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FEB 28 2017

Contra Costa Health
Hazardous Materials

17-01-29-03

February 28, 2017

Mr. Randall L. Sawyer
Chief Environmental Health and Hazardous Materials Officer
Contra Costa Hazardous Materials Programs
4585 Pacheco Boulevard, Suite 100
Martinez, CA 94553

RE: 30-Day Update Report: January 29, 2017 Delta Energy Center Incident

Dear Mr. Sawyer:

As requested by Contra Costa County Health Services and in accordance with the Contra Costa County Health Services (CCCHS) Department of Hazardous Materials Incident Notification Policy, Delta Energy Center is providing this 30 day report for an event that occurred at the Delta Energy Center on January 29, 2017.

If you have any questions, please contact: Barbara McBride at 925-570-0849.

Sincerely,

Barbara McBride
Director Environmental, Health and Safety
Calpine Corporation

ATTACHMENT C
30-DAY FOLLOW-UP NOTIFICATION REPORT FORM
CONTRA COSTA HEALTH SERVICES

INSTRUCTIONS: A hardcopy and an electronic copy of this report is to be submitted for all Level 2 and 3 incidents or when requested by CCHS. See Attachment C-1 for suggestions regarding the type of information to be included in the report. Attach additional sheets as necessary. This form is to be used for update reports after the initial 30-day report has been submitted. Forward the completed form to:

ATTENTION:

Randall L. Sawyer
Chief Environmental Health and Hazardous Materials Officer
Contra Costa Hazardous Materials Programs
4585 Pacheco Boulevard, Suite 100
Martinez, CA 94553

INCIDENT DATE: January 29, 2017

INCIDENT TIME: 15:42

FACILITY: Delta Energy Center

PERSON TO CONTACT FOR ADDITIONAL INFORMATION

Barbara McBride Phone number: 925-570-0849

I. SUMMARY OF EVENT:

On Sunday, January 29, 2017, at approximately 15:42, the Delta Energy Center experienced a fire inside the steam turbine generator compartment that resulted in the deployment of the fire department to the facility. The Delta Energy Center is a natural gas-fired, combined-cycle power plant consisting of three combustion turbines, three heat recovery steam generators and one steam turbine and steam turbine generator. There were no injuries associated with the event. The incident is currently under active investigation. An outside contractor has been secured to conduct the investigation and the results are pending. The timing of the final report is not yet known.

The event resulted in the discharge of approximately 150 gallons of lubricating oil, and approximately 5000 gallons of water attendant to fire suppression, to the stormwater drainage system. This resulted in a discharge to the Dowest Slough located on adjacent property owned by The Dow Chemical Company, where the discharge is currently contained. CH2M and Clean Harbors were deployed within 24 hours and the removal of the oil from the surface water. A copy of the

project implementation report submitted to the Regional Water Quality Control Board is attached here as Attachment 1. Since this report was issued, the remediation has been completed and a closure report is being prepared that will be submitted to the Regional Water Quality Control Board and Army Corp of Engineers. Contra Costa County Hazardous Materials Division will be copied on the report when it is issued.

PROVIDE ANY ADDITIONAL INFORMATION THAT WAS NOT INCLUDED IN THE 72- HOUR REPORT WHEN THE 72-HOUR REPORT WAS SUBMITTED, INCLUDING MATERIAL RELEASED AND ESTIMATED OR KNOWN QUANTITIES, COMMUNITY IMPACT, INJURIES, ETC.:

1. INCIDENT INVESTIGATION RESULTS Is the investigation of the incident complete at this time?
_____Yes _____x_____No If the answer is no, when do you expect completion of the Investigation? At this time, the incident investigation is ongoing and is expected to be extensive. The results are not yet available. If the answer is yes, complete the following:

SUMMARIZE INVESTIGATION RESULTS BELOW OR ATTACH COPY OF REPORT:

An outside contractor has been retained to assist with the post-incident investigation. This contractor has observed the disassembly of the steam turbine and steam turbine generator, and has performed initial visual inspections of equipment and components during removal. Various components have been identified for further inspection and potential metallurgical testing, and numerous others have been preserved for potential testing at a later date. No testing has yet been completed and the results of the ongoing investigation are not yet available.

SUMMARIZE PREVENTATIVE MEASURES TO BE TAKEN TO PREVENT RECURRENCE INCLUDING MILESTONE AND COMPLETION DATES FOR IMPLEMENTATION:

Corrective actions will be determined as part of the incident investigation. When the investigation is complete, the correct actions will be listed in the follow up report.

