   | August 1, 2006   |
| Begin construction of oily water treatment system  | August 15, 2006  |
| DTSC approval of Pond 1 final cap design and soil cleanup standards  | August 15, 2006  |

**Enclosure A – Phibro-Tech Proposed Pond 1 Closure Schedule –  
Submitted September 19, 2005**

Page 2 of 2

|   |                    |
|---|--------------------|
| Completion of closure activities for tanks W1/W2 and Pond 1       | September 15, 2006 |
| Submit certification of closure of tanks W1/W2 and Pond 1 to DTSC | October 1, 2006    |
| Complete construction of oily water treatment system              | November 1, 2006   |
| DTSC certification of closure for tanks W1/W2 and Pond 1          | November 1, 2006   |

**Enclosure B – DTSC Approved Phibro-Tech Pond 1 Closure Implementation Schedule**  
**Page 1 of 2**

**Phibro-Tech, Inc.**  
**Santa Fe Springs, CA**  
**(EPA ID # CAD 008488025)**

Submitted by Phibro-Tech September 19, 2005; modified by DTSC December 2, 2005 (changes in underline/strikeout in red)

Proposed schedule for submittal and approval of:

- Relocation plan for wastewater treatment tanks W1/W2 (to be renamed W7/W8)
- Pond 1 closure plan
- ~~— Permit modification for construction/operation of oily water treatment system~~

| Activity/Item   | Date   |
|---|--|
| Submit relocation plan for Tanks W1/W2 (includes sampling plan for soil underneath area where new tanks W7/W8 and required secondary containment will be constructed)   | <u>December 30, 2005</u>   |
| Submit <u>workplan required by Closure Plan</u> for Pond 1 (includes plan for removal and closure of tanks W1/W2, and sampling plan for characterization of soil underneath Pond 1)   | <u>February 1, 2006</u>  |
| DTSC approval of relocation plan for tanks W1/W2  | <u>Anticipate April 1, 2006</u>  |
| Begin construction of new tanks W7/W8 and secondary containment   | <u>15 days after DTSC approval of Relocation Plan for Tanks W1/W2</u>              |
| <del>Submit permit modification for construction of oily water treatment system (includes sampling plan for soil underneath where new tanks and required secondary containment will be constructed). Note: CEQA review will be handled by City of Santa Fe Springs due to necessary modification of Conditional Use Permit)</del> | <u>Not Applicable to Closure of Pond 1</u>   |
| DTSC approval of <u>characterization workplan required by Closure Plan</u> for Pond 1 and removal and closure of tanks W1/W2  | <u>Anticipate August 2006</u>  |
| Complete construction of new tanks W7/W8 and secondary containment  | <u>135 days after DTSC approval of Relocation Plan for Tanks W1/W2</u>             |
| Begin closure of tanks W1/W2 and Pond 1   | <u>30 days after DTSC approval of Workplan required by Closure Plan for Pond 1</u> |
| Submit final cap design and proposed soil cleanup standards for Pond 1  | <u>60 days after DTSC approval of Workplan required by Closure Plan for Pond 1</u> |
| <del>DTSC approval of permit modification for oily water treatment system</del>   | <u>Not Applicable to Closure of Pond 1</u>   |
| <del>Begin construction of oily water treatment system</del>  | <u>Not Applicable to Closure of Pond 1</u>   |

**Enclosure B – DTSC Approved Phibro-Tech Pond 1 Closure Implementation Schedule**  
**Page 2 of 2**

|   |   |
|---|---|
| DTSC approval of Pond 1 final cap design and soil cleanup standards | <u>Anticipate November 2006</u>   |
| Completion of closure activities for tanks W1/W2 and Pond 1         | <u>135 days after DTSC approval of Workplan required by Closure Plan for Pond 1</u> |
| Submit certification of closure of tanks W1/W2 and Pond 1 to DTSC   | <u>150 days after DTSC approval of Workplan required by Closure Plan for Pond 1</u> |
| Complete construction of oily water treatment system                | <u>Not Applicable to Closure of Pond 1</u>  |
| DTSC certification of closure for tanks W1/W2 and Pond 1            | <u>Anticipate February 2007</u>   |

**Pond 1 Closure Plan Petition for Review**

**Exhibit I**

ENSR  
300 Lakeside Drive, Suite 220, Oakland, California 94612  
T 510.350.9981 F 510.350.9981 www.ensr.aecom.com

November 22, 2006

Ms. Kathy San Miguel, PE  
Hazardous Substances Engineer  
DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
5796 Corporate Avenue  
Cypress, California 90630

Subject: **Revision 2, Site Characterization/Tank Relocation Plan for Tanks W-1 and W-2;  
Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California**

Dear Ms. San Miguel,

Phibro-Tech, Inc. (PTI) had previously submitted to the Department of Toxic Substances Control (DTSC) a Site Characterization/Tank Relocation Plan (Workplan) dated January 31, 2006. In response to comments received from the DTSC on June 20, 2006, ENSR submitted a revised Workplan on August 21, 2006. Based on verbal comments received from DTSC on November 9, 2006, ENSR is hereby submitting Revision 2 to the Workplan.

The Workplan is intended to fulfill the requirement of the approved *1988 Modified Closure/Post Closure Plan for Southern California Chemical* (the Closure Plan) that PTI will submit a plan for the relocation of two nominal 30,000-gallon aboveground wastewater treatment tanks, W-1 and W-2. These tanks are currently located at the PTI facility (the Facility) in the former Pond #1 area, and will be removed in order to proceed with the Pond #1 closure activities described in the above-referenced closure document. As discussed with the DTSC, these tanks are associated with a wastewater treatment process that plays a critical role in normal facility activities, and therefore the process must be relocated and equipment permitted for use prior to removal of the current wastewater treatment tanks and closure of Pond #1. See Figure 1 for the current location of Pond #1 and tanks W-1 and W-2.

#### **SITE CHARACTERIZATION/TANK RELOCATION PLAN**

As required by the Closure Plan, presented below are: a description of the locations of the three evaluated tank relocation areas; a summary of each area's history; a sampling, analysis, and characterization plan; and the proposed secondary containment design for the new wastewater treatment system.

#### **Relocation Areas**

Three areas within the Facility boundaries were evaluated for possible wastewater treatment relocation suitability. Considerations were given to 1.) the previous use of each area and its associated known or suspected impact on the subsurface; 2.) operational logistics; and 3.) future Facility construction plans. See Figure 2 for the three proposed relocation areas. As summarized in detail below, after evaluating the aforementioned considerations for each proposed relocation area, it has been determined that proposed Area 1 (see below) is the preferred wastewater treatment relocation area.

## History of Proposed Tank Relocation Areas

The history of the three proposed relocation areas, including known or suspected past as well as present activities, is summarized below. Other areas within the Facility were ruled out based on operational or structural logistical reasons (e.g., piping/truck traffic concerns and/or future facility construction plans). References made in this Workplan to previous subsurface investigations are summarized in detail in the March 9, 2005 *Final Site Conceptual Model, Phibro-Tech, Inc. Santa Fe Springs Facility* (SCM) prepared by Camp Dresser & McKee, Inc. (CDM) (CDM Project # 2279-36878-GC).

### Proposed Area 1 – Preferred Location

This area is located in the south-central portion of the Facility and is immediately south of ERS #1, a permitted hazardous waste container storage area (see Figure 1). The surface of this area is currently exposed asphalt, approximately four years old, and has no apparent cracks or surface anomalies. A portion of this area was formerly used for copper cement storage (prior to 1980). This area is currently used for storage of maintenance equipment (e.g., motors, agitators, scrubbers); no structures are present and the area is covered by asphalt. As summarized in the 2005 SCM provided to the Department, previously conducted shallow soil sampling activities in this area revealed levels of total chromium, copper, and lead in shallow soil samples (from zero to five feet below ground surface [bgs]) above the Region 9 Environmental Protection Agency (EPA) established residential Preliminary Remediation Goals (PRGs). Concentrations of these metals in a deeper soil sample collected (from 10 to 25 feet bgs) in this area were below residential PRGs. No elevated levels of VOCs, SVOCs, or hydrocarbons were detected in this area during previously conducted soil sampling activities. This area is the preferred wastewater treatment system relocation area based on 1.) operational logistical reasons, and 2.) elevated contaminants were previously only found in shallow soils in this area (and accordingly, the costs of excavation of shallow soils will be less prohibitive than in areas with deeper soil contamination).

### Proposed Area 2

This area is located in the northwestern portion of the Facility, in the area immediately east of tanks W-3 and W-4. Prior to 1980, this area was formerly used for Drum Storage Area #3 and the western edge of the alkaline etch area, consisting of three aboveground Ammonia Etch manufacturing (product) tanks. The area is currently used as a loading area for Ammonia Etch products. PTI has ruled-out this proposed area based on the concentrations of metals (chromium VI, total chromium, copper, nickel, and lead) above residential PRGs found in both shallow and deeper soil (to 40 feet bgs) in this area; elevated levels of VOCs (trichloroethene, tetrachloroethene, and chloroform) were also detected in this area in shallow and deep soils to 20 feet bgs. As addressed in the Closure Plan, it would be counterproductive for PTI to relocate the wastewater treatment system to an area of elevated contamination before corrective actions have been agreed upon.

### Proposed Area 3

This area is located in the northwestern portion of the Facility, in an area north of the finished goods storage area. Prior to 1980, portions of this area were formerly used for Drum Storage purposes. The area is currently used for dry goods (e.g., raw materials, dry products) and is covered by asphalt-paving. PTI has primarily ruled-out this area based on operational logistics; the location of this area is too far from the final discharge point, lab area, and processing tanks to be economically or operationally viable.

### **Sampling, Analysis, and Characterization Plan**

As the site has been previously well characterized, PTI proposes additional baseline sampling and analysis only for the preferred proposed relocation Area 1. See Figure 2 for locations of the proposed sampling locations in Area 1. See Attachment A for color photographs of the proposed sampling locations. As required by the Closure Plan, a sampling and analysis protocol was developed to be consistent with the requirements for Pond #1 (outlined in Section III of the Closure Plan). The Sampling and Analysis Plan is included as Attachment B.

### **Secondary Containment Design**

The secondary containment system for the new wastewater tanks in the Area 1 location will be approximately 40 feet by 75 feet. The containment system will be made of reinforced concrete. The minimum thickness will be determined by a licensed structural engineer in California based on a design of adequate thickness to withstand seismic forces. The containment system will generally be designed to sit on the current grade level to minimize any excavation required. The walls will be a minimum of six inches thick and an average height of 30 inches. The walls will either be part of a monolithic pour with the containment system floor, or will be equipped with water stops if joints are used. All interior surfaces of the concrete will be covered with a chemical resistant epoxy coating similar to that used in other areas of the Phibro-Tech facility exposed to acidic or alkaline aqueous solutions. A low point will be installed to facilitate removal of accumulated liquids such as rainwater.

After the initial submittal of this Tank Relocation Plan, PTI submitted a Part B Permit application package to DTSC in February 2006. A revised application package was submitted on November 7, 2006 to respond to a Notice of Deficiency from DTSC. The Part B application identified that five wastewater tanks (W-7 through W-11) and two additional waste storage tanks will be added to the new W-containment basin. However, only three tanks will be added to replace the former W-1 and W-2 tanks and the other tanks will be added after the Part B permit is approved. The three tanks to be added to replace W-1 and W-2 are: W-7 (30,000 gallons); W-8 (18,000 gallons); and W-10 (13,000 gallons). This is an increase of 1,000 gallons which is 1.7%.

Attachment C is taken from Table D-3 of the November 2006 Part B Permit Renewal Application and demonstrates that a containment system constructed as described above will meet the requirements specified under Section 66264.193 of Title 22 of the California Code of Regulations. This includes the requirement that the secondary containment system will be large enough to contain the volume of the largest tank or 10% of the contents of all tanks to be located within the structure (whichever is larger), as well as the volume of rainwater from a 24-hour, 25-year storm (determined to be 4.5 inches as outlined in the current Part B permit application). This allows for displacement of all other tanks within the containment basin.

The secondary containment system is described in the Part B Permit Renewal application packages. Construction of the secondary containment system and the tanks require approval from DTSC. Accordingly, the Engineering Services Unit of DTSC will have an opportunity to review the design of the containment system during DTSC's permit application evaluation.

### **CLOSING**

As required by the closure plan, when sampling activities are completed in the proposed Area 1, PTI will prepare a report which includes all sampling and laboratory data, diagrams of contaminated zones (lateral and vertical extent), and remediation alternatives. Sampling data (including historic data from the 2005 Site Conceptual Model) will be included in text, tables, and figures of the report. Additionally,

Ms. Kathy San Miguel  
Page 4

in anticipation of approval from the Department for the relocation plan, PTI will secure the necessary permits and authorizations from applicable local agencies.

Thank you for your assistance with this matter. If you have any questions, or need additional information, please do not hesitate to contact me by phone at 510.879.4518 or at the email listed below. You may also call Mr. Mark Alling at 562-698-8036, or via email at mark.alling@pahc.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael Dudasko", written over a vertical line.

Michael Dudasko  
Air/Compliance Group Manager  
mdudasko@ensr.aecom.com

Attachments

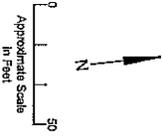
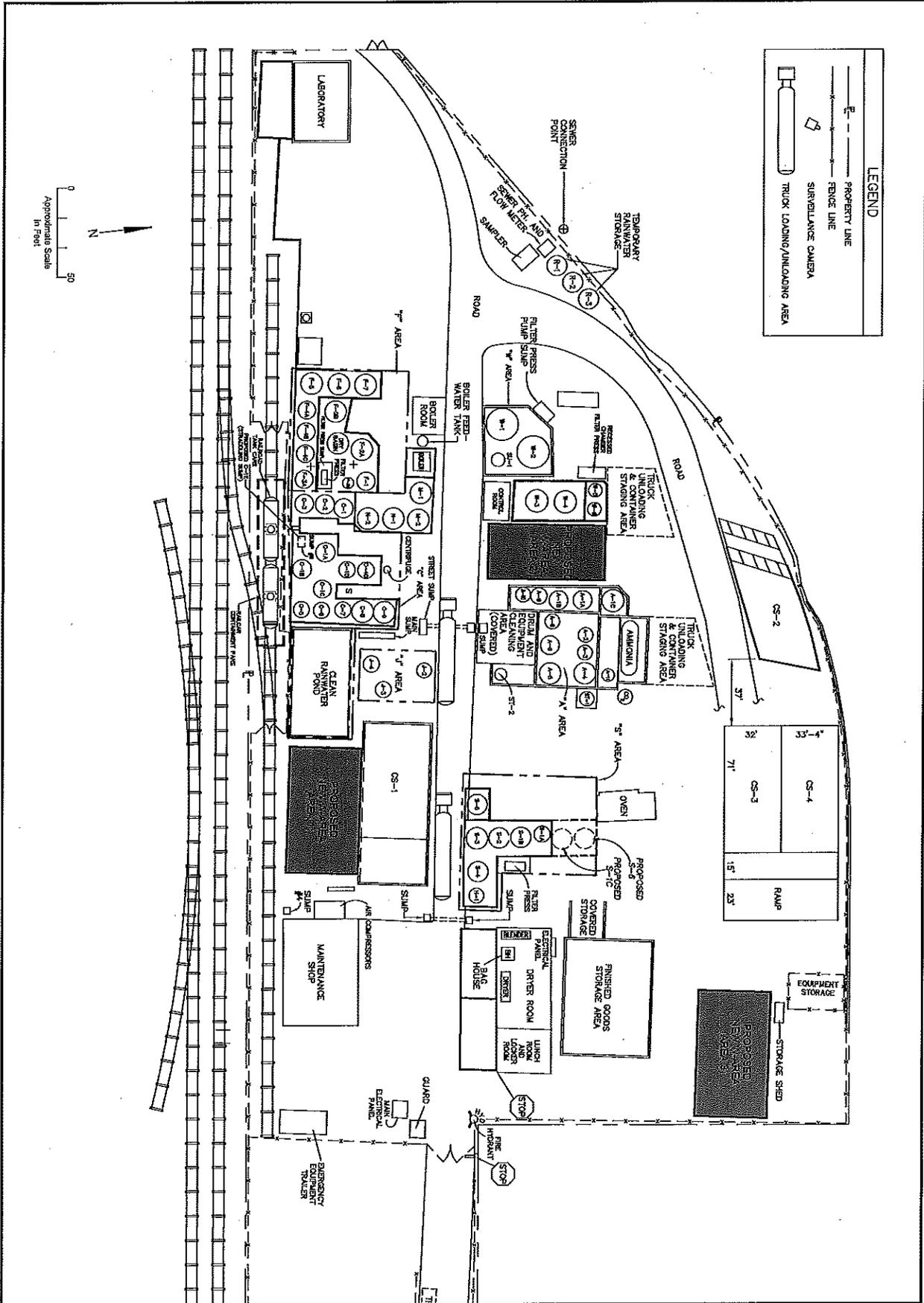
Copies:

