



Department of Toxic Substances Control

Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806

Edmund G. Brown Jr.
Governor

March 3, 2017

Certified Mail # 70162070000069375937

Mr. Gerry Manley
Senior Manager, Environmental Management Systems and Compliance
RSR Corporation
2777 N. Stemmons Fwy., Suite 1800
Dallas, Texas 75207

FIRST NOTICE OF DEFICIENCY FOR THE PERMIT RENEWAL APPLICATION FOR THE QUEMETCO HAZARDOUS WASTE FACILITY, 720 SOUTH 7TH AVE., CITY OF INDUSTRY, EPA ID NO. CAD066233966

Dear Mr. Manley:

The Department of Toxic Substances Control (DTSC) has completed its technical review of the RCRA Part A and Part B Permit Renewal Application dated March 10, 2015 and revisions dated May 13, 2015 for Quemetco, Inc. located at 720 South 7th Ave. Industry, California, 91746, hereinafter referred to as the "Revised Application." The Revised Application has been reviewed for compliance with the applicable requirements of California Code of Regulations, title 22, division 4.5 and the Health and Safety Code, division 20. DTSC has determined that the Revised Application is deficient. The enclosed comments comprise the Notice of Deficiency (NOD) issued for the Revised Application.

The following must be submitted by May 3, 2017:

- 1) Two hardcopies and one electronic PDF copy (CD or flash drive) of the complete, clean version of the revised permit application. The revised permit application must be a complete application with all sections, figures, tables, appendices, calculations, attachments and all information required by California Code of Regulations, title 22, division 4.5 and the Health and Safety Code, division 20. In other words, the revised permit application must be a stand-alone document with all deficiencies corrected.
- 2) One hardcopy redlined/strikeout version of the Revised Application showing the changes that have been made as requested in the NOD.

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- 3) One hardcopy of the written response to each of the deficiencies identified in the NOD. In responding to each of the deficiencies, restate the deficiency and identify the page number(s) in the revised permit application where each deficiency has been addressed.

Please note that pursuant to Health and Safety Code section 25200.8 and California Code of Regulations, title 22, section 66271.2(e), DTSC may deny permit applications based on a failure of the applicant to respond to a NOD or when the applicant responds with substantially incomplete or substantially unsatisfactory information.

If you have any questions or would like to schedule a meeting to discuss, please contact me at sam.coe@dtsc.ca.gov or 916-255-3587.

Sincerely,

Original Signed By:

Sam Coe
Environmental Scientist, Project Manager
Permitting Division
Department of Toxic Substances Control

Enclosure

cc: Mr. Scott Bevans
Facility Manager
Quemetco Inc.
720 South 7th Avenue
City of Industry, California 91746

Mr. Edward Nieto, P.E.
Unit Chief
Permitting Division
Department of Toxic Substances Control
edward.nieto@dtsc.ca.gov

Ms. Nelline Kowbel, P.E.
Branch Chief
Permitting Division
Department of Toxic Substances Control
nelline.kowbel@dtsc.ca.gov

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cc: Mr. Rizgar Ghazi, P.E.
Division Chief
Permitting Division
Department of Toxic Substances Control
rizgar.ghazi@dtsc.ca.gov

Mr. Jose Diaz
Senior Environmental Scientist
Brownfields and Environmental Restoration
Department of Toxic Substances Control
jose.diaz@dtsc.ca.gov

Mr. Alexander Mayer
Attorney III
Office of Legal Affairs
Department of Toxic Substances Control
alexander.mayer@dtsc.ca.gov

Mr. Todd Wallbom, P.G.
Engineering Geologist
Geologic Services
Department of Toxic Substances Control
todd.wallbom@dtsc.ca.gov

Mr. Perry Meyers, P.E.
Senior Hazardous Substances Engineer
Engineering Services
Department of Toxic Substances Control
perry.meyers@dtsc.ca.gov

Mr. Tolu Awosika
Senior Environmental Scientist
Enforcement & Emergency Response Division
Department of Toxic Substances Control
tolu.awosika@dtsc.ca.gov

Ms. Elsa Lopez
Public Participation Specialist
Office of Communications
Department of Toxic Substances Control
elsa.lopez@dtsc.ca.gov

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cc: Mr. Sandy Nax
Information Officer
External Affairs
Department of Toxic Substances Control
sandy.nax@dtsc.ca.gov

Ms. Carol Wortham
Senior Environmental Scientist
Environmental Chemistry Laboratory
Department of Toxic Substances Control
carol.wortham@dtsc.ca.gov

Ms. Riz Sarmiento
Staff Toxicologist
Brownfields and Environmental Restoration
Department of Toxic Substances Control
loveriza.sarmiento@dtsc.ca.gov

Mr. Ian MacMillan
Planning and Rules Manager
South Coast Air Quality Management District
imacmillan@aqmd.gov

Ms. Ching Yin To
Water Resources Control Engineer
Industrial Permitting Unit
California Regional Water Quality Control Board
ching-Yin.To@waterboards.ca.gov

Mr. Philip Robeniol
Engineering Associate III
Industrial Waste Section
County Sanitation Districts of Los Angeles County
probeniol@lacsdsd.org

Ms. Barbara Gross
Management Analysis Officer
Division Organization and Programs
United States Environmental Protection Agency
gross.barbara@epa.gov

**ATTACHMENT A
NOTICE OF DEFICIENCY SPECIFIC COMMENTS**

**FIRST NOTICE OF DEFICIENCY FOR
QUEMETCO, INC. HAZARDOUS WASTE FACILITY
EPA ID NO. CAD066233966**

The results of the Department of Toxic Substances Control (DTSC) technical review for the Quemetco, Inc. Hazardous Waste Facility Permit Application are presented below. The technical review is formatted to correspond with the sections presented in Quemetco's permit application. For each deficiency, the following are provided: (1) the requirement (i.e. relevant statute and/or regulation, where applicable) which provides the basis for the deficiency; (2) the part/section/page in which the deficiency is found in the application; (3) DTSC's findings; and, (4) instructions for remedying the deficiency.

Enclosed with these comments are memoranda from Ms. Tamara Zielinski on the Closure Plan Cost Estimate, and Ms. Carol Wortham on portions of the Waste Analysis Plan (Part B Section C) and Closure Plan. Responses to these comments must be provided and the application revised accordingly. Also enclosed is a memorandum from Ms. Riz Sarmiento from the DTSC Human Ecological Risk Office, which outlines the risk assessment requirements for this permit renewal request.

Comments

1. Part A, RCRA Subtitle C Site Identification Form, Page 1: Pursuant to California Code of Regulations (CCR), title 22, subsection 66270.13(c), Part A of the permit application requires up to four SIC Codes which best reflect the principal products or services provided by the facility. The NAICS Code provided in box 6a on page 1 of the RCRA Subtitle C Site Identification Form could not be found on the NAICS Association website. The Part A must be revised to include the current and correct codes.

2. Part A, Hazardous Waste Permit Information Form, Section 7: The Applicant is instructed in Section 7 of the Part A Hazardous Waste Permit Information Form to enter the process codes, the capacity, and the number of units for each processing code. Attachment 13 of the Part B contains a list of the units at the facility. Transfer Tank 13 (TK-13-TT) appears to be missing from this section in the Part A. The capacity of Transfer Tank 13 is 6,233 gallons. This Form must be revised to include this tank in the Part A, or provide an explanation as to why it was omitted.

In Section 7, the units of measure for the capacities of the furnaces are in pounds per hour and not metric tons per day. This is acceptable. However, the capacities of the furnaces are stated to be 600 tons per day in Attachment 13 of the Part B and this is the same capacity listed in Quemetco's Hazardous Waste Facility Operation and Post Closure Permit issued by DTSC on September 15, 2005. DTSC is aware that Quemetco has formally requested authorization from the South Coast Air Quality Management District to increase this capacity to 750 tons per day.

