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FACT SHEET
REVISIONS TO POND 1 CLOSURE PLAN,
INCLUDING CLOSURE PLANS TO TANKS W-1, W-2, W-3, W-4
PHIBRO-TECH, INC. FACILITY
EPA ID No. CAD 008 488 025
December 15, 2015

ACTION UNDER REVIEW: REVISED POND 1 CLOSURE PLAN

The Department of Toxic Substances Control (DTSC) is proposing to approve a Revised Pond 1 Closure Plan for Phibro-Tech, Inc. (PTI) hazardous waste facility, located at 8851 Dice Road, Santa Fe Springs CA 90670 (Facility). The Revised Pond 1 Closure Plan provides new and revised information on how a former surface impoundment (known as Pond 1) will be closed; and includes revisions to the closure plans for four hazardous wastewater treatment tanks, designated as Tank W-1, W-2, W-3, and W-4, and ancillary equipment including filter press #2.

The Revised Pond 1 Closure Plan modifies the 1988 Modified [Pond 1] Closure/Post-Closure Plan, approved by DTSC and U.S. EPA in September 1988. In addition, the Revised Pond 1 Closure Plan modifies the closure plans for two wastewater treatment Tanks W-1 and W-2 approved under a 1991 Hazardous Waste Facility Permit. In addition, the Revised Pond 1 Closure Plan provides closure plan information for two wastewater treatment tanks W-3 and W-4, which are authorized under a variance granted in 1988.

The Revised Pond 1 Closure Plan describes the removal of the Pond 1 structure, the removal of two hazardous wastewater tanks (W-1, W-2) located on top of Pond 1, the removal of two nearby hazardous wastewater tanks (W-3, W-4), the testing of the underlying soil for contamination, and the cleanup procedures if contamination is discovered. Required updates to the cost estimate are also presented in the Revised Plan.

Regulatory citations

PTI will be closing Pond 1, and the wastewater treatment tanks W-3 and W-4, pursuant to the closure requirements found in California Code of Regulations, title 22, division 4.5., Chapter 15. Additionally, PTI is required to close the permitted

wastewater treatment tanks W-1 and W-2 pursuant to closure requirements found in California Code of Regulations, title 22, division 4.5, Chapter 14.

PTI submitted the Revised Pond 1 Closure Plan pursuant to the requirements set forth in California Health and Safety Code, Chapter 6.5, Section 25100 et seq. and regulations set forth in California Code of Regulations, title 22, Chapters 14 and 15. DTSC has reviewed the Revised Pond 1 Closure Plan and pursuant to the requirements set forth in California Health and Safety Code, Chapter 6.5, Section 25100 et seq. and regulations set forth in California Code of Regulations, title 22, Chapters 14, 15, 20 and 21, is proposing to approve the Revised Pond 1 Closure Plan [with conditions]. In order to update the permit to include the changes that will occur due to the above described activities, DTSC is concurrently conducting a Department-initiated modification of the Facility permit as set forth in the California Code of Regulations, title 22, section 66270.41 et seq.

Sections 66265.112 and 66264.112 authorize DTSC to request modifications to the closure plan. If the modification is considered a Class 2 or 3, modification according to the criteria in section 66270.42, the modification to the plan is required to be approved in accordance with the provisions in Sections 66264.112, 66265.112, and Chapter 20 and 21. Additionally, Health and Safety Code section 25200(a) grants DTSC the authority to impose permit conditions consistent with the intent and authority of Health and Safety Code, Division 20, Chapter 6.5. Section 66270.32 also allows DTSC to impose any conditions necessary to achieve compliance with statutes and regulations as well as protect public health and the environment. DTSC has added permit conditions to the Permit in accordance with California Code of Regulations, title 22, sections 66270.3, 66270.30- 66270.33, and 66270.50. These conditions are discussed below.

PURPOSE OF MODIFYING THE CLOSURE PLAN

A closure plan is required for all hazardous waste management units that are authorized by an Interim Status Document or a Hazardous Waste Facility Permit. The closure plan presents required information describing how the units will be closed at an unspecified future date. The closure plan also discusses the estimated cost of closing these units. The owner and operator of an authorized facility is required to provide financial assurance based on the estimated costs provided in the closure plan.

Pond 1 is authorized by an Interim Status Document issued in December 1981. Tanks W-1 and W-2 are authorized in the Hazardous Waste Facility Permit issued in June 1991 and later modified in June 1995. Tanks W-3 and W-4 are authorized by a Variance issued in February 1988.

A "Modified Closure/Post-Closure Plan" was approved in September 1988 for closing Pond 1. The 1988 Closure Plan mentioned Tanks W-1 and W-2. In 2012,

DTSC reexamined the 1988 Closure Plan and subsequent documents provided by Phibro-Tech Inc. Upon closer review of the documentation and applicable regulations governing closure requirements for a surface impoundment, DTSC determined that some of the requirements in the 1988 Closure Plan needed to be revisited in light of changing conditions of the facility, proposed treatment of the groundwater and soil contamination, and applicable regulations. Specifically, PTI needed to submit a revised and updated Pond 1 Closure Plan.

A Closure Plan for the permitted hazardous waste management units was submitted in the 1990 Part B Permit Application, a.k.a. "Operation Plan". The 1991 Permit was based on the information in the 1990 Permit Application and incorporated the Application by reference. Closure of most of the hazardous waste treatment tanks were discussed in the 1990 Closure Plan. However, W-1 and W-2 were not included in the 1990 Closure Plan although the 1991 Permit authorized these tanks. Upon review of the closure information provided by the 1990 Closure Plan and the 1988 Modified Closure/Post-Closure Plan, DTSC determined that information was missing concerning the closure of Tanks W-1 and W-2 and additional information was needed. Because these two tanks are physically installed on Pond 1, the Pond 1 Closure Plan needs to incorporate the closure of W-1 and W-2.

The placement of the two wastewater treatment tanks (W-1, W-2) on Pond 1 has interfered with the closure of Pond 1.

Tanks W-3 and W-4 operate under a Variance issued in February 1988. The 1988 Variance does not have a closure plan or any closure information. Although the 1991 Permit mentions Tanks W-3 and W-4, the Permit specifically stated that these tanks operate under the Variance. The 1988 Modified Closure/Post-Closure Plan does not have closure information for Tanks W-3 and W-4. Because of the proximity of W-3 and W-4 to Pond 1, concern exists that the soil supporting these tanks will become unstable and potentially collapse when Pond 1 is removed and the underlying soil is excavated. Therefore, the revised Pond 1 Closure Plan must now include the closure of Tanks W-3 and W-4.

DTSC intends to move forward with closing of Pond 1. To close Pond 1, Tanks W-1 and W-2 must first be removed. And for safety concerns raised by PTI, Tanks W-3 and W-4 must be removed prior to removing the Pond 1 structure and excavating any contaminated soil.

To proceed with the closure of Pond 1, DTSC requested revisions and updates to the 1988 Modified Closure/Post-Closure Plan. This included adding the closure information for permitted Tanks W-1 and W-2, and the closure information for the variance Tanks W-3 and W-4.

