

HEALTH AND SAFETY PLAN (DRAFT)

**FORMER COMMONWEALTH ALUMINUM/ALERIS FACILITY
2211 AND 2241 EAST CARSON STREET
CARSON, CALIFORNIA 92658**

PREPARED FOR:

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ICS Project No. 07-2956**

October 2007

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ATTACHMENTS

- Attachment 1 Site Maps
- Attachment 2 Health and Safety Forms
- Attachment 3 Hospital Route Map
- Attachment 4 Corrective Measures Plan – Constituent Information

1.0 GENERAL INFORMATION

1.1 INTRODUCTION

This Health & Safety Plan (HASP) addresses those activities associated with the scope of work stated in the HASP and will be implemented by the Site Safety Officer (SSO) during site work. Compliance with this HASP is required of all persons and third parties who enter this site. Assistance in implementing this plan can be obtained from the Site Safety Officer and Project Manager, and/or the Health and Safety Manager (HSM). The content of this HASP may change or undergo revision based upon additional information made available to health and safety (H&S) personnel, monitoring results or changes in the scope of work. Any changes proposed must be reviewed by H&S staff and are subject to approval by the HSM and Project Manager.

This site specific Health & Safety Plan has been prepared for the use of ICS and its employees and supplements the Health and Safety training that each ICS employee receives. The health and safety guidelines in this Plan were prepared specifically for this site. Due to the potentially hazardous nature of the site covered by this Plan and the activity occurring on the site, it is not possible to discover, evaluate, and provide protection for all possible hazards which may be encountered. This plan is written for the specific site conditions, purposes, dates, and personnel specified and must be amended if these conditions change.

This Plan is not intended to be used by any other contractor or personnel of any such contractor. This Plan may not address the specific health and safety needs or requirements of any other such contractor and its employees. Neither this Plan nor any part of it should be used on any other site.

ICS expressly disclaims any and all guarantees or warranties, express or implied, that the Plan will meet the needs or requirements of any such contractor or its employees. ICS, therefore, cannot and does not assume any liability by the use or reuse of the Plan by any client, contractor or their employees or agents. Any reliance on the Plan will be at the sole risk and liability of such party.

1.2 ACKNOWLEDGMENT

I acknowledge having reviewed this Health & Safety Plan, understand its contents and agree to abide by it. Additionally, I am current in the training and medical surveillance requirements specified in 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

(Please Print Clearly)

NAME	DATE	COMPANY AFFILIATION
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

2.0 PROJECT INFORMATION

2.1 SITE DESCRIPTION

The former Commonwealth Aluminum facility located at 2211 and 2241 East Carson Street in Carson, California operated as an aluminum scrap recycling and rolling operation from approximately 1947 until March 31, 2006. At that time, operations ceased, and the Site has been decommissioned in accordance with a Final Facility Closure Plan. The Closure Plan was reportedly verbally approved by the Los Angeles County Fire Department on June 27, 2006, and the facility closure activities were performed by Commonwealth Aluminum/Aleris Rolled Products under the LACFD oversight. Numerous soil and water investigation conducted at the Site have shown that soils and groundwater have been impacted by former manufacturing activities. This Health and Safety Plan specifically details the proposed work to be completed under the IRIS Environmental “Corrective Action Measures” Plan dated October 2007.

As outlined, the scope of services deals with the removal of petroleum hydrocarbon impacted soils associated with the former manufacturing area of the site. Impacted soil located in these areas will be excavated as directed and transported offsite to a licensed disposal facility that is permitted to accept this type of material. Heavy metals may also be encountered during the implementation of the work, specifically, lead. The HSP details the protection of workers to the exposure of hydrocarbons and heavy metals.

2.2 PURPOSE OF SITE WORK

Removal of petroleum hydrocarbon impacted soil.

2.3 SCOPE OF WORK

(by task in order of execution)

1. Pre-field activities and mobilization/demobilization
2. Excavate area of impacted soil as directed using a backhoe, bulldozer, tracked excavator, shovels or other types of earth moving equipment, as necessary.
3. The impacted soil to be temporarily stockpiled or loaded directly onto trucks.
4. The impacted soil will be transported to a State-approved disposal facility.