For purposes of clarity, DTSC must note that this Hazardous Waste Facility Permit Application does not request a capacity increase. Any requests by Quemetco to increase

the capacities of the furnaces need to be made in writing. In terms of the pending permit application, DTSC will continue to consider Quemetco's March 5, 2015 permit renewal application (as most recently revised on June 26, 2015) to operate the furnaces at 600 tons per day. Any requests to increase these capacities, will be considered separately after DTSC processes the pending permit renewal application.

On page 3, there is a process code T87 listed with a capacity of 6500 pounds per hour. Please state which unit this refers to.

On page 4, there is a T01 process code with a design capacity of 2500 gallons. A tank with this capacity is not listed in Attachment 13 of the Part B. Explain which hazardous waste treatment tank this is in Quemetco's operation and include it in Attachment 13.

3. Part A, Hazardous Waste Permit Information Form, Section 9: The Applicant is instructed to enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste that will be handled in section 9 of the Part A Hazardous Waste Permit Information Form. Waste Codes D001 and K069 are included in the RCRA Subtitle C Site Identification Form but not included in Section 9 of the Hazardous Waste Permit Information Form. Section 9 must be revised to include these waste codes, the estimated annual quantity of these wastes and their process codes.
4. Part A, Topographic Map: Pursuant to CCR, title 22, subsection 66270.13(l), the Part A requires a topographic map be included. The topographic map included with the Part A is not legible. The topographic map must be revised so all data and information is easily readable and depicts all the information required under subsection 66270.13(l).
5. Part A: Pursuant to CCR, title 22, subsection 66270.13(h), the Part A requires a scale drawing of the facility be included showing the location of all past, present, and future treatment, storage, and disposal areas. The Part A does not include this scale drawing. Include this drawing in the revised Part A.

Also, CCR, title 22, subsection 66270.13(h) requires photographs be included which clearly delineate all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas. The Part A simply includes one aerial photo of the entire facility. This does not meet the requirements of 66270.13(h). The revised Part A must include photographs that comply with subsection 66270.13(h).

6. Part B, Section A-1, Page 1: In the third paragraph of section A-1, it states that batteries are crushed in a battery wrecker, which is exempt from permitting. DTSC does not concur with this statement. Pursuant to CCR, title 22, section 66266.80, a person who manages spent lead-acid storage batteries or their components shall comply with all of the requirements of CCR, title 22, division 4.5 pertaining to the management of a hazardous waste, unless the person is specifically exempted in the provisions of CCR, title 22, section 66266.81. This section must be revised to include the basis for an exemption along with the applicable regulatory citation. DTSC can then review this determination for concurrence. If Quemetco no longer believes that the battery wrecker

is not exempted, the application must be revised to reflect the battery wrecker operation as a hazardous waste management unit.

This section also excludes the refining process that occurs in kettles located in the Refinery Building. DTSC requests that an explanation be included in this section for why these kettles are not included as part of the process for treating hazardous waste.

7. Part B, Section A-2.f, Attachment 4: Pursuant to CCR, title 22, subsection 66270.14(b)(18), a topographic map must be included in the Part B. The topographic map provided in Attachment 4 does not meet the requirements of subsection 66270.14(b)(18) (A) through (L), subsection 66270.14(c)(3) and subsection 66270.14(d). The map must be revised to meet all of these requirements.
8. Part B, Section A-8.c and A-8.d , Attachment 7 and 8: The Industrial Wastewater Discharge Permit and the General Industrial Activities Storm Water Permit included in Attachment 7 and Attachment 8 respectively, are either outdated or expired. Include the most recent versions of these permits in the Part B.
9. Part B, Section B-3b and Attachment 10: Pursuant to CCR, title 22, subsection 66270.14(b)(11)(B), the facility is required to identify in the Part B whether the facility is or is not located within a 100 year floodplain. This identification shall indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. The Flood Insurance Rate Map provided in Attachment 10 is not legible. The revised Part B must include a legible map that allows DTSC to concur with Quemetco's determination in Section B-3b of the Part B that the facility is not located within a 100 year flood plain.
10. Part B, Section B-4b and B-4c, Page 8: Pursuant to CCR, title 22, subsection 66270.14(b)(10), the Part B must contain an estimate of the number and types of vehicles that enter and exit the facility. Section B-4b of the Part B only provides estimates of the number of truckloads. This section must be revised to also include passenger vehicles that transport workers daily to the facility.

Also, in section B-4c, there appear to be conflicting statements. The first sentence says "No vehicle control signals exist in the facility." The last sentence states "Traffic control signs are utilized on internal roads." Please clarify. Subsection 66270.14(b)(10) requires the facility in the Part B to describe traffic control, which includes traffic control signs.

11. Part B, Attachment 9: The November 26, 2014 Geologic and Seismic Hazard Evaluation and Geotechnical Engineering Assessment (Assessment) provided in Attachment 9 has since been revised. Replace the Assessment included in the Part B with the final Assessment with the revision date of October 19, 2016 in Attachment 9.
12. Part B, Section C.1.g, Page 10: Section C.1.g incorrectly lists the Containment Building as a miscellaneous unit. The definition of a miscellaneous unit provided in CCR title 22, section 66260.10 specifically excludes containment buildings. This section and any other

section in the Part B that refers to the Containment Building as a Miscellaneous Unit must be revised.

13. Part B, Section C.2: DTSC has the following questions regarding the Table in Section C.2.
- There are two asterisks in the Waste Stream box for Acid Filters, but no explanation is provided for them. Please elaborate in your revised application.
 - Why is the Reverberatory Furnace not listed as a management unit for any of the waste streams in this table? Add this furnace to the appropriate wastestream in the table.
 - D001 is a waste code listed in the Part A, but this code is not listed for any of the waste streams. Which wastes generated, stored, or treated at Quemetco have the characteristic of ignitability and how is that determined? Add this wastestream to the table along with the appropriate information.

14. Part B, Section C.2.a, Page 13: Section C.2.a of the Waste Analysis Plan (WAP) states the following:

“Quemetco also receives off-specification materials from battery manufacturers. These Acceptable Materials include unused battery cases with or without posts, unused plates and lead oxide paste. As defined by the California Health and Safety Code section 25120.5 (e), these materials are not regulated as hazardous wastes but as retrograde materials undergoing reclamation and therefore are not subject to waste analysis.”

The section from the California Health and Safety Code cited above states the requirements for when a Retrograde Material may become a Recyclable Material. It does not provide any basis for the conclusion that the Acceptable Materials listed in table C.2 of the WAP are not regulated as hazardous waste and therefore not subject to waste analysis. Pursuant to CCR, title 22, section 66264.13 an owner or operator must obtain a detailed chemical and physical analysis of a representative sample of the hazardous waste before the waste is treated or stored. This section of the Part B must be revised to include an adequate explanation as to why these materials are not hazardous waste and therefore not subject to waste analysis or they must be included in the waste analysis plan.

15. Part B, Section C: In accordance with CCR, title 22, subsection 66270.14(b)(19), DTSC requests that a copy of the written notice required by subsection 66266.100(c)(3), which identifies each hazardous waste treated by the furnaces and the claimed exemption from this subsection be included as an attachment to the Waste Analysis Plan.

Also, in Section C, provide the steps for how Quemetco will carry out the sampling and analysis procedures in accordance with subsection 66266.100(c)(1)(B) for all of the hazardous wastes Quemetco claims are exempt under subsection 66266.100(c)(1). Section C.2.a.5 of the WAP lists wastes that are generated onsite and charged to the furnace, but not subject to any waste analysis. Again, under section 66266.100, wastes charged to the furnaces are subject to sampling and analysis requirements in accordance with subsection 66266.100(c)(1)(B). Also, additional waste streams (slag,

wastewater treatment sludge) are listed in the table in this section of the WAP. It is not clear if these wastes are a part of the statements made above this table.

