Dear Mr. Lafflam:

ENERGY TECHNOLOGY ENGINEERING CENTER (ETEC) HAZARDOUS WASTE MANAGEMENT FACILITY OPERATION PLAN REVIEW, NOTICE OF DEFICIENCY (NOD), EPA ID NUMBER CAD000029972

The United States Environmental Protection Agency (EPA) and the Department of Health Services (DHS) have evaluated Operation Plan (OF), dated March 5, 1991, for Rockwell ETEC Hazardous Waste Management Facility (alkali metals burn facility), Area IV. The facility is located in Santa Susana Field Laboratory, top of Woonley Canyon Road in Simi Hills, Ventura county. We have evaluated this document according to guidelines set forth in "Instructions for Preparing an Operation Plan for a Hazardous Waste Storage and/or Treatment Facility Which Involves Containers and/or Tanks Only", dated October 1985 and "TCPA Part B Permit Application Checklist".

As a result of this evaluation, several sections of the OP were found to be incomplete. The enclosed NOD identifies the information necessary to bring your OP into full compliance with State and Federal requirements. Each comment is preceded by the applicable OP guidelines section number for reference and the appropriate sections of Title 40 of the Code of Federal Regulations (CFR) and Title 22 California Code of Regulations (CCR). Your response should be incorporated into the OP and resubmitted.

Be advised that the enclosed NOD does not address the proposed work plan for "Assessment of Potential Soil Contamination in the Vicinity of Building T-133 Hazardous Waste Treatment Facility". DHS is currently reviewing your proposed plan and will inform you of any discrepancies in the near future.

Please submit your revised application within thirty (30) days from receipt of this letter.

If you have any questions, please contact Florence Pearson at (818) 567-3100.

Scott Simpson, Chief Facility Management Branch Toxic Substances Control Program Department of Health Services

Michael Feeley, Chief Permits and Solid Waste Branch Hazardous Waste Management Division Environmental Protection Division

Enclosure 006719RC
NOTICE OF DEFICIENCY

Rockwell FTCM Hazardous Waste Management Facility Operation
Plan Review Area IV, EPA ID Number CAD000629972

The following comments identify important areas that need revision, correction and/or addition in the Part B Application for Rockwell FTCM hazardous waste management facility located in Area IV, Santa Susana Field Laboratory.

The items identified below refer to relevant sections in "Instructions for Preparing an Operation Plan for a Hazardous Waste Storage and/or Treatment Facility Which Involves Containers and/or Tanks Only" dated October 1985. Applicable sections of Title 40 CFR and Title 22 CCR have been also included.

1. It should be revised according to the recommended procedures below. In addition, based on our knowledge of the operation of this unit, the quantity of waste that you are proposing to treat (60,000 lbs per year) is much higher than what the facility is capable of handling with the existing burn pan. Although the design criteria for the burn pan is 62.5 lbs/hr, a much smaller quantity of solid alkali metal can be burned in a batch treatment which takes approximately one hour. Please re-evaluate the treatment capacity of the burn pan based on its actual burn capacity.

   Section II.B.3.g.5
   22 CCR 66391 (a)
   (18) (L)

   Equipment and Container Cleaning area
   Identify the equipment and container cleaning area.

   Section V.A.5

   Processes that Produced the Waste
   Be more specific. Explain the experimental tests that produce these wastes (except NaX). Is FTCM conducting research or experiments for other organizations or agencies? Specify any other contamination that might exist in these wastes.

   Section V.A.6

   Process(es) Used for Handling the Waste
   This section should read "all alkali metals are transported and stored under kerosene in DOT approved drums for handling alkali metals". Sodium potassium alloy should be stored and transported under nitrogen, argon or helium. Five Argon Under, CSHE 47-155

   Section V.A.7

   Process Design Capacity and Units of Measure for Process(es) Used for Handling waste.
   Specify the capacity of drums or any other containers used for storage.

   pg. 25

   No! See Sodium: In Manufacture Properties and Uses, PP. 143
Section V.C.1.d

The Sampling Method to be Used for Obtaining a Representative Sample of the Waste.

Indicate the statistically representative sampling techniques (i.e. random, grab or composite) used for waste analysis.

Section V.C.1.e

The Frequency With Which the Waste Analysis Will Be Repeated or Reviewed for Accuracy and Timeliness.