2.4 UTILITY CLEARANCE

1. To be performed 48 hours prior to job start.
2. To be performed using USA, site utility maps, and or a pipe locator.

See Attachment 2 for Utility Clearance Forms

3.0 HEALTH AND SAFETY RISK ANALYSIS

3.1 CHEMICAL HAZARDS

**Table 3-1
Known and/or Potential Contaminants***

Contaminant	Source of Contamination	Source of Sample Data (Soil/Water/Air)	Range of Concentration
Hydrocarbon (Rolling Oil)	Lubrication	Soil Analysis	5.6 – 49,000 mg/kg
Lead	Metal Processing	Soil Analysis	2 – 645 mg/kg

* Source of Data: Site Assessment Activities
Date of Sampling: Various Dates
Comments:

Included in Attachment 4 is the chemical constituent for heavy metals, hydrocarbons, and volatile organic compounds that may be encountered in the implementation of the Corrective Measure Plan. Personnel protective equipment will be established at that time.

3.2 NON-CHEMICAL HAZARDS AND MITIGATION

Non-chemical hazards may be associated with:

1. Overhead and underground utilities
2. Gas/water lines
3. Drilling equipment
4. Excavation equipment
5. Heat exposure
6. Cold exposure
7. Noise
8. Vehicle traffic
9. Shoring
10. Scaffolding
11. Biologic
12. Holes/ditches
13. Steep grades
14. Uneven terrain
15. Unstable surfaces

**Table 3-2
Assessment of Chemical Hazards
(California Version)**

Task No.	Chemical Name* (or class)	PEL/TLV*	Other Pertinent Limits* (Specify)	Warning Properties – Odor Threshold	Potential Exposure Pathways	Acute Health Effects	Chronic Health Effects
2,3,4	Lead (and inorganic lead compounds and soaps)	0.05/0.15 mg/m ³	None Cited	None Cited	Inhalation; Dermal; Ingestion	GI disturbances; anemia; neuromuscular dysfunction; encephalopathy	GI disturbances; anemia; neuromuscular dysfunction; encephalopathy; nephropathy; human carcinogen
2,3,4	NORPOR 15 Rolling Oil	NA	None Cited	None Cited	Dermal; Ingestion	NA - Refer to Attachment 4	NA - Refer to Attachment 4

- PEL = OSHA Permissible Exposure Limit; represents the maximum allowable 8-hr. time weighted average (TWA) exposure concentration.
- TLV = ACGIH Threshold Limit Value; represents the maximum recommended 8-hr. TWA exposure concentration.
- STEL = OSHA Short-term Exposure Limit; represents the maximum allowable 15 minute TWA exposure concentration.
- TLV-STEL = ACGIH Short-term Exposure Limit; represents the maximum recommended 15 minute TWA exposure concentration.
- C = OSHA Ceiling Limit; represents the maximum exposure concentration above which an employee shall not be exposed during any period without respiratory protection.
- IDLH = Immediately Dangerous to Life and Health; represents the concentration at which one could be exposed for 30 minutes without experiencing escape-impairing or irreversible health effects.
- () = ACGIH TLV Intended Change
- [SKIN] = Indicates a significant contribution of the total exposure by the cutaneous route.
- Warning = Represents the lowest concentration detectable in a given population. However, detection varies greatly with the individual.
- REL = NIOSH Recommended Exposure Limit, based on a 10-hour TWA exposure

Included in Attachment 4 is the chemical constituent for heavy metals, hydrocarbons, and volatile organic compounds that may be encountered in the implementation of the Corrective Measure Plan. Personnel protective equipment will be established at that time.

4.0 HEALTH AND SAFETY FIELD IMPLEMENTATION

4.1 PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS

PPE may be upgraded or downgraded by the site industrial hygienist, HSM, or qualified Site Safety Officer based upon site conditions and air monitoring results.

See Table 4-1 for PPE requirements.