Mr. Mark Alling (Phibro-Tech)

Ms. Karen Baker (DTSC)

Mr. Zachary Walton (Paul, Hastings, Janofsky & Walker)

## FIGURES



**LEGEND**

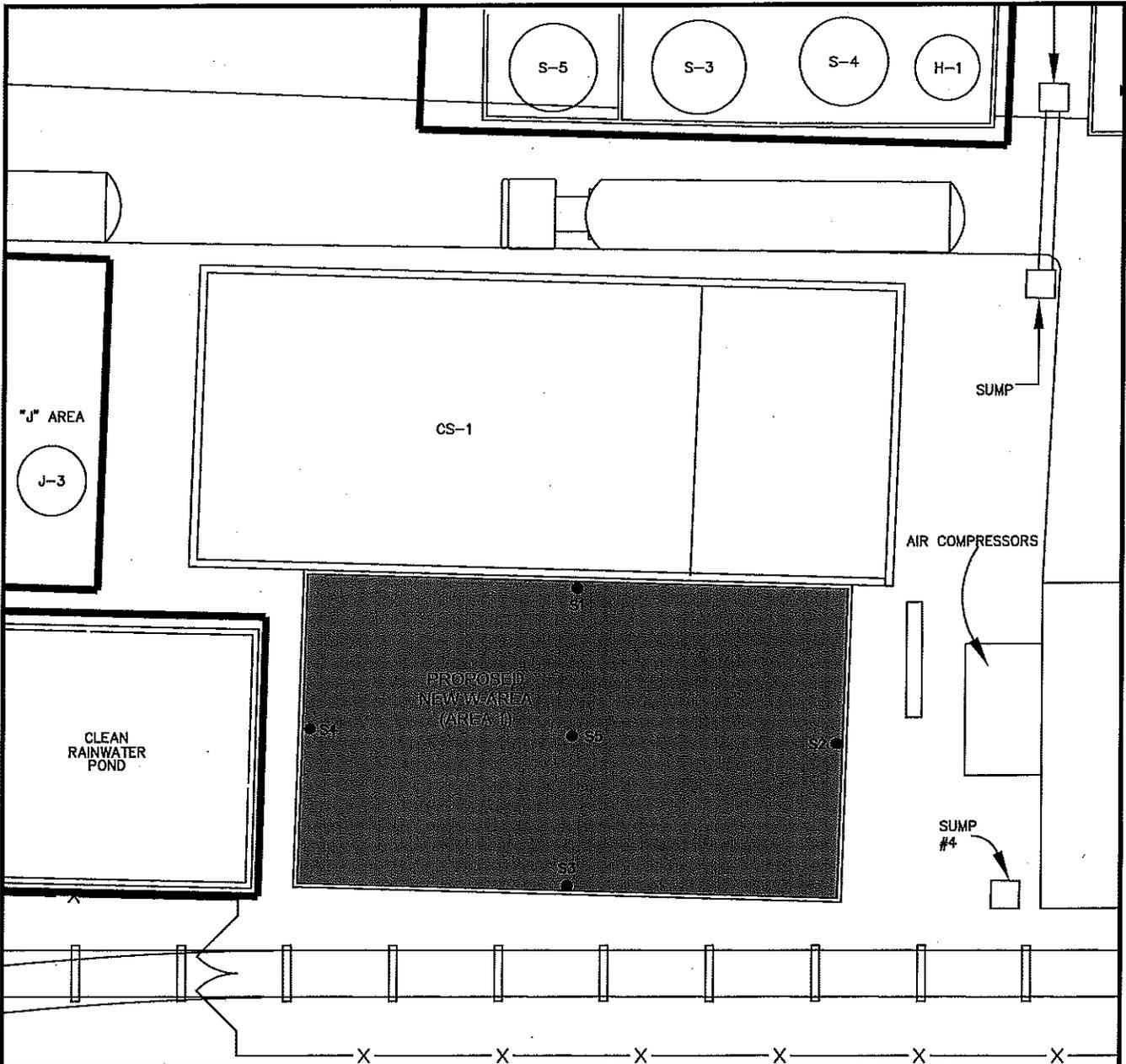
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- FENCE LINE
- SURVEILLANCE CAMERA
- TRUCK LOADING/UNLOADING AREA

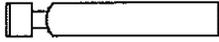
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|-----------------|-----------|
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| DATE:           | 01/23/06  |
| SCALE:          | 1" = 50'  |
| SHEET NUMBER:   | 2         |

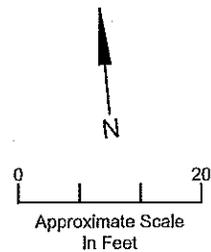
**SITE MAP**  
**PHBRO-TECH, INC.**  
 8851 DICE ROAD  
 SANTA FE SPRINGS, CALIFORNIA

**ENSR | AECOM**  
**ENSR CORPORATION**  
 1420 HARBOR BAY PKWY STE 120  
 ALAMEDA, CALIFORNIA 94502  
 PHONE: (510) 748-6700  
 FAX: (510) 748-6789  
 WEB: [HTTP://WWW.ENSR.AECOM.COM](http://www.ensr.aecom.com)

| DESIGNED BY: | REVISIONS |             |      |    |
|--------------|-----------|-------------|------|----|
|              | NO.       | DESCRIPTION | DATE | BY |
| X            |           |             |      |    |
| DRAWN BY:    |           |             |      |    |
| E. Cowan     |           |             |      |    |
| CHECKED BY:  |           |             |      |    |
| X            |           |             |      |    |
| APPROVED BY: |           |             |      |    |
| X            |           |             |      |    |



| LEGEND  |                              |
|---|------------------------------|
| ●   | SOIL SAMPLE LOCATION         |
| □   | SURVEILLANCE CAMERA          |
|  | TRUCK LOADING/UNLOADING AREA |



10389 SITE PLAN

ENSR | AECOM

ENSR CORPORATION  
 1420 HARBOR BAY PKWY STE 120  
 ALAMEDA, CALIFORNIA 94502  
 PHONE: (510) 748-6700  
 FAX: (510) 748-6799  
 WEB: HTTP://WWW.ENSR.AECOM.COM

**SITE MAP**  
 PHIBRO-TECH. INC.  
 8851 DICE ROAD  
 SANTA FE SPRINGS, CALIFORNIA

FIGURE NUMBER:

2

DRAWN BY:

DATE:

PROJECT NUMBER:

SHEET NUMBER:

E. COWAN

01/30/06

10389-007

2

**ATTACHMENT A**

**PHOTOS**



1. Middle of Containment Wall – Facing East



2. Middle of Wall – Facing North



3. Middle of Wall – Facing West (Wall of Rainwater Pond T-3 in Background)



4. Middle of Wall – Facing South Towards Railroad Spur



5. Center of Containment Area With Temporary Maintenance Parts Storage

**ATTACHMENT B**

**SAMPLING AND ANALYSIS PLAN**

## ATTACHMENT B

### SAMPLING AND ANALYSIS PLAN

As required by Attachment 14 of the 1988 *Modified Closure/Post Closure Plan for Southern California Chemical* (the Closure Plan), this sampling and analysis protocol was developed to be consistent with the requirements for the former Pond #1 area (outlined in Section III of the Closure Plan).

As the Facility has been previously well characterized, PTI proposes additional baseline sampling and analysis only for the preferred proposed relocation Area 1. See Figure 2 of the Tank Relocation Plan for locations of the proposed sampling locations in Area 1. This area is located in the south-central portion of the Facility, immediately south of ERS #1, a permitted hazardous waste container storage area. A portion of this area was formerly used for copper cement storage (prior to 1980). This area is not currently used; no structures are present and the area is covered by exposed asphalt that has no apparent signs of cracks or surface anomalies.

#### Soil Sampling Locations

At least five sampling locations are proposed for vertical soil borings in the proposed relocation Area 1. One soil boring will be placed near the center of each proposed sidewall area for the proposed secondary containment structure, and one boring will be placed near the center. If visual signs of contamination are encountered after the current asphalt ground surface cover is removed, additional samples will be collected in those areas. Sample analytical results will be evaluated in the context of the 2005 Site Conceptual Model (SCM). Any site data obtained from the sampling that is inconsistent with the SCM will require further analysis. This may require that additional sampling be performed at additional "stepout" locations to characterize the lateral extent or other locations to identify a suspected source location. In the event that additional data is required because initial samples collected are inconsistent with the site conceptual model, a work plan will be submitted to DTSC prior to field sampling. Color photographs of the sampling locations are included with the Tank Relocation Plan as Attachment A.

#### Soil Sampling Depths

Samples from each of the five soil borings will be analyzed at the approximate sampling depths of 1' (approximate bottom of containment area), 1.5', 2', 3', 5', and every 5' interval to a maximum depth of 40 feet or until groundwater is encountered (whichever comes first). Additional samples will be collected at depths where a distinct change in soil occurs, where visual evidence of contamination is present, and where field monitoring equipment indicates contamination.

#### Sample Analytical Methods

The 1988 Modified Closure Plan indicates that soil samples collected shall be analyzed for Priority Pollutants found in 40 CFR Part 423 (Appendix A). Table B-1 shows a complete list of the priority pollutants along with analytical methods for the chemicals from Chapter Two of SW-846, "Choosing the Correct Procedure." The 1988 *Modified Closure/Post Closure Plan for Southern California Chemical* also described constituents allegedly placed in the pond. PTI is not proposing to analyze for these 17 chemical compounds because: 1) the priority pollutant list is comprehensive, 2) many of these compounds or their primary element (e.g. copper in copper ammonium chloride) are already being targeted by the selected test methods; 3) soil pH would detect releases of chemicals such as sodium hydroxide; and 4) no background data would be available for comparison for the remaining chemicals such as sodium chloride and sodium sulfide. In addition, samples will not be tested for pesticides (see chemicals identified as pesticides in Table B-1), since as discussed in the Final Site Conceptual Model (CDM 2005), Organochlorine pesticides are not considered to be chemicals of concern for the PTI Site.

This will include analysis of soil samples by the following laboratory analytical methods:

- VOCs by EPA Method SW 8260B

- Semi-volatile Organics by EPA Method SW 8270
- Metals including Arsenic, Cadmium, Chromium (total and hexavalent), Copper, Iron, Lead, and Nickel by EPA 6010 & 7000 Method Series
- 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD) by EPA Method 8280
- Polychlorinated biphenyls by EPA Method SW 8270
- pH for soil by EPA Method SW 9040B
- Total cyanides by EPA Method SW 9010
- Asbestos by Polarized Light Microscopy

#### **Soil Sample Collection Methods**

Drilling to targeted subsurface sampling depths will be conducted using a hydraulically-driven direct-push drill rig. A 1.25-inch Macro Core sampler (or equal) will be used to collect sufficient soil volume which will be contained within acetate liners. Four to six inches of soil within the acetate liner will be cut from the remaining core, capped with a Teflon sheet and plastic cap, labeled, and stored within an ice-filled cooler.

Consistent with EPA Method 5035 for soil sampling, a minimum of 15 grams of soil will be collected from the primary core immediately following core retrieval, in EnCore™-type soil sample containers and submitted for VOC analysis by USEPA Method 8260B. Soil samples for the other proposed laboratory analyses will be collected into the appropriate containers and submitted to the laboratory for the respective testing. (See Table B-2 for proper sample analytical methods, containers, and holding times). The remaining core will be used for field screening for VOCs and lithologic logging.

The soil samples will be labeled with the soil boring (SB) number and the depth. During drilling operations, soil-boring logs will be prepared by a field geologist. The following information will be recorded on the soil boring log forms: boring number and location; sample identification numbers; sample location identification; date and time; sample depth; lithologic description in accordance with the Unified Soils Classification System (USCS); and description of any visible evidence of soil contamination. The boring logs will be included with a post-investigation report to the department. A California Professional Geologist/Engineer in charge of the field investigation will conduct or directly oversee the activities and sign all boring logs and related documents. Upon completion of each borehole, the borehole will be backfilled with hydrated bentonite and/or a Portland Cement grout and restored to grade with materials similar to the surrounding surface.

#### **Quality Assurance/Quality Control**

Quality assurance/quality control (QA/QC) requirements will be followed during sample collection as specified in the Closure Plan. Duplicate soil samples representing about 10% of the total number of samples will be collected and tested for the same suite of analytes as the unique soil sample collected in the sampling program. The duplicate samples will also be identified by a soil boring number and the depth at which the sample was collected. To avoid bias by the laboratory, artificial boring numbers will be used. A log will be maintained to allow correlation of the duplicate to the original sample number.

In addition, one equipment blank sample will be collected for each day that the drill rig is operating. The equipment blank samples will be collected to assess the thoroughness of equipment cleaning procedures in the field and as a means of evaluating the potential for cross-contamination between sample locations. The equipment blanks will consist of distilled water

rinse of the sampling equipment after the equipment is cleaned. The distilled water will be collected and analyzed for the same constituents as the soil samples.

**Disposal of Contaminated Material**

Investigation derived wastes (soil cuttings generated during drilling and sampling and water generated by sampling equipment decontamination) will be placed in 55-gallon drums to be located on site. The waste material will be held until the analysis is received by the laboratory for samples collected. Based on the sample results, the waste will be disposed of properly according to applicable regulations.

## TABLES

**TABLE B-1 PRIORITY POLLUTANTS LISTED BY NUMBER**

| No. <sup>1</sup> | 40 CFR 423 Priority Pollutants    | Test Method <sup>2</sup> | No. | 40 CFR 423 Priority Pollutants       | Test Method <sup>2</sup> |
|------------------|-----------------------------------|--------------------------|-----|--------------------------------------|--------------------------|
| 1                | Acenaphthene                      | 8270                     | 34  | 2,4-dimethylphenol                   | 8270                     |
| 2                | Acrolein                          | 8260                     | 35  | 2,4-dinitrotoluene                   | 8270                     |
| 3                | Acrylonitrile                     | 8260                     | 36  | 2,6-dinitrotoluene                   | 8270                     |
| 4                | Benzene                           | 8260                     | 37  | 1,2-diphenylhydrazine                | 8270                     |
| 5                | Benzidine                         | 8270                     | 38  | Ethylbenzene                         | 8260                     |
| 6                | Carbon tetrachloride              | 8260                     | 39  | Fluoranthene                         | 8270                     |
| 7                | Chlorobenzene                     | 8260                     | 40  | 4-chlorophenyl phenyl ether          | 8270                     |
| 8                | 1,2,4-trichlorobenzene            | 8260                     | 41  | 4-bromophenyl phenyl ether           | 8270                     |
| 9                | Hexachlorobenzene                 | 8270                     | 42  | Bis(2-chloroisopropyl) ether         | 8270                     |
| 10               | 1,2-dichloroethane                | 8260                     | 43  | Bis(2-chloroethoxy) methane          | 8270                     |
| 11               | 1,1,1-trichloroethane             | 8260                     | 44  | Methylene chloride (dichloromethane) | 8260                     |
| 12               | Hexachloroethane                  | 8260                     | 45  | Methyl chloride (chloromethane)      | 8260                     |
| 13               | 1,1-dichloroethane                | 8260                     | 46  | Methyl bromide (bromomethane)        | 8260                     |
| 14               | 1,1,2-trichloroethane             | 8260                     | 47  | Bromoform (tribromomethane)          | 8260                     |
| 15               | 1,1,2,2-tetrachloroethane         | 8260                     | 48  | Dichlorobromomethane                 | 8260                     |
| 16               | Chloroethane                      | 8260                     | 51  | Chlorodibromomethane                 | 8260                     |
| 18               | Bis(2-chloroethyl) ether          | 8270                     | 52  | Hexachlorobutadiene                  | 8260                     |
| 19               | 2-chloroethyl vinyl ether (mixed) | 8260                     | 53  | Hexachlorocyclopentadiene            | 8270                     |
| 20               | 2-chloronaphthalene               | 8270                     | 54  | Isophorone                           | 8270                     |
| 21               | 2,4,6-trichlorophenol             | 8270                     | 55  | Naphthalene                          | 8260                     |
| 22               | Parachlorometa cresol             | 8270                     | 56  | Nitrobenzene                         | 8260                     |
| 23               | Chloroform (trichloromethane)     | 8260                     | 57  | 2-nitrophenol                        | 8270                     |
| 24               | 2-chlorophenol                    | 8270                     | 58  | 4-nitrophenol                        | 8270                     |
| 25               | 1,2-dichlorobenzene               | 8260                     | 59  | 2,4-dinitrophenol                    | 8270                     |
| 26               | 1,3-dichlorobenzene               | 8260                     | 60  | 4,6-dinitro-o-cresol                 | 8270                     |
| 27               | 1,4-dichlorobenzene               | 8260                     | 61  | N-nitrosodimethylamine               | 8270                     |
| 28               | 3,3-dichlorobenzidine             | 8270                     | 62  | N-nitrosodiphenylamine               | 8270                     |
| 29               | 1,1-dichloroethylene              | 8260                     | 63  | N-nitrosodi-n-propylamin             | 8270                     |
| 30               | 1,2-trans-dichloroethylene        | 8260                     | 64  | Pentachlorophenol                    | 8270                     |
| 31               | 2,4-dichlorophenol                | 8270                     | 65  | Phenol                               | 8270                     |
| 32               | 1,2-dichloropropane               | 8260                     | 66  | Bis(2-ethylhexyl) phthalate          | 8270                     |
| 33               | 1,2-dichloropropylene             | 8260                     | 67  | Butyl benzyl phthalate               | 8270                     |

1. Some numbers are omitted in 40 CFR 423.

2. Test method for analyte from SW-846 Chapter Two; may not be the preferred method but chosen to minimize the number of tests.

