U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Radiation - Kelley Instruments, Inc (former) - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: **POLREP #2**
Radiation - Kelley Instruments, Inc (former) - Final
Radiation - Kelley Instruments, Inc (former)
A7T8
Wichita, KS
Latitude: 37.6738600 Longitude: -97.3299300

To: Kenneth Buchholz, USEPA R7 / SUPR

From: James Johnson, On-Scene Coordinator
Date: 12/28/2011
Reporting Period: 05/03/2011 - 05/08/2011

1. Introduction

1.1 Background

Site Number:	A7T8	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	4/7/2011
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	00
Mobilization Date:	5/5/2011	**Start Date:**	5/5/2011
Demob Date:	5/8/2011	**Completion Date:**	5/8/2011
CERCLIS ID:	KSN000706130	**RCRIS ID:**	
ERNS No.:		**State Notification:**	2/19/2010
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Inactive former radium dial stripping and repair facility.

1.1.2 Site Description
The assessment was conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986. Kelley Instruments Inc (KII) is a former radium dial aircraft instrument repair shop. KII operated on the property from as early as 1970 to as late as 1990. An investigation at the site by KDHE, reported in June 2007, identified radium-226 impacted soil on the site.

The objective of the removal is to protect public health or welfare or the environment by mitigating the release of hazardous substances and pollutants or contaminants into the environment as presented by soils contaminated with Radium-226 at the Site. Contaminated soils that exceed 5 pico Curies per gram (pCi/g) plus background were excavated and properly disposed of.

1.1.2.1 Location
The former radium dial shop facility was located at 1024 South Santa Fe Avenue, Wichita, Kansas. The property is located in the northwest ¼ of Section 28, Township 27 South, Range 1 East, in east central Sedgwick County, Kansas. The latitude and longitude of the property is North 37.673860 latitude and West -97.329930 longitude. The polygonal-shaped commercial property encompasses approximately one half of an acre, oriented north to south. The facility building (located on the northern portion of the property) covers approximately 6,000 square feet of the property.

There are two on-site building owners. Engineered Door Products currently occupies 1024 & 1040 South Santa Fe Avenue and Commerce Construction Services occupies 1008 South Santa Fe Avenue. Adjoining properties include commercial business adjacent the property to the north, west and south along Santa Fe Avenue. To the east are railroad right-of-ways.

1.1.2.2 Description of Threat
The primary contaminant of concern at this Site is Radium-226. The EPA and KDHE have documented Radium-226 concentrations in soil exceeding 5 pCi/g plus background. Radium-226 is a hazardous substance as defined by section 101(14) of CERCLA, and is listed at 40 CFR § 302.4 as radionuclides.

On February 19, 2010, KDHE referred this Site to the EPA for a response action. The EPA is closely

coordinating Site activities with KDHE and the Sedgwick County, Kansas Health Department. The Sedgwick County, Kansas Health Department has volunteered to coordinate Site activities with the local governing bodies.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
The EPA conducted field activities for a Removal Site Evaluation (RSE) in May and November of 2010. Field screening with radiation detectors and radiation analysis of soil and groundwater samples further defined the lateral, vertical and aerial extent of contamination. Background was measured at at a maximum of 13 microR/hr n screening measurements and 1.44 pCi/g by laboratory analysis. Elevated levels of radium were not detected in groundwater at the Site. Also, the UFA did not identify or find any areas that contained buried waste, septic tanks, containers or a leachate field. The Action Memorandum, signed April 7, 2011, outlined the scope of work covered by the removal action. The removal action was completed on May 8, 2011. The transportation, treatment, storage and disposal of the hazardous substances was done in accordance with all applicable local, state and federal requirements. At this time, no post removal Site control will be necessary.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

A removal action is warranted for the former Kelley Instruments inc Site. The Action Memorandum, signed April 7, 2011, outlines the scope of work covered by the removal action. The removal action was completed on May 8, 2011, by EPA, START, and ER personnel. The transportation, treatment, storage and disposal of the hazardous substances was done in accordance with all applicable local, state and federal requirements.