16. Part B, Section C: Pursuant to CCR, title 22, section 66264.13, the waste analysis plan must contain all of the information which must be known to transfer, treat, store, or dispose of the waste in accordance with CCR, title 22, chapter 18. Section C of the Part B does not contain this information. This section must be revised to indicate which wastes are subject to Land Disposal Restrictions (LDR's) and how Quemetco manages these wastes in accordance with Chapter 18. DTSC suggests that table C.2 on page 11 be revised to include all of the waste streams, an indication of whether they are generated on or offsite, and indicate which ones are subject to LDR's. A specific section should be included that discusses how Quemetco meets the LDR requirements under section 66268.7 for each of those waste streams.
17. Part B, Section D.1: Pursuant to CCR, title 22, subsection 66264.175(c), the permit application must contain a written statement signed by an independent, qualified professional engineer, registered in California that indicates that the containment system for the Container/Battery/Raw Materials Storage Area is suitably designed to achieve the requirements of section 66264.175. Include this written and signed statement in the revised Part B.

Also, there appears to be a discrepancy in the Part B regarding the capacity of this storage area. In section D.1.b it states that the capacity is 25,500 gallons and in Attachment 13 it states the capacity to 72,000 cubic feet. The Part B must be revised to correct this discrepancy and include the supporting calculations for the correct capacity.

18. Part B, Section D.1: Pursuant to CCR, title 22, subsection 66264.175(b), the Part B must include sketches, drawings, or data demonstrating compliance with section 66264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and subsection 66264.177(c) (location of incompatible wastes), where applicable. Section D.1 of the permit application that discusses container management does not include this information. Also, pursuant to subsection 66270.15(c) this section of the Part B must include a description of the procedures used to ensure compliance with subsections 66264.177(a) and (b), and 66264.17(b) and (c) regarding the storage of incompatible wastes. This information must be included in the revised Part B.
19. Part B, Section D.2: Section D.2 and Attachments 11 through 16 do not include all of the information required by CCR, Title 22, section 66270.16 and therefore does not demonstrate Quemetco is in compliance with title 22, chapter 14, article 10. Please review section 66270.16 and article 10. The Part B must be revised to include the required information. For example, the Part B must include detailed plans of how the secondary containment system for each tank system is designed, constructed, and operated to meet the requirements of section 66264.193, a description of design specifications, including identification of construction materials and lining materials for the tank and secondary containment, and references to design standards or other available information used in design and construction of the tank. Also, Attachment 14 is missing information. For example, some tanks do not have any information provided,

some only have an ultrasonic examination report, some only have a corrosion monitoring report, etc.. Once the required information is submitted, section D.2 and the referenced attachments will be reviewed by the DTSC Engineering and Special Projects Office.

Please note that if secondary containment systems for tanks do not meet all of the requirements under CCR, title 22, section 66264.193, the facility may request a variance from DTSC in accordance with this section. For facilities with tanks systems that do not have secondary containment that meets the regulations and have not been granted a variance, the closure plan for those tank systems must include a contingent closure plan to comply with CCR, title 22, subsection 66264.197(b). A contingent post-closure plan for the tank systems must also be included in the Part B in accordance with CCR, title 22, section 66264.197(c)(2) and the closure cost estimate must reflect the costs to implement the contingent closure and contingent post-closure plans.

20. Part B, Section D.2.d.1.a, Page 38: It states in section D.2.d.1.a of the Part B that the dates the tanks went into service are presented in Attachment 14. However, this information is not found in the Attachment. Therefore, it is not clear in the information provided which tank systems Quemetco has determined to be a "new tank system" or "existing tank system". Please see the definition of these terms found in CCR, title 22, section 66260.10. Once it is determined whether the tank systems are new or existing, Quemetco must provide the information in the Part B that is required by the regulations applicable to those systems.
21. Part B, Section D.2.a.3, Page 27: This section of the Part B states that process and flow diagrams are presented in Attachment 16. However, this Attachment only contains a water process flow diagram and flow diagrams for two pieces of air pollution control equipment. Pursuant to CCR, title 22, subsection 66270.16(d), diagrams for the flow of hazardous waste for each tank system must be included in the Part B. Attachment 16 must include an adequate diagram illustrating the flow of hazardous waste through each tank system.
22. Part B, Section D.8: Section D.8 of the Part B does not include all of the information required under CCR, Title 22, Chapter 20 subsections 66270.23(a) through (d) for miscellaneous units. The Part B must be revised to include all of the required information in these subsections. DTSC does not concur with the statement in section D.8.b.1 that the process units do not have the potential to release to the groundwater, surface water, wetlands, and/or soil surface from the information that is provided.
23. Part B, Section D.8.a: The information provided in section D.8.a of the Part B does not indicate that the Containment Building is operating in compliance with CCR, title 22, chapter 14, article 29. It is stated in this section that the original epoxy wear surface was replaced with a concrete sacrificial wear surface. It does not state when this was completed or how thick the sacrificial layer of concrete was. The Engineering Certifications provided in Attachment 18 and 19 do not mention the presence of a sacrificial layer nor is there any discussion from the engineer who wrote the Certification Report in Attachment 19 that the epoxy covered surface was replaced. The certifications appear to have been completed before the epoxy wear surface was replaced with the

sacrificial layer of concrete. Under Article 29 subsection 66264.1101(c)(2), Quemetco must obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of paragraphs (a) through (c) of section 66264.1101. Those requirements include a primary barrier that is designed and constructed of materials to prevent the migration of hazardous constituents into the barrier. In accordance with CCR, title 22, subsection 66270.14(b)(19), DTSC requests that an updated certification be included in Attachment 19 of the Part B.

24. Part B, Section D.8.a.7, Page 42: The information provided in Section D.8.a.7 of the Part B does not indicate compliance with the inspection requirements for containment buildings. Pursuant to subsection 66264.1101(c)(4), at least once every seven days, data must be gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

Also, Section D.8.a.7 states the following:

“When inspections have shown that there has been a breach in the primary barrier, the breached section is removed and replaced. This routine repair is carried out in accordance with accepted construction standards. Within 7 days of detection, the facility will notify the regional administrator, enter a record of discovery, remove the contaminated portion of the structure (if applicable) from service, determine the necessary repair steps, and establish a schedule to implement repair(s). The facility will notify the regional administrator upon completion of the repair(s).”

This statement does not indicate compliance with CCR, Title 22, Chapter 14, Article 29, section 66264.1101(3). It is unclear what Quemetco means by the term “regional administrator”. If upon inspection there is a breach or leak in the primary barrier, Quemetco must notify DTSC within 7 days and the affected portion of the Containment Building must be removed from service immediately, not within 7 days. Within 14 working days of the discovery, Quemetco must submit to DTSC a description of the steps needed to make the appropriate repairs.

Please review subsection 66264.1101(c)(3) and (4) and revise this section of the Part B to be consistent with the regulatory requirements.

25. Part B, Attachment 13: DTSC has the following questions/requests regarding the information in the table provided in Attachment 13.

- The Gala Centrifugal Dryer is listed in Attachment 13 as an operating unit. However, there is no mention of it in the Part A or Section D of the Part B. Pursuant to CCR, title 22, subsection 66270.13(i), the revised Part A must list a process code and capacity for this unit and information based on which type of HWMU Quemetco determines this device is (tank, miscellaneous unit, etc.) must be included in the Part B.
- The activity description for the Repulp Tank (RT-1) mentions a filter press inside the containment building. It is not clear if this is a treatment unit. Provide a

description of this filter press that includes the hazardous waste it receives and from where and provide an explanation as to why this filter press is not listed in Attachment 13 as its own treatment unit. The same goes for the filter presses mentioned in the activity description for the Reactor Tank 2 (DR-2), Low pH Transfer Tank (TT-1), High pH Transfer Tank, Battery Wrecker Clarifier (WC-1), and Clarifier 2B (C-2B).

