

Introduction

This report presents supporting detailed information for the July 16, 2009 in-situ characterization of prospective soil wastes from planned ISRA excavations at Happy Valley.

Background

In-situ characterization of soil destined to be excavated from Happy Valley in accordance with the ISRA Workplan was performed. A step-by-step approach was followed to accomplish characterization of the soil prior to excavation. The first step was to review available information regarding historical area usage and existing analytical data from past soil sampling in the Happy Valley (HV). The objective was to identify all substances that could have an impact on the determination of whether soil in each planned excavation footprint was hazardous or not.

The next step was to develop a random sampling plan for each of the planned excavation footprints to determine whether any of the identified substances are present at concentrations that require further investigation. An evaluation of the results of the initial random sampling was

Determination

According to analytical results and generator knowledge, the soil in the planned excavation footprint of Happy Valley DRG-1:

Is Not a Listed Waste (generator knowledge)

Is Not ignitable (generator knowledge)

Is Not corrosive (generator knowledge)

Is Not reactive (generator knowledge)

Is Not toxic (analytical results and generator knowledge)

Is Not Extremely or Acutely Hazardous Waste

Does Not exceed any RCRA or Title 22 thresholds

Is Not subject to the Prop. 65 listing

Is Not subject to Title 22 Appendix X list

Is Not known by experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment.

The soil in DRG-1 is NON-HAZARDOUS.

INTERIM SOURCE REMOVAL ACTION (ISRA) - OUTFALL 008

DRG-1 WASTE CHARACTERIZATION RESULTS THE BOEING COMPANY SANTA SUSANA FIELD LABORATORY

		Object Name:			ISWC0045	ISWC0046	ISWC0047	ISWC0048
			Sample Name	:	ISWC0045S001	ISWC0046S001	ISWC0047S001	ISWC0048S001
			Collection Dat	e:	7/1/2009	7/1/2009	7/1/2009	7/1/2009
			Sample Depth	(feet):	0 - 0.5	0 - 0.5	0.6 - 1.1	1.0 - 1.5
ANALYTE	UNITS	TTLC	WET	TCLP	RESULT	RESULT	RESULT	RESULT
			Leachate	Leachate				
			Testing	Testing				
			Trigger ^a	Trigger ^b				
METALO								
METALS	/1	500	450		40	40	40	40
Antimony	mg/kg	500	150		<10	<10	<10	<10
Arsenic	mg/kg	500	50	100	4.6	5.4	6	5.6
Barium	mg/kg	10,000	1,000	2,000	43	70	49	45
Beryllium	mg/kg	75	7.5		0.5	0.65	0.68	0.51
Cadmium	mg/kg	100	10	20	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	500	50	100	12	15	14	14
Cobalt	mg/kg	8,000	800		5.5	4.9	4.2	4.1
Copper	mg/kg	2,500	250		6.4	7.6	4.9	7.8
Lead	mg/kg	1,000	50	100	7.8	17	4.9	5.6
Mercury	mg/kg	20	2	4	0.0085 J	0.018 J	0.026 J	0.012 J
Molybdenum	mg/kg	3,500	3,500	-	0.64 J	0.88 J	0.88 J	0.8 J
Nickel	mg/kg	2,000	200		10	12	10	10
Selenium	mg/kg	100	10	20	<2	<2	<2	<2
Silver	mg/kg	500	50	100	<1	<1	<1	<1
Thallium	mg/kg	700	70		1.2 J	<10	<10	1.2 J
Vanadium	mg/kg	2,400	240		19	26	25	22
Zinc	mg/kg	5,000	2,500		35	49	36	260
RADIONUCLIDES					R	R	R	R

MAII 102/14:12341-3:2012(1924)-

NOTES
"--" - not applicable

^a - WET Leachate Testing Trigger = STLC limit * 10

^b - TCLP Leachate Testing Trigger = TCLP limit * 20

B - analyte was detected in the associated method blank

J - Result is estimated