2.1.2 Response Actions to Date:
The RSE was conducted in May 2010. A follow-up groundwater assessment was conducted in November 2010. The removal action started on May 5, 2011, and was completed on May 8, 2011. Elevated levels of radium were not detected in groundwater at the Site. Also, the UFA did not identify or find any areas that contained buried waste, septic tanks, containers or a leachate field. KDHE was notified of the Site closure action on May 9, 2011. At this time, no post removal Site control will be necessary.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
No PRP's have been identified for this Site.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Radium Contaminated Soil - Base Neutral Solids	**Solid Waste**	**7.55 Tons**	**K17-9801-1**	**None**	**US Ecology, Grand View, ID 5/11/2011.**

2.2 Planning Section

2.2.1 Anticipated Activities
A removal action will be warranted for the KII Site. The EPA anticipates that the removal action will be conducted in 2011 and will coincide with other former radium dial shop removal actions (Instruments, Inc; Air Capital Dial, Garwin).

2.2.1.1 Planned Response Activities
The Removal Site Evaluation (RSE) was conducted in May 2010. A follow-up groundwater assessment was conducted in November 2010. Elevated levels of radium were not detected in groundwater at the Site. Also, the UFA did not identify or find any areas that contained buried waste, septic tanks, containers or a leachate field.
The RA was complete 8 May 2011. There are no other planned responses at this Site, at this time.

2.2.1.2 Next Steps
Any future POLREPs will be dependent upon the outcome of the groundwater investigation and the PRP search. The removal action was conducted in May 2011 to coincide with other former radium dial shop removal actions (Instruments, Air Capital Dial, Garwin).

2.2.2 Issues
The former KII facility is within the boundaries of the Gilbert-Mosley (GM) site. As early as 1986 KDHE identified widespread chlorinated solvent contamination affecting the groundwater in the central business district of Wichita. The GM site has at least six discrete contamination plumes. Trichloroethylene (TCE), tetrachloroethylene (PCE), cis1,2 dichloroethylene (DCE) and vinyl chloride are the predominant components of contamination associated with the plumes. In the spring of 2001 the city of Wichita began implementing a KDHE approved Remedial Action Work Plan involving extraction wells, piping and a treatment facility. Continuous operation of the containment wells and treatment system began December

2002. Again, there were no elevated levels of radium detected in groundwater at the Site. Also, the UFA did not identify or find any areas that contained buried waste, septic tanks, containers or a leachate field. The challenges were to ensure that Kansas One Call and the City of Wichita Water Department came out and thoroughly identified and marked all utility, power and water lines.

2.3 Logistics Section

Equipment used:
1 - 5 yard Dump Truck
1 - 1/2 ton pick-up 4 x 4
1 - 308 Excavator
1 - Skid Steer 299 Cat
1 - Trailer mounted pressure washer
1- Tool Trailer
1- Equipment Trailer
1 - Concrete / Asphalt Saw
2 - Transport trucks (1. - approx 20 tons; 1 - approx 10 tons)

2.4 Finance Section

2.4.1 Narrative

The accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. 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.

The below listed 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.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$65,000.00	$26,988.76	$38,011.24	58.48%
TAT/START	$17,637.00	$11,816.79	$5,820.21	33.00%
Intramural Costs				
Total Site Costs	$82,637.00	$38,805.55	$43,831.45	53.04%

* 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

2.5.1 Safety Officer

On May 4, 2011, the site health and safety plan was finalized and signed by all site personnel. START established hot zone air monitoring utilizing 2 area-rams. ER established a safety perimeter to ensure that the general public did not have immediate access to the Site. Personnel protective equipment was worn by all personnel while on-site during the duration of the removal.

The Site was inspected by EPA H & S Manager Roy Krueger on May 4, 2011.