PTI FACILITY LOCATION, OPERATION, UNITS

Facility Location

The Phibro-Tech Inc. Facility is located at 8851 Dice Road, Santa Fe Springs, Los Angeles County, California 90670.

The Facility operates on 4.8 acres within an industrial-zoned land use area (M-2 Heavy Manufacturing) located in the City of Santa Fe Springs. The property is bounded on all sides by various commercial and industrial facilities.

Residential areas are located to the north and west of the PTI Facility. The nearest residences are located approximately 550 feet (0.1 mile) to the northwest of the Facility. The residential area to the north and west of PTI is known as the Los Nietos community, an unincorporated community of Los Angeles County, which is part of the West Whittier-Los Nietos Census-Designated Place.

Facility Operation

Phibro-Tech Inc. operates an off-site hazardous waste storage, treatment and transfer facility under a Hazardous Waste Facility Permit, issued by DTSC in 1991 and modified in 1995 under a DTSC-initiated [Class 3] permit modification. The 1995 Permit Modification added significant corrective action conditions, and also changed the owner/operator of the Permit from Entech/Southern California Chemical to Phibro-Tech, Inc.

The Facility receives inorganic hazardous waste from various off-site generators, stores the hazardous waste on-site, and treats the hazardous waste at their Facility for reclaiming metals and inorganic chemicals. Some of the hazardous waste received by PTI is transferred to another off-site facility without treatment. Separate portions of the Facility manufactures chemical etchants using non-waste (virgin) materials.

Wastes received by PTI include used etchants, metal slurries and corrosive wastes containing reclaimable materials. These waste-streams come from various manufacturing sources, including copper bearing etchants used to etch printing circuit boards. PTI treats the hazardous waste using chemical and pH manipulation to form a chemical reaction and a precipitate. The resulting slurries, sludges and decants are further process to specification before selling the materials to customers.

A wastewater is produced from these various processes. These wastewater streams are further treated on-site using wastewater treatment tanks. The treated wastewater can be recycled back into the facility processes or discharged to an

industrial sewer system under an Industrial Waste Discharge Permit issued by the Los Angeles County Sanitary District.

History of the Units (Pond 1, W-1, W-2, W-3, W-4)

Pond 1 is a surface impoundment constructed in 1975 by Southern California Chemical Company, the previous owner of the Facility. Pond 1 was constructed over the location of a former surface impoundment designated as Pond 8, also called the "Zinc Pond". There is limited information about the liquids and waste liquids placed in Pond 8 and Pond 1 during their use as surface impoundments. It is assumed that, at a minimum, the wastewaters generated by PTI today would have been processed by Pond 1. This includes wastewater containing inorganic constituents such as ammonia, lead, zinc, cadmium, copper, chromium, iron, nickel and arsenic.

An Interim Status Document was issued to Southern California Chemical Company (SCCC) in 1981 and includes Pond 1 as an active surface impoundment, which designates Pond 1 as a "regulated unit" as defined in the California Code of Regulations, title 22, and in the Code of Federal Regulations, title 40.

SCCC discontinued using Pond 1 as a surface impoundment in 1985 without fully closing the unit. Instead, SCCC placed two wastewater treatment tanks in the Pond 1 basin, designating the tanks as Tank W-1 and Tank W-2. These two tanks replaced the wastewater treatment function that previously occurred in Pond 1. Pond 1 became the secondary containment structure for the two hazardous wastewater treatment tanks.

DTSC issued a Permit Variance to Southern California Chemical Company, dated February 22, 1988, authorizing the operation of a wastewater treatment system consisting of two 12,000 gallon wastewater treatment tanks, a filter press and a three-stage clarifier. The two tanks were designated as Tank W-3 and Tank W-4. The filter press and clarifier do not have designations. The Variance did not have an expiration date.

The 1988 Variance did not provide any closure plan information. The closure of Tanks W-3 and W-4 will be required to close pursuant to the closure requirements for hazardous waste tanks systems under Interim Status, as specified in the California Code of Regulations, title 22, division 4.5, chapter 15.

A Closure Plan for Pond 1 was approved in 1988 (described further below). A few years later, a Hazardous Waste Facility Permit was issued to SCCC in 1991, using the Facility name "Entech". The two wastewater treatment tanks (W-1, W-2) were included in the 1991 Permit, while Pond 1 remained under the 1981 Interim Status Document and 1988 Modified Closure/Post-Closure Plan. As a result, the closure of Tanks W-1 and W-2 are covered by the Permit, while the closure of Pond 1 is covered by the Interim Status Document.

In 1991, DTSC issued a Hazardous Waste Facility Permit to Entech (the Facility name at the time). The 1991 Permit was based on the Part B Permit Application a.k.a. "Operation Plan", dated April 1990, with additional information submitted May 1990 and June 1990. The 1990 Operation Plan contained a Closure Plan in Section XIII and in Tab 39. The 1990 Closure Plan contains closure procedures for the hazardous waste treatment tanks at the Facility, but does not specifically include Tanks W-1 and W-2. The 1991 Permit includes Tanks W-1 and W-2 as authorized units.

DTSC issued a notice letter to PTI on May 15, 2013 which put PTI on notice to submit the necessary information in the Permit Renewal Application for including the variance equipment. The letter notified PTI that DTSC intends to revoke the 1988 Variance. The information was subsequently submitted to DTSC and the equipment included in the Permit Renewal Application.

Physical Description of the Units (Pond 1, W-1, W-2, W-3, W-4)

Pond 1 is an open concrete basin with vertical sides and a flat horizontal base. The rectangular basin is approximately 35-feet by 36-feet by 3-feet deep. The concrete basin was installed with 1-foot below grade and 2-feet above grade. Pond 1 was initially used as a surface impoundment for the storage and treatment of wastewater, which was discontinued in 1985 without formally closing the unit in compliance with applicable regulations. The Facility currently uses the Pond 1 basin as a secondary containment structure for the two hazardous wastewater treatment tanks designated as W-1 and W-2. In 2014 the sides of the basin were extended upwards to increase the containment volume to meet secondary containment standards for tank systems.

Tanks W-1 and W-2 are above-ground treatment tanks used to treat hazardous wastewater generated by Phibro-Tech. Tanks W-1 and W-2 are placed in the Pond 1 basin atop the concrete floor of the basin. Each tank is 15.5-feet tall by 18-ft in diameter with a volume of 30,457 gallons each. Both tanks are constructed of fiber reinforced plastic (FRP) and have flat bottoms. Pond 1 is used as required secondary containment of these two hazardous wastewater treatment tanks.

Tanks W-3 and W-4 are above-ground treatment tanks used to treat hazardous wastewater generated by Phibro-Tech. Tanks W-3 and W-4 are placed in a secondary containment structure located adjacent to Pond 1 to the east. Tanks W-3 and W-4 are each 16-ft high by 12-ft in diameter, with a batch-treatment capacity of 12,500 gallons each. Both tanks are constructed of fiber reinforced plastic (FRP) and have flat bottoms.

