Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

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

Edmund G. Brown Jr.
Governor

May 22, 2017

Mr. Joseph Stambersky, Manager
Corporate Environmental Services
Southern California Edison
Gateway Business Center
6042 Irwindale Avenue, Suite A
Irwindale, California 91072

SOUTHERN CALIFORNIA EDISON DRAINED TRANSFORMER MANAGEMENT

Dear Mr. Stambersky:

Thank you for your inquiry to the Department of Toxic Substances Control (DTSC) regarding Southern California Edison's (SCE) characterization of electric utility transformer carcasses and their components that have been taken out of service. Specifically, SCE has asked DTSC if transformer carcasses and their components, from dismantled, decommissioned transformers may be determined to be non-hazardous waste after the decommissioned transformers have been drained of oil containing polychlorinated biphenyls (PCBs) at concentrations ranging between 5 and 50 parts per million (ppm), dismantled, visually inspected, and tested.

Based on emails and telephone conversations between SCE and DTSC, this question arises because in 1990, DTSC issued a guidance letter (copy enclosed) that appears to require decommissioned transformers (i.e., whole transformers removed from service) be managed as hazardous wastes, even if they have been drained of oil containing PCBs. SCE has expressed its desire to manage transformer carcasses and their components from the dismantling of decommissioned transformers as non-hazardous wastes, rather than as hazardous waste as the guidance letter indicates.

Based on information provided to DTSC, SCE currently manages its decommissioned transformers as hazardous wastes because they contain or once held oil containing PCBs. In addition, SCE requires the permitted hazardous waste treatment, storage, and disposal facility that accept their decommissioned transformers, to manage the oil containing PCBs, the drained transformer carcasses, and the dismantled components, as hazardous waste.

SCE proposes to change how their decommissioned transformers are to be managed, and asks DTSC to confirm that its proposed management would be in compliance with hazardous waste management requirements. Under the proposed procedures, SCE will manage the decommissioned (whole) transformers containing PCB oil as hazardous waste and transport them to a permitted hazardous waste treatment, storage, and disposal facility under a Uniform Hazardous Waste Manifest.

The receiving facility will:

- Drain the oil from the transformers, test it, and manage it according to the test results.
- Dismantle the drained transformers and remove all internal components, including metal parts and any absorbent material.
- Visually inspect all components and the transformer carcass to ensure there is no remaining free-liquid oil in or on any component.
- Make a waste determination for the absorbent materials by conducting analytical tests for PCBs or by using generator knowledge based on prior testing data for similar waste absorbent materials.

DTSC has reviewed its 1990 letter and believes the letter was meant to address circumstances wherein drained, decommissioned transformers were managed intact (i.e., as whole transformers) and were likely to contain residual oil contaminated with PCBs at hazardous waste levels because they could not be fully drained. The 1990 letter did not consider dismantling the decommissioned transformers and the ensuing ability to inspect and verify that residual oil had been removed.

Based on the above, DTSC's 1990 letter would not apply to permitted hazardous waste treatment, storage, and disposal facility procedures proposed by SCE. Therefore, as long as the permitted hazardous waste treatment, storage, and disposal facility is authorized to perform the specified activities, SCE and the permitted hazardous waste treatment, storage and disposal facility may manage the decommissioned transformers as proposed, in compliance with California hazardous waste management requirements. Transformer carcasses and their components that meet the proposed criteria may be determined to be nonhazardous waste.

I hope this information is responsive to your request. If you need further assistance, please feel free to contact me at (916) 322–8677 or via email at Kevin.Sanchez@dtsc.ca.gov.

Sincerely,

Kevin Sanchez
Senior Environmental Scientist
Policy Implementation and Support Branch
Hazardous Waste Management Program

Enclosure

cc: See next page.

cc: Mr. Allen Martin
Environmental Scientist
Industry Assistance Training and Outreach Unit
Policy Implementation and Support Branch
Hazardous Waste Management Program
Department of Toxic Substances Control
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STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
P.O. BOX 942732
SACRAMENTO, CA 94234-7320

(916) 322-3700

June 27, 1990

Mr. Harry Loftus
Southern Contracting Company
P.O. Box 203370
San Diego, CA 92120

Dear Mr. Loftus:

PCB TRANSFORMERS

This letter is in response to inquiries you have made to the Department of Health Services (Department) concerning the regulation of transformers containing polychlorinated biphenyls (PCBs). PCBs are one of many Organic Persistent and Bioaccumulative Toxic Substances which are regulated by the Department. The regulatory threshold levels are found in Section 66699(c), Title 22, California Code of Regulations (CCR). The Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) of PCBs are 50 mg/kg (ppm) and 5 mg/L (ppm) respectively. If a waste were to exhibit PCB concentrations greater than or equal to the TTLC or STLC regulatory levels, the waste is considered hazardous waste and subject to all the regulatory provisions under Chapter 30, 22 CCR.

With respect to transformers containing PCB oil, the Department suggests that the oil (or last material drained from the carcass) be tested to determine the concentration of PCBs. If the PCB concentration in the oil is above the STLC of 5mg/L (5ppm), the emptied transformer carcasses, because they contain a hazardous waste, must be managed in California as hazardous wastes which includes, but is not limited to, manifesting requirements (our position is that drained transformers may retain PCB fluids which can be released if a carcass is moved or dismantled). If the material drained from the transformer is less than 5 mg/L (5ppm), then the carcass would be nonhazardous. Please note that EPA prohibits the burning of oil containing 2 ppm (or greater) PCB in nonindustrial boilers or furnaces.

Section 67780, 22 CCR, contains the treatment standards for PCB wastes. Pursuant to Section 67780, 22 CCR, the treatment standard options available for drained PCB or PCB-contaminated transformer carcasses (if these are a hazardous waste, as specified above) are: (1) incineration in a DHS approved incinerator that meets the requirements under Part 761, Title 40, Code of Federal Regulations

(40 CFR 761), or (2) after draining and/or flushing of PCBs in the transformer carcass in accordance with 40 CFR 761, the carcass shall be filled with a nonbiodegradable absorbent material and disposed in a hazardous waste landfill.

In addition, enclosed for your information is a copy of the Department's California Waste Exchange booklet which contains a listing of commercial recyclers. Please note that on pages 26-27 of this booklet is a listing of recyclers which take PCB-contaminated transformers. Some of these out of state facilities do not accept transformers with a PCB concentration greater than 499 ppm.

I hope this clarifies the Department's policy with respect to the PCB contaminated transformers. Should you have any questions concerning this letter, you may contact me or Mr. Ronald Pilorin of my staff at the above letterhead address and telephone number.

Sincerely,

Greg Williams

Greg Williams
Alternative Technology Division
Toxic Substances Control Program

Enclosure

cc: Caryn Woodhouse
Alternative Technology Division
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GW:RP:ba

bcc: Ronald Pilorin