

Kaiser Time Critical Removal Action Container Inventory Observation Report

PERSONS INVOLVED

Agency/Company	Contact Persons
United States Environmental Protection Agency	Brooks Stanfield – Federal On-Scene Coordinator (OSC)
START – Weston Solutions, Inc	Jim Peterson, David Burford
ERRS – Environmental Quality Management, Inc. (EQM)	Pat Turina, Response Manager

SITE OBSERVATIONS

On November 7, 2020, START arrived on site to sort, inventory, classify, and determining disposal options for miscellaneous chemicals found on the Former Kaiser Smelter site. START was tasked with determining the hazard categories for chemicals abandoned on site using labels, physical observations, SDS research, First Step Hazard Categorization system or any combination thereof. Items were initially collected by START IV and ERRS from around the Kaiser site and placed in the western side of building 44 and building 46. START V gathered containers from buildings 45 and 46 to be classified and sorted into their proper DOT classes.

Building 44 - Northwest Corner

This area contained 12 drums, 7 crates and a number of smaller containers staged. Each staging group was labeled with an ID corresponding to either an inventory code or a DOT hazard class.



Photo 1 - View of the northwest corner of Building 44

Crates containing multiple items were labeled with the DOT class of the items they contained. The crate containing compressed gas cylinders was labeled as DOT 2. Two gray cylinders with red cylinder caps within this crate were suspected by START to be props; however, that could not be confirmed, and the cylinders were documented as DOT 2. The crate labeled 42 E contained 42 fire extinguishers. A single large fire extinguisher was staged in its own crate. All the fire extinguishers identified on site were grouped and inventoried; however, many were pressurized, and will require depressurization prior to disposal. A single 30-gallon drum labeled D010 was staged in the last crate and contains a DOT class 3, flammable solvent.



Photo 2 - Crates with compressed gasses

D030 was in the northwest corner of the building and was determined through visual observation and SDS research to be a non-DOT-regulated lubricant. During initial inspection, the drum appeared to be leaking, but it was later determined to be residue left by another container. A sorbent pad was placed underneath the container to contain the liquid.



Photo 3 – Drum D030 containing lubricant

Six 55-gallon drums were located along the north wall on the west side of building 44, behind the fire extinguisher totes. Drums D006, D007, and D009 had good labels and were categorized as non-DOT regulated by SDS research and visual observations. Drum D008 was determined by First Step Hazard Categorization to be a DOT Class 5.1. D004 and D005

Kaiser Time Critical Removal Action Container Inventory Observation Report

were opened by START and determined by visual observation to be green coke material and can be disposed on site with other site waste.



Photo 4 - Drums containing nonregulated material, a 5.1 oxidizer and green coke material.

Three additional crates pictured below contained fire extinguishers. Crates with large number of fire extinguishers were counted and the quantity labeled on the outside of the crate. All the fire extinguishers identified on site were grouped and inventoried; however, many remained pressurized and will require depressurization before disposal.



Photo 5 - Crates containing fire extinguishers

Drums D013 and D014 were sampled by START and determined to be DOT class 3 by First Step Hazard Categorization. Drum D014 was open and had no lid. The open drums behind Drums D013 and D014 along the wall were visually inspected by START and contained trash and other debris .

Kaiser Time Critical Removal Action Container Inventory Observation Report



Photo 6 - Drums containing DOT 3 Flammable liquids

Twelve cases of liquid activator with “Corrosive” labels were categorized through SDS research as DOT 8A acidic liquids. The yellow cylinder behind the liquid activator pile is a fire extinguisher.



Photo 7 - Boxes of corrosive liquid activator (acidic)

Kaiser Time Critical Removal Action Container Inventory Observation Report

All identified DOT class 3 flammable liquid containers with the exception of the 55-gallon drums were staged together by START. This pile consisted of a variety of container types and sizes. Several five gallon buckets were partially full without lids and would require cautious handling to avoid potential spills of flammable liquids. Unlabeled containers were classified using the First Step Hazard Categorization system. Labeled containers were classified through SDS research and visual observation.



