U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
CUC Rota Power Plant - Removal Polrep

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region IX**

**Subject:** **POLREP #12**
**Continuation of the Interceptor Trench and disposal operations**
**CUC Rota Power Plant**
**Z9D9**
**Songsong, MP**
**Latitude: 14.1366670 Longitude: 145.1358330**

**To:** Jessica Wenstrup, EPA Cincinnati
Sherry Fielding, EPA Office of Emergency Management
Harry Allen, EPA Region 9
Peter Guria, EPA Region 9
Philip Ingram, EPA Region 9
Robert Hildebrand, NPFC USCG

**From:** OSC Michelle Rogow
**Date:** 7/14/2014
**Reporting Period:** 7/7 - 7/13/2014

## 1. Introduction

### 1.1 Background

| | | | |
|---|---|---|---|
| **Site Number:** | Z9D9 | **Contract Number:** | |
| **D.O. Number:** | | **Action Memo Date:** | |
| **Response Authority:** | OPA | **Response Type:** | Time-Critical |
| **Response Lead:** | EPA | **Incident Category:** | Removal Action |
| **NPL Status:** | Non NPL | **Operable Unit:** | |
| **Mobilization Date:** | 5/20/2014 | **Start Date:** | 5/25/2014 |
| **Demob Date:** | | **Completion Date:** | |
| **CERCLIS ID:** | | **RCRIS ID:** | |
| **ERNS No.:** | | **State Notification:** | |
| **FPN#:** | E11903 | **Reimbursable Account #:** | |

#### 1.1.1 Incident Category

#### 1.1.2 Site Description

The Rota Power Plant Site is an active diesel-powered electrical plant where contaminated soil and groundwater are present. The contaminants of concern at the Site are polychlorinated biphenyls (PCBs) in soil and petroleum hydrocarbons in groundwater. The Site is located in Songsong Village on the island of Rota in the Commonwealth of the Northern Mariana Islands (CNMI). The power plant sits approximately 100 feet from the shoreline of the Philippine Sea. EPA addressed the PCB contamination by excavating the contaminated soil and shipping it off-island for disposal in 2013. The CERCLA (PCB) portion of the site was completed in July 2013. This POLREP addresses the OPA portions of the response action, aimed at addressing oil seeping into the ocean.

Operations at the site include the generation of power for the island of Rota, storage of new and used oil, and oil/water separation. The Rota Power Plant site contains four primary aboveground storage tanks (ASTs) as well as day tanks and drum and transformer storage areas. There are two oil/water separator (OWS) systems are located at the Rota Power Plant site. One rudimentary OWS consists of drums from which oil is manually skimmed. The system is located inside the main Power Plant building and drains to the north of the building into a pit. A second in-ground OWS is piped from the secondary containment areas of the ASTs and the drum storage berm located in the western portion of the property. This OWS can hold 2,500 gallons of oil and water and discharges separated water directly to a pit dug in the ground.

##### 1.1.2.1 Location

Songsong Village, Rota, CNMI
Latitude: 14.1366670
Longitude: -145.1358330

##### 1.1.2.2 Description of Threat

Release of PCBs and petroleum products to soil and groundwater. PCB contamination was addressed in 2013, and work was completed by July 2013. Oil releases into the Pacific Ocean are on going from a

plume of contamination beneath the CUC Power Plant facility.

**1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**
Oil has been seeping out along the shoreline along a 400' foot stretch for an unknown period of time. The source has not been able to be identified, although it clearly comes from the CUC Rota Power Plant property, through Commonwealth Ports Authority (CPA) land to the ocean. Groundwater wells installed on the CUC Power Plant facility are contaminated with dissolved and free-phase product.

## 2. Current Activities

### 2.1 Operations Section

**2.1.1 Narrative**
During this time period, the ERRS contractor continued work on the interceptor trench on the CPA property and encountered a number of historic buildings/structures in the subsurface which impeded response action efforts. The START contractor collected samples of excavated soils. Contaminated soils were packed up for transport and transported off site.

**2.1.2 Response Actions to Date**

**MONDAY July 7, 2014:** Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. ERRS completed excavation of interceptor trench segment 13/14. There wasn't enough space to install a full segment 14 due to the presence of a historic foundation which was discovered. The structure was substantial and believed to be part of the Japanese Sugar Factory which is listed on the National Registry of Historic Places. Documentation was conducted by the on site archeologist and discussions occurred between the archeologists, ERRS, ERT and OSC Rogow. Therefore segment 13 was over-excavated for 10 ft or so. The coral encountered was soft and it fractured easily into coarse sand, gravel and cobbles and appeared quite permeable. A distinct diesel odor was observed and an oil sheen also formed on the water table. While breaking the coral, a pungent, sulfur-like odor was first observed, indicating that the diesel is probably undergoing anaerobic degradation. ERRS also began mixing and pouring concrete to form the pads around the installed sumps. In addition, a subcontractor delivered one load of washed coral to the site for trench pack. The START collected five stockpile samples and also a composite sample of a black tar-like material that was found in buried containers in the Recovery Trench segment 3 area.