- It's not clear where the paste treated in Reactor Tank 3 (DR-3) is delivered from. The waste source stated for this tank is Reactor Tank 2 (DR-2). However, the activity description for DR-2 states that it receives overflow from DR-3 and the waste source for DR-2 is stated to be the battery wrecker. Please clarify.
- The activity description for Oxidation Tank 100 was omitted. Please include an activity description for this tank.
- Some of the information in the cells is cut off due to the size of the cells. Revise the table so all of the information is readable.

26. Part B, Section E: The Part B must meet the requirements of CCR, title 22, chapter 20, subsection 66270.14(c), which includes detailed plans for monitoring programs for groundwater, surface water, air, and soil pore liquid and soil pore gas. DTSC understands that reports for these monitoring and response programs have been submitted to DTSC as a result of the permit and inspection and are in different stages of review. All comments from DTSC on these reports must be adequately addressed and these plans must be included in the Part B before DTSC can determine whether the Part B is technically complete and ready for review for any draft permit comment period.

27. Part B, Section F.2, Attachment 25: Pursuant to CCR title 22, subsection 66270.14(b)(5), The Part B must include a copy of the general inspection schedule and this schedule must include the specific requirements in section CCR title 22, section 66264.195. The Inspection Schedule in Attachment 25 does not include the tank systems in the battery wrecker and there are no routine tank inspection programs in Attachment 12 as mentioned in Section D.2.e. The revised Part B must include an inspection schedule for each tank system managing hazardous waste to demonstrate the facility will comply with CCR, title 22, section 66264.195.

28. Part B, Section F and Attachment 26 Emergency Preparedness and Contingency Plan, Section 2, Page 3: Pursuant to CCR, title 22, section 66264.37, the facility is required to make arrangements, as appropriate, for the type of waste handled at the facility and the potential need for the services of the organizations listed in this section. Under Section F.3 of the Part B, it states that the preparedness and prevention requirements are contained within the Contingency Plan. However, the Contingency Plan in Attachment 26 does not describe these arrangements. It also does not provide any documents showing that these service organizations have declined any offer from Quemetco to make the arrangements listed under section 66264.37. CCR, title 22, section 66270.14(b)(6) requires a justification of any request for a waiver(s) of the preparedness and prevention requirements to be included in the Part B. The Contingency Plan or Section F must be revised to contain description of the arrangements required under section 66264.37 or documentation showing which organizations have declined to enter into such arrangements.

29. Part B, Section F.4a, Page 50: Pursuant to CCR, title 22, section 66270.14(b)(8)(A), the Part B must include a description of procedures, structures or equipment used at the facility to prevent hazards in unloading operations. Section F.4a must include a discussion of the containment system in the areas where the unloading operations occur and provide information that demonstrates Quemetco will conduct the loading and unloading operations in accordance with the requirements of division 20, section 25200.19 of the California Health and Safety Code.

In addition to the information provided in Section F.4a of the Part B, DTSC requests in accordance with CCR, title 22, section 66270.14(b)(19) that a map be included that shows the area(s) where hazardous wastes are staged (trailers, rail cars, external loading dock), where trailers or rail cars holding hazardous wastes are rinsed, and where the rinse water is collected.

30. Part B, Section F.5, Page 52: In accordance with CCR, title 22, section 66270.14(b)(19), DTSC requests that Section F.5 include the following information regarding the acceptance and storage of lithium metal or ion batteries at the facility:

- The waste codes that apply.
- The maximum amount of time they are stored.
- What wastes at the facility they are incompatible with.
- The specific location within the battery storage area where they are stored.

31. Part B, Section G (Attachment 26 Contingency Plan), Section 10.4: Information provided in Section 10.4 regarding the response to tank spills and leakage does not meet the requirements of CCR, title 22, section 66264.195 and 66264.196. For example, number 3B on page 19 states that tank systems shall be visually inspected monthly. Tank systems must be inspected daily in accordance with CCR, title 22, subsection 66264.195(a). Also, spill response requirements under CCR, title 22, section 66264.196 are not discussed and Appendix N to the Contingency Plan, which contains the Quemetco Spill Response Guidelines was omitted. This section of the Contingency Plan must be revised to meet the requirements under sections 66264.195 and 66264.196 and Appendix N must be added to the Contingency Plan for DTSC review.

32. Part B, Section G (Attachment 26 Contingency Plan), Section 10: Appendix F of the Contingency Plan copies the emergency procedure requirements under CCR, title 22, section 66264.56. However, the emergency procedures listed under Section 10 of the Contingency Plan make no reference to them. Pursuant to CCR, title 22, subsection 66264.52(a), the contingency plan shall describe the actions facility personnel shall take to comply with section 66264.56. Section 10 must be revised to include a description of the actions facility personnel take to comply with section 66264.56.

33. Part B, Section G (Attachment 26 Contingency Plan), Section 11: Pursuant to CCR, title 22, subsection 66264.52(f), the contingency plan must describe evacuation routes and alternate evacuation routes. In section 11 of the Contingency Plan which discusses evacuation procedures, there is a reference to a plot plan located in Appendix B.

However, Appendix B was left blank. The revised Part B must include this plot plan, or provide an explanation as to why it was omitted.

34. Part B, Section G (Attachment 26 Contingency Plan), Section 9, and 13: Pursuant to CCR, title 22, subsection 66264.52(e), the Contingency Plan shall include a list of all emergency equipment at the facility. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities. Section 13, page 23 of the Contingency Plan in Attachment 26 of the Part B states "The location of emergency equipment is also indicated on the Plot Plan in Appendix B." There is no Plot Plan included in Appendix B. The decontamination equipment is also separated out in Section 9 and does not appear to be included in the list in Appendix I. The list in Appendix I must be revised to include all of the equipment discussed in Section 9 and 13 and the specific location of the equipment.
35. Part B, Section J, Page 60: Pursuant to CCR, title 22, subsection 66270.14(d), the Part B must contain the information required under this subsection for Solid Waste Management Units (SWMU's). Attachment 13 contains a list of all of the Hazardous Waste Management Units at the facility. See the definition of a SWMU under CCR, title 22, section 66260.10. Also, the September 30, 1987 RCRA Facility Assessment completed by the U.S. Environmental Protection Agency documented the presence of 40 SWMU's at the facility. This section of the Part B must be revised to include a list of all SWMU's and the information requirements for each of them under subsection 66270.14(d).
36. Part B, Sections M,N,O: In regards to air emission requirements under CCR, title 22, chapter 14, articles 27, 28, and 28.5, Quemetco stated in their response to previous DTSC comments on the Part B during the administrative review that DTSC made the determination in the existing Permit that the units are not subject to these regulations. It is the responsibility of the Applicant to determine if they are exempt. DTSC will then review that determination. Sections M, N, and O of the Part B must be revised to include an explanation for how Quemetco's operations are exempt from these requirements and it must include references to the appropriate laws and or regulations.
37. Closure Plan Revised 12-9-2015: DTSC has the following questions/requests on sections of the Closure Plan:
- The first sentence in Section 1.7.1.2, page 17 states that inventory from the "furnace feed rooms" will be removed. Explain what the feed rooms are and where they are located.
 - The last sentence in the fourth paragraph in Section 1.7.1.3, page 18 mentions the decontamination of underground piping. Explain in the closure plan the exact location of this piping and what it conveys.
 - Provide a reference to the investigations that are mentioned in the first sentence in Section 1.7.1.7, page 19 and provide a definition for Non-Process Areas and why the specific areas mentioned meet this definition.

- Section 1.7.1.2 on page 17 is titled *Containment Buildings and Ancillary Equipment and Structures*. Identify and describe the ancillary equipment and structures. Also, there should be only one Containment Building.
- The fifth paragraph in Section 1.7.2.4, page 22 mentions the use of a storm water detention pond. Include a description of this pond and state where it is located at the facility.