Photo 8 - DOT class 3 containers

The desk along the north wall on the west side of Building 44 contained empty containers and boxes. Other Empty containers were found in a crate near the western garage door of Building 44.



Photo 9 - Empty containers and boxes

Building 44 - Inside North Entrance

This area was the staging area for the following: non-regulated material, DOT Classes 5.1, 5.2, 6, 8A, 8B and 9 and miscellaneous paint containers. These container classes were determined by SDS research or First Step Hazard Categorization.



Photo 10 - Small chemical containers staged next to the north entrance of Building 44

All the non-DOT-regulated chemicals are staged in an area by the north entrance. The disposal pathway was yet to be determined as of the START-V demobilization from the site. Container types, sizes, and integrity varied. Several containers had open tops and were susceptible to spilling.



Photo 11 - Miscellaneous non-regulated materials

Kaiser Time Critical Removal Action Container Inventory Observation Report

All DOT class 9 containers except for 55-gallon drums were staged along the wall by the north entrance. Most of these containers were five-gallon buckets, however there were several smaller containers as well. Visible in front of the area were three boxes containing loose, solid material in the open boxes. The bags were labeled as a respiratory hazard if inhaled. Caution should be used while moving or disposing of the chemicals.



Photo 12 - DOT class 9 containers

A small pile of items near the north entrance, beside the DOT class 9, DOT class 8B, and non-regulated materials, were designated as DOT Class 6 containers.



13 - DOT class 6 containers

Kaiser Time Critical Removal Action Container Inventory Observation Report

The DOT class 8B containers were grouped beside the DOT class 9 chemicals. There was a variety of container types and sizes (the Multi-Clean box is fragile and needs to be handled with caution to avoid a potential spill of corrosive liquid). This pile was located near the north wall near the north entrance.



Photo 14 - DOT class 8B containers (basic)

The DOT class 8A: acidic containers were grouped along the north wall. There were a variety of container types and sizes. Some containers lacked caps and were closed with either a latex glove or duct tape. (These containers require cautious handling avoid spills of corrosive materials. This pile was located along the north wall near the north entrance.



Photo 15 - DOT class 8A containers (acidic)

Kaiser Time Critical Removal Action Container Inventory Observation Report

DOT 5.1 and DOT 5.2 chemicals were grouped together along the north wall next to the north entrance. One of the five-gallon buckets in the 5.1 section did not have a lid and requires cautious handling to avoid a potential spill of oxidizing material. The two 5.2 containers were placed on the bottom right of the cardboard on the side labeled as "5.2".



Photo 16 - DOT class 5.1 and 5.2 oxidizers

Containers identified as DOT non-regulated material in five-gallon buckets were located inside the north door. These containers hold non-hazardous material and may be left on site if deemed appropriate.



Photo 17 - DOT non-regulated materials

Kaiser Time Critical Removal Action Container Inventory Observation Report

A number of paint and paint related materials can be found in near the north entrance of building 44 and were staged by the following categorizations: polyurethane-based paint, latex paint, oil-based paint, unknown/unlabeled paint cans or buckets, high-solvent mixtures, and epoxies/adhesives. The crate next to these piles contained dry or empty paint cans and buckets that may be crushed and disposed of as solid waste.



Photo 18 - Miscellaneous paint containers

Kaiser Time Critical Removal Action Container Inventory Observation Report

Several 55-gallon drums were located east of the north entrance. Most were empty and were indicated as empty with an "E" marked on the drum's side. Drum D020 was determined by START by the label and appearance as DOT Class 3 material. Drums D018, D019, D021 and D022 were determined by START by visual observation and SDS research as DOT non-regulated material. Drums D023, D024, and D025 shown with an orange "H" were also categorized as DOT class 3 as determined by First Step Hazard Categorization.