4.2 MONITORING EQUIPMENT REQUIREMENTS

Monitoring is conducted by the Site Safety Officer or designee. Conduct contaminant source monitoring initially. Complete breathing zone monitoring if source concentrations are near or above contaminant action level concentrations. Log direct reading monitoring as specified in the Table 4-1 Monitoring Protocol and record results on Direct Reading Report form. Direct reading instrumentation shall be calibrated in accordance with manufacturing requirements, e.g., at least daily, and results of the calibration shall be documented on the Instrument Calibration Log; refer to Attachment 2.

**Table 4-1
Monitoring Protocols and Contaminant Action Levels**

Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Breathing Zone*	
			Monitored Level** For Mandatory Respirator Use	Monitored Level*** For Mandatory Work Stoppages
Lead	Cartridge	Daily	0.05 mg/m ³	0.50 mg/m ³
Hydrocarbons	Cartridge	Hourly	> 100 ppm	> 1,000 ppm

* Monitoring performed at operator's breathing zone. Monitor at the source first; if the source concentration is near or above the action level concentration, monitor in the breathing zone.

** Monitored levels will require the use of an approved respiratory protection system specified in Table 4-2.

*** Call the Project Manager and Health and Safety Manager for consultation.

**Table 4-2
Personal Protective Equipment (PPE) Requirements**

Job Tasks ^a	PPE ^b							Level of Protection ^c	Level If Upgrade ^c	Additional PPE for Upgrade ^c	Monitoring Equipment
	Suit	Gloves	Feet	Head	Eye	Ear	Resp.				
1	Std	Work	steel	HH	Glass	Plugs	N/A	D			
2	Std	Work	Steel	HH	Glass	Plugs	N/A	D	C	Half APR HEPA	Particulate/Dust
3	Std	Work	Steel	HH	Glass	Plugs	N/A	D	C	Half APR HEPA	Particulate/Dust
4	Std	Work	Steel	HH	Glass	Plugs	N/A	D	C	Half APR HEPA	Particulate/Dust

<p>a Personal Protective Equipment (PPE):</p> <p>SUIT:</p> <p>Std = Standard work clothes</p> <p>Tyvek = Uncoated Tyvek disposable coverall</p> <p>PE Tyvek = Polyethylene-coated Tyvek</p> <p>Chemrel = Chemrel coverall with hood</p> <p>Saranex = Saranex-laminated Tyvek</p> <p>Lt PVC = Light wt. PVC rain gear</p> <p>Med PVC = Medium wt. PVC suit</p> <p>Hvy PVC = Heavy wt. PVC coverall with hood</p> <p>Road = Roadwork vest</p> <p>Nomex = Nomex coveralls</p> <p>GLOVES:</p> <p>Work = Work gloves (canvas, leather)</p> <p>Neo = Neoprene gloves</p> <p>PVC = PVC gloves</p> <p>N = Nitrile gloves</p> <p>V = Vinyl gloves</p> <p>L = Latex gloves</p>	<p>a Personal Protective Equipment (PPE):</p> <p>FEET:</p> <p>Steel = Steel-toe boots</p> <p>Steel+ = Steel-toe Neoprene or PVC boots</p> <p>Booties = PVC or Latex booties</p> <p>HEAD:</p> <p>HH = Hard hat</p> <p>EYE:</p> <p>Glass = Safety glasses</p> <p>Goggle = Goggles</p> <p>Shield = Face shield</p> <p>EAR:</p> <p>Plugs = Earplugs</p> <p>Muff = Ear muffs</p>	<p>A Personal Protective Equipment (PPE):</p> <p>RESPIRATOR:</p> <p>APR = Air-purifying respirator</p> <p>Full APR = Full face APR</p> <p>Half APR = Half face APR</p> <p>PAPR = Powered Air-purifying Respirator</p> <p>SAR = Airline supplied air respirator</p> <p>SCBA = Self contained breathing apparatus</p> <p>Escape = Escape SCBA</p> <p>OV = Organic Vapor cartridge</p> <p>AG = Acid gas cartridge</p> <p>OV/AG = Organic vapor/Acid gas cartridge</p> <p>AM = Ammonia cartridge</p> <p>D/M = Dust/mist pre-filter and cover for cartridge</p> <p>HEPA = High efficiency particulate air filter cartridge</p> <p>OTHER:</p> <p>* = Use if contact with wet soil or water</p> <p>** = Optional use except if specific hazard present</p>
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Included in Attachment 4 is the chemical constituent for heavy metals, hydrocarbons, and volatile organic compounds that may be encountered in the implementation of the Corrective Measure Plan. Personnel protective equipment will be established at that time.