STATE AND DESCRIBE THE ROOT-CAUSE(S) OF THE INCIDENT:

The root cause of the incident is not yet available.

Delta Energy Center
Permit No. 2017-00076S

Project Implementation Report

This report and update is being submitted in conformance with Permit #2017-00076S issued by the Army Corp of Engineers on February 2, 2017, in response to the *Calpine Delta Energy Center Oil Discharge – Site Observations and Response Recommendations Technical Memorandum* submitted on January 30, 2017. As a condition of the permit, the San Francisco Regional Water Quality Control Board requested an update and photo-documentation report to be submitted 15 days after implementation of the project. This report summarizes the activities conducted to date and includes the requested photos.

Incident Summary

On Sunday, January 29, 2017, at approximately 15:42, the Delta Energy Center (“Facility”) experienced a fire inside the steam turbine generator compartment that required the deployment of the fire department. The Delta Energy Center is a natural gas-fired, combined-cycle power plant consisting of three combustion turbines, three heat recovery steam generators and one steam turbine. Suppressing the fire resulted in the discharge of approximately 5000 gallons of water and 150 gallons of lubricating oil to a stormwater inlet grate on the Facility site. The inlet grate is connected to a subsurface drainage system that flows to Dowest Slough on property owned by The Dow Chemical Company (Dow), resulting in a discharge to Dowest Slough.

The following agencies were notified as part of the emergency notification:

Agency	Date	Time
National Response Center	1/29/2017	18:45
Contra Costa Health Services	1/29/2017	16:27
San Francisco Water Quality Control Board	1/29/2017	18:30
BAAQMD	1/29/2017	16:30
California Energy Commission	1/29/2017	18:50
California Department of Fish and Wildlife Service	1/29/2017	19:10
Office of Emergency Services	1/29/2017	Notified by Contra Costa County Fire Department
California Public utilities Commission	1/29/2017	19:18

Emergency Response

As a result of the oil release to the neighboring wetlands, Calpine consulted with a contract wetlands biologist from CH2M. In conformance with the memorandum attached hereto as **Attachment 1**, the following initial emergency response activities were implemented.

January 31, 2017

Oil absorbent floating booms were installed at the following locations:

- The stormwater drain outfall to Dowest Slough (Figure 1 Location A, in **Attachment 1**).
- The access road crossing south of the stormwater drain outfall (Figure 1 Location B, **Attachment 1**)
- The BNSF Bridge crossing at the margins of the BNSF right of way (Figure 1 Location C, **Attachment 1**).
- The culverts at East 5th Street (Figure 1 Location D, **Attachment 1**).
- The bridge at East 3rd Street (Figure 1 Location E, **Attachment 1**).
- A vacuum truck was deployed to the stormwater outfall to remove as much residual oil from the subsurface drainage system as possible.

February 2, 2017 (Site Visit)

On February 2, 2017, California Fish and Wildlife Service representatives arrived on site and conducted an inspection of the oil remediation activities. The following attendees were present at the site during the visit:

Attendees:

Calpine: Barbara McBride and Maria Barroso

CH2M: David Hodson

Dow: Justin Smith

California Department of Fish and Wildlife (CDFW): Michael Schommer, Angel Tapia (Game Warden), and 2 other colleagues

An inspection was conducted at the outfall and at the locations on the Dow facility where the booms were deployed. The following observations were made:

- Clean Harbors was onsite monitoring the condition of adsorbent boom and pads previously deployed.
- Absorbent material was in good condition and deployed at the appropriate locations and in the appropriate manner.

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- Insignificant oil and sheen was observed consistent with the observations presented in the January 30, 2017 *Calpine Delta Energy Center Oil Discharge – Site Observations and Response Recommendations Technical Memorandum (TM)*.

CDFW presented the following observations and directives:

- CDFW will take regulatory lead on this project. Specifically, the Game Warden (Angel Tapia) will be the primary caseworker.
- No additional work should be performed with respect to potentially impacted media beneath the rail trestles. Specifically, no soil should be removed.
- Rail safety is a primary concern. Calpine should ensure BNSF is informed of incident response activities conducted within 25 feet of the rail line.
- Small pools (depressions of approximately footprint size) containing oil were observed in the vicinity of the stormwater outfall near the Delta Energy Center (Location A in the TM)
- CDFW directed the deployment of adsorbent pads at the locations where oil was observed within the observed small pools.
- Removal of any vegetation was not advised.
- No impacted fauna was observed. CDFW must be notified immediately if impacted fauna is observed.
- An assessment inspection was to be conducted by CDFW on either 2/5/2017 or 2/6/2017.
- A conference call with all stakeholders was to be conducted on 2/7/2017.
- Development of “end points” (i.e., criteria for determining when incident response should be discontinued) shall be conducted and presented to the CDFW.

