

# CONTRA COSTA HEALTH SERVICES

## COMPLAINT, INCIDENT, AND NOTIFICATION REPORT FORM

Type (Circle One):  C  I  N

CASE NUMBER: 16-10-06-01

Received Date: 10/06/16 Received Time: 9:08 AM Received By: AM Lead: TA

Incident Date: 10/6/16 Incident Time: Assigned to: Assigned Date:

### COMPLAINANT / REPORTING PARTY:

Name: CON FIRE  RP is from Facility  Anonymous

Organization:

Primary Phone Number: Secondary Phone Number:

Email:

Address:

City: State: Zip Code:

### FACILITY / LOCATION OF INCIDENT:

Name: CUPA Facility I.D.:

Phone Number:

Address: 3609 TABORA DR Unit:

City: ANTIOCH State: CA Zip Code: 94509

Location Description: C/S JAMES DONLAN BLVD

INITIAL INCIDENT DESCRIPTION: CONSTRUCTION CREW RAN A OVER AN EXPOSED RADIOACTIVE MATERIAL

### INCIDENT TYPE / DESCRIPTION:

Community Warning System Level (Circle Highest Level):  N/A  0  1  2  3

FACILITY	ISO / MCAR	TRANSPORTATION	MISCELLANEOUS
<input type="checkbox"/> Fire or Explosion	<input type="checkbox"/> Fatality (one or more)	<input type="checkbox"/> Tank Truck	<input type="checkbox"/> Storm Drain/Creek
<input type="checkbox"/> Spill or Release	<input type="checkbox"/> > 24 hrs. Hospital, 3 or more people	<input type="checkbox"/> Railroad	<input type="checkbox"/> Drug Lab
<input type="checkbox"/> Startup or Shutdown	<input type="checkbox"/> Flammable Vapor Cloud > 5,000 lbs.	<input type="checkbox"/> On Water	<input type="checkbox"/> Disposal/Abandonment
<input type="checkbox"/> Flaring		<input type="checkbox"/> Pipeline	<input type="checkbox"/> Odor Complaint
<input type="checkbox"/> Upset		<input type="checkbox"/> Fuel Tank	<input checked="" type="checkbox"/> Other: RAD INCIDENT

Time Enroute to Scene: Time Arrived On Scene: Time Departed From Scene:

### REFERRED TO OTHER AGENCY:

### DTSC STATE FUNDING (if applicable):

CLU/ERER Number:

### STORMWATER STATUS (if applicable):

Actual Discharge  Potential Discharge



**AGENCIES ON SCENE OR NOTIFIED:**

<b>Agency Type</b>	<b>Agency</b>	<b>O/N</b>	<b>Contact Person</b>	<b>Phone Number</b>	<b>Case Number</b>
Fire Department	CON FIRE	O	BC ED GONZALEZ	(925) 383-5044	16-096619
Law Enforcement	ANTIOCH PD	O	LT DON LADUE	(925) 779-6977	16-10859
Air District					
State OES	STATE WARNING CTR	N	TIM TRIBBLE	(800) 852-7550	16-6109
CDPH	RAD HEALTH BRANCH	O	NIKA HEWADIKARAM	(510) 409-1097	
CONTRACTOR	PACIFIC NUCLEAR TECHNOLOGY CO.	O	LEIGH MASSETT	(925) 706-8300	

**REPORT:**

10/10/2016 - SEE ATTACHED INCIDENT REPORT AND ATTACHMENTS

**RESPONSIBLE PARTY INFORMATION:**

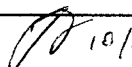
DAN CONDON, P.E.  
CONSTRUCTION MANAGER  
PRESTON PIPELINES (GENERAL ENGINEERING CONTRACTOR)  
BAY AREA/CORPORATE OFFICE  
133 BOTHELO AVENUE  
MILIPITAS, CA 95035-5325  
OFFICE (408) 262-1418