38. Closure Plan Revised 12-9-2015, Section 1, Page 1: The first paragraph on page one cites the various regulations that apply to the Closure Plan. DTSC must note that Quemetco also operates miscellaneous units and therefore, this paragraph must also cite CCR, title 22 section 66264.601, which addresses the closure of these units.

Also, the revised Closure Plan need not reference Code of Federal Regulations (CFR) anywhere throughout the Closure Plan unless there is a specific reason.

39. Closure Plan Revised 12-9-2015, Section 1.1, Page 1: This section simply copies the Closure Performance Standard requirements under CCR, title 22, section 66264.111. Throughout the Closure Plan, Quemetco fails to specifically explain how sampling results will be interpreted to determine if the Closure Performance Standard has been met. For example, several sections in the Closure Plan state that “the final rinsate shall be sampled and tested according to Section 1.5.2.2 to verify the decontamination effectiveness.” Section 1.5.2.2 in the Closure Plan states the following:

“For each of the regulated units, a rinsate sample from the third rinse shall be collected from the downstream end of each unit and shall be subjected to laboratory analysis for lead. Should the analytical results be above the toxicity characteristic level for lead, additional high-pressure washing will be performed, and rinsate samples obtained and analyzed, until that time that the rinsate results are below the toxicity level for lead.”

Pursuant to CCR, title 22, section 66264.112(b)(4), the Closure Plan must include a detailed description of the steps needed to remove or decontaminate all hazardous waste residues (not just lead) and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard. Simply using the level of a contaminant that meets the characteristic of toxicity as a threshold for determining if the Closure Performance Standard has been met is not adequate. In order to meet the Closure Performance Standard in accordance with section 66264.111, Quemetco must remove all hazardous constituents to the extent necessary to protect human health and the environment.

The Closure Plan must be revised to include a description for how Quemetco will determine if the Closure Performance Standard has been met and must include a sampling and analysis plan (SAP) for all types of samples that will be taken. Wipe samples should be included for all tanks to ensure they are decontaminated. Also, throughout the closure plan, Quemetco states that subsurface samples will only be taken

where cracks appear in a unit foundation. This form of biased sampling must also include random sampling measures to ensure the unit is decontaminated and the soils beneath it are not impacted.

40. Closure Plan Revised 12-9-2015, Section 1.1.2, Page 2: In regards to the statement in the second paragraph that manufacturing equipment and process buildings are not required to follow the closure regulations for a hazardous waste management facility, this section must designate the buildings and equipment you are referring to and include a statement that they have never managed any hazardous waste. If they have managed or come into contact with hazardous waste, they must be included in the Closure Plan. CCR, title 22, section 66264.114 states "During the partial and final closure periods, all contaminated equipment, structures and soils shall be properly disposed of or decontaminated by removing all hazardous waste and residues, unless otherwise specified in sections 66264.197, 66264.228, 66264.258, 66264.280, or 66264.310."
41. Closure Plan Revised 12-9-2015, Section 1.3, Page 3: Section 1.3 discusses a Post-Closure Plan. Quemetco's existing permit regulates two "post-closure units," the closed surface impoundment and former waste piles. Only these two units currently require a Post Closure Plan. Quemetco must submit a Post Closure Plan separate from the Closure Plan for those units and it must address all the of requirements of CCR, title 22, section 66264.118 and any other applicable regulations including 66270.14(b)(14). The Post Closure Plan must also contain a cost estimate as required under section 66264.144 and subsection 66270.14(b)(16).
42. Closure Plan Revised 12-9-2015, Section 1.7 and 1.7.1.4: Pursuant to CCR, title 22, subsection 66264.112(b)(1), the Closure Plan must include a detailed description of how and when each HWMU at the facility will be closed. Section 1.7 of the Closure Plan does not include a description of how the HWMU's in the Battery Wrecker area will be closed. The information provided in Section 1.7.1.4 for the furnaces also does not contain detailed information. The Closure Plan must be revised to include a description for the closure of these units.
- Also, generally throughout the Closure Plan, Quemetco does not clearly indicate what equipment, tanks, buildings, sumps, and secondary containment structures will either be removed or left in place. This information must be included in the process for how each HWMU will be closed. If they are left in place, the Closure Plan must describe in detail the activities Quemetco will carry out to ensure they are properly decontaminated or how it meets the Closure Performance Standard.
43. Closure Plan Revised 12-9-2015, Section 1.7.1.7, Page 19: This section of the Closure Plan states that an investigation revealed lead concentrations above 80 ppm beneath several non-process areas including the parking lot, thoroughfare areas, truck and trailer parking area, proposed stormwater storage tank area, and metallic sodium storage area. It appears the investigation that Quemetco is referring to is a RCRA Facility Investigation Report (RFI) submitted to DTSC dated January 13, 2006. DTSC must note that the RFI is part of an ongoing corrective action process and that those areas investigated in the RFI must be addressed through that process.

44. Closure Plan Revised 12-9-2015, Section 1.7.2, Page 20: Quemetco states in Section 1.7.2 of the Closure Plan that the contingent closure plan was prepared “in the event there are unforeseen circumstances that arise during closure, or additional activities are required to complete and certify the facility closure.” A contingent closure plan may not be submitted to DTSC for this purpose. There are specific situations in CCR, title 22 that outline when a Contingent Closure Plan is required (e.g. CCR, title 22, subsection 66264.112(a)(1)). However, pursuant to CCR, title 22, subsection 66264.112(c)(2)(C), if unexpected events occur when conducting partial or final closure activities, Quemetco must submit a written notification or request for a permit modification to authorize a change in the approved closure plan. The Closure Plan must be revised to outline all of the actions that Quemetco expects must be completed in order to meet the closure performance standard and the closure cost estimate must reflect the worst case scenario.

Also, a Contingent Post-Closure Plan is included in Section 1.7.4 and DTSC must note that if upon the completion of closure, all hazardous wastes, waste residues, contaminated materials and contaminated soils are not removed, Quemetco must submit to DTSC a Post-Closure Plan that meets the requirements of CCR, title 22, Section 66264.118.

45. Closure Plan Revised 12-9-2015, Section 1.9.1, Page 25 and 28: The closure cost calculations provided in section 1.9.1 of the Closure Plan include estimates for the cost to excavate subsurface soils in undisclosed areas (page 25) and in “non process areas” (page 28) and states that 5,045 and 6,420 cubic yards of soil at an average depth of three feet will be excavated respectively. Nowhere in the Closure Plan does it explain how these amounts and average depth were determined. Pursuant to CCR, title 22, section 66264.112(b)(1) the Closure Plan must include a description of how and when each hazardous waste management unit at the facility will be closed in accordance with CCR, title 22, section 66264.111 and pursuant to section 66264.112 all contaminated soils must be properly disposed or decontaminated. The Closure Plan must be revised to illustrate the boundaries of the excavation(s) and a reason why a depth of three feet is adequate. Otherwise, DTSC cannot determine whether the activities described in the Closure Plan can meet the Closure Performance Standard.

46. Closure Plan Revised 12-9-2015, Table 1.2: Pursuant to CCR, title 22, section 66264.112(b)(6), the Closure Plan must include a schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. The schedule included in Table 1.2 lacks this detail. The schedule must be revised to meet the requirements contained in sections 66264.112 and 66264.113.

47. Closure Plan Revised 12-9-2015: In previous discussions with DTSC, Quemetco stated that there are two tanks in the waste water treatment plant area that are no longer in use and no longer needed for plant operations. These tanks are referred to as the East and

Attachment A: NOD Specific Comments
Quemetco, Inc.