3. See Table B-2 for specific analyses and container management.

**TABLE B-1 PRIORITY POLLUTANTS LISTED BY NUMBER**

| No. <sup>1</sup> | 40 CFR 423 Priority Pollutants           | Test Method <sup>2</sup> | No. | 40 CFR 423 Priority Pollutants              | Test Method <sup>2</sup> |
|------------------|--|--------------------------|-----|---|--------------------------|
| 68               | Di-N-Butyl Phthalate                     | 8270                     | 99  | Endrin aldehyde                             | 8270-pesticide           |
| 69               | Di-n-octyl phthalate                     | 8270                     | 100 | Heptachlor                                  | 8270-pesticide           |
| 70               | Diethyl Phthalate                        | 8270                     | 101 | Heptachlor epoxide                          | 8270-pesticide           |
| 71               | Dimethyl phthalate                       | 8270                     | 102 | Alpha-BHC                                   | 8270-pesticide           |
| 72               | 1,2-benzanthracene (benzo(a) anthracene) | 8270                     | 103 | Beta-BHC                                    | 8270-pesticide           |
| 73               | Benzo(a)pyrene (3,4-benzo-pyrene)        | 8270                     | 104 | Gamma-BHC (lindane)                         | 8270-pesticide           |
| 74               | 3,4-Benzofluoranthene                    | 8270                     | 105 | Delta-BHC                                   | 8270-pesticide           |
| 75               | 11,12-benzofluoranthene                  | 8270                     | 106 | PCB-1242 (Arochlor 1242)                    | 8270                     |
| 76               | Chrysene                                 | 8270                     | 107 | PCB-1254 (Arochlor 1254)                    | 8270                     |
| 77               | Acenaphthylene                           | 8270                     | 108 | PCB-1221 (Arochlor 1221)                    | 8270                     |
| 78               | Anthracene                               | 8270                     | 109 | PCB-1232 (Arochlor 1232)                    | 8270                     |
| 79               | 1,12-benzoperylene (benzo(ghi) perylene) | 8270                     | 110 | PCB-1248 (Arochlor 1248)                    | 8270                     |
| 80               | Fluorene                                 | 8270                     | 111 | PCB-1260 (Arochlor 1260)                    | 8270                     |
| 81               | Phenanthrene                             | 8270                     | 112 | PCB-1016 (Arochlor 1016)                    | 8270                     |
| 82               | 1,2,5,6-dibenzanthracene                 | 8270                     | 113 | Toxaphene                                   | 8270-pesticide           |
| 83               | Indeno (1,2,3-cd) pyrene                 | 8270                     | 114 | Antimony                                    | 6010                     |
| 84               | Pyrene                                   | 8270                     | 115 | Arsenic                                     | 6010                     |
| 85               | Tetrachloroethylene                      | 8260                     | 116 | Asbestos                                    | PLM                      |
| 86               | Toluene                                  | 8260                     | 117 | Beryllium                                   | 6010                     |
| 87               | Trichloroethylene                        | 8260                     | 118 | Cadmium                                     | 6010                     |
| 88               | Vinyl chloride (chloroethylene)          | 8260                     | 119 | Chromium                                    | 6010                     |
| 89               | Aldrin                                   | 8270-pesticide           | 120 | Copper                                      | 6010                     |
| 90               | Dieldrin                                 | 8270-pesticide           | 121 | Cyanide, Total                              | 9010                     |
| 91               | Chlordane                                | 8270-pesticide           | 122 | Lead  | 6010                     |
| 92               | 4,4-DDT                                  | 8270-pesticide           | 123 | Mercury                                     | 7470                     |
| 93               | 4,4-DDE (p,p-DDX)                        | 8270-pesticide           | 124 | Nickel                                      | 6010                     |
| 94               | 4,4-DDD (p,p-TDE)                        | 8270-pesticide           | 125 | Selenium                                    | 6010                     |
| 95               | Alpha-endosulfan                         | 8270-pesticide           | 126 | Silver                                      | 6010                     |
| 96               | Beta-endosulfan                          | 8270-pesticide           | 127 | Thallium                                    | 6010                     |
| 97               | Endosulfan sulfate                       | 8270-pesticide           | 128 | Zinc  | 6010                     |
| 98               | Endrin                                   | 8270-pesticide           | 129 | 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD) | 8280                     |

1. Some numbers are omitted in 40 CFR 423.

2. Test method for analyte from SW-846 Chapter Two; may not be the preferred method but chosen to minimize the number of tests.

3. See Table B-2 for specific analyses and container management.

**Table B-2 - SAMPLING METHODS AND CONTAINERS FOR TANK RELOCATION SOIL SAMPLES**

| Test Description  | Method No <sup>(1)</sup> | Prep Method <sup>(1)</sup> | Container Type <sup>(2)</sup> and Minimum Sample Size | Preservative | Extraction Holding Time | Analysis Holding Time |
|---|--------------------------|----------------------------|---|--------------|-------------------------|-----------------------|
| <b>SOIL SAMPLES</b>   |                          |                            |   |              |                         |                       |
| Metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, zinc, mercury, and iron) | SW 6010/7471             | 3010                       | P or G; 2g  | Cool, 4°C    | 7 days                  | 6 mo., 28 days for Hg |
| Hexavalent chromium   | SW 7196                  | N/A                        | P or G; 40g   | Cool, 4°C    | N/A                     | 24 Hours              |
| pH for soil   | SW 9040B                 | N/A                        | P or G; 50g   | Cool, 4°C    | N/A                     | 14 days               |
| Semi-volatile organic compounds including PCBs and PAHs   | SW 8270                  | 3520                       | P or G; 30g   | N/A          | 14 days                 | 40 days               |
| Volatile organic compounds (see Note 3);  | SW 8260                  | 5035                       | EnCore Sampler, or equivalent                         | Frozen       | N/A                     | 7 days                |
| 2,3,7,8-TCDD (a dioxin)   | SW 8280                  | N/A                        | P or G; 5g  | N/A          | N/A                     | 14 days               |
| Cyanides  | SW 9010                  | N/A                        | P; 10g  | N/A          | N/A                     | 14 days               |
| Asbestos  | PLM                      | N/A                        | P; 50g  | N/A          | N/A                     | N/A                   |

Legend and Notes:

1. Method Sources: SW = SW 846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods by US EPA, Office of Solid Waste and Emergency Response  
PLM = Polarized Light Microscopy
2. Sample Container Codes: B – Brass or steel tube; G - glass; P - polyethylene; TLC – Teflon-lined cap; TLS – Teflon-lined septum
3. Samples are to be collected using an EnCore or equivalent sampler.

**ATTACHMENT C**

**NEW WASTEWATER CONTAINMENT AREA**

**Table D-3 - Tank Containment Area Volume Calculations**

**Containment Area W (New)**

| <b>List of Tanks</b>       |                  |                      |                                   |
|----------------------------|------------------|----------------------|-----------------------------------|
| <b>Tank Identification</b> | <b>Vol (gal)</b> | <b>Diameter (ft)</b> | <b>Footprint (ft<sup>2</sup>)</b> |
| W-7                        | 30,500           | 18                   | 254                               |
| W-8                        | 18,423           | 14                   | 154                               |
| W-9                        | 18,423           | 14                   | 154                               |
| W-10                       | 13,535           | 12                   | 113                               |
| W-11                       | 13,535           | 12                   | 113                               |
| J-5                        | 20,303           | 12                   | 113                               |
| J-6                        | 20,303           | 12                   | 113                               |
| <b>Totals</b>              | <b>135,024</b>   |                      | <b>1,015</b>                      |

| <b>Required Containment Volume</b> |  |              |                       |
|------------------------------------|--|--------------|-----------------------|
| <b>Ref.</b>                        | <b>Item</b>                                    | <b>Value</b> | <b>Comments</b>       |
| A.                                 | Volume of Largest Tank (Gal)                   | 30,500       | Tank W-7              |
| B.                                 | 10% of Total Tank Volume (Gal)                 | 13,502       |                       |
| C.                                 | Required Containment Volume (Gal)              | 30,500       | Greater of (A) or (B) |
| D.                                 | Required Containment Volume (ft <sup>3</sup> ) | <b>4,078</b> |                       |

| <b>Available Containment Volume</b> |  |              |  |
|-------------------------------------|--|--------------|--|
| <b>Ref.</b>                         | <b>Item</b>  | <b>Value</b> | <b>Comments</b>  |
| E.                                  | Containment Area (ft <sup>2</sup> )                  | 3,000        | Approx. 40' x 75'  |
| F.                                  | Berm Height (in.)                                    | 30           | Average height   |
| G.                                  | Gross Volume Total (ft <sup>3</sup> )                | 7,500        | Area (E) x Height (F)/12   |
| H.                                  | Volume Rainfall (ft <sup>3</sup> )                   | 1,125        | Rainfall at 25 yr-24 hr max: 4.5 inches/12 x Area(E)                       |
| J.                                  | Footprint of Other Tank Shells (ft <sup>2</sup> )    | 760          | Subtract out footprint of W-7  |
| K.                                  | Volume of Other Tank Shells (ft <sup>3</sup> ) (2)   | 1,901        | Volume of other tank shells in tank dike (area of each tank x dike height) |
| L.                                  | <b>Available Containment Volume (ft<sup>3</sup>)</b> | <b>4,474</b> | Gross Vol. (G) - Rain Vol (H) - Tank Shells (K)                            |
| M.                                  | <b>Meets Volume Requirements?</b>                    | <b>Yes</b>   | If Line (L) > Line (D)   |

Notes

The dimensions of the containment area are estimated based on containment required. May need to be modified if tanks are installed on pads, or if other structures are placed in the containment area.

**Pond 1 Closure Plan Petition for Review**

**Exhibit J**



Linda S. Adams  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Maureen F. Gorsen, Director  
5796 Corporate Avenue  
Cypress, California 90630



Arnold Schwarzenegger  
Governor

December 15, 2006

Mr. Mark Alling  
West Coast General Manager  
Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

APPROVAL OF REVISION 2 SITE CHARACTERIZATION/TANK RELOCATION  
PLAN FOR TANKS W-1 AND W-2 AND REVISION 2 DRAFT POND 1 SOIL  
SAMPLING AND ANALYSIS PLAN, PHIBRO-TECH, INCORPORATED  
8851 DICE ROAD, SANTA FE SPRINGS CALIFORNIA 90670  
(EPA ID NO. CAD008488025)

Dear Mr. Alling:

The Department of Toxic Substances Control (DTSC) has reviewed your "*Revision 2 Site Characterization/Tank Relocation Plan for Tanks W-1 and W-2*" (TRP) and your "*Revision 2 Draft Pond 1 Soil Sampling and Analysis Plan*" (P1SAP) both dated November 22, 2006 (Documents). Both documents were reviewed with respect to comments and recommendations made on previous versions. Based on our review, DTSC hereby approves both documents. The final comment memorandum prepared by Jose Marcos, DTSC's geologist for the site, is enclosed for your reference.

As per the scoping meeting held with you and your consultant team on December 7, 2006, please provide within 15 days of the date of this letter, an overall schedule which includes the activities described in these work plans.

Mr. Mark Alling  
December 15, 2006  
Page 3

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## Department of Toxic Substances Control

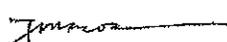
Maureen F. Gorsen, Director  
5796 Corporate Avenue  
Cypress, California 90630



Arnold Schwarzenegger  
Governor

### MEMORANDUM

**TO:** Kathy San Miguel, P.E.  
Project Manager  
Geology Permitting and Corrective Action Branch

**FROM:** Jose Marcos, P.G.   
Engineering Geologist  
Geological Services Unit

**DATE:** December 1, 2006

**SUBJECT:** REVISION 2 SITE CHARACTERIZATION/TANK RELOCATION PLAN  
FOR TANKS W-1 AND W-2 AND REVISION 2 DRAFT POND 1 SOIL  
SAMPLING AND ANALYSIS PLAN, PHIBRO-TECH, INC., 8851 DICE  
ROAD, SANTA FE SPRINGS, CALIFORNIA

PCA: 25010      SITE CODE: 300142      WP: 33      MPC: 06

As requested, the Geological Services Unit (GSU) reviewed "Revision 2 Site Characterization/Tank Relocation Plan for Tanks W-1 and W-2, Phibro-Tech, Inc." and "Revision 2 Draft Pond 1 Soil Sampling and Analysis Plan" (Revised Workplans). The documents were prepared by ENSR and Iris Environmental respectively for Phibro-Tech, Inc. and are both dated November 22, 2006.

According to the 1995 Hazardous Waste Facility Permit Modification, the facility is required to implement the 1988 Modified Closure/Post Closure Plan for Pond 1 (Closure Plan). The 1988 Closure Plan requires the facility to relocate two 30,000-gallon above-ground wastewater treatment tanks currently located in Pond 1 in order to proceed with Pond 1 characterization activities. Specific requirements are also prescribed for the investigation of Pond 1 and the proposed relocation area for the wastewater tanks.

The Revised Workplans addressed GSU's previous comments provided in a letter dated June 20, 2006 and during a telephone conference on November 9, 2006. The Revised Workplans are generally in accordance with the 1988 Closure Plan. In order to move forward with the closure of Pond 1 and the relocation of the wastewater treatment tanks, GSU recommends approval of the Revised Workplans. Please inform GSU approximately 10 working days before commencement of field activities.

**Pond 1 Closure Plan Petition for Review**

**Exhibit K**



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**HAZARDOUS WASTE FACILITY PERMIT  
DRAFT**

**Facility Name:**

Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

**Owner Name:**

First Dice Road Company  
A California Limited Partnership,  
65 Challenger Road, Third Floor  
Ridgefield Park, New Jersey 07660

**Operator Name:**

Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

**Facility EPA ID Number:**

CAD008488025

**Effective Date: Draft**

**Expiration Date: Draft**

Pursuant to California Health and Safety Code section 25200, this Resource Conservation and Recovery Act (RCRA)-equivalent Hazardous Waste Facility Permit is hereby issued to Phibro-Tech, Inc.

The Issuance of this Permit is subject to the terms and conditions set forth in Attachment A and the Part "B" Application (Operation Plan) dated March 18, 2010. The Attachment A consists of 58 pages including Figures 1 and 2.

---

Farshad Vakili, P.E., Leader  
Permitting –Treatment and Storage Team  
Department of Toxic Substances Control

Date: DRAFT

**PHIBRO-TECH, INC.**  
**8851 DICE ROAD**  
**SANTA FE SPRINGS, CALIFORNIA 90670**  
**EPA ID Number: CAD 008488025**

**HAZARDOUS WASTE FACILITY PERMIT**

**ATTACHMENT "A"**

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## PART I. DEFINITIONS

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, division 20, chapter 6.5 and California Code of Regulations, title 22, division 4.5, unless expressly provided otherwise by this Permit.