VICENTE ROSAS  
PROJECT SUPERINTENDANT  
SUNSERI CONSTRUCTION  
ZETTIE MILLER'S HAVEN  
1563 ROSEMARIE LANE  
STOCKTON, CA 95207  
(209) 475-9083

ANDREW BAJUNIEMI  
LABORATORY COORDINATOR  
FUGRO CONSULTANTS INC. (HANDLING SOIL DENSITY GAUGE)  
469 ROLAND WAY  
OAKLAND, CA 94621-2014


**Additional Required Items: Bill of Lading, Request for Invoice, and Site Safety Plan**

Report Prepared by: Trisha Asuncion

 10/10/16

CONTRA COSTA  
HEALTH SERVICES

INCIDENT REPORT  
October 24, 2016

**PREPARED BY:** Trisha Asuncion, Hazardous Materials Specialist II  
Contra Costa Health Services Hazardous Materials Programs (CCHSHMP) 

**INCIDENT NO.** 161006-01

**INCIDENT DATE:** October 6, 2016

**LOCATION:** 3609 Tabor Dr.  
Antioch, CA 94509  
(Construction site near intersection of James Donlon Blvd./Contra Loma Blvd., Antioch)

**RESPONDING**

**TEAM MEMBER(S):** Trisha Asuncion (lead), Amanda Ackerman, Maria Duazo, Tod Hickman, Seth Heller, Xavier Bryant, Chris Tougeron

**INCIDENT SUMMARY**

CCHSHMP received the call from Con Fire Dispatch at 0908 hours. When I contacted Con Fire Dispatch, Engine 85 was en route to the scene. Initial incident details described a device containing radioactive sources was run over and damaged at a construction site, thereby exposing the radioactive sources. These radioactive sources were purported to be Americium-241 and Cesium-137; based on this information, it appears that the damaged device was a soil density gauge. Additionally, it was reported that there may have been exposures amongst the construction crew. An evacuation order was given for the Twin Creeks apartment complex adjacent to the construction site by Contra Costa County Fire Protection District (Con Fire) at 0924 hours.

At 0909 hours, I issued "777s" to gather team members for a response. Bryant, Heller, and Hickman, who were already in the area, reported they would proceed directly to scene. At 0927 hours, Asuncion and Ackerman departed in HM1/6824 and Duazo and Tougeron departed in HM3/6868, with both vehicles proceeding in Code 3 to the Command Post with an estimated time of arrival of 20-25 minutes. The Command Post was established at the intersection of James Donlon Blvd. and Contra Loma Blvd. State Rad Health was contacted.

Bryant and Heller arrived at the Command Post at 0935 hours, and they confirmed that a soil density gauge was run over by a vehicle at the construction site. The radioactive sources exposed were confirmed to be Americium(Am)-241 with an activity of 50 millicuries (mCi), which is a mainly an alpha and gamma emitter; and Cesium(Cs)-137 with an activity of 10 mCi, and is mainly a beta and gamma emitter. An isolation distance between incident location and Command Post was set at 150 meters. At 0952 hours, HM1 and HM3 arrived at the Command Post. Asuncion conducted a screening at the Command Post with the use of the Canberra and assessed that background radiation reading is 10 millirem (urem). Haz Mat Group positions were assigned and linked in with the rest of the Incident Command organization. (See "Incident Organization.") The Branch Operations Center (BOC) at Haz



Mat (Carquinez Room) opened at 0958 hours. (See “Incident Organization”; for a timeline of BOC events, see Attachment “BOC/Timeline of Events.”)

Bryant and Heller had begun screening with the Ludlum-9 of nine (9) construction site workers that may have had radiation exposures to the exposed soil density gauge. They found one worker, whose hands had readings of more than twice of background, indicating alleged radioactive contamination on his hands; it was purported that the worker had directly handled, without any personal protective equipment (PPE), the exposed soil density gauge after it was damaged. The worker’s hands were decontaminated with the use of water and soap. Heller confirmed with the Ludlum that there was no residual contamination on the worker’s hands after deconning.