West Water Recycling Tanks in the September 15, 2005 Hazardous Waste Facility Operation and Post-Closure Permit and Part B. If Quemetco wishes to formally close these tanks, DTSC suggests that a separate section in the Closure Plan be included for review that specifically addresses the steps necessary to close these tanks in accordance with CCR title 22, chapter 14, article 7, and section 66264.197.



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

COST ESTIMATE REVIEW DEFICIENCIES M E M O R A N D U M

TO: Sam Coe
Project Manager
Permitting Division
Hazardous Waste Management Program

From: Tamara Zielinski, P.E.
Senior Hazardous Substances Engineer
Special Projects Unit
Permitting Division
Hazardous Waste Management Program



SUBJECT: REVIEW OF THE CLOSURE AND POST COST ESTIMATE FOR
QUEMETCO, INC. FACILITY, 720 SOUTH SEVENTH AVE., CITY OF
INDUSTRY, CA 91746 (EPA ID CAD 066233966)

DATE: February 13, 2017

Documents Reviewed

The result of this review is limited to the following document, or sections thereof:

1. Facility Closure Plan, Quemetco Incorporated, City of Industry, CA, April 19, 1994, Revised February 3, 2000, Revised May 12, 2015, and Revised December 9, 2015

Introduction

The Department of Toxics Substances Control (DTSC), Permitting Division, Cost Estimate Group has reviewed the Closure and Post-closure Cost Estimates for the Quemetco Facility (Facility). This review was conducted in accordance with DTSC's Work Plan for Closure and Post-Closure Cost Estimate Reviews, dated May 2015. The Cost Estimate Review is required to determine if the estimated costs are sufficient to provide financial assurance for the completion of the closure and post-closure care for the Facility pursuant to California Code of Regulations Title 22 (22 CCR) sections

66264.142 for Closure Cost Estimates and section 66264.144 for Post-closure Care Cost Estimates.

1. 22 CCR 66264.142(a)(1) requires the Closure Cost Estimate to equal the cost of final closure at the point in the facilities active life when the extent and manner of its operation would make closure the most expensive, as indicated in the Closure Plan. Closure of the facility is the most expensive when each unit contains the maximum inventory of hazardous waste. The Closure Cost Estimate significantly underestimated the cost for completing the activities described in the Closure Plan, because it did not include the cost for removal, transport, and disposal of the maximum inventory of hazardous waste as required by 66264.142(a)(1). For example, Section 1.7.1.2 of the Closure Plan states: "Any inventory contained in the reverb and electric arc furnace feed rooms shall be placed into a suitable container and transported, as recyclable material, to a permitted secondary lead smelter". The cost for this closure activity was not included in the Closure Cost Estimate. In addition the cost for removal of the maximum inventory from the Battery Storage Area, Tanks for the Scrubber and Battery Wrecker Process Water and Generator Accumulation Areas were not included in the Closure Cost Estimate. The cost for these closure activities needs to be included in the Closure Cost Estimate pursuant to 66264.142(a)(1).
2. 22 CCR 66264.142(a)(4) prohibits the owner or operator from including zero cost for hazardous or non-hazardous waste, that might have economic value. The Closure Cost Estimate includes zero cost for removal, transport, disposal or treatment of recyclable material. For example, Section 1.5.1.1 of the Closure Plan states: "Recyclable material includes the lead acid batteries and containers of lead bearing material stored in the battery storage area, any raw material temporarily stored in the furnace and reverberatory feed rooms, reverberatory slag, lead drosses from the lead refining process, wastewater treatment plant filter press cake, and any other lead bearing material located onsite at the time of closure. This material is a valuable raw material for the secondary lead industry. Although this material could be sold to these reclamation facilities - for a profit, no such profit will be assumed for the purpose of this closure plan. This material will be transported to a permitted secondary lead recycler for lead reclamation and handled in accordance with 22 CCR 66261.6". The Closure Cost Estimate included zero cost for transporting the recyclable material to a permitted secondary lead recycler for lead reclamation and handled in accordance with 22 CCR 66261.6, because it assumes the value of the recyclable material would offset those costs. This is prohibited under 22 CCR 66264.142(a)(4).
3. In accordance with the following regulations, the Closure Plan must be revised to address the packaging requirements for any damaged batteries remaining onsite:

- 22 CCR 66261.6(a)(2)(C) requires spent lead-acid storage batteries that are being reclaimed are regulated under article 7 of chapter 16 of division 4.5. Article 7, Section 66266.81(a)(8) states, "A person who treats spent or damaged lead-acid storage batteries is subject to **all requirements of division 4.5**".
 - 22 CCR 66266.81(d) defines a "Damaged battery" as any cracked or otherwise damaged lead-acid storage battery that may leak acid, including but not limited to:
 - (1) A battery damaged at any time before the lead plates are removed, and
 - (2) A battery that is missing one or more caps.
 - 22 CCR 66266.81(b) requires a damaged battery to be managed so as to minimize the release of acid and lead and to protect the handlers and the environment, including at a minimum:
 - (1) A damaged battery shall be stored and transported in a nonreactive, structurally secure, closed container capable of preventing the release of acid and lead.
 - (2) A container holding one or more damaged batteries shall be labeled with the date that the first battery in the container was placed there, i.e., the initial date of accumulation.
 - (3) All container labels shall be written in ink, paint or other weather-resistant material so that the date is legible and conspicuous.
 - (4) A container holding one or more damaged batteries shall be packed for transportation in a manner that prevents the container from tipping, spilling or breaking during the transporting.
4. The Closure Cost Estimate needs to be revised to include the cost for transporting the recyclable material to a permitted secondary lead recycler for lead reclamation and handled in accordance with 22 CCR 66261.6, as follows. A unit cost of \$850/ton was included in the Closure Cost Estimate for the management of solids residue at a secondary lead recycling facility in Missouri. Table 1.1 of the February 3, 2000 Closure Plan indicates the maximum inventory of crushed or damaged batteries in the Containment Building is 8,400 cubic yards. During the Closure of the Exide Facility it was determined that the density of the crushed batteries or feed material was 2.4 tons per cubic yard. Due to the density of the lead material the transport would be weight governed. At 2.4 tons per cubic yard the maximum inventory in the Containment Building would be 20,160 tons. Using the Closure Cost Estimate unit cost of \$850 per ton the cost for removal of the maximum waste inventory in the Containment Building in accordance with 22 CCR 66261.6 would be \$17,136,000. Total cost for the removal of the maximum inventory is estimated on the following table.

Hazardous Waste Management Units	Maximum Inventory	Units	Cubic Yards	Tons	Unit Cost	Units	Cost
Battery Storage Area	67,830	batteries		1,221	\$850	\$/ton	\$ 1,037,799
Containment Building	8,400	cy		20,160	\$850	\$/ton	\$ 17,136,000
Tank Volumes	2,578,647	gal			\$0.033	\$/gal	\$ 85,095
Sludge Volume	257,865	gal	1,277	3,064	\$850	\$/ton	\$ 2,604,444
Additional Closure Costs							\$ 20,863,338

Assumptions:

1. Battery Storage Area Maximum Volume based on Table 1.1 in the 2/3/2000 Closure Plan
 2. Containment Building Maximum Volume based on Table 1.1 in the 2/3/2000 Closure Plan
 3. Scrubber Water and Wrecker Process Water Volume in Tanks based on Table 1.1 in the 5/12/15 Closure Plan.
 4. Density of feed material 2.4 tons/cy based on Exide feed material test results
 5. Density of batteries based on Exide Battery weight of 36 lbs.
 6. Unit Cost of \$850/ton based on 12/9/15 Closure Plan
 7. Unit Cost of \$0.033 based on 12/9/15 Closure Plan
 8. Sludge volume based on 10% of tank volume.
5. Section 1.2.1 of the Closure Plan did not include the requirement to clearly define the closure activities for each hazardous waste management unit pursuant to 66264.112(b)(1). The Closure Plan needs to be revised to include the detailed closure activities for each hazardous waste management unit and the cost for those activities needs to be included in the cost estimate. In order to develop a cost estimate of final closure of the facility as indicated in the closure plan pursuant to 66264.142(a)(1) the Closure Plan needs to clearly define the closure activities for each hazardous waste management unit pursuant to 66264.112(b)(1). This section requires the Closure Plan to include a description of how and when each Hazardous Waste Management Unit will be closed in accordance with the Closure Performance Standards in 66264.111. This includes the requirements in:
- 66264.178 for Closure of Container Storage Areas,
 - 66264.197 for Closure and Post-Closure Care of Tank Systems,
 - 66264.228 for Closure and Post-Closure Care of Surface Impoundments,
 - 66264.258 for Closure and Post-Closure Care of Waste Piles,
 - 66264.310 for Closure and Post-Closure Care of Landfills,
 - 66264.601 for Environmental Performance Standards for Miscellaneous Units,

66264.602 for Monitoring, Analysis, Inspection, Response, Reporting and Corrective Actions for Miscellaneous Units,
66264.603 for Post-Closure Care for Miscellaneous Units, and
66264.1102 for Closure and Post-Closure Care for Containment Buildings.

6. The Closure Cost Estimate needs to be revised in accordance with the following requirements in 22 CCR § 66264.142

(a) The owner or operator shall 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 in sections:

§ 66264.111. Closure Performance Standard.
§ 66264.112. Closure Plan; Amendment of Plan.
§ 66264.113. Closure; Time Allowed for Closure.
§ 66264.114. Disposal or Decontamination of Equipment, Structures and Soils.
§ 66264.115. Certification of Closure.
and applicable closure requirements in sections;
§ 66264.178. Closure for Container Storage Areas.
§ 66264.197. Closure and Post-Closure Care for Tank Systems.
§ 66264.228. Closure and Postclosure Care for Surface Impoundments.
§ 66264.258. Closure and Post-Closure Care for Waste Piles.
§ 66264.280. Closure and Post-Closure Care for Land Treatment Units.
§ 66264.310. Closure and Post-Closure Care for Landfills.
§ 66264.351. Closure for Incinerators.
§ 66264.601. Environmental Performance Standards for Miscellaneous Units.
§ 66264.602. Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action for Miscellaneous Units.
§ 66264.603. Post-Closure Care for Miscellaneous Units.
§ 66264.1102. Closure and Post-Closure Care for Containment Buildings.

- (1) The estimate shall be submitted in accordance with sections 66270.10 and 66270.14. The estimate shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see section 66264.112(b)).
- (2) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in section 66260.10.) The owner or operator may use costs for on-site disposal if it can be demonstrated that on-site disposal capacity will exist at all times over the life of the facility.

- (3) The closure cost estimate shall not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under section 66264.113(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.
- (4) The owner or operator shall not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under section 66264.113(d), that might have economic value.



Department of Toxic Substances Control



Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
Environmental Chemistry Laboratory – Berkeley
700 Heinz Avenue, Suite 100
Berkeley, CA 94710

Edmund G. Brown Jr.
Governor

DATE: October 5, 2016

TO: Sam Coe
Project Manager
California Department of Toxic Substances Control
Permitting Division
Sacramento, CA

FROM: Carol Wortham
Quality Management Officer
Environmental Chemistry Laboratory, Berkeley

Original Signed By:

SUBJECT: Review of Section C Waste Characteristics of the Waste Analysis Plan Part B for Quemetco

The Environmental Chemistry Laboratory (ECL) was requested to review Section C Waste Characteristics of the Waste Analysis Plan Part B for Quemetco. ECL was specifically asked to address test, sampling, and analytical methods beginning at section C.2.b. This review only addresses laboratory-related elements of the plan.

C.2.a.4 Future Materials Subject to Waste Analyses:

"Total Metals-Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver."

This list is a subset of the CAM 17 metals list addressed in Title 22 Division 4.5 Chapter 11 Article 3 Section 66261.24 Characteristics of Toxicity. The metals listed are the same metals analyzed for in the Toxicity Characteristic Leaching Procedure (TCLP) used for identification of RCRA wastes. The Federal regulations do not address total metals concentration, but the California regulations do include criteria for CAM 17 total metals. Clarification needs to be provided as to why only the TCLP metals list is being used for total metals analysis.

C.2.b. Test Methods

This section does not provide QA/QC requirements associated with laboratory testing.

C.2.b.1 Laboratory Selection

Is the on-site lab accredited or otherwise meet lab quality management standards appropriate to the work?

C.2.b.2 Analytical Methods

Table of Analytical Method Number and Reference

It says that if necessary other SW-846 analytical methods may be used. Should the reason for using another method be documented?

There is nothing to indicate when 3050B will be used versus 3052 (or another sample digestion method).

There are two additional methods for digestion of samples for metals analysis that were not included:
Method 3015A: Microwave Assisted Acid Digestion of Aqueous Sample and Extracts
Method 3051A: Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils.

Was there a reason why the Microwave Digestion method 3052 was the only one referenced?

Section C.2.a.4 includes mercury in the list of metals to be reported yet mercury preparation methods are not included in the table.

The table only includes sample digestion methods. Sample analysis methods (such as 6010C) are missing from the table.

The methods listed are preparation methods and not analysis methods and thus do not have DLs associated with them.

MDL values are method and instrument dependent and vary from laboratory to laboratory. Results reported between the laboratory's reporting or quantitation limit and the MDL are estimated values and not reliable concentrations. The MDLs between the on-site laboratory and any other laboratory will not be comparable. Reporting or quantitation limits should be provided.

C.2.c. Sampling Methods

This section addresses sampling-related issues, including sampling QA/QC (C.2.c.6). There is no corresponding section addressing QA/QC requirements associated with the analytical test methods (see C.2.b, above).

C.2.c.4 Conditional Materials Fingerprint Analysis

"The purpose of the fingerprint analyses is to ensure that the waste material is a lead bearing material, and therefore, suitable for reclamation at Quemetco. Quemetco will use the Chemical Spot Test for lead (described below) to fingerprint conditional materials. The detection limit at which there is an observable effect is approximately 5,000 ppm."

The document does not outline what is to be done with the material that tests below the 5,000 ppm detection limit of the fingerprint test.

C.2.c.6

There are two sections "C.2.c.6." related to "Sample Preservation and Storage" and to "QA/QC Procedures," respectively.

C.2.c.6 Sample Preservation and Storage

Table Standard Sample Holding Times, Containers, and Preservation Methods*

Mercury hold times and preservation is not addressed in this table. Mercury is one of the metals outlined for analysis in section C.2.a.4.

C.2.c.6 QA/QC Procedures

This section of the plan does not identify any QA/QC requirements for the laboratory.

C.2.c.6.2.1. Chain of Custody

The CoC form should have a unique sample number for each sample submitted for analysis.

C.2.c.6.2.4. Health and Safety Protocols

Some common PPE such as safety glasses are not listed. If a list of "minimum" PPE is given, it should be quoted from the Quemetco Site Safety Plans or otherwise be reviewed by an IH.

If you have any questions, please do not hesitate to contact me.

Reviewed by

Original Signed By:

Bruce LaBelle
Laboratory Chief
Environmental Chemistry Laboratory



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
Environmental Chemistry Laboratory – Berkeley
700 Heinz Avenue, Suite 100
Berkeley, CA 94710



Edmund G. Brown Jr.
Governor

MEMORANDUM

DATE: December 19, 2016

TO: Sam Coe
Project Manager
California Department of Toxic Substances Control
Permitting Division
Sacramento, California

FROM: Carol Wortham
Quality Management Officer
Environmental Chemistry Laboratory, Berkeley

SUBJECT: REVIEW OF THE DECEMBER 9, 2015 REVISED FACILITY CLOSURE PLAN FOR QUEMETCO INCORPORATED CITY OF INDUSTRY, CA AND QUEMETCO'S TCLP ANALYTICAL PROCEDURE ADDED TO SECTION C.