2.6 Liaison Officer

James A. Johnson, OSC - EPA R7
Beckie Himes, OPA-EPA R7

Chuck Jackson, ER - Response Manager

2.7 Information Officer

2.7.1 Public Information Officer

Beckie Himes, PIO
Office of Public Affairs
U.S. EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
Phone: 913-551-7253 or
Toll Free: 1-800-223-0425
himes.beckie@epa.gov

The EPA conducted field activities for a removal assessment in May and November 2010. A fact sheet was developed for the site and provided to the congressional and state representatives and the Director of the Sedgwick County, Kansas Health Department, who provides briefings to the local government. The RA was complete on 8 May 2011. The administrative record is on file at the USEPA Superfund repository in Kansas City, Kansas and the Planeview Public Library, Wichita, KS.

2.7.2 Community Involvement Coordinator

Beckie Himes, PIO
Office of Public Affairs
U.S. EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
Phone: 913-551-7253 or
Toll Free: 1-800-223-0425
himes.beckie@epa.gov

3. Participating Entities

3.1 Unified Command

The command structure for the RSE and the RA consisted of:

1. EPA (EPA coordinated the activities of START & ERRS).
2. KDHE
3. City of Wichita

3.2 Cooperating Agencies

1. City of Wichita
2. Sedgewick County, Kansas Health Department
3. KDHE
4. ATSDR
5. KS One Call
6. City of Wichita Water Department

4. Personnel On Site

For the Removal Assessment:
2 - EPA OSC's (J. Johnson, T. Mahler)
1 - EPA Health Physicist (C. Hooper)
1 - EPA TLC Manager (J. Ricard)
2 - START Personnel

For the Removal Action:
2 - EPA OSC's - (J. Johnson, T. Mahler)
1 - EPA Health Physicist (C. Hooper)
1 - EPA Safety & Health (R. Krueger)
2 - START Personnel
4 - ER Personnel

5. Definition of Terms

Radium Contaminated Soil - Ra-226 / Ra-228
RA - Removal Action
RSE - Removal Site Evaluation
"picocurie per gram" (pCi/g) = This refers to the amount of radioactivity in a particular solid substance. Picture a one-ton batch of concrete that contains 1,000 pounds of gravel, 500 pounds of cement, and 500 pounds of water. To describe this particular mix of concrete, one might say it contains "500 pounds per ton" of cement. This means that for every pound of concrete, there will also be a quarter of a pound of cement present. Similarly, if you wished to describe the amount of radioactivity that typically exists in soil throughout the United States, you would say that it contains about "one picocurie per gram" of radium, one picocurie per gram of thorium, and a host of other radioactive elements. This means that for every gram (about 0.002 pounds) of soil, there will also be one picocurie of radium and one picocurie per gram of thorium present, along with the rest of the radioactive elements commonly found in soil.

6. Additional sources of information

6.1 Internet location of additional information/report

The objective of this removal action is to protect public health or welfare or the environment by responding to the release of hazardous substances and pollutants or contaminants into the environment as presented by soils contaminated with radium-226 at the Site. Contaminated soils that exceed 5 pico Curies per gram (pCi/g) plus background will be excavated and properly disposed of. The removal action level at this site is 6.44 pCi/g.
The EPA conducted field activities for a Removal Site Evaluation (RSE) in June of 2009. Field screening with radiation detectors and radiation analysis of soil samples further defined the lateral, vertical, and aerial extent of contamination.

For additional information, please refer to “documents” on www.epaosc.org/kelley.

For additional referece material, please refer to www..iem-inc.com/primrite.html

6.2 Reporting Schedule

This Polrep covers the Removal Assessment (RSE) & the Removal Action (RA) and it is considered to be "Final" when published.

7. Situational Reference Materials

For additional information, photographs, maps, sample analysis, etc; please refer to "Documents" on www.epaosc.org/kelley

For additional information radium-226, please refer to: http://www.epa.gov/radiation/radionuclides/radium.html

POLREP #2 Last Updated 1/3/2012