1. **"DTSC"** as used in this Permit means the California Department of Toxic Substances Control.
2. **"Facility"** as used in this Permit means all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage resource recovery, disposal or recycling of hazardous waste. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

For the purpose of implementing corrective action under California Code of Regulations, title 22, division 4.5, a hazardous waste facility includes all contiguous property under the control of the owner or operator required to implement corrective action.

3. **"Permittee"** as used in this Permit means the Owner and Operator.
4. **"RCRA"** as used in this Permit means the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.).
5. **"RCRA hazardous waste"** or **"RCRA waste"** as used in this Permit has the same definition as in Health and Safety Code section 25120.2.
6. **"Non-RCRA hazardous waste"** or **"Non-RCRA waste"** as used in this Permit has the same definition as in Health and Safety Code section 25117.9.

## PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

### 1. OWNER OF FACILITY

First Dice Road Company, a California Limited Partnership  
65 Challenger Road, Third Floor  
Ridgefield Park, New Jersey 07660

### 2. OWNER OF REAL PROPERTY

First Dice Road Company, a California Limited Partnership  
65 Challenger Road, Third Floor  
Ridgefield Park, New Jersey 07660

### 3. OPERATOR OF FACILITY

Phibro-Tech, Inc.  
8851 Dice Road  
Santa Fe Springs, California 90670

### 4. LOCATION

Phibro-Tech, Inc. (Facility) is a hazardous waste management facility located at 8851 Dice Road, Santa Fe Springs, Los Angeles County, California 90670. The Facility is located west of Dice Road, south of Burke Street, east of Norwalk Boulevard, and north of Los Nietos Road. The Facility is situated on approximately 4.8 acres of land in an industrial area, bordered to the north, west, and east by industrial complexes, and a railroad spur is directly south of the Facility. The Los Angeles County assessor's parcel number that describes the Facility location is 181-76-1. Figure 1 shows the Facility's location and its surrounding topography. Figure 2 shows the Facility layout.

### 5. DESCRIPTION OF FACILITY OPERATIONS

The Facility is an inorganic manufacturing plant, which uses certain hazardous wastes as a primary raw material, and recovers metals from inorganic waste streams, primarily spent metal plating and stripping etchants. The Facility also provides hazardous waste transfer, storage, and treatment of both RCRA and California hazardous wastes.

### 6. FACILITY HISTORY

California Department of Health Services (DHS), predecessor to DTSC, granted Permittee an Interim Status Document (ISD) on December 16, 1981. In 1988, the United States Environmental Protection Agency (U.S. EPA) and Southern California Chemical (former of the Permittee) entered into an Administrative Order on Consent,

Docket No. RCRA-09-89-0001(Consent Order). The Consent Order requires the owner or operator to conduct a RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and human health risk assessment at the Facility. On June 19, 1991, DHS issued a 5-year hazardous waste facility permit to Entech Recovery, Inc. (also known as Southern California Chemical) with a permit number 91-3-TS-002. In 1994, the Permittee changed its name to Phibro-Tech, Inc. The Permittee submitted a permit renewal application prior to the permit expiration and was allowed by DTSC to continue the hazardous waste operation activities under existing permit conditions until the new permit was issued. On June 30, 1995, DTSC approved a Class 3 Permit Modification (CAPM) to implement corrective measures directed by DTSC. The CAPM also included a DTSC approved Modified Closure Plan for Pond 1. Permittee used Pond 1 as a secondary containment for wastewater treatment tanks W1 and W2. The Modified Closure Plan included relocation of tanks W1 and W2. On July 31, 1995, the Permittee's appealed the CAPM. On September 5, 1997, DTSC denied Permittee's Petition for Review (appeal) of the permit modification decision. The Permittee has implemented some of the corrective measures and is continuing in the direction of implement DTSC required corrective measures. The Permittee subsequently made several revisions of the Operation Plan (Part B Permit Application) to address DTSC's comments and changes to the Facility. The most recent version of the Operation Plan is dated March 18, 2010.

7. FACILITY SIZE AND TYPE FOR FEE PURPOSES

The Facility is categorized as a large storage and treatment facility pursuant to Health and Safety Code, section 25205.1 and for purposes of Health and Safety Code sections 25205.2 and 25205.19.

8. CLOSURE COST ESTIMATES

The closure cost estimates approved in 2010 are:

Before Installation of Oily Water Process - \$2,130,762 (in 2010 dollars)  
With Installation of Oily Water Process - \$2,377,200 (in 2010 dollars)

- (g) In case of conflicts between the Operation Plan and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued to the Facility by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration (ND) for the Conditional Use Permit issued by the City of Santa Fe Springs (City) has been prepared in accordance with the requirements of Public Resources Code Section 21000 et seq. and the CEQA Guidelines, Section 15070 et seq. of title 14, California Code of Regulations. This ND includes an environmental impact evaluation of the hazardous waste facility operations at Phibro-Tech, Inc. DTSC is a responsible agency and has reviewed and provided comments in the preparation of the ND.

4. ENVIRONMENTAL MONITORING

The Permittee shall comply with the applicable environmental monitoring and response program requirements of California Code of Regulations, title 22, Division 4.5, Chapter 14, articles 6 and 17.

5. ANNUAL HAZARDOUS WASTE REDUCTION AND WASTE MINIMIZATION CERTIFICATION

The Permittee shall certify annually that it has a hazardous waste reduction and minimization program and method in place and shall keep the annual certification as part of its Operating Record in accordance with California Code of Regulations, title 22, section 66264.73(b)(9).

6. ACCESS

- (a) DTSC, its contractors, employees, agents, and/or any United States Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5. The Permittee shall provide DTSC and its representatives access

at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5, and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements.

- (b) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable State or federal laws and regulations.

#### **PART IV. PERMITTED UNITS AND ACTIVITIES**

This Permit authorizes operation only of the facility units and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit other than those specified in this Part IV. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

This Permit authorizes fourteen (14) Hazardous Waste Management Units (HWMUs):

1. Five (5) HWMUs are container storage units with a maximum total container storage capacity of 196,350 gallons, designated as Container Storage Area (hereafter CS-1, CS-2, CS-3, CS-4, and CS-5).
2. Six (6) HWMUs are tank farm units, designated as containment areas CA-C, CA-F, CA-J, CA-O, CA-S, and CA-W. Forty (40) above-ground tanks are located and grouped into the six containment areas. Sixteen (16) tanks are used for hazardous waste storage. Another twenty four (24) tanks are used as tank treatment units or for storage prior to treatment. The treatment processes include copper carbonate reclaim operation; copper oxide reclaim operation; copper sulfate reclaim operation; primary neutralization and metals recovery operation; wastewater treatment operation; high solids metals recovery operation; and oily water treatment operation. The total maximum tank storage capacity is 473,911 gallons. The total maximum tank treatment capacity is 137,200 gallons.
3. One HWMU is a Roll-off Bin Area (hereafter RO Bin) with a maximum storage capacity of 160 cubic yards.
4. One tank truck loading/unloading area and truck washing area, and one railcar loading/unloading area. The total maximum storage capacity for the railcar and tank truck is 40,000 gallons.

**1. UNIT NAME: Container Storage Area # 1 (CS-1)**

LOCATION:

CS-1 is located in the center of the Facility, south of the main road and west of the Roll off Bin (RO Bin) storage area (see Figure 2, Facility Layout, for the unit location).

ACTIVITY TYPE:

Storage and treatment of hazardous waste in containers; Drum washing and cutting

ACTIVITY DESCRIPTION:

This Unit receives hazardous waste containers from loading and unloading areas and other storage units (Units CS- 2, CS-3, and CS-4). The palletized containers are moved to other storage units or pump stations adjacent to tank storage or treatment units for onsite treatment.

Hazardous wastes are stored in containers and may be consolidated, bulked and repackaged into other containers. The consolidated wastes are authorized to be transported for off-site disposal or treated onsite.

Hazardous waste containers are opened for pH adjustment and solidification by adding sodium hydroxide, lime, and/or drying agents. The treated containers are then transported for offsite disposal.

The containers that are being emptied may be rinsed with water and/or acid or ammonia to remove residues at the western part of the Unit. The rinse water and residues are contained in the washed container, and then pumped to one of the onsite treatment tanks for further processing.

If a container retains additional solid residues that cannot be removed by rinsing with liquid, the container will be cut open using standard tools, such as a commercial drum de-header or a powered saw for poly containers. Once the container is cut open, the solids are removed by scraping or similar means. The solids are transferred to another container by a shovel or similar means. If the solids are not sufficiently dry, lime or another solidification agent will be placed into the solids container and mixed with a shovel or hoe.

PHYSICAL DESCRIPTION:

CS-1 is a bermed rectangular area equipped with secondary containment. It measures approximately 104 feet in length and 41 feet in width with a ramp located on the northwest corner. The height of the berm is approximately 11 inches on the north and south side. The containment area is coated with an epoxy liner system. The available secondary containment volume is 7,289 gallons.

MAXIMUM CAPACITY:

The maximum storage capacity for CS-1 is 69,000 gallons [equivalent to 230 300-gallon totes/ intermediate bulk containers (IBCs), however, the container types and sizes may vary.

The maximum treatment capacity for containers is 50 containers per day.  
The maximum capacity for container washing activity is 300 containers per day.  
The maximum treatment capacity for container cutting is 50 containers per day.

WASTE TYPES:

The following waste streams can be stored in the CS-1 Unit: waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; non-hazardous wastes, and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D001 (DOT Class 5.1 oxidizers only), D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 512, 513, 541, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, and 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

The Permittee shall not double stack IBCs unless the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers is allowed to be stacked on top of an IBC, but an IBC must not be placed on top of a pallet of other kinds of containers.

The Permittee shall manage all pieces of containers in accordance with California hazardous waste laws and regulations.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, Division 4.5, Chapter 14, Article 28.5.

**2. UNIT NAME: Container Storage Area # 2 (CS-2)**

LOCATION:

CS-2 is located in the central portion of the Facility along the northern boundary (see Figure 2 Facility Layout, for the unit location).

ACTIVITY TYPE:

Storage of hazardous waste in containers.

ACTIVITY DESCRIPTION:

This Unit receives hazardous waste containers from loading and unloading areas (Unit CS-5) and other storage units (Units CS-1, CS-3, and CS-4). The palletized containers are allowed to be moved to other storage units or pump stations adjacent to tank storage or treatment units for onsite treatment.

Hazardous wastes are authorized to be stored in containers, consolidated, bulked and repackaged into other containers. The consolidated wastes will be transported for off-site disposal or treated onsite.

PHYSICAL DESCRIPTION:

CS-2 is a bermed, irregularly shaped area approximately 70 feet long on the north, 57 feet on the south, and 39 feet wide. The western side is open to provide access. The usable storage area is approximately 2,497 square feet. The containment is coated with a chemically-resistant fiberglass coating. The available secondary containment volume is 4,371 gallons.

MAXIMUM CAPACITY:

The maximum storage capacity for CS-2 is 43,500 gallons (equivalent to 145 300-gallon IBCs, however, the container types and sizes may vary).

WASTE TYPES:

The following waste streams can be stored in the CS-2 Unit: waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 512, 513, 541, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, and 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall not store D001 (DOT Class 5.1 oxidizers only) in CS-2 due to its proximity to the property boundary and based on the requirement to store D001 ignitable characteristic wastes 50 feet or more from the property boundary (California Code of Regulations, title 22, Division 4.5, Chapter 14, Section 66264.176).
- (b) The Permittee shall double stack IBCs only if the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers is allowed to be stacked on top of an IBC, but an IBC must not be placed on top of a pallet of other kinds of containers.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, Division 4.5, Chapter 14, Article 28.5.

### 3. UNIT NAME: Container Storage Area # 3 (CS-3)

#### LOCATION:

CS-3 is located in the northeast portion of the Facility directly south of CS-4 (see Figure 2 Facility Layout, for the unit location).

#### ACTIVITY TYPE:

Storage of hazardous waste in containers

#### ACTIVITY DESCRIPTION:

This Unit receives hazardous waste containers from loading and unloading areas (Unit CS- 5) and other storage units (Units CS-1, CS- 2, and CS-4). The palletized containers are allowed to be moved to other storage units or pump stations adjacent to tank treatment units for onsite treatment.

Hazardous wastes are authorized to be stored in containers. Contained wastes are consolidated, bulked, and repackaged into other containers. The consolidated wastes are transported for off-site disposal or treated onsite.

#### PHYSICAL DESCRIPTION:

CS-3 is an above grade bermed containment area of rectangular shape. It is approximately 86 feet long by 32 feet wide with a 15 foot long ramp located on its east side. The southern containment berm height ranges from 4.5 inches on the east side (near the ramp) to 18 inches on the west end. The northern containment berm height (which is the dividing berm with unit CS-4) ranges from 5 inches on the east side (near the ramp) to 18 inches on the west end. The containment area is coated with a chemically resistant epoxy coating. The available secondary containment volume is 3,997 gallons.

#### MAXIMUM CAPACITY:

The maximum storage capacity of this unit is 39,600 gallons (equivalent to 132 300-gallon IBCs), however, the container types and sizes may vary.

#### WASTE TYPES:

The following waste streams can be stored in the CS-3 Unit: waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D001 (DOT Class 5.1 oxidizers only), D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 512, 513, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall only store D001 ignitable characteristic waste oxidizers in the two southernmost rows of pallets in CS-3 due to its proximity to the property boundary and the requirement to store ignitable characteristic wastes 50 feet or more from the property boundary (Cal. Code .Regs., Tit. 22, § 66264.176).
- (b) The Permittee shall clearly mark on the containment area the area that is 50 feet or more away from the property boundary. The marked area is allowed to store D001 waste as specified in California Code of Regulations, title 22, division 4.5, chapter 14, section 66264.176.
- (c) The Permittee shall double stack IBCs only if the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers is allowed to be stacked on top of an IBC, but an IBC must not be placed on top of a pallet of other kinds of containers.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

**4. UNIT NAME: Container Storage Area # 4 (CS-4)**

LOCATION:

CS-4 is located in the northeast portion of the Facility directly north of CS-3 (see Figure 2 Facility Layout).

ACTIVITY TYPE:

Storage of hazardous waste in containers

ACTIVITY DESCRIPTION:

This Unit receives hazardous waste containers from loading and unloading areas (Unit CS-5) and other storage units (Units CS- 1, CS-2, and CS-3). The palletized containers are moved to other storage units or pump stations adjacent to tank treatment units for onsite treatment.

Hazardous wastes are stored in containers and consolidated, bulked and repackaged into other containers. The consolidated wastes are transported for off-site disposal or treated onsite.

PHYSICAL DESCRIPTION:

CS-4 is an above grade bermed containment area of rectangular shape. It is approximately 86 feet long by 33 feet, 4 inches wide with a 15 foot long ramp located on its east side. The southern containment berm height (which is the dividing berm with unit CS-3) ranges from 4 inches on the east side (near the ramp) to 18 inches on the west end. The northern containment berm height ranges from 9.5 inches on the east side (near the ramp) to 12 inches near the west end. The usable storage area is approximately 2,870 square feet. The containment area is coated with a chemically resistant epoxy coating. The available secondary containment volume is 5,214 gallons.

MAXIMUM CAPACITY:

The maximum storage capacity of this Unit is 48,000 gallons (equivalent to 160 300-gallon IBCs, however, the container types and sizes may vary).

WASTE TYPES:

The following waste streams are authorized to be stored in the CS-4 Unit: waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 512, 513, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall not store D001 (DOT Class 5.1 oxidizers only) in CS-4 due to its proximity to the property boundary and based on the requirement to store D001 ignitable characteristic wastes 50 feet or more from the property boundary (Cal. Code Regs., tit. 22, § 66264.176).
- (b) The Permittee shall double stack IBCs only if the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers is allowed to be stacked on top of an IBC, but an IBC must not be placed on top of a pallet of other kinds of containers.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

**5. UNIT NAME: Container Loading and Unloading Area (CS-5)**

LOCATION:

The CS-5 is located in the northern portion of the Facility, south and east of CS-2 and west of CS-3 and CS-4 (see Figure 2 Facility Layout, for the Unit location).