Photo 19 - Miscellaneous drums

Building 44 - Outside of North Entrance

Outside the north entrance of building 44 were four 55-gallon drums. Drum D027 was determined by First Step Hazard Categorization as DOT Class 3 material, and drums D026 and D028 was categorized by visual observation as DOT non-regulated material (soil cuttings). Drum D029 was categorized by visual observation as green coke.



Photo 20 - One DOT 3 drum, two with green coke, and one with soil cuttings.

Building 44 - West Side

The west side of building 44 contained two crates of containers, 3 pallets with non-regulated solid mortar material, a 55-gallon drum, a pallet of five-gallon buckets, and miscellaneous site waste from lab samples.

The two crates were in the southwest portion of Building 44 near the west entrance. One crate contained fluorescent light bulbs and the other crate contained about 500 aerosol canisters. The aerosol canisters range from empty to full



Photo 21 - Crates containing fluorescent light bulbs and miscellaneous aerosol canisters.

Kaiser Time Critical Removal Action Container Inventory Observation Report

Drum D015 was determined by visual observation to be green coke material and can be disposed with other site waste streams. The pallets of 2-gallon buckets beside and are non-regulated mortar material determined by visual observation and may be left on site. The pallet with the orange spray paint labeled "DOT 9" is class 9 material determined by First Step Hazard Categorization.



Photo 22 - Miscellaneous mortar materials, green coke, and DOT 9 containers

The containers located in the southwest portion of building 44 east of the pallets contained small quantities of process samples collected from materials found elsewhere on site. These containers may be disposed in other site waste streams.



Photo 23 - Lab process samples

Building 45 - Workshop

Building 45 contains approximately 30 pallets of solidified material with legible labels categorized by START-V from SDS research as DOT non-regulated material and may be bulked together and left on site if appropriate.

Building 46 - Garage

Building 46 contained miscellaneous paint and paint related materials and are staged by the following categorizations: polyurethane-based paint, latex paint, oil-based paint, unknown/unlabeled paint cans or buckets, high-solvent mixtures, epoxies/adhesives, and empty paint cans or buckets. Two additional piles of the oil-based and 100% acrylic-based paints were staged separately because they were in good condition, unopened and may be donated or disposed of separately from the other paints.

Summary of Site Actions

- START-V:
 - Inventoried and categorized 5596 containers at the site from buildings 44, 45, and 46.
 - Used the First Step Hazard Categorization method to categorize 135 containers that could not be determined through another method.
 - Staged inventory by DOT class and paint category where possible.
 - Inventoried and relocated all liquid materials from building 45 to building 44. Solid DOT non-regulated chemicals remain on pallets in building 45.

DOT Class Container Summary

Category	Gas	Gel	Liquid	Paste	Sludge	Solid	Wax	Grand Total
2 - Compressed Gases	141							141
2.1 - Flammable Gas	1							1
3 – Flammable and Combustible Liquids			169		13			182
4.1 – Flammable Solids						1		1
5.1 – Oxidizers			6			42		48
5.1 – Oxidizers								
8A – Acidic Corrosive Materials			1					1
5.2 – Organic Peroxides			2					2
6.1 – Poisonous/Toxic Materials			7			1		8
8A – Acidic Corrosive Materials			94			2		96
8B – Basic Corrosive Materials		2	41		1	4		48
9 – Miscellaneous Hazardous Materials		6	103	5	7	61	2	184
Grand Total	142	8	420	5	21	111	2	712

DOT Non-regulated Container Summary

Category	Empty	Gel	Liquid	Paste	Sludge	Solid	Grand Total
0 – Not DOT Regulated	2	49	1231	18	12	2557	3869
Acrylic Paint			73				73
Coke/Carbon/Coal						147	147
Epoxies/Adhesives			116				116
Latex Paint			151				151
Oil Paint			290				290
Polyurethanes			93				93
Solid Paint						47	47
Stains/Solvents			38				38
Unknown Paint			60				60
Grand Total	2	49	2051	18	12	2749	4884