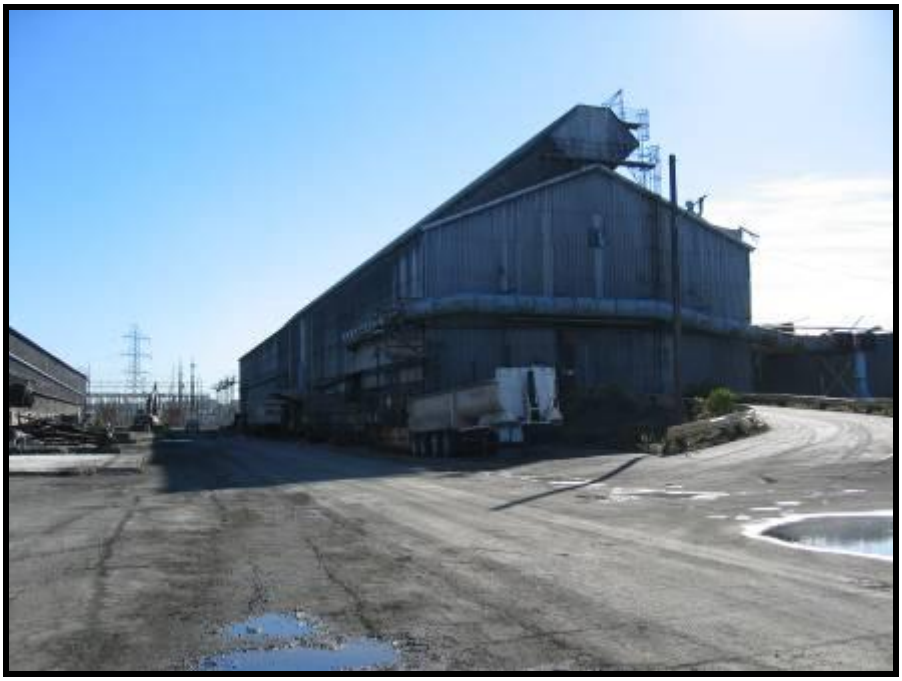
PORT OF TACOMA - KAISER FACILITY

BUILDING #65 RCRA DECONTAMINATION REPORT

September 26, 2007



Presented to:

Port of Tacoma

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APPENDICES

ACRONYMS

ACM	Asbestos-Containing Material
CFC	Chloro Fluoro Carbons
CFR	Code of Federal Regulations
DOE	Dept. of Ecology (Washington)
DOT	Dept. of Transportation
DW	Dangerous Waste
EPA	Environmental Protection Agency
ft	Foot
HPS	High pressure sodium lamps
L & I	Dept. of Labor and Industries
lf	Linear Feet
MCC	Motor Control Center
MSDS	Material Safety Data Sheet
ND	Non Detect
OSHA	Occupational Safety and Health Act
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PLM	Polarized Light Microscopy
RCRA	Resource Conservation and Recovery Act (Hazardous Waste regulation)
sf	Square Feet
SPL	Spent Pot Liner
TCLP	Toxicity Characteristic Leach Procedure
WAC	Washington Administrative Code
WDOE	Washington Dept. of Ecology
WISHA	Washington Industrial Safety and Health Act

BUILDING #65 RCRA DECONTAMINATION REPORT
Port of Tacoma - Kaiser Facility

1.0 Executive Summary

This report summarizes the activities associated with the cleaning of Building #65, the old Potline #3 Building, at the Kaiser Tacoma Works facility in Tacoma, Washington, per Washington Dept. of Ecology's Order #2636 DW05. This work occurred during late 2006 and early 2007. The cleaning was specified in the Port of Tacoma's demolition requirements and subject to the contractor submitted and DOE approved cleaning plan. The building had been used for the demolition and removal of a 'listed' dangerous waste material from the cathodes (pots). Removal of this material generated significant amounts of dust which had settled on the interior building structure. Because the dust is also a regulated dangerous waste, specific requirements had to be met for the cleaning and decontamination of the building prior to demolition. By cleaning and decontaminating the building, the metals would be recycled and thus minimize the quantity of dangerous waste generated. Also, cleaning and decontaminating the concrete floor and stem walls would allow for the material to be reused as fill.

A written Building 65 Cleaning Plan was prepared by R.W. Rhine and their subcontractor NRC Environmental Services prior to the cleaning and was approved by the Washington Dept. of Ecology. Other required plans were included with the plans prepared for the site demolition including a Health and Safety Plan, Hazardous Materials Management Plan, etc. All of these plans were reviewed, modified, and approved prior to the commencement of activities. A Hazard Assessment had been done of the building during the site assessment which identified hazardous and regulated materials within the building. The hazard assessment included inspections for asbestos, lead containing paint, and other hazardous and/or regulated materials.

Cleaning began in December 2006 with sweeping and vacuuming of the interior structure and equipment. This was followed by washing of the entire interior. Rigorous measures were taken to contain dust and wash water during these operations. Collected materials were properly contained and identified for shipment to a hazardous waste facility. Cleaning and demolition of the building was completed in March 2007. Cleaning crews were maintained onsite during the demolition to collect any remaining regulated materials.