ACTIVITY TYPE:

Storage and transfer of hazardous waste in containers

ACTIVITY DESCRIPTION:

Offsite hazardous wastes are loaded and unloaded at this Unit. Drums are opened for sampling activities prior to the movement to other container storage units (Units CS-1, CS-2, CS-3 and CS-4). During an emergency event, this Unit is used a hazardous waste container storage unit to store hazardous waste removed from Units CS-1, CS-2, CS-3 and CS-4.

PHYSICAL DESCRIPTION:

This Unit is a bermed irregular L shaped area that borders CS-2 on the east and south sides. CS-5 measures approximately 42 feet wide at the north end, 38 feet wide in the middle, and is 67 feet deep. The triangular shaped portion along the south border of CS-2 is approximately 60 feet wide and changes in depth from about 32 feet to 12 feet eight inches to the west where a rollover berm is located. The floor of the Unit is sloped with a berm height of approximately 5.5 inches on the north side and 12.5 inches on the southeast side. The containment area is constructed of concrete with a chemically resistant epoxy coating. The available secondary containment volume is 2,635 gallons.

MAXIMUM CAPACITY:

The maximum storage capacity of this Unit is 24,000 gallons (equivalent to 80 300-gallon IBCs, however, the container types and sizes may vary).

WASTE TYPES:

The following waste streams are authorized to be stored in the CS-5 Unit: waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D001 (DOT Class 5.1 oxidizers only), D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 512, 513, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall not store D001 in CS-5 less than 50 feet from the Facility's property boundary (Cal. Code Regs., tit. 22, § 66264.176). The Permittee must clearly mark on the containment area the area that is 50 feet or more away from the property boundary. The marked area is allowed to store D001 waste as specified in California Code of Regulations, title 22, division 4.5, chapter 14, section 66264.176.
- (b) The Permittee shall not double stack IBCs unless the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers is allowed to be stacked on top of an IBC, but an IBC must not be placed on top of a pallet of other kinds of containers.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

**6. UNIT NAME: Roll-off Bin Area (RO Bin)**

**LOCATION:**

Roll-off Bin Area (RO Bin) is a bermed area in the southern half of the Facility east of the new Containment Area W and west of Containment Area O.

**ACTIVITY TYPE:**

Storage in roll-off bins

**ACTIVITY DESCRIPTION:**

Hazardous waste generated by treatment and the Facility's operational activities are stored either in roll-off bins or end dump trailers. Roll-off bins storing free liquids, as defined in California Code of Regulations, title 22, section 66260.10, shall only be within the bermed area between Containment Area W and Containment Area O.

Roll off bins and/or end dump trailers may be used to accumulate hazardous waste or excluded recyclable materials without free liquids within the contained area at the north of the W-5/W-6 tanks and near the southeast corner of CS-3.

**PHYSICAL DESCRIPTION:**

The free liquid RO Bin Area is a bermed area approximately 53 feet wide and 65 feet long topped with a triangular-shaped piece 53 feet wide and 14 feet high. The RO Bin is open on the northern end where a ramp or rollover berm is located. The RO Bin has a berm height of approximately 6 inches on the north side and south sides. The berm on the west side will be comprised of the Containment Area W wall and the CS-1 containment berm. The berm on the east side will be comprised of the Containment Area O wall. The total usable storage area for the RO Bin Area is approximately 3,400 square feet. Roll-off bins are used for the on-site storage of solid hazardous waste. The bins used onsite will be either open top bins that can be covered with a tarp or closeable cover bins.

Roll off bins and/or end dump trailers may be used to accumulate hazardous waste or excluded recyclable materials without free liquids within the contained area at the north of the W-5/W-6 tanks and near the southeast corner of CS-3.

Roll-off bins may vary in capacity from 10 cubic yards to 40 cubic yards.

**MAXIMUM CAPACITY:**

The maximum storage capacity of this unit is 160 cubic yards (or about 80 tons) of hazardous waste.

WASTE TYPES:

Dewatered sludge; copper, nickel or other wastes generated from on-site treatment processes and storage of containers (e.g. supersacks) of off-site hazardous waste.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 171, 172, 181, 222, 223, 352, and 491.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall not store hazardous wastes that contain free liquids as defined in California Code of Regulations, title 22, section 66260.10 outside of the bermed area between Containment Area-W and Containment Area-O.
- (b) The Permittee shall not accumulate hazardous waste or excluded recyclable materials with free liquids within the contained area at the north of the W-5 and W-6 tanks and near the southeast corner of CS-3.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

**7. UNIT NAME: Containment Area C (CA-C)**

LOCATION:

CA-C is located in the south central portion of the Facility (see Figure 2, Facility Layout, for unit location).

ACTIVITY TYPE:

Storage and treatment of hazardous waste in tanks and loading/unloading of wastes directly from the transportation vehicle into the tanks;

ACTIVITY DESCRIPTION:

CA-C consists of ten (10) above-ground tanks. Six (6) of them are hazardous waste storage tanks (Tank Nos.C-5, C-6, C-7, C-8, C-9 and C-40). Four (4) are hazardous waste storage and treatment tanks (Tank Nos.C-1A, C-1B, C-1C, and C-1D), which are also known as reactors.

Hazardous wastes are pumped from containers at pump stations located at the northeastern corner of unit CA-C, or from tanker trucks and/or rail trucks to one of hazardous waste storage tanks (C-5, C-6, C-7, C-8, and C-9) prior to its treatment in a reactor. If a reactor is available, the hazardous waste can be pumped directly. Tank C-40 is converted from an existing hazardous material management tank and used to store decanted alkaline water from the reactors C1-A, C1-B, C-1C and C-1D.

Hazardous wastes are pumped to one of the reactors with addition of sodium hydroxide or/and soda ash (sodium carbonate) and other chemicals to precipitate black copper oxide in the bottom of the treatment tank. The process releases ammonia gas that is routed to an air pollution control scrubber. The decanted water is pumped to Tank C-40 to allow for solids settling prior to the water being further treated on site in one of the other processes. The copper product deposited at the bottom of this tank is transferred to the product slurry storage tank.

PHYSICAL DESCRIPTION:

CA-C is divided into three subpart areas:

- (a) First area is approximately 13 feet by 64 feet and holds Tanks C-5, C-6, C-7, C-8, and C-9.
- (b) Second area is approximately 12.5 feet by 19 feet and holds Tank C-1D and Tank C-40.
- (c) Third area is approximately 27 feet by 33 feet and holds Tanks C-1A, C-1B, and C-1C.

The outer containment wall for these three areas has an average height of 28 inches. The walls and floors of these areas are constructed of reinforced concrete and coated with an impervious fiberglass coating. The available secondary containment volume is 15,312

gallons.

Tanks located in containment areas CA-C, CA-F, CA-J, CA-S, CA-O, and CA-W are constructed of either fiberglass reinforced plastic (FRP) or titanium. The FRP tanks will have various resin systems or liners based on the wastes to be handled. Both FRP and titanium are compatible with the stored or treated wastes.

Flat bottom tanks are used by the Facility primarily for hazardous waste storage. Domed bottom tanks are used by the Facility as reactors. The domed bottom tanks are elevated on legs or a support skirt. Domed reactors are usually equipped with agitators to enhance the mixing process for wastes during the treatment reactions.

Mixers (also called agitators) are installed in the reactor tanks. These include an electrically powered motor above the tank with a long shaft extending onto the tank contents. Blades will extend horizontally from the bottom of the vertical shaft. Blades may also be located at other locations along the shaft. The blades are designed to mix the contents the tank to promote contact between wastes or between waste and reagents. Because of required corrosion resistance, the shaft and blades are fabricated of FRP, stainless steel, rubber coated steel or other suitable materials.

All hazardous waste storage tanks are closed tanks and equipped with vents designed to avoid excessive positive or negative pressures beyond design limitations in the tanks that can arise during loading, unloading, and process operations. Tank venting for most tanks (the FRP tanks) is provided through small openings on the top of the tank. Some tanks, such as reactors C-1A through C-1D, are vented to scrubber systems operated under permits issued by South Coast Air Quality Management District (SCAQMD). These will help control pressure in the tanks, as excess pressure will vent through the scrubber system. Conservation vents and/or vacuum/pressure relief systems are used on the two titanium tanks so that they can operate safely at a pressure slightly above atmospheric.

The Facility uses various types of pumps to transfer hazardous wastes in the Facility from tanks or bulk containers. These pumps may be corrosion resistant centrifugal pumps or air powered diaphragm pumps. Generally the pumps in hazardous waste service have a maximum discharge rate of 80 to 100 gallons per minutes (gpm). The pumps are located within tank secondary containment areas.

Drums or IBCs are emptied or filled using lower volumetric rate pumps. The containers are staged on one of the container pumping stations, which consist of a grating above a spill collection pan. While drums are emptied, the drum pump suction line will be placed directly into the container and operated while the container is on the pumping station.

Aboveground piping is used throughout the Facility as the primary means to transfer materials to different process areas. The pipe materials used for handling inorganic

wastes are polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), or stainless steel. Carbon steel will be used for pipes servicing the oily water processing area. Any leaks in the piping would be identified during daily inspections by stains on the piping or by pooling in the containment areas or on the asphalt or concrete areas under the piping. Transfers between tanks within a containment area may be made with piping constructed as described above, or of rubber hoses. Before rubber hoses are disconnected, air is added to push liquids out of the hose so that when it is disconnected the potential for releases will be minimized. Since the whole Facility is bermed to prevent run-off and sloped to channel liquids to sumps where it can be removed, any releases during the transfer process would be contained on site. All tanks are filled from the top. Valves are used to isolate a tank after a transfer operation to prevent material loss.

The Facility uses radar level monitoring; ultrasonic level monitoring; and manual gauging to prevent overfills in tanks operation. Radar and ultrasonic devices are capable of continuous indication of level. The percentage level in a tank can be correlated to a volume available in the tank and thus it can be determined what amount of waste can be transferred without an overflow occurring. Manual gauging of a tank is used to validate measurements from the radar or ultrasonic indicators as well as a stand-alone measuring tool. By dropping a measuring tape from a known point in the tank to the start of liquid level, the volume available for a transfer can be determined. Visual verification methods including monitoring sight glasses when they are present may also be used in addition to the other equipment.

A summary of tank construction and storage details for this unit is provided in Table 1a below.

**Table 1a: Summary of Tank Construction and Storage Details**

| Tank Number | Status                 | Permitted Usage       | Max. Capacity (gallons) | Construction Material | Tank Type       | Min. Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|------------------------|-----------------------|-------------------------|-----------------------|-----------------|-------------------------------|-----------------|---------------|
| C-1A        | E                      | Storage/<br>Treatment | 6,900                   | FRP                   | Domed<br>Bottom | .410 / .328 /<br>.288         | 10              | 15            |
| C-1B        | E                      | Storage/<br>Treatment | 8,700                   | FRP                   | Domed<br>Bottom | .419 - .506                   | 10              | 15            |
| C-1C        | E                      | Storage/<br>Treatment | 5,500                   | Titanium              | Domed<br>Bottom | 0.19                          | 8               | 15            |
| C-1D        | E                      | Storage/<br>Treatment | 10,900                  | Titanium              | Domed<br>Bottom | 0.250                         | 9               | 23            |
| C-5         | E                      | Storage               | 9,300                   | FRP                   | Flat<br>Bottom  | .492 / .410 /<br>.370         | 10              | 16            |
| C-6         | E                      | Storage               | 9,300                   | FRP                   | Flat<br>Bottom  | .492 / .410 /<br>.370         | 10              | 16            |
| C-7         | E                      | Storage               | 9,300                   | FRP                   | Flat<br>Bottom  | .492 / .410 /<br>.370         | 10              | 16            |
| C-8         | E                      | Storage               | 15,228                  | FRP                   | Flat<br>Bottom  | .389 / .288 /<br>.248         | 12              | 19            |
| C-9         | E                      | Storage               | 15,228                  | FRP                   | Flat<br>Bottom  | .389 / .288 /<br>.248         | 12              | 19            |
| C-40        | E/<br>New<br>Regulated | Storage/<br>Treatment | 3,525                   | FRP                   | Flat<br>Bottom  | .288 / .248                   | 10              | 6             |

Note: E: Existing; FRP: Fiberglass Reinforced Plastic. E/New Regulated: A new regulated tank which is converted from an existing hazardous material management tank.

**MAXIMUM CAPACITY:**

The maximum storage capacity of each permitted tank is given in Table 1a above.

The maximum treatment capacity for the entire Facility is 137,200 gallons per day.

The maximum treatment capacity for Tanks C-1A, C-1B, C-1C, and C-1D collectively is 22,000 gallons per day measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

**WASTE SOURCES**

Storage/treatment tanks (Tank Nos. C-1A, C-1B, C-1C, and C-1D) receive wastes from container storage units (Units CS-1, CS-2, CS-3, CS-4, and CS-5), tanker trucks, and/or rail cars. Hazardous waste containers are moved to the pump stations for transfer.

Storage tanks (Tank Nos. C-5, C-6, C-7, C-8, C-9, and C-10) receive waste from container storage units (Unit No. CS-1, CS-2, CS-3, CS-4, and CS-5), tanker trucks, and/or rail cars. Hazardous waste containers are moved to the pump stations for transfer.

Tank No. C-40 receives decanted alkaline liquid from Tank Nos. C-1A, C-1B, C-1C and C-1D.

WASTE TYPES:

The waste streams/types listed in Table 1b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-C.

RCRA HAZARDOUS WASTE CODES:

The RCRA hazardous waste codes listed in Table 1b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-C.

CALIFORNIA HAZARDOUS WASTE CODES:

The California hazardous waste codes listed in Table 1b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-C.

**TABLE 1b– Authorized Waste Streams/Types, Hazardous Waste Codes for each tank in Containment Areas**

| TANK NUMBER | WASTE STREAMS/TYPES           | RCRA HAZARDOUS WASTE CODES  | CALIFORNIA HAZARDOUS WASTE CODES   |
|-------------|-------------------------------|---|--|
| C-1A        | A, B, C, E, IA, IB, J, and K, | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, and U219.                   | 121, 122, 123, 131, 132, 133, 135, 141, 171, 172, 181, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| C-1B        | A, B, C, E, IA, IB, J, and K, | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, and U219.                   | 121, 122, 123, 131, 132, 133, 135, 141, 171, 172, 181, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| C-1C        | A, B, C, E, IA, IB, J, and K, | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, and U219.                   | 121, 122, 123, 131, 132, 133, 135, 141, 171, 172, 181, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| C-1D        | A, B, C, E, IA, IB, J, and K, | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, and U219.                   | 121, 122, 123, 131, 132, 133, 135, 141, 171, 172, 181, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| C-5         | B, C, IB, J, and K,           | D002, D004, D005, D006, D007, D008, D009, D010, and D011.                                     | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                |
| C-6         | B, C, IB, J, and K,           | D002, D004, D005, D006, D007, D008, D009, D010, and D011.                                     | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                |
| C-7         | B, C, IB, J, and K,           | D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, and U151. | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                |

| TANK NUMBER | WASTE STREAMS/TYPES                         | RCRA HAZARDOUS WASTE CODES  | CALIFORNIA HAZARDOUS WASTE CODES   |
|-------------|---|---|--|
| C-8         | C, IB, J, and K,                            | D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, and U151. | 121, 122, 123, 131, 132, 133, 135, 141, 561, 721, 722, 723, 724, 726, 727, 791, and 792.           |
| C-9         | C, IB, J, and K,                            | D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, and U151. | 121, 122, 123, 131, 132, 133, 135, 141, 561, 721, 722, 723, 724, 726, 727, 791, and 792.           |
| C-40        | A, B, E, F, G, IA, IB, L, and Process water | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219.             | 123, 131, 132, 133, 135, 141, 171, 172, 181, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |

Note: Facility Waste Streams/Types are designated and listed as follows:

- A: Copper Sulfate Crystal
- B: Copper Sulfate Solution
- C: Cupric Chloride Etchant
- D: Sludge, Copper or Nickel
- E: Nitric Acid Copper Rack Strip
- F: Solder Tin Stripper
- G: Copper/Nickel Plating/Stripping Solutions
- H: Ferric Chloride Solution
- IA: Miscellaneous Inorganic Acid
- IB: Miscellaneous Inorganic Base
- J: Spent Alkaline Copper Etchant
- K: Alk-Cu-Strip Copper Etchant
- L: Non-Hazardous, Miscellaneous Wastes
- M: Oily Water;

UNIT SPECIFIC CONDITION:

The Permittee shall comply with the air pollution equipment control requirements as specified in the South Coast Air Quality Management District (SCAQMD) permits.

