

NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Southern California Permitting & Corrective Action
1011 N. Grandview Avenue
Glendale, CA 91201

Project Title: Southern California Edison Company, Mandalay Generating Station

Project Location: 393 North Harbor Boulevard, Oxnard

County: Los Angeles

Project Description: The proposed closure of three wastewater retention basins and associated pipelines by limited excavation of 3,200 tons of soil at the RCRA units, and insitu treatment of groundwater.

Background:

In 1995, Southern California Edison (SCE) signed an agreement with the DTSC to clean close the surface impoundments at eleven generating stations in Southern California. This was in accordance with conditions set out in the Final Judgment and Stipulation Number 121219 handed down by the Superior Court of California. The Stipulation alleged that SCE had stored hazardous wastes in the surface impoundments without a permit. The Mandalay Generating Station is one of the facilities cited in the agreement.

The former SCE Mandalay Generating Station is an approximately 45-acre facility currently owned and operated by Reliant Mandalay Energy, Incorporated. SCE sold the Mandalay Generating Station in 1998, but retained responsibility under the contract of sale for environmental liability associated with past operation of the retention basins during the period of SCE's ownership. The retention basins had historically been used to temporarily store boiler chemical cleaning wastes that may have contained oil, grease, suspended solids, metals, and acidic solutions. The North and South retention basins were used to temporarily store boiler chemical cleaning wastes during the late 1980s to early 1990s. The BCCB was used to temporarily hold (for less than 30 days) non-hazardous acidic cleaning solutions from the removal of corrosion and mineral deposits from the boiler tubes. This cleaning process is no longer used at the site. The retention basins are open, aboveground level, and located at the north end of the site. SCE discontinued the practice of storing hazardous boiler chemical cleaning wastewater in the retention basins during the late 1980's and early 1990's. No hazardous waste was stored in the retention basins and appurtenances during the period of characterization (1996-2006). In addition, the retention basins themselves have been cleaned approximately once per year, as needed by the current owner (Reliant Energy). It should be noted that SCE is closing the Hazardous Waste Management Units, but is not physically closing the retention basins, which are necessary for continued operation of the station.

The three retention basins and their associated pipelines and appurtenances (e.g. sumps) are the hazardous waste management units (HWMUs) that are subject to this closure plan. Non-hazardous wastewater mixed with spent cooling water was stored in the retention basins and is discharged to the Pacific Ocean under the NPDES permit number CA0001180. The three basins were installed in 1977. They were originally constructed with a single asphaltic concrete liner. In the 1980's a single layer of synthetic liner (HDPE) was installed in the three basins using the existing asphalt liner as a base. In 1989, one of the three basins, the Boiler Chemical Cleaning Basin (BCCB) was retrofitted with a double liner of HDPE and a leachate collection system.

Wastewater is drained from the generation units by a boiler wash system. The drains enter pipelines that traverse the site and drain into wastewater sump. The wastewater from this sump can then be pumped to any of the three basins through a valve tree. There is a surface pipeline to the BCCB.

The retention basin site is underlain by perched aquifer, clay aquitard, and Oxnard aquifer. The Regional Water Quality Control Board's Basin Plan indicates that the existing beneficial uses for the Oxnard Sub-basin are Municipal, Industrial Process, and Agriculture. However, Ventura County considers the groundwater contained in this aquifer to be non-potable because of possible sea-water intrusion.

Site Investigation:

Field investigations have been conducted in and around the retention basin site from 1996 to 2006, in order to characterize soil, soil gas, and groundwater in areas where historical operations may have led to contamination. Volatile organic compounds were not detected by Method 8260B in either soil or soil gas at the site. Various metals, including aluminum, arsenic, barium, copper, iron, nickel, vanadium, total chromium, manganese, and zinc had the highest detected concentrations in soil and groundwater relative to the other inorganic constituents and the background data set.

The groundwater monitoring well network was extended outward from the retention basin site until a significant attenuation of contaminant concentrations (approaching background levels) was observed. Groundwater monitoring has been conducted quarterly since 1996. However, in order to select an appropriate time period for groundwater data evaluation, groundwater samples collected during the last five years (2001 to 2006) will be used for risk evaluation. Four hundred ninety-four groundwater samples from 28 monitoring wells in the exposure area were collected during the period of September 2001 through June 2006. The data set demonstrates that the groundwater contaminant plume is considered stable, and has not migrated off-site.

The resulting characterization reports for soil, soil gas, and groundwater have been reviewed by DTSC. It has been determined that characterization of the retention basin site is complete and is sufficient to allow SCE to proceed with site remediation and closure.

Closure Performance Standards

The closure performance standard for metals in soil and groundwater will be background, or the risk-based standards for human and ecological protection.

Summary of Proposed Closure Activities

The overall remediation strategy will be to use SCE's characterization data, statistical analyses, and risk assessments to identify the specific contaminants and locations that require remediation to achieve the site's closure performance standards.