February 7, 2017 (Site Visit)

On February 7, 2017, California Department of Fish and Wildlife Services conducted a follow up visit to determine how the remediation activities were progressing on the site. The following is a list of attendees that were present at the site visit:

Attendees:

Calpine: Barbara McBride and Maria Barroso

CH2M: David Hodson

CCCHMD: Melissa Hagen

CDFW: Michael Schommer

The following observations were made during the site walk:

- The boomed containments were observed to have contained the oil and prevented it from spreading further underneath the railroad tracks

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- The rain events experienced over the prior several days had caused some natural flushing of the oil that had been trapped in the wetlands and this was being absorbed by the pads and booms
- Clean Harbors had made good progress in absorbing the small pools of oil that had been scattered throughout the wetlands

CDFW presented the following observations and directives:

- Some free oil product was still visible in small pools throughout the wetlands and CDFW instructed that Clean Harbors should strategically use pads and a pipette to remove the oil in these areas
- A boom should be placed by the fence between the wetlands and the railroad tracks
- The target should be to remove all the free oil from the wetlands
- The booms should remain in place for an extended period of time until all the oil has been flushed from the wetlands

As discussion of “end points” occurred during the site visit and CDFW recommended that the end points be qualitative and not quantitative. CDFW will return to the Facility site in a few days to evaluate the progress of the remediation. These recommendations from CDFW were implemented on February 7, 2017.

February 7, 2017 (Interested Parties Conference Call)

A conference call with all the interested parties was held on February 7, 2017. The conference call was to inform the SFRWCB and the Army Corp of Engineers of the wetlands clean up progress.

Participants:	Mike Schommer –	CA FWS
	Kathryn Hart -	SFRWQCB
	Frances Malamud-Roam	Army Corp
	Melissa Hagen	CCCHSD
	Barbara McBride	Calpine Corp.
	Maria Barroso	Calpine Corp
	Michael Clarity	CH2M

The conference call started with an update on the clean-up efforts and discussion of next steps. CDFW indicated that the remediation activities were progressing well. SFRWQCB was not ready at this time to determine what the proper end points, but deferred to the judgment of CDFW. SFRWQCB informed the Facility that, at this time the reporting required under the Regional General Permit No. would be deferred until more information was received. A follow-up site visit by the CDFW and CCCHSD will occur on Monday, February 13, 2017 at 1:00 pm, with a follow-up conference call to be scheduled with the group of interested parties.

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February 8, 2017

On Wednesday, February 8, 2017, CDFW requested that an underflow dam be installed at Location C to ensure that, with the heavy rains, that no oil would migrate past the railroad tracks. The underflow dam was completed on Thursday February 9, 2017. Pictures of the dam are attached to this report.