4.3 DECONTAMINATION PROCEDURES

(Modify as Appropriate)

Depending on the specific job task, decontamination may include personnel themselves, sampling equipment, and/or heavy equipment. The specified level of protection for a task (A, B, C, or D) does not in itself define the extent of personal protection or equipment decontamination. For instance, Level C without dermal hazards will require less decontamination than Level C with dermal hazards. And, heavy equipment will always require decontamination to prevent cross-contamination of samples and/or facilities. The following sections summarize general decontamination protocols.

4.3.1 Equipment

Heavy equipment will be decontaminated prior to personnel decontamination. Drillers will steam clean their augers after use preferably at locations near the individual drilling operations. Containment systems will be set-up for collection of decon fluids and materials. Berms and wind barriers will be set up, if appropriate.

Vehicles that become contaminated with suspect soil will be cleaned prior to leaving the site. The wheel wells, tires, sides of vehicles, etc. will be high-pressure washed at a location to be determined by the SSO.

4.3.2 Personnel

Use steps and procedures outlined below as guidelines for personnel decontamination:

- ▶ Brush loose soil from body;
- ▶ Boot removal (where appropriate);
- ▶ Suit removal (where appropriate);
- ▶ Respirator/hard hat removal (where appropriate);
- ▶ Respirator wash (where appropriate);
- ▶ Glove removal;
- ▶ Field wash hands

4.3.3 Samples and Sampling Equipment

The same decontamination line will be used for sampling equipment decon as is used for personnel decon. At a minimum the following is performed:

- ▶ Refer to work plan for specific equipment decontaminator policies and procedures;
- ▶ Hand augers and buckets will be washed in TSP solution or equivalent and rinsed in distilled water;
- ▶ Sampling equipment will be brushed clean and rinsed with distilled water or other appropriate cleaning material;
- ▶ Samples will be dry-wiped prior to packaging.

4.3.4 Decon Wastes

- ▶ Spent decon solutions may be required to be drummed and disposed of as hazardous waste and/or solvent solutions may be required to be segregated from water rinses.
- ▶ Decontamination shall be performed in a manner that minimizes the amount of waste generated.

5.0 SITE OPERATING PROCEDURES

5.1 INITIAL SITE ENTRY PROCEDURES

- ▶ Locate nearest available telephone.
- ▶ Prior to working on-site, conduct an inspection for physical and chemical hazards.
- ▶ Conduct or review utility clearance prior to start of work, if appropriate.
- ▶ Note any specialized protocols particular to work tasks associated with the project.

5.2 DAILY OPERATING PROCEDURES

Hold Tailgate Safety Meetings prior to work start and as needed there after (suggest daily, however minimum of weekly).

(See Attachment 2 for Tailgate Safety Meeting Form.)

- ▶ Use monitoring instruments and follow designated protocol and contaminant action levels.
- ▶ Use personal protective equipment (PPE) as specified.
- ▶ Use hearing protection if noise levels exceed 85 dbA.
- ▶ Remain upwind of operations and airborne contaminants, if possible.
- ▶ Establish a work/rest regime when ambient temperatures and protective clothing create a potential heat stress hazard.
- ▶ Do not carry cigarettes, gum, etc. into contaminated areas.
- ▶ Refer to Site Safety Officer (SSO) for specific safety concerns for each individual site task.
- ▶ Be alert to your own physical condition.
- ▶ All accidents, no matter how minor, must be reported immediately to the SSO.

Refer to ICS's Illness and Injury Prevention Program (IIPP) for Code of Practices.