At around 1015 hours, the pre-entry/safety briefing was conducted by the Haz Mat Group in front of Incident Command personnel. For Haz Mat Group assignments, see “Incident Organization.” The main objectives for the Haz Mat Entry Team were: 1) Establish/assess exclusion zone at 2 mRem/hr in order to inform contractor that would contain/remove exposed sources of safety perimeter; 2) Confirm identity of exposed radioactive sources with the use of Identifinder 2 (radioactive isotope identification device, or RIID); and 3) Mitigate by placing 55-gallon steel drum to cover as to shield sources until the contractor arrived. The primary safety considerations for entry were: 1) Slips, trips, falls; 2) Radiation – time, distance, shielding setting of exclusion zone at 2 mRem/hr and turnback at 10 mRem/hr. Decon would be a dry decon followed by screening with the use of the Ludlum. The pre-entry/safety briefing was completed at 1030 hours and the Haz Mat Entry team proceeded to the construction site shortly thereafter at 1053. Because the radiation reading was background, 10 uR/hr, the Entry Team advised Entry Team Leader that the Back-up and Decon teams can stage closer to the end of the access road leading to the entrance of the construction site.

The BOC was able to speak with health physicist Nika Hewadikaram from State Rad Health. She recommended that Pacific Nuclear Technologies (PNT), based in Antioch, be contacted to assist in containing and removing the exposed soil density gauge. At 1119 hours, BOC informed Haz Mat Group that a representative from PNT, Leigh Massett, was en route to the incident location.

The Entry Team safely arrived at the location of the damaged soil density gauge. Air monitoring was conducted with the use of QRae and PID with no readings. The Entry Team were getting a reading of 2 mR/hr at approximately 2-3 feet from source, which they demarcated with evidence markers. At 8 feet, the radiation reading dropped to ½ mR/hr. The readings provided by the Entry Team gave Haz Mat Group sufficient information to respond to an inquiry from Contra Costa Water District if their nearby canal asset (approximately 100 feet away) that that waterway was not threatened by the radiation exposure. The Entry Team also confirmed with the Identifinder that the sources exposed inside of the soil density gauge were in fact Am-241 and Cs-137. After making numerous assessments and reporting back to Entry Team Leader, the Entry Team proceeded to mitigate the exposed sources by shielding the sources with the 55-gallon steel drum. The Entry Team verified that the steel drum had sufficiently shielded the exposed sources and proceeded to decon at 1130 hours. Con Fire and Antioch PD lifted the evacuation order for the neighboring apartment complex at 1136 hours.

At 1145 hours, Leigh Massett from PNT had arrived at the Command Post. Massett’s lead pig was not big enough to contain the exposed rod where the sources resided. With the help of Fugero Consultants and their Radiation Safety Officer, the company handling the soil density gauge, it was decided that the soil density gauge would be best contained and removed from the site in its original yellow transport case. Heller escorted Massett to the site of the damaged gauge. At 1219 hours, health physicist Nika Hewadikaram from State Rad Health arrived at the Command Post. Asuncion escorted State Rad Health to the construction site. Massett had completed containment of the gauge with the use the gauge’s original transport box and placed the box in the trunk of his car. (The plan was to

return the damaged gauge back to PNT's office for possible repairs.) State Rad Health verified that the radiation from the gauge inside its transport box was within the gauge's transportation index (T.I.) with the use of her handheld personal radiation detector (PRD). She told PNT that they can transport back the damaged gauge to the PNT office in Antioch. State Rad Health approached the site where the damaged gauge was removed. Using her PRD, Hewadikaram confirmed that no residual contamination had been left behind from the damaged gauge and only found background radiation readings at the location. This was relayed to the Incident Commander and Command Post.