**TUESDAY July 8, 2014:** Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. ERRS investigated the area just east and south of the interceptor trench to determine if an interceptor trench could be installed there to trap diesel south of where the interceptor trench terminated. A building floor and foundation pillars were found in the shallow subsurface of this area. ERRS then excavated a test pit due south of the interceptor trench in the southwestern corner of the Site. No structural remnants were encountered during the excavation. A distinct diesel odor was observed and an oil sheen also formed on the water table of the test pit. While breaking the coral, a pungent, sulfur-like odor first observed, indicating that the diesel is probably undergoing anaerobic degradation. Incidentally, the odor and the coral encountered was soft and it fractured easily into coarse sand, gravel and cobbles and appeared quite permeable, was similar to what was observed during the over-excavation of interceptor trench segment 13. The test pit was backfilled after about an hour of observation. ERRS backfilled interceptor trench segments 13/14 with crushed wash coral to above the water table; filter fabric was placed on top of the coral, and sump installed. ERRS also replaced the oil boom that was washed ashore, and continued mixing and pouring concrete to form the pads around the sumps. START shipped samples collected yesterday.

**WEDNESDAY July 9, 2014:** Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. START received analytical results for eleven stockpile samples. Saturated zone stockpile samples from recovery trench segments 1 and 2 had TPH concentrations that were above the Site action level. Overburden stockpile samples from interceptor trench segments 10/11, 11, 12, and 13/14 had TPH concentrations that were all below the Site action level. Saturated zone stockpile sample TPH concentrations from interceptor trench segments 10, 11 and 12 were all below the Site action level. The overburden stockpiles sampled for PCBs all came back below the method reporting limit. ERRS initiated backfilling of recovery trench segments 3 and 4 and interceptor trench segment 13/14 with stockpile soil, and started packing stockpiles from recovery trench segments 1 and 2 into cubic yard boxes for shipment. ERRS also repaired the section of the transformer secondary containment wall that was previously damaged by the excavator, and removed forms from previously-poured sump concrete pads.

**THURSDAY July 10, 2014**: Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. OSC Rogow returned to site. ERRS continued packing stockpiled materials that were above the action limit into shipping containers; completed backfill and compacting of interceptor trench segment 13/14 to grade; and redeployed boom. ISLA trucking, a subcontractor, picked up two sealed containers of contaminated soils for shipping and delivered two empty ones. START collected confirmation samples from three areas below former soil stockpiles.

**FRIDAY July 11, 2014:** Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. ERRS continued packing stockpiled materials that were above the action limit into shipping containers. At the direction of the OSC, ERRS excavated two additional test pits directly south of the interceptor trench: the second pit was approximately 100-ft south of the gate at the southwestern corner of the CUC fence; and the third pit was midway between the first and the second pit. Soft coral (a gravelly-cobbly-coarse-sandy matrix) was encountered in the second pit at greater than a 10-ft depth. A faint, diesel, sulfurous odor was detected at maximum depth of 12 ft, however after being left open for two hours, no diesel accumulated. The EPA determined that this location was not impacted by diesel product and the pit was backfilled. Pit 2 was excavated to about a 12-ft depth. Soft coral was encountered at shallow depth, approximately 4 ft below ground. At greater than 10 ft, coarse loose sand was encountered, similar to segment 3 of the recovery trench. Once the saturated zone was encountered, brown-colored diesel flowed immediately into the excavation, and a strong sulfurous-diesel odor was observed. ERRS subsequently backfilled the pit. Based on the results of the test pitting, the EPA decided to install interceptor trench 2 south of interceptor 1. Interceptor trench 2 will extend from halfway between test pit 2 and 3 to the north for

approximately 80 ft, terminating on the remnants of the of building foundation unearthed previously. ERRS exposed the southern portion of the building remnant found earlier. SEARCH archeologist initiated worked to define the footprint and determine the details of the structure for documentation purposes. START shipped samples collected yesterday.