AIR EMISSION STANDARDS:

The requirements contained in California Code of Regulations, title 22, division 4.5, chapter 14, articles 27, 28, and 28.5 are not applicable to units CA-C, CA-S, CA-F, CA-J, and CA-W7, therefore, these units are not subject to those requirements.

**8. UNIT NAME: Containment Area F (CA-F)**

LOCATION:

CA- F is located in the southwest portion of the Facility (see Figure 2 Facility Layout, for the unit location).

ACTIVITY TYPE:

Storage and treatment in tanks

ACTIVITY DESCRIPTION:

The Unit consists of two (2) hazardous waste tanks: Tanks F-1 and F-2A.

Tank F-1 is used to store ferric chloride etchant which is delivered from containers (located in CS-1, CS-2, CS-3, CS-4, or CS-5), tanker truck (located in BTL), or railcar (located in RL). Tank F-2A is used to regenerate the ferrous or ferric chloride.

Scrap iron is first placed into Tank F-2A and etchant is pumped from Tank F-1 to Tank F2A. Hydrochloric acid from a raw material storage tank can be added to improve acid strength (if needed) and to catalyze the precipitation of the copper and other metals which will precipitate and fall through a grating into the sloped bottom of F-2A. The precipitated metals (the copper cement) are removed and dried in the containment pan. The copper cement will be packaged and sold as a raw material for copper production or other use or sent off site as a hazardous waste and the liquid is recycled back into Tank F-1.

The liquid containing ferrous or ferric chloride is transferred from F-2A to a product tank. From here the product is packaged or bulked for shipment.

PHYSICAL DESCRIPTION:

CA- F consists of Tanks F-1 and F-2A. These tanks are located within a contained area of approximately 1,042 square feet. The containment system is constructed of reinforced concrete and coated with an impervious fiberglass coating. The outer wall of the containment system has a height of approximately 28 inches. The available secondary containment volume is 14,676 gallons. The information on the physical construction and function of this tank system are provided in the physical description of unit CA-C.

A summary of tank construction and storage details for this Unit is provided in Table 3a below.

**Table 3a: Summary of Tank Construction and Storage Details**

| Tank Number | Status   | Permitted Usage | Max. Capacity (gallons) | Construction Material | Tank Type                        | Min. Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|----------|-----------------|-------------------------|-----------------------|----------------------------------|-------------------------------|-----------------|---------------|
| F-1         | Existing | Storage         | 10,575                  | FRP                   | Flat Bottom                      | .389 / .309 / .248            | 10              | 17.25         |
| F-2A        | Existing | Treatment       | 10,088                  | FRP                   | Sloped Bottom<br>50%<br>Open Top | 0.360                         | 12              | 13.25         |

MAXIMUM CAPACITY:

The maximum storage capacity of each permitted tank is given in Table 3a above.

The maximum treatment capacity for the entire Facility is 137,200 gpd.

The maximum treatment capacity for Tanks F-2A is 10,000 gpd measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

WASTE TYPES:

The waste streams/types listed in Table 3b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks F-1 and F-2A.

RCRA HAZARDOUS WASTE CODES:

The RCRA hazardous waste codes listed in Table 3b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks F-1 and F-2A.

CALIFORNIA HAZARDOUS WASTE CODES:

The California hazardous waste codes listed in Table 3b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks F-1 and F-2A.

**TABLE 3b– Authorized Waste Streams/Types, Hazardous Waste Codes for each tank in Containment Area F**

| TANK NUMBER | WASTE STREAMS/TYPES         | RCRA HAZARDOUS WASTE CODES  | CALIFORNIA HAZARDOUS WASTE CODES   |
|-------------|-----------------------------|---|--|
| F-1         | C, H, and IA                | D002, D004, D005, D006, D007, D008, D009, D010, D011, K062, U134, and U219.       | 123, 131, 132, 133, 135, 141, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                     |
| F-2A        | A, B, C, E, H, IA, J, and K | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, K062, U134, and U219. | 121, 123, 131, 132, 133, 135, 141, 171, 172, 181, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |

**9. UNIT NAME: Containment Area J (CA-J)**

LOCATION:

CA- J is located in the south central portion of the Facility, west of CS-1 (see Figure 2 Facility Layout, for the unit location).

ACTIVITY TYPE:

Storage and treatment in tanks

ACTIVITY DESCRIPTION:

The Unit consists of one hazardous waste storage tank (Tank J-4) and two (2) treatment tanks/reactors (Tanks J-2 and J-3). Tank J-4 is used to store waste solutions containing copper sulfate; cupric chloride etchant; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; miscellaneous inorganic acid; miscellaneous inorganic base; and non-hazardous, miscellaneous inorganic wastes from container unloading area, tanker truck, or railcar unloading area.

Tanks J-2 and J-3 are used to (1) reclaim copper carbonate, copper oxide, and copper sulfate; (2) neutralize liquids to recover metals and (3) recover metals from high solid metal wastes. Chemical agents, e.g. sodium hydroxide, sodium carbonate, other chemicals and fresh or reclaimed water (from non-RCRA wastewater generated at the site) are added into the reactor tanks. Copper carbonate slurry is pumped to the product tank for storage and handling. Excess water not recycled is routed to the Wastewater Treatment Plant for processing. Precipitated metals are removed in a filter press. Recovered filter cake is used for on-site recycling or sent off site for disposal as a waste. The water effluent is sent to the wastewater treatment system before being discharged to the sewer.

PHYSICAL DESCRIPTION:

CA-J consists of three (3) existing tanks. The tanks are located within a contained area of approximately 909 square feet. The containment system is constructed of reinforced concrete and coated with an impervious fiberglass coating. Epoxy or equivalent liner material that is compatible with the waste streams in this area will be used to repair damaged sections within this containment system. The outer wall of the containment system has a height of approximately 28 inches. The available secondary containment volume is 8,258 gallons. The information on the physical construction and function of this tank system are provided in the physical description of unit CA-C.

A summary of the construction and permitted storage details on the tanks located in CA- J is presented in Table 4a below.

**Table 4a: Summary of Tank Construction and Storage Details**

| Tank Number | Status   | Permitted Usage       | Max. Capacity (gallons) | Construction Material | Tank Type                      | Minimum Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|----------|-----------------------|-------------------------|-----------------------|--------------------------------|----------------------------------|-----------------|---------------|
| J-2         | Existing | Storage/<br>Treatment | 3,000                   | FRP                   | Domed Bottom;<br>5-10%<br>Open | .368 / .248                      | 8               | 13            |
| J-3         | Existing | Storage/<br>Treatment | 5,900                   | FRP                   | Domed Bottom                   | .246 / .226                      | 10              | 14            |
| J-4         | Existing | Storage               | 5,900                   | FRP                   | Domed Bottom                   | .246 / .226                      | 10              | 14            |

MAXIMUM CAPACITY:

The maximum storage capacity of each permitted tank is given in Table 4a above.

The maximum treatment capacity for the entire Facility is 137,200 gpd.

The maximum treatment capacity for Tanks J-2 and J-3 collectively is 23,200 gpd measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

WASTE TYPES:

The waste streams/types listed in Table 4b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-J.

RCRA HAZARDOUS WASTE CODES:

The RCRA hazardous waste codes listed in Table 4b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-J.

CALIFORNIA HAZARDOUS WASTE CODES:

The California hazardous waste codes listed in Table 4b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-J.

**TABLE 4b– Authorized Waste Streams/Types, Hazardous Waste Codes for each tank in Containment Areas**

| TANK NUMBER | WASTE STREAMS/TYPES                 | RCRA HAZARDOUS WASTE CODES  | CALIFORNIA HAZARDOUS WASTE CODES  |
|-------------|-------------------------------------|---|---|
| J-2         | B, C, E, F, G, IA, IB, and L;       | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and ,U219 | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| J-3         | B, C, E, F, G, IA, IB, and L;       | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and ,U219 | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| J-4         | A, B, C, D, E, F, G, IA, IB, and L. | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and ,U219 | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |

**10. UNIT NAME: Containment Area S (CA-S)**

LOCATION:

CA-S is located on the north side of the main access road on the eastern portion of the Facility west of the Dryer Room (see Figure 2 Facility Layout, for the unit location).

ACTIVITY TYPE:

Storage and treatment in tanks.

ACTIVITY DESCRIPTION:

CA-S consists of three (3) hazardous waste treatment tanks and five (5) hazardous waste storage tanks.

PHYSICAL DESCRIPTION:

CA- S consists of eight (8) tanks (Six (6) existing and two (2) proposed new tanks). The information on the physical construction and function of this tank system are provided in the physical description of unit CA-C. The six tanks (S-1A, S-1B, S-2, S-3, S-4, and S-5) are located in a contained area of approximately 1,633 square feet. The containment system is constructed of reinforced concrete and coated with an impervious fiberglass coating. The outer wall of the existing containment system has a height of at least 47 inches. The available secondary containment volume is 15,199 gallons.

Two (2) tanks (S-1C and S-6) are proposed for installation in a contiguous area of approximately 558 square feet west of the existing CA- S. The containment system for the two (2) tanks will be constructed of reinforced concrete and coated with an epoxy lining system or equivalent system that is compatible with the wastes handled. The available secondary containment volume will be 12,484 gallons.

A summary of tank construction and storage details for this unit is provided below.

**Table 2a: Summary of Tank Construction and Storage Details**

| Tank Number | Status | Permitted Usage       | Max. Capacity (gallons) | Construction Material | Tank Type          | Min. Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|--------|-----------------------|-------------------------|-----------------------|--------------------|-------------------------------|-----------------|---------------|
| S-1A        | E      | Storage/<br>Treatment | 6,330                   | FRP                   | DB 50%<br>Open Top | 0.375                         | 11              | 10.5          |
| S-1B        | E      | Storage/<br>Treatment | 6,330                   | FRP                   | DB 50%<br>Open Top | .368 / .328                   | 11              | 10.5          |
| S-1C        | New    | Storage/<br>Treatment | 6,900                   | FRP                   | DB                 | .410 / .328<br>/ .288         | 10              | 15            |
| S-2         | NR     | Storage               | 9,300                   | FRP                   | FB                 | .368 / .288<br>/ .248         | 10              | 16            |
| S-3         | E      | Storage               | 12,690                  | FRP                   | FB                 | 0.5 / 0.375                   | 11.5            | 15.083        |
| S-4         | NR     | Storage               | 9,300                   | FRP                   | FB                 | 0.41 / 0.32                   | 10              | 16            |
| S-5         | E      | Storage               | 9,300                   | FRP                   | FB                 | .368 / .288<br>/ .248         | 10              | 16            |
| S-6         | New    | Storage               | 12,300                  | FRP                   | FB                 | .328 / .288<br>/ .248         | 11.833          | 15            |

Note: DB: Domed Bottom E: Existing FB: Flat Bottom NR: Non-Regulated Previously  
FRP: Fiberglass Reinforced Plastic.

**MAXIMUM CAPACITY:**

The maximum storage capacity of each permitted tank is given in Table 2a above.

The maximum treatment capacity for the entire Facility is 137,200 gallons per day (gpd).

The maximum treatment capacity for Tanks S-1A, S-1B, and S-1C collectively is 20,000 gpd measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

**WASTE TYPES:**

The waste streams/types listed in Table 2b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-S.

**RCRA HAZARDOUS WASTE CODES:**

The RCRA hazardous waste codes listed in Table 2b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-S.

**CALIFORNIA HAZARDOUS WASTE CODES:**

The California hazardous waste codes listed in Table 2b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks at designated locations in CA-S.

**TABLE 2b– Authorized Waste Streams/Types, Hazardous Waste Codes for each**

**tank in Containment Areas**

| TANK NUMBER | WASTE STREAMS/TYPES                    | RCRA HAZARDOUS WASTE CODES                                      | CALIFORNIA HAZARDOUS WASTE CODES  |
|-------------|--|---|---|
| S-1A        | A, B, C, D, E, F, G, IA, IB, and L;    | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011. | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-1B        | A, B, C, D, E, F, G, IA, IB, and L;    | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-1C        | A, B, C, D, E, F, G, IA, IB, and L;    | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-2         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-3         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-4         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-5         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| S-6         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, and D011, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |

## **11. UNIT NAME: Containment Area O (CA-O)**

### LOCATION:

The CA-O is a new unit authorized by this permit and will be located in the southern portion of the property, east of Roll-Off Bin storage area (RO Bin) (see Figure 2 Facility Layout, for the unit location).

### ACTIVITY TYPE:

Storage and treatment of hazardous waste in tanks and associated processing equipment.

### ACTIVITY DESCRIPTION:

The operation activities in CA-O include:

- (a) Oily water streams are pumped from containers, tanker trucks, or railcars into storage tanks. During transfer, the oily water may be pumped into a screen unit for removal of large solids and chemicals may be added prior to an in-line mixer.
- (b) Hazardous wastes are stored in tanks (Tank No. O-1, O-2, O-3, and O-4) before oily waste water treatment processes.
- (c) Hazardous waste water may be treated by oil/water separator (OS-1), dissolved gas floatation (DGF), and/or centrifuge to recover oil and separate solids.
- (d) Treated wastewater and non-hazardous water flow into the final treatment tanks (Tank No. O-5, O-6, O-7, and O-8). Chemical agents, e.g. acid/base may be added for pH adjustment or to remove metals or other contaminants. Prior to permitted discharge to the sewer, the treated water may be passed through granulated activated carbon vessels.
- (e) Recovered oil will be accumulated in the oil storage tanks (Tank No. O-9 and O-10) before shipment off-site.

### PHYSICAL DESCRIPTION:

CA-O consists of ten (10) proposed new tanks and associated processing equipment. The information on the physical construction and function of this tank system are provided in the physical description of unit CA-C. The tanks will be located within a contained area of approximately 4,096 square feet. The containment system will be constructed of reinforced concrete and coated with a concrete sealant. The outer wall of the containment system will have a height of approximately 20 inches. The available secondary containment capacity of 26,674 gallons will exceed the required containment capacity based on a determination of the volumes of the largest tank and the precipitation generated from the 24-hour, 25-year storm event.

The Oily Water Processing system includes: Oily Water Solids Separator (OF-1); Oil/Water Separator (OS-1); Dissolved Gas Flotation System (DGF-1); and Centrifuge.

- (a) The Oily Water Solids Separator (OF-1) will be a screen filter/strainer on legs with the approximate dimensions of 4 feet by 4 feet by 4 feet.

- (b) The Oil/Water separator (OS-1) will be a rectangular, horizontal, atmospheric vessel with dimensions of approximately 8 feet long by 4 feet wide by 4 feet deep.
- (c) The Dissolved Gas Flotation System (DGF-1) unit will be a rectangular above grade unit with approximate dimensions of 6 feet long by 6 feet high by 3 feet deep.
- (d) The Centrifuge will be approximately 5 feet high by 6 feet wide by 6 feet deep.

A summary of the construction and permitted storage details on the tanks located in the CA-O is presented in Table 6a below.

**Table 6a: Summary of Tank Construction and Storage Details**

| Tank Number | Status | Permitted Usage       | Max. Capacity (gallons) | Construction Material | Tank Type     | Minimum Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|--------|-----------------------|-------------------------|-----------------------|---------------|----------------------------------|-----------------|---------------|
| O-1         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Sloped Bottom | 0.1275                           | 12              | 18            |
| O-2         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Sloped Bottom | 0.1275                           | 12              | 18            |
| O-3         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Sloped Bottom | 0.1275                           | 12              | 18            |
| O-4         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Sloped Bottom | 0.1275                           | 12              | 18            |
| O-5         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Flat Bottom   | 0.1275                           | 12              | 18            |
| O-6         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Flat Bottom   | 0.1275                           | 12              | 18            |
| O-7         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Flat Bottom   | 0.1275                           | 12              | 18            |
| O-8         | New    | Storage/<br>Treatment | 15,227                  | Carbon Steel          | Flat Bottom   | 0.1275                           | 12              | 18            |
| O-9         | New    | Storage               | 7,637                   | Carbon Steel          | Flat Bottom   | 0.1275                           | 10              | 13            |
| O-10        | New    | Storage               | 7,637                   | Carbon Steel          | Flat Bottom   | 0.1275                           | 10              | 13            |

MAXIMUM CAPACITY:

The maximum storage capacity of each permitted tank is given in Table 6a above.

The maximum treatment capacity for the entire Facility is 137,200 gpd.