The four hazardous wastewater treatment tanks (W-1, W-2, W-3, W-4) collect wastewater from various on-site operations. Chemical and corrosives are introduced to the wastewater to induce more precipitation of inorganics and to

neutralize the aqueous liquid. The resulting precipitate may be further processed through a filter press and may be sold to customers for recycling or further reclamation. The resulting liquid is sent to holding tanks for further testing and some conditioning before discharging to an industrial sewer system under a sanitation district permit.

CHANGES IN THE 2015 REVISED CLOSURE PLAN

The significant changes, revisions, updates and additions provided in the 2015 Pond 1 Closure Plan are discussed below.

Closure Procedures

The 1988 Modified Closure/Post-Closure Plan presented the following general procedure for closing Pond 1:

- 1) remove waste inventory in Tanks W-1, W-2 and in Pond 1.
- 2) clean residues from Tanks W-1 and W-2
- 3) demolish and remove Tanks W-1 and W-2
- 4) clean surface residues from Pond 1
- 5) demolish and remove Pond 1
- 6) characterize the horizontal and vertical extent of soil contamination
- 7) remove contaminated soil
- 8) backfill the excavation and, if needed, place an interim cover or final cover

The Revised Pond 1 Closure Plan proposes the following closure activities to close Pond 1. The activities in the 2015 Closure Plan are consistent with the 1988 Closure Plan. Two wastewater treatment tanks are added to the closure plan – Tanks W-3 and W-4. Additional cleanup protocol is used to treat contamination in the soil by injecting calcium polysulfide.

- 1) Sample and remove waste inventory from the wastewater treatment tanks W-1, W-2, W-3 and W-4. Sample and remove any waste present in Pond 1;
- 2) Clean residues and pressure wash the four wastewater treatment Tanks W-1, W-2, -3 and W-4. Clean with water within a containment area;
- 3) Remove and decontaminate any instrumentation on the tanks;
- 4) Demolish the four wastewater treatment Tanks W-1, W-2, W-3 and W-4 by cutting into pieces that can be placed into a 30-cubic yard or 40-cubic yard roll-off bin staged near to the Pond 1 containment basin;
- 5) Decontaminate / pressure wash the surface of the Pond 1 concrete;

- 6) Collect soil samples beneath the concrete basin by core drilling through the concrete at locations of possible leakage (cracks, joints, etc.);
- 7) Remove and dispose of the concrete basin;
- 8) Inject calcium polysulfide to soils from a depth of 10 feet to approximately 55 feet;
- 9) Excavate soil to a depth of up to 10 feet below the containment basin (depending on sample results);
- 10) Backfill excavated area with clean fill and cover with a temporary asphalt cap;
- 11) Perform confirmation sampling;
- 12) Design and implement permanent closure cap, if contaminants exceeding closure performance standard are to remain in place.

Closure Schedule

The 2015 Revised Pond 1 Closure Plan includes an updated closure schedule located in Table 9-1. The schedule begins at “Day 0” and estimates a completion date in 180 calendar days (six months).

Table 9-1 Pond 1 Closure Schedule

Item	Description	Work Days	Calendar Start Date	Calendar End Date
1.	Approval to implement Closure Plan	0	0	0
2.	Prepare Site Specific Health and Safety Plan	5	0	5
3.	Mobilization to Site	2	3	5
4.	Clean Concrete Pond 1 Containment Basin and Tank W3/W-4 Containment Basin	6	8	13
5.	Locate Samples and Perform Utility Clearance	2	15	16
6.	Mobilize Drilling Equipment and Collect Soil Samples	5	17	23
7.	Downtime Waiting for Sample Results	10	23	37
8.	Review Analytical Data	5	38	42
9.	Break Up and Remove Concrete Pad	5	42	46
10.	Install Sheet Piling	5	45	49
11.	Perform CPS Injections	15	50	71

12.	Collect Additional Soil Samples (if desired)	3	72	74
13.	Downtime Waiting for Sample Results	5	75	82
14.	Review Analytical Data	5	82	89
15.	Excavate 10 feet of soil	5	90	94
16.	Remove Sheet Piles, Backfill and Compact Soil and Install Temporary Cap	15	95	116
17.	Decon Equipment and Disposal of Closure Generated Wastes	7	116	125
18.	Demobilization from Site	2	125	126
19.	Prepare and Submit Closure Report (within 60 calendar days)	43	120	180

Chemicals of Potential Concern

The 1988 Modified Plan identified the following types of wastes historically placed in Pond 1 as:

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) [Cr +3 and Cr +6]
- ferrous hydroxide
- iron
- lead (#122)
- nickel (#124)
- nickel sulfate
- sodium chloride
- sodium hydroxide
- sodium sulfide

The 2015 Revised Closure Plan uses the same list with one addition:

- Ammonium chloride
- Ammonium sulfate
- Copper
- Copper ammonium chloride
- Ferrous hydroxide
- Iron
- Lead
- Nickel

- Arsenic
- Free ammonia
- Ammonium bifluoride
- Cadmium
- Chromium (+3 and +6)
- Nickel sulfate
- Sodium chloride
- Sodium hydroxide
- Sodium sulfide
- **Acidic solutions with heavy metals**

The 2015 Closure Plan specifies the following constituents of concern:

- Arsenic
- Cadmium
- Chromium (Total)
- Hexavalent Chromium
- Copper
- Iron
- Lead
- Nickel

Cleanup Levels:

The 1988 Modified Closure/Post-Closure Plan specified “preliminary cleanup performance standards for soil” 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

Target Cleanup Levels have been added to the 2015 Closure Plan and are presented in Table 4-1.

Table 4-1 Target Cleanup Levels

Constituent of Concern	Soil Screening Level ¹ (mg/kg)	Groundwater Screening Levels ² (ug/L)
Arsenic	1.6 / 500 ⁴	10
Cadmium	5.1 / 100 ⁴	5
Chromium (Total)	1,500,000 / 2,500 ⁴ (as Cr ⁺³)	50
Hexavalent Chromium (Cr ⁺⁶)	5.6 / 500 ⁴	10
Copper	41,000 / 2,500 ⁴	1,300
Iron	720,000 (RSL)	11,000 (Tapwater RSL) ³
Lead, Inorganic	320 (95% UCL) / 1,000 ⁴	15

Nickel	20,000 / 2,000 ⁴	300 (Tapwater RSL) ³
Zinc	5,000 ⁴	6,000 (Tapwater RSL) ³
Aroclor 1260	1	N/A
Toluene	47,000	150
Ethylbenzene	25	300
Xylenes (total)	2,500	1,750
Acetone	670,000	N/A
2-butanone	190,000	N/A
Tetrachloroethylene	100	5
Trichloroethylene	6	5

Notes:

1. In accordance with DTSC Office of Human and Ecological Risk (HERO) Note 3 updated July 2014, Regional Screening Levels (RSLs) from US Environmental Protection Agency Region 9, are appropriate human health risk screening levels. HERO has documented specific changes to RSLs which are reflected above. In all cases, the commercial/industrial exposure scenario was selected using the January 2015 tables.
2. Unless noted, groundwater screening levels are based on the lower of the California or US Environmental Protection Agency primary drinking water maximum contaminant level (MCL) for each constituent, which is consistent with Corrective Action Consent Order with DTSC (Docket HWCAP4-11/12-003).
3. Tapwater RSL is a health risk value from US Environmental Protection Agency Region 9, Regional Screening Levels, January 2015.
4. Per CCR 66261.24; based on TTLC test values (wet weight).