With State Rad Health's assessment of the incident site, and the exposed radiation sources removed, the Incident Commander had decided to release Haz Mat Group units and open roadways. The incident closed at 1300 hours. The Haz Mat BOC had closed down earlier at

### **INCIDENT ORGANIZATION**

The Incident Command organization was as follows:

- Incident Commander – Battalion Chief (BC) Ed Gonzales, Con Fire
- Safety Officer – Lutzow, Con Fire
- Public Information Officer (PIO) – Fire Marshal Robert Marshall
- Site Access Control Leader – Sgt. Don Ladue, Antioch Police Department
- Haz Mat Group (CCHS)
  - Supervisor – Asuncion
  - Assistant Safety Officer – HazMat – Ackerman
  - Tech Ref Specialist/Decon Team Leader – Tougeron
    - Decon Team – San Ramon Valley Fire Protection District, Engine 35 (Haz Mat)
  - Entry Team Leader – Bryant
    - Entry Team – Duazo, Heller, Hickman
    - Backup Team – Con Fire Engine 85

The Haz Mat Branch Operations Center (BOC) Organization was as follows:

- BOC Director – Matt Kaufmann
- Operations Section Chief – Daniel Vazquez
- Information Section Chief – Ellen Dempsey
- Logistics – Fahlon Zappelli
- Scribe – Hillary Wagner

### **TIMELINE**

See attached "Branch Operations Center /Timeline of Events."

### **ATTACHMENT(S)**

CCHSHMP Incident Report Form #16-10-06-01

BOC/Timeline of Events – IR#16-10-06-01 "Antioch Radiation Incident"

CalOES Control Report #16-6109

CalOES Control Report #16-6109 update

10/6/2016 Incident Photos

ICS 208 HM Form – Site Safety and Control Plan

Work Mission Duration Form

Request for Billing Form

**Branch Operation Center  
Timeline of Events**

**IR# 16-10-06-01 – ANTIOCH RADIATION INCIDENT**

Date	Time	Provided By	Comments
10/6/16	0908	Con Fire page	RADIATION RELEASE - SOIL DENSITY GAUGE RUN OVER BY VEHICLE. RADIOLOGICAL RELEASE OF CESIUM 137 AND AMERICIUM 241 - 3609 TABORA DR, ANTIOCH C/S JAMES DONLAN
10/6/16	0913		TH EN ROUTE TO SCENE
10/6/16	0913		TA EN ROUTE
10/6/16	0915		CT PREPPING TRUCKS IN BAY
10/6/16	0915		JAMES DONLAN SHUT DOWN BY APD
10/6/16	0916		MD 5 MIN TO OFFICE
10/6/16	0917	CON FIRE	RESPOND CODE 3
10/6/16	0917		AA, CT, TA TO TRUCK BAY - HM1 & HM3 ETA 20 MIN.
10/6/16	0917		STAGING AT CONTRA LOMA AND JAMES DONLAN
10/6/16	0923	AM	GLORIA AT KGO CALLED FOR COMMENT. REFERRED TO PIO ROBERT MARSHALL. 925-260-6881
10/6/16	0927		HM1 DEPARTED CODE 3
10/6/16	0928		HM3 DEPARTED CODE 3
10/6/16	0937	SH	ISOLATION DISTANCE OF 150M CURRENTLY EVACUATING AREA ABBOTT EXPOSED
10/6/16	0952		HM 1 & 3 ON SCENE
10/6/16	0958		BOC OPENED
10/6/16	0958	ED	IRIS ACTIVATED
10/6/16	0959	MK	HEALTH OFFICER ADVISED
10/6/16	1000	BOC	SCRIBE-HW INFORMATION -ED OPS-DV DIRECTOR - MK LOGISTICS - FZ