The maximum treatment capacity for Tanks O-1, O-2, O-3, O-4, O-5, O-6, O-7, and O-8 collectively is 50,000 gpd measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

WASTE TYPES:

The waste streams/types listed in Table 6b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- O.

RCRA HAZARDOUS WASTE CODES:

The RCRA hazardous waste codes listed in Table 6b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- O.

CALIFORNIA HAZARDOUS WASTE CODES:

The California hazardous waste codes listed in Table 6b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- O.

**TABLE 6b– Authorized Waste Streams/Types, Hazardous Waste Codes for each tank in Containment Area O**

| TANK NUMBER | WASTE STREAMS/TYPES | RCRA HAZARDOUS WASTE CODES | CALIFORNIA HAZARDOUS WASTE CODES   |
|-------------|---------------------|----------------------------|--|
| O-1         | L,M                 | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-2         | L,M                 | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-3         | L,M                 | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-4         | L,M                 | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-5         | De-Oiled Water      | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-6         | De-Oiled Water      | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-7         | De-Oiled Water      | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-8         | De-Oiled Water      | D004, D006, D007, D008     | 132, 133, 134, 135, 221, 222, 223, 241, 331, 342, 343, 352, 491, 551, 561, and 612 |
| O-9         | Recovered Oil       | N/A                        | 221, 223, 241, 331, 342, 343, and 352.   |
| O-10        | Recovered Oil       | N/A                        | 221, 223, 241, 331, 342, 343, and 352.   |

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, articles 28 and 28.5. The required controls, inspection, monitoring, recordkeeping, and reporting must be implemented pursuant to articles 28 and 28.5 of the California Code of Regulations, title 22, division 4.5, chapter 14, unless it is determined through waste testing that such standards are not applicable.

**12. UNIT NAME: Containment Area W (CA-W)**

**LOCATION:**

The CA-W is a new unit authorized by this permit and will be located in the southern portion of the site, south of 1 CS-1(see Figure 2 Facility Layout, for the unit location).

**ACTIVITY TYPE:**

Storage and treatment in tanks

**ACTIVITY DESCRIPTION:**

This Unit will consist of seven (7) hazardous waste treatment and storage tanks: Tanks J-5, J-6, W-7, W-8, W-9, W-10, and W-11.

Tanks J-5 and J-6 will be used to store and/or treat waste streams with copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; miscellaneous inorganic acid, miscellaneous inorganic base, alkaline-copper-strip copper etchant, and non-hazardous, or miscellaneous inorganic wastes. These wastes are pumped to Tanks C-1A, C-1B, C-1C, C-1D, J-2, S-1A, S-1B, S-1C to reclaim copper carbonate, copper oxide, copper sulfate, or metals. In addition process water from on-site may be pre-processed before sending the effluent to tanks W-7, W-8, W-9, W-10, or W-11 for further treatment prior to discharge to the sewer line or reused as polish water in the production processes.

Tanks W-7, W-8, W-9, W-10, and W-11 are the primary batch wastewater treatment tanks. Wastewater is first pumped to one of the treatment tanks (Tank W-7, W-8, W-9, W-10 or W-11) and the pH is adjusted using virgin chemicals or compatible wastes to bring the pH generally into the range of 7 to 10. Then sodium sulfide and/or other treatment chemicals are added to react with the dissolved metals to make a metal salt which will therefore precipitate out. A polymer based flocculent may then be added to facilitate the settling of the metal precipitate. The metal precipitate is then pumped to a filter press and packaged for sale. After all settling has been occurred, hydrogen peroxide may be added to scavenge excess sulfide then virgin chemicals or compatible wastes are added to adjust the pH for final sewer discharge typically in the pH range of 6.0 to 7.5.

Additional treatment techniques may be applied to meet more stringent Los Angeles County Sanitary District discharge limits, for example for a trace metal other than copper. This water may be kept in the same tank for additional processing; or it may be transferred to another regulated wastewater tank (J-5, J-6, W-7, W-8, W-9, W-10, and W-11), or to non-regulated tanks (e.g. W-3, W-4, W-5, or W-6) if it is no longer hazardous waste. Additional processing will occur to meet sewer discharge levels.

PHYSICAL DESCRIPTION:

CA-W Unit will consist of seven (7) tanks. Three (3) tanks numbered W-7, W-8, and W-9 of them will be relocated from former Pond 1. DTSC approved the tanks relocation plan in the Pond 1 closure plan in 1995. The information on the physical construction and function of this tank system are provided in the physical description of unit CA-C. These tanks will be located within a contained area of approximately 3,000 square feet. The containment system will be constructed of reinforced concrete and coated with an epoxy or equal lining system compatible with the waste stream. The outer wall of the containment system will have a height of approximately 24 inches. The available secondary containment volume is 33,466 gallons. [

A summary of the construction and permitted storage details on the tanks located in the CA-W is presented in Table 5a below.

**Table 5a: Summary of Tank Construction and Storage Details**

| Tank Number | Status | Permitted Usage   | Max. Capacity (gallons) | Construction Material | Tank Type     | Minimum Shell Thickness (inches) | Diameter (feet) | Height (feet) |
|-------------|--------|-------------------|-------------------------|-----------------------|---------------|----------------------------------|-----------------|---------------|
| J-5         | New    | Storage/Treatment | 20,303                  | FRP                   | Flat Bottom   | ~ 0.375 / 0.25                   | 12              | 24            |
| J-6         | New    | Storage/Treatment | 20,303                  | FRP                   | Flat Bottom   | ~ 0.375 / 0.25                   | 12              | 24            |
| W-7         | New    | Storage/Treatment | 30,500                  | FRP                   | Sloped Bottom | ~ 0.375 / 0.25                   | 18              | 16            |
| W-8         | New    | Storage/Treatment | 18,423                  | FRP                   | Sloped Bottom | ~ 0.375 / 0.25                   | 14              | 16            |
| W-9         | New    | Storage/Treatment | 18,423                  | FRP                   | Sloped Bottom | ~ 0.375 / 0.25                   | 14              | 16            |
| W-10        | New    | Storage/Treatment | 13,535                  | FRP                   | Sloped Bottom | ~ 0.375 / 0.25                   | 12              | 16            |
| W-11        | New    | Storage/Treatment | 13,535                  | FRP                   | Sloped Bottom | ~ 0.375 / 0.25                   | 12              | 16            |

MAXIMUM CAPACITY:

The maximum storage capacity of each permitted tank is presented in Table 5a above.

The maximum treatment capacity for the entire Facility is 137,200 gpd.

The maximum treatment capacity for Tanks J-5, J-6, W-7, W-8, W-9, and W-10 collectively is 87,200 gpd measured as off-site hazardous waste transferred from containers, storage tanks, tanker trucks or rail cars.

WASTE TYPES:

The waste streams/types listed in Table 5b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- W.

RCRA HAZARDOUS WASTE CODES:

The RCRA hazardous waste codes listed in Table 5b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- W.

CALIFORNIA HAZARDOUS WASTE CODES:

The California hazardous waste codes listed in Table 5b are authorized for compatible hazardous waste transfer, storage, and treatment in tanks in CA- W.

**TABLE 5b– Authorized Waste Streams/Types, Hazardous Waste Codes for each tank in Containment Area W**

| TANK NUMBER | WASTE STREAMS/TYPES                    | RCRA HAZARDOUS WASTE CODES  | CALIFORNIA HAZARDOUS WASTE CODES  |
|-------------|--|---|---|
| J-5         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| J-6         | A, B, C, D, E, F, G, IA, IB, K, and L; | D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219, | 121, 122, 123, 131, 132, 133, 135, 141, 162, 171, 172, 181, 421, 491, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792. |
| W-7         | E, F, G, IA, IB, L, and Process water; | D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219,       | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                               |
| W-8         | E, F, G, IA, IB, L, and Process water; | D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219,       | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                               |
| W-9         | E, F, G, IA, IB, L, and Process water; | D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219,       | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                               |
| W-10        | E, F, G, IA, IB, L, and Process water; | D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219,       | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                               |
| W-11        | E, F, G, IA, IB, L, and Process water; | D002, D004, D005, D006, D007, D008, D009, D010, D011, U134, U151, and U219,       | 121, 122, 123, 131, 132, 133, 135, 141, 541, 561, 721, 722, 723, 724, 726, 727, 791, and 792.                               |

**UNIT NAME: Bulk Truck Loading/Unloading and Wash Area (BTL)**

LOCATION:

The BTL is a new unit authorized by this permit and will be located in the eastern portion of the Facility south of the scales (see Figure 2 Facility Layout).

ACTIVITY TYPE:

Truck Loading/Unloading; Truck Washing, Temporary Container Storage

ACTIVITY DESCRIPTION:

The operation activities in Area BTL include:

- (a) Waste loading/unloading/sampling activities: The Permittee will perform loading, unloading, and sampling activities from bulk truck in BTL area.
- (b) Truck washing activities: The Permittee will perform truck washing activities in the BTL area.
- (c) Emergency or temporary storage of containers due to response to spills, leaks, or other issues from Units CS-1, CS-2, CS-3, CS-4, and CS-5 that require container relocation.

PHYSICAL DESCRIPTION:

The containment area for the BTL will be a concrete pad located in the eastern portion of the Facility. The area will be 70 feet long by 24 feet wide with a minimum containment berm height of 6 inches. The walls and floors of the new BTL will be constructed of reinforced concrete and coated with epoxy coating.

At the end of the unloading area, there will be a 2-compartment truck wash basin. Each basin will be approximately 6 feet long by 12 feet wide. This area will also be constructed of concrete with an epoxy coating.

MAXIMUM CAPACITY:

The maximum storage capacity of this unit is 10,000 gallons (equivalent to two 5,000 gallon tanker trucks).

WASTE TYPES:

The following waste streams can be stored in BTL: Waste containing copper sulfate crystal; solution containing copper sulfate; cupric chloride etchant; sludge containing copper or nickel; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant; and oily water.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D001 (DOT Class 5.1 oxidizers only), D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 541, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, and 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall not store D001 ignitable characteristic waste oxidizers in Area BTL unless the wastes are stored 50 feet or more from the property boundary as specified in California Code of Regulations, title 22, Section 66264.176.
- (b) The Permittee shall not double stack IBCs unless the stacking load rating of the bottom container is sufficient to hold the weight of the top container plus a safety factor of greater than 10%. A pallet of containers may be stacked on top of an IBC, but an IBC shall not be placed on top of a pallet of other kinds of containers.
- (c) Hazardous and/or non-hazardous materials (that are not regulated as hazardous wastes) may be stored within BTL. When only non-regulated hazardous and/or non-hazardous materials are stored within BTL, the maximum container storage capacity and containment requirements shall be the same as hazardous wastes.
- (d) A maximum of one row of containers may be placed in each unloading compartment for emergency temporary storage provided it is not being used for truck unloading.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards in California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5. If containers of RCRA hazardous wastes with 500 ppm or greater of volatile organic compounds are managed at this Unit, the Permittee is required to implement the controls, inspection/monitoring, recordkeeping, and reporting requirements pursuant to California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

**14. UNIT NAME: Railcar Loading/Unloading Area (RL)**

LOCATION:

The RL is a new unit authorized by this permit and will be located at the south of RO Bin area. Rail spur extends from CA-F to CA-O just south of CA-C (see Figure 2 Facility Layout, for unit location).

ACTIVITY TYPE: Railcar loading/unloading

ACTIVITY DESCRIPTION:

The operation activities in Area RL include:

Loading, unloading, and sampling activities for contained hazardous wastes from railcars in RL area.

PHYSICAL DESCRIPTION:

During unloading, fiberglass catch basins are placed on a grade under the hose coming from the top of the rail car. These fiberglass catch basins are approximately 5.5 feet wide by 11 feet long and 0.75 feet deep. The capacity of each fiberglass catch basin is approximately 250 gallons.

MAXIMUM CAPACITY:

The maximum storage capacity of this unit is 80,000 gallons (equivalent to four 20,000 gallon tanker trucks).

WASTE TYPES:

The following waste streams can be stored in the RL Unit: Solution containing copper sulfate; cupric chloride etchant; nitric acid copper rack strip; solder tin stripper; copper and nickel plating and stripping solutions; ferric chloride solution; miscellaneous inorganic acid, miscellaneous inorganic base, spent alkaline copper etchant; alkaline-copper-strip copper etchant, non-hazardous, miscellaneous inorganic wastes; and oily water; can be handled in the RL.

RCRA HAZARDOUS WASTE CODES:

The following RCRA Waste Codes are authorized to be stored in this unit: D001 (DOT Class 5.1 oxidizers only), D002, D004, D005, D006, D007, D008, D009, D010, D011, F006, F019, F039, K062, U134, U151, and U219.

CALIFORNIA HAZARDOUS WASTE CODES:

The following California Waste Codes are authorized to be stored in this unit: 121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 331, 342, 343, 352, 421, 491, 541, 551, 561, 612, 721, 722, 723, 724, 726, 727, 791, and 792.

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) No more than four rail cars containing hazardous waste may be positioned on the track along the south-side of the Facility.
- (b) Hazardous waste railcars with bottom valves or connections may not be received at the Facility.
- (c) The Permittee shall complete unloading activities within 10 days from the time the railcar transport vehicle clears waste acceptance at the Facility.

AIR EMISSION STANDARDS:

The Permittee must comply with the air emission standards of California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5. If containers of RCRA hazardous wastes with 500 ppm or greater of volatile organic compounds are managed at this Unit, the Permittee is required to implement the controls, inspection/monitoring, recordkeeping, and reporting requirements pursuant to California Code of Regulations, title 22, division 4.5, chapter 14, article 28.5.

PART V. SPECIAL CONDITIONS

1. The Permittee shall store containers holding hazardous waste on pallets and shall not store more than one 375-gallon container or four 55-gallon containers on each pallet. The Permittee shall not stack container pallets more than two pallets high.
2. The Permittee shall maintain a minimum of twenty-four (24) inches for the aisle space between rows of pallets and containers within each containment area. The labeling for each container shall be readable from either side of the pallet.
3. For the purpose of calculating the permitted maximum capacity limitations for storage and for secondary containment, all containers stored in the authorized unit are assumed to be full, including any hazardous waste that is covered by the transfer facility exemption pursuant to California Code of Regulations, title 22, section 66263.18.
4. Any non-hazardous waste or exempt material that is stored in a container storage unit authorized by this Permit for management of hazardous waste shall be subject to the conditions of this Permit, including volume calculation, compatibility and inspection, when hazardous waste is also stored within the area.
5. The maximum number of hazardous waste containers allowable in the Facility at any time is 3,570 55-gallon containers, 654 IBCs (at an average of 300-gallons each) or the equivalent capacity of 196,350 gallons, whichever is greater. This assures that sufficient capacity remains to move the largest row of IBCs (40) into a regulated storage area if needed to access a drum that is damaged or leaking or otherwise requires emergency response. This will be determined by counting all hazardous waste containers in CS-1, CS-2, CS-3, CS-4, CS-5, and all hazardous waste containers staged at the treatment processes on the Container Pumping Stations.
6. The Permittee is allowed to operate as a transfer facility (as defined in Health and Safety Code section 25123.3(a)(3)). The Permittee's transfer facility activities shall be conducted in accordance with California Code of Regulations, title 22, section 66263.18. However, the Permittee must comply with the maximum facility-wide container storage capacity of 196,350 gallons at any time which includes the amount for transfer wastes.
7. The Permittee is authorized to operate loading and unloading activities at the following two locations within the secondary containments at the Facility:
  - (a) Area at the north of CA-C (approximately 20 feet x 60 feet), and
  - (b) Area at north of CA-F (approximately 20 feet x 60 feet).
8. The volume of hazardous waste handled during the unloading process shall be included in the calculation of the permitted maximum capacity for the secondary containment and for the permitted storage or treatment unit.