Closure of Tanks W-1 and W-2

The 1988 Modified Closure/Post-Closure Plan mentioned the two wastewater treatment tanks placed on the Pond 1. It discusses the importance to continue operating these tanks. Limited closure information was provided.

The Closure Plan in the 1990 Permit Application provided information on closing hazardous waste treatment tanks, but did not specifically include the wastewater treatment tanks, including W-1 and W-2.

The 2015 Revised Pond 1 Closure Plan includes the closure information for closing Tanks W-1 and W-2. The closure of Tanks W-1 and W-2 must occur in order to achieve the closure of Pond 1. The 2015 Revised Closure Plan describes procedures to sample, clean, dismantle and remove Tanks W-1 and W-2. The closure cost estimate includes the closure of Tanks W-1 and W-2.

Closure of Tanks W-3 and W-4

Tanks W-3 and W-4 have been operating under a Variance issued in February 1988. There is no closure information provided in the Variance.

The Closure Plan in the 1990 Permit Application provided information on closing hazardous waste treatment tanks, but did not specifically include the wastewater treatment tanks, including W-3 and W-4.

The variance equipment will be required to close pursuant to the closure requirements for hazardous waste tanks systems under Interim Status, as specified in the California Code of Regulations, title 22, division 4.5, chapter 15.

The 2015 Revised Pond 1 Closure Plan includes the closure information for closing Tanks W-3 and W-4. The closure of Tanks W-3 and W-4 are now tied to the closure of Pond 1. The 2015 Revised Closure Plan describes procedures to sample, clean, dismantle and remove Tanks W-3 and W-4. The closure cost estimate includes the closure of Tanks W-3 and W-4.

Closure Cost Estimate

The 1988 Modified Closure/Post-Closure Plan did not present a Closure Cost Estimate. Part V of the 1988 Closure Plan stated that the cost estimate “presented by the facility in the SCC Plan were not detailed and is not known if these figures reflect the “worst-case” closure scenario.”

A closure cost estimate is presented in section 10 of the 2015 Pond 1 Closure Plan, and a contingent post-closure cost estimate is presented in Section 15. These cost estimates include the closure of Tanks W-1 and W-2, and the closure of Tanks W-3 and W-4.

Closure Cost Estimate: \$1,998,000
Contingent Post-Closure Cost Estimate: \$2,445,000
Combined Closure/Post-Closure Cost Estimate: \$4,443,000

Contingent Post-Closure Plan

Pond 1 was a surface impoundment authorized under the 1981 Interim Status Document. This places Pond 1 under the category of “regulated units” which includes landfills, waste piles, land treatment units, and other hazardous waste management units that are closed as a landfill with “waste left in place”.

Because Pond 1 is a regulated unit, the Closure Plan for Pond 1 is required to have a contingent Post-Closure Care Plan if Pond 1 cannot be completely clean-closed.

The 1988 Closure/Post-Closure Plan did not include a contingent Post-Closure Care Plan.

The 2015 Revised Pond 1 Closure Plan includes a contingent Post-Closure Care Plan, located in Section 15. Generally, if all contaminated subsurface soils cannot be removed or remediated in-situ, then a cover will be installed in the excavation and PTI will apply for a post-closure care permit. The details of the post-closure care permit will be dependent on the contamination that could not be remediated within

the time, distance and levels specified in the 2015 Revised Closure Plan. A cost estimate for the contingent post-closure care is provided (\$2,445,000).

Article 6 Monitoring

Pond 1 was a surface impoundment authorized under the 1981 Interim Status Document. This places Pond 1 under the category of “regulated units” which includes landfills, waste piles, land treatment units, and other hazardous waste management units that are closed as a landfill with “waste left in place”.

Because Pond 1 is a regulated unit, the owner/operator is required to perform “Article 6” monitoring as specified in the California Code of Regulations, title 22, division 4.5, chapter 15, Article 6. These monitoring requirements must be presented in the Closure Plan. Article 6 monitoring is required to continue while Pond 1 is closing and throughout any post-closure care period.

The 1988 Closure/Post-Closure Care Plan did not include Article 6 monitoring for Pond 1.

The 2015 Revised Pond 1 Closure Plan includes a description of the Article 6 monitoring requirements for Pond 1 presented in the Pond 1 Closure Water Quality Sampling and Analysis Plan located in Appendix G. These requirements include the following:

Constituents of Concern (§66265.93)

- Arsenic
- Cadmium
- Chromium (total)
- Hexavalent chromium
- Copper
- Iron
- Lead
- Nickel

Table G-1 Concentration Limits [§66265.94]

Constituent of Concern	Soil Concentration Limit (mg/kg) (per health risk assessment)	Soil Concentration Limit (mg/kg) (per CCR §66261.24)	Groundwater Concentration Limit (ug/L)
Arsenic	1.6	500	10
Cadmium	5.1	100	5
Chromium (Total)	1,500,000	2,500 (as Cr+3)	50
Hexavalent Chromium (Cr+6)	5.6	500	23
Copper	41,000	2,500	1,300
Iron	720,000 (RSL)		11,000 (Tapwater RSL)
Lead, Inorganic	320 (95%UCL)	1,000	15
Nickel	20,000	2,000	300 (Tapwater RSL)

Point of Compliance Monitoring Points (\$66265.95)

MW-4
MW-4A
MW-17S

Detection Monitoring Points (66265.98)

High GW Level Wells	Low Groundwater level Wells
MW-12S	MW-12D
MW-17S (replaced MW-4)	MW-4A
MW-14S	MW-14D
MS-24S	MW-24D

Evaluation Monitoring Points (\$66265.99)

MS-14 S or MW-14D
MW-15S or MW-15D
MW-24S or MW-24D

Background Monitoring Points

MW-01S or MW-01D
MW-12S or MW-12D
MW-22S or MW-22D
MW-23S or MW-23D

MODIFICATIONS TO THE ISD, VARIANCE, PERMIT

There are three authorizing documents affected by this Permit Modification for the 2015 Revised Pond 1 Closure Plan.

- 1) Interim Status Document, issued in 1981
- 2) Permit Variance issued in 1988
- 3) Hazardous Waste Facility Permit, issued in 1991 and modified in 1995

Modifications to these documents as part of the Permit Modification are discussed below.

Modifications to the 1981 Interim Status Document

The Interim Status Document covering the Pond 1 Closure was issued on December 16, 1981. This predates the approved 1988 Closure/Post-Closure Plan. The Interim Status Document was not revised in 1988 and, therefore, does not

mention a closure plan for Pond 1. The 1991 Interim Status Document shall remain unchanged by the proposed 2015 Revised Pond 1 Closure Plan.

Modifications to the 1988 Permit Variance

The 1988 Permit Variance (issued February 22, 1988) authorized the operation of wastewater treatment tanks W-3, W-4, a filter press and a three-stage clarifier.