Date	Time	Provided By	Comments
10/6/16	1007	MK	EMS DUTY OFFICER ADVISED
10/6/16	1012	DV VIA XB ON SCENE	EVACUATING - TWIN CREEKS APARTMENTS 1111 JAMES DONLON, BLDG 19, ANTIOCH - RESIDENTS EVACUATED TO NEARBY COMMUNITY CENTER
10/6/16	1012		ONE CONSTRUCTION WORKER CONTAMINATED FOR 75 MIN- DECON WITH SOAP AND WATER. 9 SCREENED
10/6/16	1014	ED	IRIS UPDATED
10/6/16	1015	MK TO EMS	NO TRANSPORTS
10/6/16	1039	MK	CAL OES - FILED NOTIFICATION ASSIGNED # 16-6109
10/6/16	1049	MK	ON HOLD WAITING FOR STATE RAD - 1058 INFORMED WILL CALL BACK MK SHORTLY
10/6/16	1054	XB	ENTRY TEAM GOING IN SH, MD, TH
10/6/16	1054	MK TO AA	HOW MUCH RADIATION (IN REM) WAS HE EXPOSED TO?
10/6/16	1111	STATE RAD/ANIKA HEWAEIKRAM TO MK (510)409-1097	NEED TO CONTACT - PACIFIC NUCLEAR TECHNOLOGIES (PNT) (925)-706-8300
10/6/16	1113	CT	GENERAL CONTACTOR ON SITE - SUNSERI CONSTRUCTION, PROJECT SUPERINTENDENT VINCENTE ROSAS
10/6/16	1116	MK	MK CONTACTED LEE MASSETT AT PNT (CELL: 925-752-2403). LEE TO PICK UP PROBE. INSTRUCTED TO APPROACH FROM WEST
10/6/16	1136	CON FIRE (RADIO)	LIFTING EVACUATION ORDER, COORDINATING WITH APD TO GET EVERYONE BACK INSIDE.
10/6/16	1147	AA	DOSE IS ESTIMATED AT 15uRem TOTAL. CONTAMINATION LEVEL TWICE BACKGROUND FOR EXPOSED PERSON
10/6/16	1202	MK	UPDATE IRIS
10/6/16	1202		CLOSE BOC



**Hazardous Materials Spill Update: Cal OES Control #:16-6109**  
**Warning Center to: trisha.asuncion**

10/06/2016 10:52 AM

Governor's Office of Emergency Services  
 Hazardous Materials Spill Update

CONTROL #: 16-6109 NRC#:

NOTIFY DATE/TIME: 10/06/2016 / 1035  
 RECEIVED BY: Tim Tribble | OCCURENCE DATE/TIME:10/6/2016 /  
 0900  
 CITY/OP. AREA: Antioch/Contra Costa County

1.a. PERSON NOTIFYING Cal OES  
 PERSON CALLING Cal OES: Eddie Gonzales | AGENCY: Contra Costa  
 Fire Department  
 PHONE #: 925-383-5044 | EXT: | PAGER #(CELLPHONE):

1.b. PERSON REPORTING SPILL (If different from above):  
 PERSON CALLING Cal OES: | AGENCY:  
 PHONE #: | EXT: | PAGER #(CELLPHONE):

SUBSTANCE TYPE:  
 a. SUBSTANCE: / b.QTY: Amount / Measure / c. TYPE / d. OTHER / e.  
 Pipeline / f. Vessel Over => 300 tons  
 1. Cesium 137 / Unknown / Lbs. / RADIOLOGICAL / / No / No  
 -----  
 2. Americum 241 / Unknown / Lbs. / RADIOLOGICAL / / No / No  
 -----  
 3.  
 -----  
 4.  
 -----

Original Description: Per the caller a piece of contrauction equipment was  
 run over exposing the rods. It is a radar drilling device.

Update(s):

PERSON NOTIFYING Cal OES OF SPILL UPDATE:  
 NAME: Matt Caufmann | AGENCY: Contra Costa County Hazardous  
 Materials  
 PHONE #: 925-335-3200 | EXT: | PAGER #(CELLPHONE):

UPDATE QUANTITY:  
 1. Amount: Less than 5 lbs. Lbs.  
 2. Amount: Less than 5 lbs.  
 3. Amount:  
 4. Amount:

UPDATE RECEIVED BY: Timothy Davis  
 UPDATE KNOWN IMPACT:  
 UPDATE CAUSE:



SITUATION UPDATE: RP states that a vehicle ran over a soil-density probe exposing less than 5 lbs. each of Cesium 137 and Americum to the the surrounding environment. The release is contained to the area. It is believed that less than 200 people have been evacuated from the area.