9. The Permittee shall not be a designated Treatment, Storage, or Disposal Facility on the manifests for any exempt transfer activities conducted pursuant to California Code of Regulations, title 22, Section 66263.18.
10. The Permittee shall not store hazardous waste in excess of one year from the date the hazardous waste arrives at the Facility.
11. The Permittee shall not use any underground ancillary equipment, such as underground piping systems, to collect, convey or otherwise routinely manage hazardous waste, unless the Permittee installs DTSC-approved secondary containment and leak detection systems in accordance with California Code of Regulations, title 22, Section 66264.193.
12. No later than sixty (60) calendar days prior to commencing the construction of any permitted unit, the Permittee shall submit to DTSC a schedule detailing the dates and length of time required for the planned construction.
13. The Permittee shall obtain approval from DTSC regarding any significant deviations from the construction plans provided in the approved Permit at least fourteen (14) calendar days prior to any construction activities.
14. No later than one hundred and twenty (120) calendar days after completing construction of the Facility, the Permittee shall submit to DTSC as-built drawings of the Facility.
15. The Permittee shall notify DTSC in writing at least fourteen (14) calendar days before the Permittee commences any hazardous waste management activities to allow DTSC the opportunity to inspect the Facility. If DTSC declines to inspect or fails to respond to the Permittee's written notification, the Permittee may commence the permitted hazardous waste management activities at the Facility at the end of the 14-day period.
16. In the event any cracks, gaps or tears are detected in any hazardous waste management units, repairs shall be initiated as soon as possible and completed within one week of discovery of the problem. The Permittee shall notify DTSC within twenty-four (24) hours whenever a containment crack, gap or tear is found. Within seven (7) days of discovery of the problem, the Permittee shall notify DTSC in writing of corrective measures that have been taken.

## PART VI. CORRECTIVE ACTION

1. In 1987, the U.S. EPA conducted a RCRA Facility Assessment (RFA) at the Facility, and identified in the RFA Report sixty (60) solid waste management units (SWMU's) and one area of concern.
2. In 1988, the U.S. EPA and Southern California Chemical entered into an Administrative Order on Consent, Docket No. RCRA-09-89-0001(Consent Order). The consent order requires the owner or operator to conduct a RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and human health risk assessment at the Facility. The purpose of the RFI is to characterize the nature and extent of soil and groundwater contamination at the Facility. The purpose of the CMS is to identify and evaluate remedial alternatives to address the contamination. The purpose of the human health risk assessment is to evaluate potential impacts to human health from the soil and groundwater contamination identified at the Facility.
3. The RFI conducted by the Permittee showed that there is soil and groundwater contamination at the Facility. Ground water in the present uppermost saturated zone beneath the Facility, identified as the Hollydale Aquifer, contains elevated levels of: (1) heavy metals, including chromium and cadmium, (2) halogenated volatile organic compounds (VOCs), including trichloroethene (TCE) and 1,2-dichloroethane (1,2-DCA), (3) aromatic VOCs, including benzene, toluene, ethylbenzene and xylenes and (4) chlorides. Soils at the Facility contain elevated levels of (1) heavy metals, including lead, cadmium, chromium, copper, and zinc, (2) halogenated VOC's, including TCE, 1,2-DCA and tetrachloroethene (PCE), (3) aromatic VOC's, including benzene, toluene, ethylbenzene and xylenes, (4) polychlorinated biphenyls (PCB's), (5) petroleum hydrocarbons, including diesel fuel, gasoline and an unidentified heavy hydrocarbon believed to be crude oil, and (6) chlorides.
4. On June 30, 1995, DTSC approved a Class 3 Permit Modification (CAPM) for the corrective measures selected by DTSC and U.S. EPA which were based on the CMS, submitted by the Permittee in 1994, and DTSC's determinations. On September 5, 1997, DTSC issued an order denying petition for review of the permit modification decision from the permittee, dated July 31, 1995. The corrective measures identified in the CAPM are summarized as follows:
  - (a) Pumping and treating contaminated ground water;
  - (b) quarterly monitoring to track groundwater quality and identify any new releases should they occur;
  - (c) a soil vapor survey to determine the nature and extent of halogenated VOC contamination;
  - (d) In-situ soil vapor extraction if needed to cleanup soils contaminated with halogenated VOC's;
  - (e) in situ bioventing to cleanup hydrocarbon contaminated soils in the former underground fuel storage tank area;
  - (f) containment measures to prevent human contact with contaminated soils;

- berming to contain surface water runoff;
  - (g) vadose zone monitoring to identify contaminant migration in subsurface soils;
  - (h) surface water sampling to measure contaminants in surface water discharged from the Facility; and
  - (i) land use covenant to prevent future residential and other sensitive uses of the property.
5. The Permittee is required to conduct corrective action at the Facility pursuant to Health and Safety Code sections 25187 and 25200.10. The Permittee has implemented some of the approved corrective measures, is conducting and shall continue to conduct corrective action at the Facility, including the following corrective measures selected and approved by DTSC in the CAPM:
- (a) The Permittee submitted a Corrective Action Vadose Zone Monitoring Work Plan to DTSC on June 15, 1998. DTSC determined that a Site Conceptual Model was necessary. Upon further investigations and analysis, the Permittee submitted a Site Conceptual Model on March 9, 2005, which was approved by DTSC on April 18, 2005. DTSC provided comments on the Corrective Action Vadose Zone Monitoring Work Plan to the Permittee on August 29, 2006. The Permittee withdrew Corrective Action Vadose Zone Monitoring Work Plan because of changes in facility operations and submitted a Sump Management Plan and Vadose Zone Monitoring Work Plan to DTSC on January 29, 2007. DTSC provided comments on October 3, 2007 and the Permittee provided revisions and response to comments. Upon DTSC's approval and in accordance with DTSC approved schedule, the Permittee shall implement the Sump Management Plan and Vadose Zone Monitoring Work Plan.
  - (b) The Permittee submitted a Soil Vapor Survey ("SVS") Work Plan to DTSC on February 16, 1998; and based on DTSC comments, the workplan was resubmitted in two phases and approved by DTSC on February 27, 2001. The Permittee performed the SVS fieldwork. After completion of SVS survey described in the work plan ("Phase 1"), the Permittee submitted a report to DTSC on April 16, 2001. The Permittee submitted a "Phase 2" SVS and SVE Pilot Test Work Plan to DTSC on October 17, 2001. DTSC determined that a Site Conceptual Model was necessary to proceed. Upon further investigations and analysis, the Permittee submitted a Site Conceptual Model on March 9, 2005, which was approved by DTSC on April 18, 2005, resulting in a third phase of SVS. Upon completion of field work, the Permittee submitted on September 30, 2005 a Comprehensive Soil Vapor Survey Report and Soil Vapor Extraction ("SVE") Pilot Test Work Plan. DTSC approved the revised work plan and addendums on August 3, 2007 and the Permittee commenced fieldwork for the SVE Pilot test. On May 8, 2008, the Permittee submitted a remedial design and implementation package which DTSC conditionally approved on May 29, 2008. The SVE system

was constructed and operation commenced on October 6, 2008. On June 23, 2009, the Permittee submitted a SVE System Start Up report. DTSC provided comments on February 17, 2010. Within 90 days of the effective date of this Permit, the Permittee shall submit a revised Soil Vapor Extraction (SVE) Startup Report to incorporate DTSC's comments and evaluate conditions of the aquitard, which may pose as a continuing source of future contamination, not addressed by the SVE. Upon identification of any contamination not addressed by the SVE, the Permittee shall submit a Phase 2 Soil SVE and Bioventing (SVEB) Work Plan for DTSC's approval. The Permittee shall also submit within 90 days of the effective date of this permit a SVEB operation and maintenance plan and a closure plan.

(c) GROUNDWATER MONITORING:

- 1) Upon the effective date of this Permit, the Permittee shall continue to implement the groundwater monitoring activities based on the CAPM specifications and the sampling protocols, set forth in the June 1990 RFI Workplan. The Permittee shall submit quarterly reports for DTSC's review and approval.
- 2) The Permittee submitted a Groundwater Monitoring Work Plan to DTSC on September 29, 1995. DTSC determined that a Site Conceptual Model was necessary. Upon further investigations and analysis, the Permittee submitted a Site Conceptual Model on March 9, 2005, which was approved by DTSC on April 18, 2005. Per DTSC comments provided on June 22, 2005, the Permittee submitted a revised draft Water Quality Sampling and Analysis Plan (WQSAP) to DTSC on November 14, 2005. DTSC provided comments on the November 14, 2005 WQSAP on June 19, 2006. The Permittee submitted a revised WQSAP on August 18, 2006, which was further revised based on DTSC comments on May 18, 2007. Data Gaps regarding groundwater conditions resulted in further field work and the Permittee submitted a Data Gap Field Investigation Report on August 15, 2007 and provided the results of field work on October 24, 2007. DTSC provided comments on the Data Gap Report and Addendum on June 17, 2008. Based on the results of the field work, DTSC provided comments on the May 18, 2007 WQSAP on February 16, 2010 and February 28, 2010. On March 23, 2010 the Permittee submitted a proposal to abandon two groundwater monitoring wells (MW-4 and MW-9), and a former pump test well (EX-1) and to use monitoring wells MW-17s and MW-18s for compliance monitoring. Groundwater monitoring wells MW-4 and MW-9 were designated in the CAPM as Point of Compliance wells for Pond I. The Permittee shall submit a revised Groundwater Monitoring Plan (GWMP) to incorporate DTSC's comments on the May 18, 2007 WQSAP and DTSC's

comments provided in February 2010 for DTSC's approval within 90 days of the effective date of this Permit. The GWMP shall designate MW-17s and MW-18s as Point of Compliance wells for Pond I and the GWMP shall include the Water Quality Monitoring and Response Programs for Permitted Facilities requirements pursuant to California Code of Regulations, title 22, division 4.5, chapter 14, article 6.

- 3) Upon DTSC's approval, the Permittee shall immediately implement the revised Groundwater Monitoring Plan in accordance with DTSC approved schedule.

(d) GROUNDWATER REMEDIATION WORKPLAN

- 1) The Permittee submitted a Groundwater Remediation Work Plan to DTSC on December 15, 1997 and per DTSC request, the Permittee submitted a follow up pilot study work plan to DTSC on June 29, 2001. DTSC determined that a Site Conceptual Model was necessary. Upon further investigation and analysis, the Permittee submitted a Site Conceptual Model on March 9, 2005, which was approved by DTSC on April 18, 2005. On November 11, 2006 the Permittee submitted an Expanded Alternative Groundwater Remedy program. Data Gaps regarding groundwater conditions resulted in further field work and the Permittee submitted a Data Gap Field Investigation Report on August 15, 2007 and provided an addendum with the results of further field work on October 24, 2007. DTSC provided comments on the Data Gap Report and Addendum on June 17, 2008. As bench scale testing determined the proposed alternative remedy feasible, the Permittee submitted a Groundwater Corrective Action Pilot Test Work Plan on September 28, 2007, and a Revised Ground Water Corrective Action Pilot Test Work Plan on May 29, 2008, which DTSC approved on June 27, 2008. The field work included groundwater injection which required a Waste Discharge Requirement (WDR) permit from the Regional Water Quality Control Board, which was issued on November 30, 2009. The Permittee shall implement within 180 days of the effective date of this Permit the revised Ground Water Corrective Action Pilot Test Work Plan (approved by DTSC on June, 27, 2008) in accordance with DTSC approved schedule.
- 2) Within 6 months of completion of the work described in the Ground Water Corrective Action Pilot Test Work Plan, the Permittee shall submit a revised In-Situ Pilot Study Report and Site Conceptual Model for DTSC approval.
- 3) Within 6 months of DTSC approval of the In-Situ Pilot Study Report and Site Conceptual Model, the Permittee shall submit a revised Groundwater Remediation Work Plan to DTSC for approval.

- (e) The Permittee shall build a new maintenance building within one year of the effective date of this Permit pursuant to the Conditional Use Permit issued by the City of Santa Fe Springs on February 24, 2009. The Permittee shall obtain all necessary authorization and permits for construction.
- (f) The Permittee shall remove the old maintenance building and install a new waste water treatment tank system in the old maintenance building location within one year of the effective date of this Permit. The Permittee shall obtain all necessary authorization and permits for new tank installation and construction.
- (g) The Permittee shall implement Site Characterization and Tank Relocation Plan, and a Pond 1 Soil Sampling and Analysis Plan approved by DTSC in 2006, within eighteen months of the effective date of this Permit.
- (h) The Permittee shall close Pond 1 pursuant to approved CAPM closure plan and submit a post closure permit application to DTSC within eighteen months of the effective date of this Permit.
- (i) A Corrective Action Financial Assurance Plan ("CAFAP") is required by the CAPM to plan for and cover the cost of implementing corrective action activities and reimburse DTSC oversight cost at the facility. The Permittee submitted CAFAP to DTSC on December 9, 2004. DTSC reviewed the plan and provided comments to the Permittee along with a request for funding to be set aside to cover the corrective action activities. DTSC approved the Corrective Action Cost Estimate on November 14, 2007, and the Permittee provided financial assurance documents to DTSC on December 19, 2007. The Permittee submitted a Class I\* permit modification to increase the financial assurance per the Corrective Action Cost Estimate as approved by DTSC.
- (j) The Permittee shall undertake the following actions in the event that any new SWMUs, potential or immediate threats, or newly identified releases (including remobilization of existing soil contamination as described in the 1995 CAPM) are discovered at the Facility:
  - 1) Notify DTSC verbally within 24 hours of discovery; and
  - 2) Notify DTSC in writing within 7 days of discovery, summarizing findings and magnitude of potential threat(s) to human health and/or environment.
  - 3) DTSC may require the Permittee to investigate, mitigate, or take other appropriate action to address any immediate or potential threats to human health and the environment. DTSC may require the submittal of documents (work plans, etc.) which explain how the Permittee will take action to address the immediate or potential threats. Pursuant to section E.13.a. of the 1995

CAPM, remobilization of existing soil contamination is considered a new release.

- 4) If and when corrective action is required at the Facility, the Permittee shall conduct corrective action under either a Corrective Action Consent Agreement or an Enforcement Order for Corrective Action issued by DTSC pursuant to Health and Safety Code sections 25187 and 25200.10.
6. Within one year of the effective date of this Permit, the Permittee shall enter into a Corrective Action Consent Agreement with DTSC, or DTSC shall issue an Enforcement Order for Corrective Action to the Permittee, pursuant to Health and Safety Code sections 25187 and 25200.10 to address the remaining corrective action process required at the Facility.
7. If a Land Use Covenant (LUC) is required or if deemed necessary by DTSC as part of the final remedy for the Facility pursuant to California Code of Regulations, title 22, section 67391.1, the Permittee shall sign and record the LUC, or modify existing LUC, as approved by DTSC, in accordance with a DTSC-approved schedule.
8. RECORD PRESERVATION
  - (a) The Permittee shall retain, during the implementation of Part VI of this Permit and for a minimum of six years thereafter, all data, reports, and other documents that relate to the implementation of Part VI of this Permit or to hazardous waste management and/or disposal at the Facility. If DTSC requests that some or all of these documents be preserved for a longer period of time, Permittee shall either comply with the request, deliver the documents to DTSC, or permit DTSC to copy the documents at Permittee's expense prior to destruction.
  - (b) If the Permittee retains or employs any agent, consultant, or contractor for the purpose of complying with the requirements of Part VI of this Permit, the Permittee shall require any such agents, consultants, or contractors to provide the Permittee a copy of all documents produced pursuant to Part VI of this Permit.
9. Pursuant to Health and Safety Code section 25205.7(b), the Permittee shall reimburse DTSC for all costs incurred by DTSC in overseeing the work required by Part VI of this Permit, including DTSC's review of documents and site visits.
10. To the extent that work being performed pursuant to Part VI of the Permit must be done on property not owned or controlled by the Permittee, the Permittee shall use its best efforts to obtain access agreements necessary to complete work required by this Part of the Permit from the present owner(s) of such property within 30 days of approval of any workplan for which access is required. "Best efforts" as used in this paragraph shall include, at a minimum, a certified letter from the Permittee to the

present owner(s) of such property requesting access agreement(s) to allow the Permittee and DTSC and its authorized representatives access to such property and the payment of reasonable sums of money in consideration of granting access. The Permittee shall provide DTSC with a copy of any access agreement(s). In the event that agreements for the access are not obtained within 30 days of approval of any workplan for which access is required, or of the date that the need for access becomes known to the Permittee, the Permittee shall notify DTSC in writing within 14 days thereafter regarding both efforts undertaken to obtain access and its failure to obtain such agreements. In the event DTSC obtains access, the Permittee shall undertake approved work on such property. If there is any conflict between this permit condition on access and the access requirements in any agreement entered into between DTSC and the Permittee, this permit condition on access shall govern.

11. Nothing in Part VI of the Permit shall be construed to limit or otherwise affect the Permittee's liability and obligation to perform corrective action including corrective action beyond the facility boundary, notwithstanding the lack of access. DTSC may determine that additional on-site measures must be taken to address releases beyond the Facility boundary if access to off-site areas cannot be obtained.



FIGURE 2: FACILITY LAYOUT PLAN