The 1988 Permit Variance did not make any references to closing any of the equipment included in the variance. Item 11 of the Variance stated “The facility shall comply with all applicable State, Federal, and Local regulations.”

Without a Closure Plan for the variance equipment, DTSC is falling back on regulations for closing hazardous waste tanks systems under Interim Status, as specified in the California Code of Regulations, title 22, division 4.5, chapter 15.

The 1988 Permit Variance has not be changed.

Modification to the 1990 Closure Plan

Phibro-Tech Inc.’s Hazardous Waste Facility Permit (No. 91-3-TS-002) was originally issued June 19, 1991 (to Entech) and modified on June 30, 1995 (to PTI). Tanks W-1 and W-2 are authorized in the Permit, in Part III Section C.3.

The 1990 Operation Plan contains a Closure Plan in Section XIII and in Tab 39. The 1990 Closure Plan contains closure procedures for the hazardous waste treatment tanks at the Facility, but does not specifically include Tanks W-1 and W-2. The 1991 Permit includes Tanks W-1 and W-2 as authorized units.

Although the 1990 Closure Plan discusses the closure of the treatment tanks (also constructed of fiberglass reinforced plastic) the 1990 Closure Plan does not specifically discuss the closure of Tanks W-1 and W-2. The 2015 Pond 1 Closure Plan does specifically discuss the closure of Tanks W-1 and W-2, and that closure is consistent with the closure discussed in the 1990 Closure Plan. Therefore, the 1990 Closure Plan shall remain unchanged.

Modifications to the 1991/95 Permit

Phibro-Tech Inc.’s Hazardous Waste Facility Permit (No. 91-3-TS-002) was originally issued June 19, 1991 (to Entech) and modified on June 30, 1995 (to PTI). Although Pond 1 was not mentioned in the 1991 Permit, the closure of Pond 1 was referenced in the 1995 DTSC-initiated [Class 3] Permit Modification. Pertinent excerpts of the Permit are attached to this Fact Sheet. DTSC shall make the following modifications to reflect the 2015 Revised Pond 1 Closure Plan.

Permit Cover Page: The cover page shall be modified to reflect the decision on the revised 2015 Pond 1 Closure Plan. These administrative changes would include the dates and signature blocks and description of the modifications.

Table of Contents for Modified Part V – Corrective Action, page ii: The 1988 Modified Closure/Post Closure Plan for Pond 1 was included as Attachment 7 in the 1991/95 Modified Permit. The 1988 document shall remain in Attachment 7 for reference. Page ii of the Table of Contents shall be modified by adding “1988” to the referenced Closure Plan, and clarifying that it is superseded by the 2015 Pond 1 Closure Plan

Part II, Section F – Operation Plan, page 4 of 52: Section F references the 1990 Operation Plans which the 1991 Permit is based upon. Language shall be added to this section to add the 2015 Pond 1 Closure Plan for the closure of Pond 1, as well as the additional information for the closure of wastewater treatment tanks W-1, W-2, W-3 and W-4.

Part III, Section C.3 – Storage in Tanks, paragraph starting “The wastewater treatment system...”: Closure of Pond 1 requires the removal of two wastewater treatment tanks, designated as Tank W-1 and Tank W-2. Due to soil instability that may occur when removing Pond 1, two adjacent wastewater treatment tanks, designated as Tank W-3 and Tank W-4, shall also be removed. These tanks are listed in Section 3 of the Permit. Language shall be added to indicate that these tanks will be closed as part of the Pond 1 closure.

Part III, Section S – Closure, pages 36-37 of 52: Section S of the Permit discusses Closure. Section S.1.a references the “closure plan as described in the Volume 1 of the Operation Plan.” DTSC shall add a Section S.1.a.i, ii and iii that includes the Pond 1 Closure Plan for the closure of Pond 1, the closure of Tanks W-1 and W-2, and the closure of Tanks W-3 and W-4.

Part V, Section E.7 – Pond 1 Status Report, pages 52.a.13-14: This section calls for the immediate closure of Pond 1 as given in the 1988 Closure Plan inserted into the Permit as Attachment 7. The closure schedule presented in the 1988 Closure Plan was linked to the approval of the Closure Plan in September 1988. Neither the schedule in the 1988 Closure Plan or the schedule in the 1995 Modified Permit has been implemented. This section shall be adjusted to reflect the implementation of closing Pond 1 using the Pond 1 Closure Plan. This section shall also require immediate closure of Pond 1 upon notification by DTSC to begin closure.

ATTACHMENT 7 – Modified Closure/Post-Closure Plan for Southern California Chemical”: The 1991/95 Permit contained the entire 1988 Modified Closure/Post-Closure Plan for the closure of Pond 1. The Permit referred to Attachment 7 in Part V Section E.7. This reference and section will remain in the new Modified Permit unchanged. Other sections of the Permit will be modified to direct closure of Pond 1 to the 2015 approved Closure Plan.

DTSC APPROVAL CONDITIONS (December 4, 2015)

DTSC reviewed a number of revisions of the draft Pond 1 Closure Plan including the last revised version dated September 2015 (With Updated Appendices B (figures) and G), and received December 3, 2015.

DTSC issued an approval letter on December 4, 2015, approving the Closure Plan, for public review with following conditions:

Closure Performance Standards and Requirements

The approval letter specified closure performance standards and other regulatory requirements in the approval letter. These specified requirements were not clearly stated in the Closure Plan and DTSC felt they were important. The approval letter stated that PTI must comply with the following citations, all located in the California Code of Regulations, title 22:

- §66265.111(c) for closure of tanks W-3 and W-4 and for closure of the surface impoundment Pond 1
- §66265.197 “Closure and Post-closure Care of Tank Systems” for closure of Tanks W-3 and W-4.
- §66265.228 “Closure and Post-closure of Surface Impoundments” for Pond 1
- §66265.310 “Closure and Post-closure Care of Landfills”, if waste is left in place
- §66265.114 “Disposal or Decontamination of Equipment, Structures, and Soil” for closure of equipment authorized under variance such as the filter press
- §66264.197 “Closure and Post-Closure Care of Tank Systems”, for Tanks W-1 and W-2

Target Cleanup Levels

The 2015 Revised Pond 1 Closure Plan presented “Target Cleanup Levels” for soil and groundwater, for each of the Constituents of Concern. (This table is shown above). The table sometimes provided two target cleanup levels for soil: regional screening level from USEPA Region IX, and levels per CCR 66261.24 based on TTLC test values (wet weight).

DTSC’s approval letter Condition #4 states: “Table 4-1 Target Cleanup Levels is modified as follows: If multiple values for a particular constituent are shown in the

table, the lowest value will apply.” This condition is required to assure that concentrations of contaminants exceeding the defined hazardous waste levels are not left in place without post-closure care.

Closure Activities

Section 5 of the 2015 Revised Pond 1 Closure Plan details the activities to be conducted for closure of Pond 1, and Tanks W-1/W-2, and Tanks W-3/W-4. The closure activities must also include all ancillary equipment, such as the filter press mentioned in the 1988 Permit Variance. Although the Closure Activities in Section 5 adequately covered Pond 1 and Tanks W-1/W-2, specific description for the other tanks and equipment were lacking.