**SATURDAY July 12, 2014:** Personnel on-site: EPA – 1, USCG – 1, START – 1, ERRS – 7, APEC - 1, SEARCH - 1. SEARCH archeologist was on site until 11:00 AM. Start received analytical for four stockpiles. Saturated zone stockpiles samples from recovery trench segments 3 and 4 had TPH concentrations that were above the Site action level; and saturated zone stockpile samples from interceptor trench segment 13/14 were below the Site action level. ERRS continued packing stockpiled materials that were above the action limit into shipping containers. SEARCH archeologist defined and documented the southwestern footprint of the underground structure. ERRS removed the entire overburden for interceptor trench 2 while the SEARCH archeologist was on site. Coral limestone was encountered at a shallow depth along the entire trench, at approximately 4 to 5-ft in depth. ERRS initiated rock breaking and excavation at the southernmost end of the trench. The coral was hard and competent for the entire depth (14 ft) for the southernmost 10 ft of the trench and then it transitioned into a soft coral with a coarse sand in the saturated zone. Once the saturated zone was encountered, brown-colored diesel with a strong sulfurous-diesel odor flowed immediately into the excavation. Approximately 30 ft of trench was excavated.

**SUNDAY July 13, 2014:** DAY OFF; ERT Johnson and USCG demobed.

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**
Responsible party (CNMI CUC) has been providing assistance, logistical support and supplies, including diesel fuel for heavy equipment.

**2.1.4 Progress Metrics**

| *Waste Stream* | *Medium* | *Quantity* | *Manifest #* | *Treatment* | *Disposal* |
|---|---|---|---|---|---|
| petroleum contaminated | soil | 80 cuyds | 012380932,012380926, 012380925, 012380924, 012380913 | | |
| petroleum contaminated | soil | 64 cuyds | 012380937, 012380931,012380930, 01238916 | | |
| | | | | | |

**2.2 Planning Section**

**2.2.1 Anticipated Activities**
Completion of recovery trench, extension of interceptor trench southward, continue packing contaminated soil for disposal.

**2.2.1.1 Planned Response Activities**
-Completion of recovery trench on CUC Rota Power Plant property.
-Extension of interceptor trench southward to ensure that interceptor trench spans subsurface plume
-Loading of contaminated soil into boxes, and containers for off site transport to Mainland for disposal.
-Sampling of soils generated from excavations.
-Decontamination and demobilization

**2.2.1.2 Next Steps**
Completion of southern interceptor trench.

**2.2.2 Issues**
-Coral substrate is incredibly hard and has been a challenge to remove, slowing excavation operations.
-This site is extremely remote and located on an island with virtually no services or supplies available. This presents significant logistical challenges.
- Equipment challenges have slowed operations.
- Encounters of the archeological kind are frequent and problematic to operations. Subsurface foundations from the former Japanese Sugar Mill have been encountered and are impeding operations.

**2.3 Logistics Section**

Getting coral and shipping containers on site will limit the progress.

Equipment needs decontamination prior to off island shipment.

40' container planned to go to Saipan.

**2.4 Finance Section**

**2.4.1 Narrative**
OPA Removal Costs Only

The ERRS Total To Date includes obligated costs as pending. Remaining ERRS balance is $605,176 or 26% of the ceiling.

**Estimated Costs ***

| | | Total To | | % |
|---|---|---|---|---|

| | Budgeted | Date | Remaining | Remaining |
|---|---|---|---|---|
| **Extramural Costs** | | | | |
| ERRS - Cleanup Contractor | $2,345,000.00 | $1,739,824.00 | $605,176.00 | 25.81% |
| START | $443,415.00 | $250,000.00 | $193,415.00 | 43.62% |
| SERAS | $256,717.00 | $177,813.00 | $78,904.00 | 30.74% |
| **Intramural Costs** | | | | |
| USEPA - Direct | $375,000.00 | $350,000.00 | $25,000.00 | 6.67% |
| | | | | |
| **Total Site Costs** | $3,420,132.00 | $2,517,637.00 | $902,495.00 | 26.39% |

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

**2.5 Other Command Staff**

No information available at this time.

**3. Participating Entities**

**3.1 Unified Command**

**3.2 Cooperating Agencies**

CNMI Division of Environmental Quality
US Coast Guard
CNMI Coastal Resources Management
CNMI Historic Preservation Office
Commonwealth Ports Authority

**4. Personnel On Site**

USEPA - 2
USCG - 1
START - 1
ERRS - 7
SEARCH - 1
APEC - 1

**5. Definition of Terms**

No information available at this time.

**6. Additional sources of information**

No information available at this time.

**7. Situational Reference Materials**

No information available at this time.

POLREP #12 Last Updated 7/15/2014