6.0 EMERGENCY RESPONSE PROCEDURES

6.1 EMERGENCY INCIDENT PROCEDURES

The nature of work at contaminated or potentially contaminated work sites makes emergencies a continual possibility. Although emergencies are unlikely and occur infrequently, a contingency plan is required to assure timely and appropriate response actions. The contingency plan is reviewed at tailgate safety meetings.

6.1.1 Emergency Incident Procedures

If an emergency incident occurs, take the following action:

Step 1: Size-up the situation based on the available information.

Step 2: Notify the Site Safety Officer and/or Field Supervisor.

Step 3: Only respond to an emergency if personnel are sufficiently trained and properly equipped.

Step 4: As appropriate, evacuate site personnel and notify emergency response agencies, e.g., police, fire, etc.

Step 5: As necessary, request assistance from outside sources and/or allocate personnel and equipment resources for response.

Step 6: Consult the posted emergency phone list and contact key project personnel.

Step 7: Prepare an incident report. Forward incident report to Project Manager/Health and Safety Manager within 24 hours.

6.1.2 Medical Emergencies

If a medical emergency occurs, take the following action:

- Step 1: Assess the severity of the injury and perform life-saving first aid/CPR as necessary to stabilize the injured person. Follow universal precautions to protect against exposure to blood borne pathogens.
- Step 2: Get medical attention for the injured person immediately. (Call 911 or consult the Emergency Contacts list which must be posted at the site).
- Step 3: Notify the Site Safety Officer and Field Supervisor immediately. The Site Safety Officer will assume charge during a medical emergency.
- Step 4: Depending on the type and severity of the injury, transport the injured employee to the nearest hospital emergency room. If the injury is not serious, then transport the injured employee to a nearby medical clinic. Consult your Health & Safety Manager for guidance, if necessary.
- Step 5: Notify the injured person's personnel office, including the Regional Manager, Project Manager, and Health and Safety Manager.
- Step 6: Prepare an accident report. The Site Safety Officer is responsible for its preparation and submittal to the Health and Safety Manager (HSM) and Corporate Health and Safety Director within 24 hours. CHSD fax number is (714) 893-5122.

6.2 EMERGENCY ROUTES

See Hospital Route Map – Attachment 3 – Verify Route (TO BE POSTED)

6.3 SITE SPECIFIC REQUIREMENTS IN EVENT OF AN EMERGENCY

Call 911, contact ICS PM, evacuate to Carson Street, south end of site.

6.3.1 Facility Notifications – None

Safety

Security

Facilities

6.3.2 Locate Shut-Offs

Gas:

Power:

Fuel:

6.3.3 Evacuation Route

Identify Evacuation Route

Identify Meeting Area (Perform Head Count)

ICS

EMERGENCY CONTACTS (To Be Posted)

TITLE	NAME	PHONE NUMBER
<i>EMERGENCY</i>		
Police	Emergency Service	911
Fire	Emergency Service	911
Local Hospital	Good Samaritan Hospital	213-977-2420
Haz. Waste Natl. Response Center	HAZMAT	800-424-8802
<i>PROJECT/BUSINESS</i>		
Project Manager	Hirad Emadi	Office: 714-893-6366 Cell: 714-240-1226
Health & Safety Manager	Michael Catton	Office: 714-893-6366 Cell: 310-486-8924
Field Supervisor	Darren Ness	Office: 714-893-6366 Cell: 714-837-6564
Site Safety Officer	Darren Ness	Office: 714-893-6366 Cell: 714-837-6564
Client Contact		
Site Contact		
Subcontractor		
Subcontractor		
Human Resources Manager	Gabby Guzman	Office: 714-893-6366

Site Location: Former Common Wealth Aluminum / Aleris Facility
2211 and 2241 East Carson Street
Carson, California

Hospital Route: Head east on Carson Street - go 1.0 mile
Turn right at Santa Fe Avenue – go 2.0 miles
Turn left at Willow Avenue – go 1.25 miles
Turn left on Pacific Avenue – go .25 miles on right side and arrive at
Pacific Hospital – Long Beach
2776 Pacific Ave
Long Beach, CA 90806
(562) 997-2500
www.Phlb.org (See attachment 3 for Hospital Route Map)