Soil

Contaminated soil underlies the retention basins and will be excavated and removed as needed to meet the closure performance standards. The excavations may extend as deep as the water table (which ranges from 5 to 10 feet below the floor of the basins). Considering the size of the basins, the estimated amount of non-hazardous soil to be removed from the basins is approximately 3,200 tons. Confirmation soil samples will be collected from the walls and bottom of the excavation. If analyses of the confirmation samples show that the closure performance standards have not been met, then additional soil will be excavated laterally to the water table. The confirmation sampling will be repeated as appropriate. The completed excavation will be backfilled with clean, compacted fill (of which confirmation samples will also be collected). The basin liner will be reassembled and repairs made, if necessary. Excavated soil will be characterized in accordance with the CCR Title 22 and disposed at an appropriate facility based on a determination if it is hazardous or not.

Groundwater

Contaminated groundwater at the site will be remediated by in-situ treatment with injection of calcium polysulfide and/or zero-valent colloidal iron (i.e. treatment chemicals). These treatment chemicals would bond with the contaminant metals to limit their mobility through reduction, sorption or precipitation of less-soluble phases. It is anticipated that 72 injection points will initially be emplaced throughout the defined groundwater plume on 10-foot centers for the proposed groundwater remediation. An estimate of 300 gallon treatment solution will be injected for each injection point. Ongoing groundwater monitoring will serve as confirmation sampling to evaluate the efficacy of the treatment chemicals on meeting the site's closure performance standards for groundwater. Groundwater samples will be collected and analyzed according to the existing Water Quality Monitoring Program and Sampling and Analysis Plan. Additional injection points or modifications may be needed based on the confirmation sampling results.

Name of Public Agency Approving Project: Department of Toxic Substances Control

Name of Person or Agency Carrying Out Project: Christine Bucklin

Exemption Status: (check one)

- Ministerial [PRC, Sec. 21080(b)(1); CCR, Sec. 15268]
 Declared Emergency [PRC, Sec. 21080(b)(3); CCR, Sec.15269(a)]
 Emergency Project [PRC, Sec. 21080(b)(4); CCR, Sec.15269(b)(c)]
 Categorical Exemption: [State type and section number]
 Statutory Exemptions: [State code section number]
 General Rule [CCR, Sec. 15061(b)(3)]

Exemption Title: Title 14, Section 15061(b)(3), California Code of Regulations, with certainty, no possibility of significant environmental effect

Reasons Why Project is Exempt:

The proposed physical closure operations described in the Closure Plan are isolated within the boundaries of the site, and will not result in significant effects to human health and the environment because:

- 1) The planned excavation time is short and will last only a few days. Dust may be generated during the excavation but dust control measures will be implemented at the site. The maximum amount of soil to be excavated for the basins is 3,200 tons and is limited to the vertical depth of the shallow water table (less than 10 feet below ground surface). The completed excavations will be backfilled with certified clean fill, and the basin liners replaced.
- 2) OSHA and Cal OSHA standards will be met for excavations that exceed (6) feet to ensure workers' safety.
- 3) The groundwater treatment injection zone underlies asphalted areas within the facility and will not pose any threat to the local air quality.
- 4) Temporary injection (direct push) wells will be installed and abandoned under permit from the Los Angeles County Department of Public Health, Environment Health. The installation and abandonment will be completed within a week. No significant amount of dust will be generated due to the pavement.
- 5) Long term monitoring of the groundwater indicates that the plume is stable and contaminants of potential concern have not and will not migrate into the adjacent canal or the Pacific Ocean. The proposed groundwater treatment will not impact the groundwater migration.
- 6) Both soil excavation and groundwater remediation activities are being conducted within an area that is fully paved. A search of the Department of Fish and Game's California Natural Diversity Database (rare find) search found sensitive species in the area of the sand dunes but not at the project site and none of the project activities will have any impact on these species and habitat. The work area is fenced from any potentially sensitive habitat areas (non paved areas).
- 7) Based on a record search completed by the SCE archaeologist at the South Central Coastal Information Center of the California Historical Resources Information System, no cultural resources are recorded on the Mandalay Generating Station site. To further ensure that such resources are not impacted, SCE will have an archeologist present during all earth moving activities, with appropriate 'project control measures' enacted.
- 8) The proposed closure plan activities will utilize DTSC's current methods of risk assessment which will conservatively evaluate the potential risk to soil and groundwater.
- 9) The closure plan requires that risk levels for human receptors potentially exposed to the identified contaminants of potential concern, are within USEPA and DTSC prescribed standards for clean closure.
- 10) Volatile organic compounds, semi-volatile organic compounds, and polychlorinated byphenols were not reported in soils at the site.
- 11) No removal or cleanup is anticipated for soil gas at the retention basin site, due to the absence of any detections by Method 8260B.
- 12) Transportation of trucks from the site will be restricted to off-peak times so as not to impact traffic flow.
- 13) The site is fully developed for industrial uses. The closest residence is over ½ mile away from the site.

14) The site is not located within a scenic highway.

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