DTSC’s approval letter conditions #5 states: “The Closure activities described in Section 5 apply to Tanks W-1 through W-4, the filter press, and ancillary equipment.

Review of Additional Designs

DTSC’s approval letter provided a condition that any future and new designs must be reviewed by DTSC prior to implementation.

6. Any additional in situ remediation design” as referenced in Section 5.11 Phase 2 Soil Excavation, will be subject to DTSC review, revision and approval prior to implementation.
7. Any design for a final closure cover as described in Section 15.1.1 must be submitted by PTI to DTSC for review, revision and approval prior to implementation.

Additional Design Plans

DTSC determined that certain required elements were missing from the Pond 1 Closure Plan or were incomplete. DTSC’s approval provided six conditions (items 8.a - f) for PTI to perform and submit plans within 30 days of the date of final approval of the Pond 1 Closure Plan. These plans include a legal land survey of Pond 1, as built drawings, demolition plans, excavation plans, backfill specifications, and a project implementation schedule Gantt chart.

8. Within 30 days of the date of final approval, submit design plans and specifications that include:
 - a. A legal survey with: one foot contour intervals, spot elevations, the existing Pond 1 layout, site features, and proposed excavation area. Include the coordinates for the existing Pond 1 and Tanks W1, W2, W3, and W4, filter presses and related equipment.

- b. As built drawings for Pond 1, and Tank systems W1, W2, W3, and W4, including Piping and Instrument Diagrams showing all above and underground piping and conduits and pumps and miscellaneous equipment such as filter presses.
- c. Demolition Plans and Specifications for disposal and decontamination of equipment, structures and soil in accordance with 22 CCR 66265.114.
- d. Excavation Plans and Specifications with cross sections showing historical boring locations, the extent of contamination, excavation location and dimensions and a shoring and trenching plan based on site specific soil conditions and in accordance with 22 CCR 66265.114.
- e. Backfill specifications and quality control testing requirements for the back fill activities described in Section 15.1.1, which must include the following: The pit will be backfilled in 8 inch lifts to within three feet of grade level using clean select fill material. The backfill soil will be selected to provide required bearing capacity and will be compacted to 95% relative compaction.
- f. Project Implementation Schedule Gantt Chart in MS Project or similar.

Financial Assurance

A facility must provide financial assurance to cover closure of their hazardous waste facility units. The purpose of the Closure and Post-Closure Cost Estimate is to estimate the cost to close the facility by a third person. The facility must provide financial assurance to cover the cost estimates.

The 2015 Pond 1 Closure Plan provides cost estimates for the closure of Pond 1, Tanks W-1, W-2, W-3, W-4 and for a contingency of Post-closure Care. The final, combined present-day value given in the Closure Plan is \$4,443,000.

Condition #9 of DTSC's approval letter states:

9. PTI must demonstrate Financial Assurance for the cost estimate specified in the Closure Plan within 60 days of final approval of the Closure Plan.

This condition was required to make sure adequate financial assurance is provided for the activities described in the Pond 1 Closure Plan.

Subsurface Remediation Work Plan Information

If contamination is found, the 2015 Pond 1 Closure Plan discusses excavation and in-situ remediation. The in-situ (in place) remediation consists of injecting a chemical (calcium polysulfide) into the soil to react with the hexavalent chromium (Cr+6) contamination to reduce its toxicity and mobility.

DTSC's approval letter provides a condition (#10) to submit a soil injection work plan and approved waste discharge requirements.

10. Appendix F POND I AREA SUBSURFACE REMEDIATION WORK PLAN, Section 2.2 Injection, prior to implementation of soil injections, PTI must submit:
 - a. The soil injection work plan to DTSC for review, revision and approval;
 - b. The Waste Discharge Requirements (WDRs) approved by the RWQCB at least 7 days prior to conducting soil injections.

This condition was required because it was not clear from the Pond 1 Closure plan that the required Pond 1 Area Subsurface Work Plan was subject to DTSC review, revision and approval prior to implementation.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Under the California Environmental Quality Act (CEQA), DTSC has evaluated whether the proposed revised closure plan may have any significant impacts on human health and the environment.

As part of this evaluation, an Environmental Document Analysis (EDA) checklist was prepared. This EDA checklist was prepared pursuant to California Public Resources Code, Section 21166, and California Code of Regulations, title 14, Sections 15162, 15163 and 15164 to assess whether previously certified approved Negative Declaration(s) remain sufficient for purposes of the Department of Toxic Substances Control's (DTSC's) approval of the proposed activities.

From this evaluation, DTSC determined that none of the conditions described in CEQA Guidelines section 15162 calling for the preparation of a subsequent Negative Declaration or EIR have occurred.

As a result, DTSC has prepared an addendum to the previously adopted Negative Declaration(s) pursuant to CEQA Guidelines Section 15164.

PERMIT MODIFICATION PROCEDURES

The modification of the permit related to the closure plans for Pond 1, and Tanks W-1, W-2, W-3, W-4, follows the procedures for Modification of Permits by the Department as authorized under the California Code of Regulations, title 22, section 66270.41, which specifies that a draft permit (§66270.5) shall be prepared and other procedures for a draft permit be followed.

The “draft permit” consists of the changes to the 1991/95 Permit, as shown in Exhibit-A of this Fact Sheet. The 2015 Revised Pond 1 Closure Plan is also part of the draft permit, by reference.

Section 66271.5(d) requires all “draft permits” to be accompanied by a statement of basis (§66271.6) or fact sheet (§66271.7). This Fact Sheet for the Permit Modification of the 2015 Revised Pond 1 Closure Plan satisfies the requirement for a fact sheet.

The fact sheet is based on the Administrative Record (§66271.8). A list of the pertinent documents that make up the Administrative Record is provided towards the end of this Fact Sheet.

DTSC shall give public notice (§66271.9) of the “draft permit” and make it available for public comment (§66271.10). The Department shall give notice of opportunity for a public hearing (§66271.11). The Department shall issue a final decision (§66271.14) and respond to comments (§66271.16).

The draft permit and 2015 Revised Pond 1 Closure Plan will be available for a public review period of at least 45-days. A public meeting and hearing will be held. Notice shall be given of the availability of the “draft permit” document for review, the review period, and the hearing date and location. This notice shall be provided by mail to the facility mailing list, published in a newspaper of general circulation, and broadcast in a radio announcement. All of the notices will be provided in English and Spanish.

The Department’s final decision is subject to appeal under §66271.18.

PUBLIC NOTICE AND PARTICIPATION

The Department of Toxic Substances Control sent public notices to the Facility mailing list, inviting the community to review and comment on two proposed activities – A Proposed Interim measure Work Plan and Revised Pond 1 Closure Plan, both for the Phibro-Tech Inc. Santa Fe Springs Facility.