Please specify that only waste from ETEC Area IV facility will be handled at this storage treatment facility. Clarify the "generating organization" in the following phrase: "Every container for which waste constituents are unknown or were poorly described by the generating organization is sampled and analyzed". Does it mean that you are accepting waste from other areas in Santa Susana Field Laboratory?

Section V.D

Treatment

On page 79 of your application, you have indicated that "In the washdown process the oxides are converted to a solution of NaOH which is captured in the liquid waste Tank, T-1. Please explain this process further and specify how the solution of NaOH in the burn pen is "captured" in the waste tank T-1.

The proposed method to rinse-off the remaining alkali metals from contaminated components (i.e. mesh in cold traps) in tanks with water and acid may expose the workers to unsafe conditions. Rinse tanks T-4A and T-4B should be removed. You may either send the contaminated components to an off-site facility or propose an alternate safe method.

Section VI.A.1.e

Data Which Demonstrate that the Wastes are Compatible with materials of Construction of the Containers and their Linings of Coating and with Overpackaging Materials Used.

This information has not been provided.

Liquid-Metal Handbook
Pg. 622-623
Sodium-NaK Solution
Pg. 178

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Section VI.B.
40 CFR 264.191, 192 and 194
22 OCR 66391(b) (2) (B)

Tanks used for Storage or Treatment

T-1 tank which is an open top tank is not safe and should be covered. The lifetime of this tank is approximately 6 years, as indicated. Be advised that if the facility is permitted, any changes to the design and operating conditions of the tank in the future will require a major modification to the permit.

The storage tanks must have corrosion protection as follows:
- Coated and cathodically protected steel
- Fiberglass
- Steel tank clad with fiberglass

The same requirements apply to piping of tanks.

Section VII.C.2.e

First aid kits must be available at both buildings.

Section VII.E

Lighting

The same light system that is used for security at the treatment building should be used at the storage building.

Section VIII.

Operational Procedures

Provide detailed information regarding maintenance of alkali metal treatment unit and inspection schedule. Explain if any parts need to be replaced regularly and if so, specify the time intervals.

Provide detailed information regarding monitoring of treatment units. How do you ensure that the air emission control unit is working properly?

All Persons are Properly Protected from Exposure to Contamination with Hazardous Waste

Persons who handle alkali metal containers at the storage area should wear NIOSH approved protective gloves and clothing.
Section VIII.B.1.f

Aisle Space is Sufficient to Allow Unobstructed Movement of Emergency Equipment and Personnel Provided.

Explain how way containers are being stored and the space between them (are they stacked vertically?). Is the provided space enough for forklift to get to the containers easily? Y/N

Section VIII.B.3

Describe Operational Procedures to Ensure that Chance of Fire or Explosion is Minimized.

Storing sodium potassium alloy (NaK), which ignites spontaneously in air, under the proposed conditions is a fire hazard. NaK must be stored under argon, nitrogen or helium. Solid alkali metals should be stored under kerosene.

Emergency Procedures

Specify the location of emergency communication equipment at each building.

Closure Plan

This document should be complete and stand by itself. Provide a detailed description of the storage and treatment activities. Describe activities during the closure period to ensure that all partial or final closure satisfy the closure performance standard. These activities include groundwater monitoring and soil sampling.

Explain what you are planning to do with the metal tanker tank that was located outside the fenced area for storing sodium and potassium hydroxide. Is this tank closed? What was the decontamination method used for this tank?

Explain the postclosure activities since groundwater contamination might exist and groundwater monitoring may continue beyond closure.

This is a plastic not metal, outer tank liner. It is not in use and is not contaminated. It does not store NaOH or KOH.
Section XV
40 CFR 264.101

A. Identification of the Unit

Building T-029 is part of the Part B Application and should be included in the Corrective Action Plan. Please explain if there has been any soil sampling and analysis at this building.

Does any radioactive contamination exist in the storage and treatment area?

B. Provide information regarding spills that caused soil and groundwater contamination at T-133 building.

Include measurement of sodium and potassium in your sample analysis.

This NOI does not include evaluation of the Rockwell "Assessment of the Potential Soil Contamination in the Vicinity of Building T-133 Hazardous Waste Treatment facility" submitted in March 1991. We are currently reviewing this plan and will inform you of our evaluation in the near future.