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CONFIDENTIAL:

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FAX NOTIFICATION LIST: AA/CUPA, DFG-OSPR, DTSC, RWQCB, US EPA, USFWS, CDPH-D.O., Co/WP, Co/Hlth, Co/E-Hlth  
ADMINISTERING AGENCY: Contra Costa County Health Services Department  
SECONDARY AGENCY:  
OTHER NOTIFIED: Contra Costa Water Canal

Created by Warning Center on 10/6/2016 10:46:58 AM  
Modified by Warning Center on 10/6/2016 10:52:02 AM

Last

California State Warning Center  
Governor's Office of Emergency Services  
Phone: (916) 845-8911  
Warning.Center@oes.ca.gov



**Hazardous Materials Spill Update: Cal OES Control #:16-6109**  
**Warning Center to: trisha.asuncion**

UPDATE

10/06/2016 11:16 AM

Governor's Office of Emergency Services  
 Hazardous Materials Spill Update

CONTROL #: 16-6109 NRC#:

NOTIFY DATE/TIME: 10/06/2016 / 1035  
 RECEIVED BY: Tim Tribble | OCCURENCE DATE/TIME:10/6/2016 / 0900  
 CITY/OP. AREA: Antioch/Contra Costa County

1.a. PERSON NOTIFYING Cal OES  
 PERSON CALLING Cal OES: Eddie Gonzales | AGENCY: Contra Costa Fire Department  
 PHONE #: 925-383-5044 | EXT: | PAGER #(CELLPHONE):

1.b. PERSON REPORTING SPILL (If different from above):  
 PERSON CALLING Cal OES: | AGENCY:  
 PHONE #: | EXT: | PAGER #(CELLPHONE):

SUBSTANCE TYPE:  
 a. SUBSTANCE: / b.QTY: Amount / Measure / c. TYPE / d. OTHER / e. Pipeline / f. Vessel Over => 300 tons  
 1. Cesium 137 / Unknown / Lbs. / RADIOLOGICAL / / No / No  
 -----  
 2. Americum 241 / Unknown / Lbs. / RADIOLOGICAL / / No / No  
 -----  
 3.  
 -----  
 4.  
 -----

Original Description: Per the caller a piece of contrauction equipment was run over exposing the rods. It is a radar drilling device.

Update(s): 10/06/2016 10:46:58 AM - RP states that a vehicle ran over a soil-density probe exposing less than 5 lbs. each of Cesium 137 and Americum to the the surrounding environment. The release is contained to the area. It is believed that less than 200 people have been evacuated from the area.

PERSON NOTIFYING Cal OES OF SPILL UPDATE:  
 NAME: Andrew Bajuniemi | AGENCY: Fugro Consultants  
 PHONE #: 510-610-8059 | EXT: | PAGER #(CELLPHONE):

UPDATE QUANTITY:  
 1. Amount: Lbs.  
 2. Amount:  
 3. Amount:  
 4. Amount:

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UPDATE RECEIVED BY: Timothy Davis

UPDATE KNOWN IMPACT:

UPDATE CAUSE:

SITUATION UPDATE: RP states the fire department and hazmat crew are going to put a metal 55 gallon drum over the top of the instrument, but they will not touch the instrument.

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CONFIDENTIAL:

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FAX NOTIFICATION LIST: AA/CUPA, DFG-OSPR, DTSC, RWQCB, US EPA, USFWS, CDPH-D.O., Cal OES HAZMATUNIT, Cal OES REG, Co/WP, Co/Hlth, Co/E-Hlth

ADMINISTERING AGENCY: Contra Costa County Health Services Department

SECONDARY AGENCY:

OTHER NOTIFIED: Contra Costa Water Canal

Created by Warning Center on 10/6/2016 11:08:09 AM

Last

Modified by Warning Center on 10/6/2016 11:07:59 AM

California State Warning Center  
Governor's Office of Emergency Services  
Phone: (916) 845-8911  
Warning.Center@oes.ca.gov