1. The Proposed Interim Measure Work Plan will require PTI to clean up hexavalent chromium in soil near a former underground chromic acid tank. The cleanup involves injection of chemicals into the ground to reduce the hexavalent chromium to acceptable levels.
2. The Revised Pond 1 Closure Plan updates a previously approved Closure Plan for a former surface impoundment (known as Pond 1). Pond 1 is currently used as secondary containment for two wastewater treatment tanks (W1, W2). The Revised Pond 1 Closure Plan requires PTI to remove the two wastewater treatment tanks (W1, W2), the pond structure, and two adjacent wastewater treatment tanks (W3, W4). PTI must then test the underlying soil and clean up any discovered contamination.

Comment Period

A 60-day public comment period is provided for both activities, beginning December 15, 2015 and ending February 15, 2015.

Meeting and Hearing

A combined public meeting and hearing will be held for both proposed activities, scheduled for January 28, 2016, starting at 6:00 P.M., to be held at the Los Nietos Middle School, 11425 East Rivera Road, Whittier, California 90606.

Comments

Members of the public may submit written comments to: Stephen Baxter, Project Manager, 9211 Oakdale Avenue, Chatsworth, California 91311.

Members of the public may also submit oral or written comments during the Public Hearing scheduled for January 28, 2016.

Administrative Record Review

DTSC maintains an Administrative Record which contains the documents and information that DTSC considered in reviewing the Permit, Revised Pond 1 Closure Plan, and Interim Measures Work Plan.

The administrative record, including the Proposed Interim Measure Work Plan, Revised Pond 1 Closure Plan, fact sheets, the addendum, and related documents may be viewed by appointment between 9:00 A.M. and 5:00 P.M. at the location shown below.

DTSC Regional Records Office
9211 Oakdale Avenue
Chatsworth, California 91311

Call (818) 717-6521 for an appointment

Information Repositories

Pertinent documents of the Administrative Record have been placed in public Information Repositories. These are located at:

Santa Fe Springs Library

11700 Telegraph Rd.
Santa Fe Springs, CA 90670
(562) 868-7738

Santa Fe Springs Neighborhood Center

9255 So. Pioneer Blvd.
Santa Fe Springs, CA 90606
(562) 692-0261

Documents are also uploaded at the DTSC website at:

<http://www.envirostor.dtsc.ca.gov>

DTSC Contacts

Stephen Baxter
Project Manager (for Pond 1 Closure Plan)
(818) 717-6695
Stephen.Baxter@dtsc.ca.gov

Stephen McArdle
Project Manager (for Interim Measures Work Plan)
(818) 717-6564
Stephen.McArdle@dtsc.ca.gov

Jesus Cruz
Public Participation Specialist
(916) 255-3315; (866) 495-5651
Jesus.Cruz@dtsc.ca.gov

Russ Edmondson Public Information Officer
(916) 323-3372
Russ.Edmondson@dtsc.ca.gov

DTSC PROCEDURES FOR REACHING A FINAL DECISION

Response to Comments

After the public comment period has closed, DTSC will review all comments received. DTSC will issue a formal Response to Comments document that will briefly describe and respond to all significant comments on the Permit Modification, the 2015 Revised Pond 1 Closure Plan and the Proposed Interim Measures Work Plan. The Response to comments will include any changes that have been made and the reason for the changes.

Decision

DTSC may decide to either:

- Approve the closure plan and permit modification unchanged,
- Approve the closure plan and permit modification with conditions, or
- Reject the closure plan revision and permit modification.

A notice of DTSC's decision will be mailed to the Facility Mailing List, along with instructions for Appeal.

Appeal

Appeal of DTSC's decision is governed by the California Code of Regulations, title 22, section 66271.18

ADMINISTRATIVE RECORD

The following are pertinent documents in the Administrative Record for the Permit Modification and 2015 Revised Pond 1 Closure Plan. Numbers given are for reference only.

- 1) **DTSC Approval Letter with Conditions:** Letter, from DTSC to Phibro-Tech, dated December 4, 2015, re: DTSC Approval of Pond 1 Closure Plan, With Conditions, Phibo-Tech Inc., 8851 Dice Road, Santa Fe Springs, EPA Identification Number: CAD 008488025
- 2) **2015 Revised Pond 1 Closure Plan:** "Phibro-Tech, Inc., CAD 008 488 025, Santa Fe Springs, California, TSD Facility, Pond 1 Closure Plan, September 2015, (With Updated Appendices B (figures) and G)", dated September 2015, Received December 3, 2015, prepared by Iris Environmental, Submittal Cover Letter dated December 3, 2015.

- 3) **1995 Modified Permit:** Hazardous Waste Facility Permit Modification, Permit No.: 91-3-TS-002, Permit Modification No. 02; Facility: Phibro-Tech, Inc. a.k.a. Entech Recovery, Inc. a.k.a. Southern California Chemical; EPA ID Number: CAD008488025; Operator: Phibro-Tech, Inc. a.k.a. Entech Recovery, Inc. a.k.a. Southern California Chemical; Effective Date: August 2, 1995; Issued by California Environmental Protection Agency, Department of Toxic Substances Control, Date: June 30, 1995.
- 4) **1991 Permit:** Hazardous Waste Facility Permit, Permit; No.: 91-3-TS-002; Facility: Entech Recovery Inc. a.k.a. Southern California Chemical; EPA ID Number: CAD008488025; Operator: Entech Recovery Inc. a.k.a. Southern California Chemical; Effective Date: July 29, 1991; Expiration Date: July 29, 1996; Issued by California Department of Health Services, Toxic Substances Control Program (Region 3), Date: June 19, 1991.
- 5) **1990 Part B Closure Plan:** "Tab 39, Closure Plan, Southern California Chemical" located in Tab 39 of Volume 2 of the SCC Part B Application Revision 1 April 1990
- 6) **1988 Pond 1 Closure Plan:** "Modified [Pond 1] Closure/Post-Closure Plan for Southern California Chemical", signed September 3, 1988
- 7) **1988 Revised Permit Variance:** Letter/Variance, from Department of Health Services, Toxic Substances Control Division, to Southern California Chemical Company, dated February 23, 1988 [Revised], "Hazardous Waste Unit Permit Variance: Southern California Chemical Co. (CAD 008488025)"
- 8) **1981 ISD:** Interim Status Document, Number: CAD008488025; Facility: Southern Cal Chemical Co.; Operator: Southern Cal Chemical Co.; Effective Date: December 16, 1981; Issued by California Department of Health Services, Hazardous Waste Management Branch.

CEQA DOCUMENTS:

- 9) **2015 CEQA EDA:** "DTSC CEQA Environmental Document Analysis / Checklist: Phibro-Tech, Inc.", signed December 14, 2015.
- 10) **2015 CEQA Addendum:** "CEQA Addendum to Previously Adopted Negative Declaration: Phibro-tech, Inc.", SCH# 1990011026

EXHIBIT A

**PROPOSED CHANGES
HAZARDOUS WASTE FACILITY PERMIT
PHIBRO-TECH INC.**

December 15, 2015

Exhibit-A contains changes to the Hazardous Waste Facility Permit (Permit No. 91-3-TS-002), issued to Entech Recovery in June 1991, and modified and issued to Phibro-Tech, Inc. in June a DTSC-initiated permit modification in June 1995.¹ Only relevant pages have been reproduced for Exhibit-A. These pages show changes using a redline/strikeout format – deletion are stricken out, additions are underlined. Explanations of these changes are given in the Fact Sheet. The remainder of the Permit will remain unchanged.