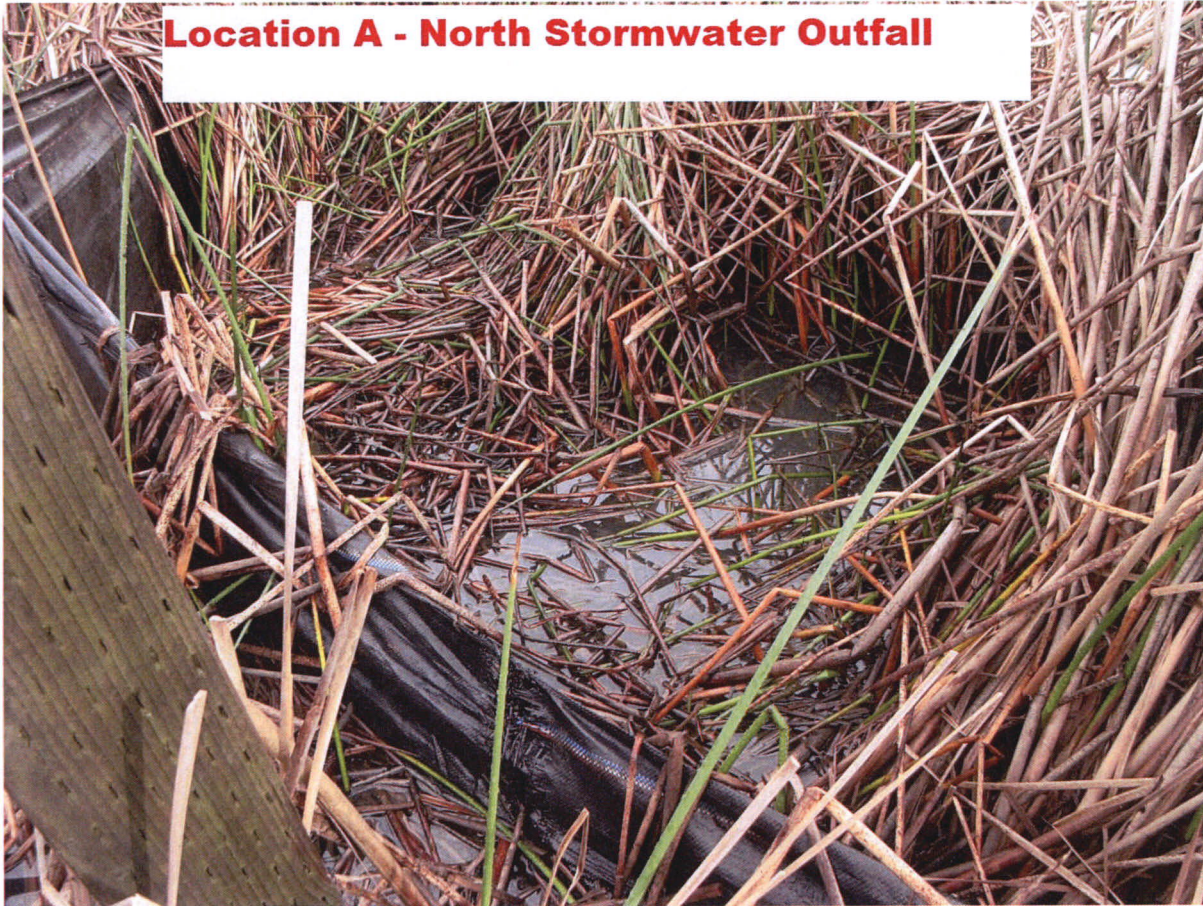
Further Action

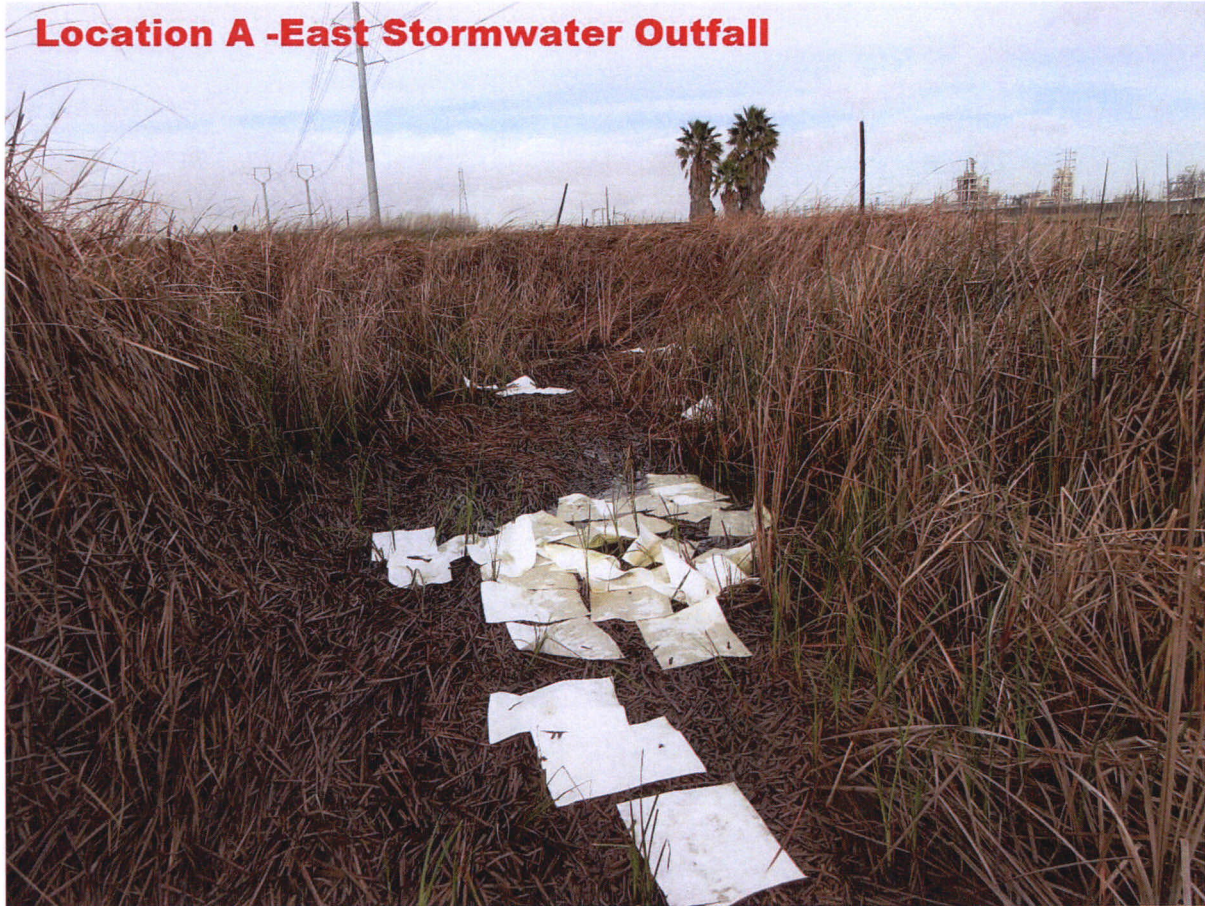
Remediation activities are continuing at the site and a further assessment of progress will occur on Monday, February 13 at 1:00 pm.