Original Signed By:

In response to your November 23, 2016 request, the Environmental Chemistry Laboratory (ECL) reviewed the December 9, 2015 Revised Facility Closure Plan for Quemetco Incorporated, City of Industry, CA and Quemetco's TCLP Analytical Procedure added to Section C. Review was limited to chemical testing sections and comments.

Section 1.6.1.3 Sample Containers

In this section it states that samples collected for organic analyses shall be undisturbed and collected in lined sleeves. This indicates that soil samples may be analyzed for organic analytes. It is not clear in the document if organic analysis will be performed or what tests will be performed. Table 1.3 only addresses the required preservation and holding times for the water monitoring analyses and does not address any soil sampling that may be performed. ECL requests that clarification be provided regarding any organic analyses to be performed on the soil samples collected and that holding times

and preservation be added to the document. If organic analysis is not to be performed on the soil samples, ECL recommend the reference to those analyses be removed from this section.

Section 1.6.4 Quality Assurance

In the first paragraph, the last sentence is either an incomplete thought or a header for the next section. ECL recommends review for possible format changes.

Table 1.3 Sampling and Preservation for Detection Monitoring

The temperature preservation requirement is not used consistently throughout the table. ECL recommends that the table be updated to include both chemical and temperature preservation requirements where applicable.

The maximum holding time listed for VOCs and all individual compounds associated with listed method 8260B is inconsistent with the chemical preservation listed. In SW-846 Chapter 4 Table 4-1 specifies a holding time of 14 days if acid preservation is used. A holding time of 7 days is specified for samples that are not acid preserved. ECL recommends that the table be updated to reflect the correct holding time and preservation to be used for the project.

The table specifies no preservation required for the analysis of m,p-xylenes by method 8260B. This is inconsistent with SW-846 Chapter 4 Table 4-1. ECL recommends that this compound be updated with the same criteria as those for VOCs and other compounds to be analyzed by method 8260B.

The table specifies a maximum holding time of 48 days for the analysis of Nitrate (as N). This is inconsistent with the holding time of 48 hours as specified in the EPA Method. ECL recommends updating the table to reflect the correct holding time.

Section C Quemetco's Toxicity Characteristic Leaching Procedure (TCLP) and ICP Analysis of Extract

Section 3.0 Procedure

The determination of %solids is not discussed in this document. The daily composite is referred to as "slag" with no explanation of the consistency of the sample. ECL recommends that either the %solids criteria be addressed in the document or language added to explain why %solids determination is not necessary.

Method 1311 section 7.1.3 discusses the determination of need for particle size reduction. This criteria is not addressed in this document. ECL recommends that either the particle size reduction be addressed in the document or language added to explain why it is not necessary.

TCLP Extraction and Preparation of Leachate

Step 2

Method 1311 requires a method blank sample to be prepared and rotated in the same manner as the samples. ECL recommends that the procedure and document be updated to address this requirement.

Step 3

Method 1311 requires the extract to be rotated at a temperature of 23 +/- 2°C. ECL recommends that the procedure be updated to match the requirements of the method.

Step 7

Method 1311 section 7.2.14) specifies adjusting the pH of the leachate to be used for metals analysis to <2. This procedure does not mention adjustment of the pH. ECL recommends an update of the document and procedure to address this requirement.

Digestion Block Digestion

It is unclear what EPA digestion method is being followed. The steps outlined in this section are too general to match to a specific EPA method. There is no specification of the final volume requirement for the sample once the heating cycle is complete. ECL recommends the document to be updated to specify the EPA digestion method being followed and include all necessary steps and specifications.

The procedure does not mention the digestion or analysis of a laboratory control sample or blank spike. This is a portion of the TCLP blank that is spiked with a known concentration of a spike solution, digested, and analyzed to show that the procedure can recover all the compounds of interest in a clean matrix. It is a requirement for all EPA digestion methods and analytical methods. ECL recommends that this quality control sample be added to the procedure.

If you have any questions, please do not hesitate to contact me.

Reviewed by:

Original Signed By:

Dr. Bruce LaBelle
Laboratory Chief
Environmental Chemistry Laboratory



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,
Governor

MEMORANDUM

TO: Sam Coe
Hazardous Waste Management Program
Permitting Division, Sacramento

FROM: Riz A. Sarmiento, Ph.D. Original Signed
By:
Staff Toxicologist
Human and Ecological Risk Office, Chatsworth, CA

DATE: December 13, 2016

SUBJECT: Requirements for Risk Assessments at Quemetco, Inc. Facility – City Of Industry,
CA

PCA: 25040 Site: 300225-33

HERO was requested to recommend the scope of a risk assessment that should be submitted as part of the requirements for a permit renewal of the Quemetco Facility, City of Industry, CA. The *Human Health Risk Assessment (HHRA) in support of the RCRA Part B permit for Quemetco, Inc., City of Industry, California*, September 29, does not meet the current requirements of the Department of Toxic Substances Control (DTSC). The 2000 HHRA was prepared to comply with the AB2588 requirements and was based on applying a dispersion model to estimate ground level concentrations (GLCs) of chemicals that were emitted from the Quemetco facility. Therefore, the estimated cancer risk and hazard estimates in the 2000 HHRA are based on potential exposures to modeled, rather than measured, chemical concentrations in soil and other environmental media of concern.

Furthermore, the toxicity criteria of contaminants of potential concern should be updated to reflect currently available toxicity criteria, including but not limited to, the following:

- DTSC recommends that inorganic lead be evaluated based on the new toxicity evaluation of lead that was developed by the Office of Environmental Health Hazard Assessment (OEHHA) in 2007. The 2000 HHRA applied the threshold blood lead concentration of 10 micrograms per deciliter ($\mu\text{g}/\text{dl}$), which had been replaced with a source-specific "benchmark change" of $1\mu\text{g}/\text{dl}$. The soil concentration that could result in a blood level of $1\mu\text{g}/\text{dl}$ is 80 milligrams per kilogram (mg/kg) rather than 400 mg/kg . Therefore, the HHRA for the RCRA permit should evaluate lead based on the criterion of 80 mg/kg .
- The 2000 HHRA identified naphthalene as a noncarcinogen whereas naphthalene has been evaluated as a carcinogen since 2004. Therefore, the HHRA for the RCRA permit should evaluate naphthalene as a carcinogen.

DTSC also requires that a multi-media HHRA be prepared that is consistent with USEPA (USEPA, 1989, 2009, 2014) and CalEPA guidelines. The multi-media risk assessment should be based on data collected from environmental media considered applicable to the Quemetco facility, e.g., soil, groundwater, surface water, soil vapor. Chemical concentrations in dust-borne particulates are calculated based on corresponding soil concentrations. Fugitive emissions generated by vehicular traffic associated with operations at the Quemetco facility and a risk of upset analysis should be included in the HHRA.

The Human and Ecological Risk Office (HERO) of DTSC/CalEPA published HHRA Notes that identify recommended assumptions and parameters in the performance of a human health risk assessment. These HHRA Notes are updated, as appropriate, when more recent information becomes available. In cases where USEPA and CalEPA recommendations are different, the latter should be applied. The human receptors that should be evaluated include off-site residents (adult and child), on-site worker, and site visitor. The HHRA should present the cumulative cancer risk and hazard index due to potential exposures for each group of receptors to all environmental media.

The risk assessment should also include an ecological risk assessment. Please refer to the DTSC guidelines for the tiered approach in conducting an ecological risk assessment.

Reviewed by: Brian Faulkner, Ph.D. Brian
Senior Toxicologist Faulkner
Ecological Risk Assessment Section (ERAS) Chief
Human and Ecological Risk Office

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Faulkner
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