Exhibit-A is attached to the Fact Sheet supporting the Permit Modification to revise the Pond 1 Closure Plan.

The Permit Modification is initiated by the Department of Toxic Substances Control to modify the Pond 1 Closure Plan for Phibro-Tech, Inc. Santa Fe Springs Facility (CAD00848802).

¹ For clarification purposes, it is noted that the 1995 permit modification dated June 30, 1995, modifies the 1991 permit dated June 19, 1991, including Section V. Corrective Action for Release of Hazardous Waste, replacing 1991 permit pages 41 through 52 with the provisions, figures and attachments that make up the 1995 permit modification. Other sections and attachments of the 1991 permit remain in effect.

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. 023

EPA ID Number: CAD00848802

Effective Date: August 2, 1995 xxxx xx,
xxxx

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.
This Permit Modification approves the 2015 Pond 1 Closure Plan which includes plans for the closure of Pond 1 and Tanks W-1, W-2, W-3, and W-4, a filter press, and changes in this Permit as indicated.



Jose Kou Stephen Lavinger, Chief
Facility Chatsworth Permitting Branch
Department of Toxic Substances Control
Region 3, Glendale

Date: June 30, 1995 xxxx, xx, xxxx

Table of Contents, Modified Part V – Corrective Action, page ii

**TABLE OF CONTENTS
MODIFIED PART V – CORRECTIVE ACTION
STATE HAZARDOUS WASTE MANAGEMENT FACILITY
PERMIT NO., 91-3-TS-002**

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 1988 Modified Closure/Post Closure Plan for Pond 1 (Superseded by the 2015 Pond 1 Closure Plan)
- 8 October 15, 1992 Amended General Industrial Activities Storm Water Permit

Part II, Section F – Operation Plan, page 4 of 52

F. Operation Plan

1. By the issuance of the permit, the Operation Plan dated November 8, 1988, revised May 4, 1990, and June 21, 1990, is hereby approved. Specific sections of this Operation Plan are referenced elsewhere in this permit.
2. The owner or operator shall operate and maintain the facility in accordance with the Operation Plan.
3. In the event of any conflict between this permit and the Operation Plan referred herein, the provisions of the permit shall be controlling.
4. The Operation Plan shall be maintained at the facility and place of business at all times until closure is completed.
5. By the issuance of this Permit Modification dated xxxx, xx, xxxx, the Operation Plan is revised to include the “Phibro-Tech, Inc., CAD 008 488 025, Santa Fe Springs, California, TSD Facility, Pond 1 Closure Plan, September 2015, (With Updated Appendices B (figures) and G)”, (2015 Pond 1 Closure Plan). The approved 2015 Pond 1 Closure Plan supersedes the 1988 Modified Closure/Post Closure Plan for Pond 1 included in this Permit as Attachment 7.

Part III, Section C.3 – Storage in Tanks, page 18 of 52, paragraph starting “The wastewater treatment system”

III SPECIAL CONDITIONS

...

C. Storage Conditions

...

3. Storage in Tanks

...

The wastewater treatment system consists of the following: W-1, W-2, W-3, W-4 tanks, a frame filter press and a three stage clarifier. W-3, W-4 tanks, the filter press and the three stage clarifier operate under a hazardous waste permit variance issued by the Department on February 23, 1988.

The wastewater treatment system consists of the following: W-1, W-2, W-3, W-4 tanks, a frame filter press and a three stage clarifier. W-3, W-4 tanks, the filter press and the three stage clarifier operate under a hazardous waste permit variance issued by the Department on February 23, 1988.

Tanks W-1 and W-2 are required to undergo closure as part of the closure of Pond 1. Tanks W-1 and W-2 shall close pursuant to the approved 2015 Pond 1 Closure Plan.

Tanks W-3 and W-4 and the filter press are adjacent to Pond 1 and will be closed pursuant to the approved 2015 Pond 1 Closure Plan.

<u>Tank Number</u>	<u>Capacity (gallons)</u>
W-1	30,000
W-2	30,000
W-3	12,500
W-4	12,500

...

Part III, Section S – Closure, Page 36 - 37 of 52

III SPECIAL CONDITIONS

... S Closure

1. Closure Plan and Amendment of Plan

- a. The owner or operator shall comply with the closure plan as described in the Volume 1A of the Operation Plan, except as provided below.

i. For the closure of Pond 1, the owner or operator shall comply with the approved 2015 Pond 1 Closure Plan.

ii. For the closure of wastewater treatment tanks W-1 and W-2, the owner or operator shall comply with the approved 2015 Pond 1 Closure Plan.

iii. For the closure of wastewater treatment tanks W-3 and W-4 and the filter press, the owner or operator shall comply with the approved 2015 Pond 1 Closure Plan.

- b. The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator shall propose to amend his plan any time changes in operating plans or facility design affect the closure plan or whenever there is a change in expected year closure.

- c. The owner or operator shall submit to the Department for approval, at least 60 days prior to the proposed change in facility design or operation, any proposed amendment made to the closure plan.

- d. The owner or operator shall notify the Department at least 180 days before the date he expects to begin closure.

2. Time Allowed for Closure

- a. Within 90 days after receiving the final volume of hazardous wastes or 90 days after approval of the closure plan, if that is later, the owner or operator shall treat all hazardous waste in storage or in treatment or remove them from the site in accordance with the approved closure plan.

- b. The owner or operator shall complete closure activities in accordance with the approved closure plan within 180 days after receiving the final volume of waste or 180 days after approval of the closure plan, if that is later.

3. Disposal or Decontamination of Equipment

- a. When closure is completed, all facility equipment and structures shall have been properly disposed of or decontaminated by removing all hazardous waste and residues.

- b. At closures, all hazardous waste and hazardous waste residues shall be removed from treatment processes and equipment, discharge control equipment, and discharge confinement structures in accordance with the approved closure plan.

4. Certification of Closure

When closure is completed, the owner or operator shall submit to the Department certification both by the owner or operator and by an independent qualified engineer registered in California that the facility has been closed in accordance with the specifications in the approved closure plan.

Part V, Section E.7 – Pond 1 Closure Status Report, pages 52.a.13-14

MODIFIED PART V – CORRECTIVE ACTION

...
E.

WORK TO BE PERFORMED

...
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, located in Attachment 7 is superseded by the 2015 Pond 1 Closure Plan. The 2015 Pond 1 Closure Plan must be implemented upon written notification from the Department.~~requires the relocation of two wastewater treatment tanks currently located in Pond 1, the excavation and proper disposal of the concrete 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. The 2015 Pond 1 Closure Plan contains the schedule for implementation of Pond 1 closure and the other activities described in the 2015 Pond 1 Closure Plan~~
- b. Within 180 days of the ~~effective date of this Permit Modification,~~ that the owner or operator begins, or is directed by the Department to begin implementation of the 2015 Pond 1 Closure Plan, 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.