ATTACHMENT A

Location A – Stormwater Outfall







Location B - Road Crossing





**Location C. BNSF
Bridge Crossing**

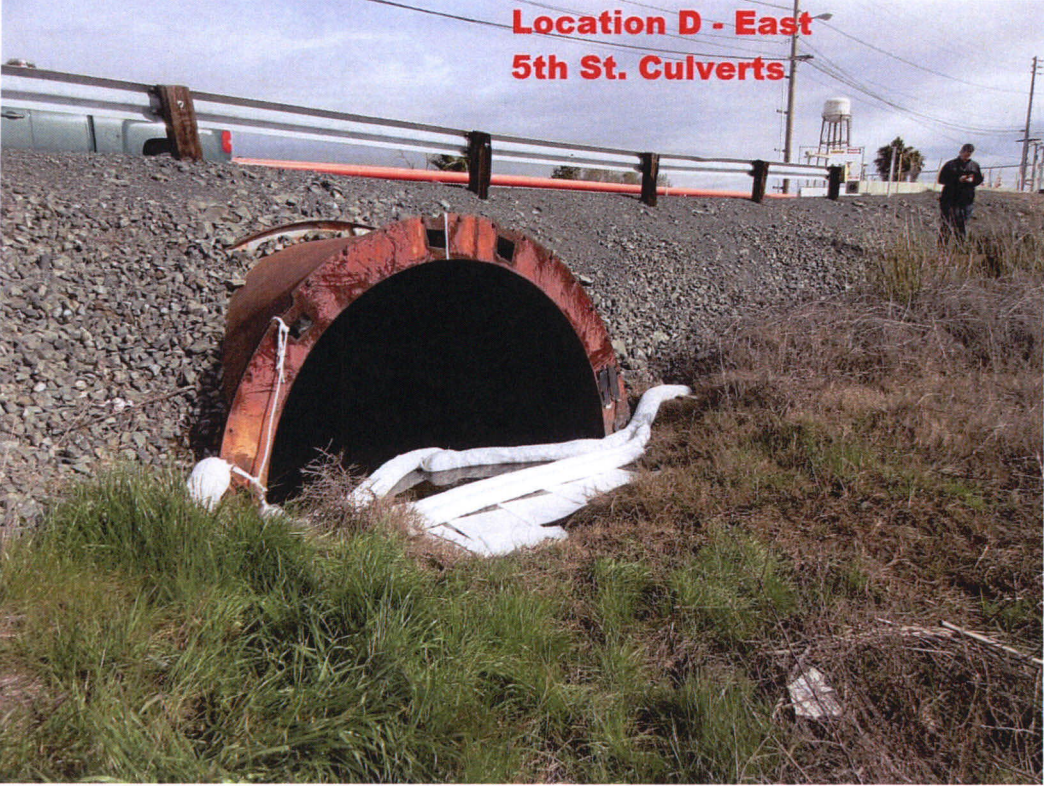


Location C – down stream



Location C/D - Dow Storm Pond





**Location D - East
5th St. Culverts**



Location E. East 3rd Street Bridge



Location E - 3rd Street