All activities associated with the cleaning, decontamination, demolition, and disposal/recycling of materials from Building #65 were completed in compliance with state and federal regulations and in accordance to the DOE work order (attached) and the contractor's work plan.

2.0 Introduction & Background

Sterling Technologies, LLC (Sterling) provided oversight and consulting services during the cleaning and decontamination of Building #65 (Potline #3 Building) at the Kaiser Tacoma Works (Kaiser) facility for the Port of Tacoma (Port).

Building #65 was a 32,760 sf metal-framed, on-slab building with a metal roof and metal siding. The building was approximately 400 ft long by 80 ft wide and 35 ft high. The building had a high (approximately 15-18 ft high) concrete stem wall around most of the building. At the north end of the building, there was a second floor mezzanine with a concrete floor. There was a narrow extension (about 8 ft wide) of this mezzanine floor level along the west and east walls of the building. There was also a similar, but much smaller, mezzanine at the south end of the building. Under the main portion of the mezzanine were storage areas. There was a small extension of the building on the east wall that contained offices and a motor control center (MCC) on two floors.

This building had been used by Kaiser for removal of the carbon lining and insulation (spent potliner) from the pot cathodes (pots). It was also used for the demolition of the pots from Potline Nos. 1, 2, and 4 during the site-wide demolition activities that were done during 2005 and 2006. Under EPA and Washington Dept. of Ecology (DOE) regulations, the used/spent carbon lining is a regulated dangerous waste and is specifically identified and listed in the regulations as a 'K088' waste. Because the material was listed as a dangerous waste, cleanup of the building prior to demolition was required. This cleaning had to meet strict federal hazardous waste and state dangerous waste requirements. These are referred to as Resource Conservation and Recovery Act (RCRA) requirements and are found in the federal regulations. Prior to cleaning of the building, a cleanup plan was prepared and submitted to DOE and approved. This cleanup plan is included in Appendix I.

The definition of RCRA 'clean' is found in the federal regulations under 40 CFR 268.45, Table 1 Alternative Treatment Standards for Hazardous Debris, footnote 3. It reads: "Clean debris surface means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste, except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discoloration, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area."

Prior to the demolition activities, Sterling conducted the first phase of the hazard assessment in late 2002 and issued an initial report on December 13, 2002. The second phase of the hazard assessment was completed from August to September of 2003 followed by the report "Demolition Estimated Review" dated September 30, 2003. The third phase field work was conducted during November and December 2005. Building #65 was part of these assessments. All of this information is available in the 'Hazard Assessment Report for the Kaiser Aluminum and Chemical Co.; Tacoma, WA facility'.

Sterling assessed various above grade hazards associated with Building #65 that included the following:

- Asbestos-containing materials;
- Lead in paint;
- Spent potliner containing materials in the building emission control system dust and accumulated dust within the building;
- Polychlorinated biphenyls (PCBs) in paint;

- Light ballasts which potentially contain PCBs, mercury containing lamps including fluorescent lamps, mercury vapor lamps, and high pressure sodium (HPS) lamps, mercury containing switches including thermostats, pressure switches, etc.;
- Other hazardous substances.

3.0 Cleaning and Decontamination Report

Contractors involved in the cleaning, decontamination, and demolition of Building #65 are as follows:

Contractor	Primary Role
R. W. Rhine, Inc.	Primary contractor, demolition
NRC Environmental Services	Cleaning, decontamination, packaging of hazardous waste
Wm. Dickson Co.	Asbestos abatement, transportation

Cleaning of the building began in mid-December 2006. Miscellaneous equipment and solid waste materials had been cleaned and removed previously. Regulated materials, such as asbestos containing materials, light ballasts, PCB ballasts, fluorescent lamps, halide lamps (small in size), large lamps (full size mercury vapor or sodium vapor lamps), mercury switches (thermostat controls), refrigerant (chlorinated fluorocarbons) containing equipment including air conditioners and heat pumps, various gearboxes and air line lubricators that may have contained oil, computer monitors and other electronic (E-waste) devices that may have contained lead, pressurized fire extinguishers, etc., were removed and properly managed. Because the building had been used for the demolition of the pots during the earlier demolition activities, the doorways had been sealed with plastic 'curtains' which prevented escape of dust that might have been disturbed during building cleaning activities. An initial sweeping of the first floor was completed.

NRC began vacuuming the interior building structural on December 11, 2006. The vacuum truck was staged outside of the building and was connected to a sealed vacuum type roll-off box. This reduced the handling of the dust as well as the potential for releases of the dust. A six-inch diameter hose was used between the vacuum truck and roll-off box and between the roll-off box and the interior of the building. A smaller four-inch diameter hose was then attached to the manlift basket and was used to vacuum the structural steel trusses, beams, etc. Care was taken to vacuum all horizontal surfaces. Dust depth varied widely depending on the width and slope of the surface, but generally varied from 0" in depth to as much as 2-3". The dust was loose and readily vacuumed up. While vacuuming takes time, it reduces the amount of cleanup debris. Due to high wind conditions on December 13, three of the large curtained equipment doors were sealed with heavy reinforced plastic (two doors on the west side and one door on the east side) to prevent the release of dust from the building. One door on the downwind east side was not covered with the reinforced plastic as it was needed for access into the building.

On December 18 the crew started cleaning the roof vent. The roof vent had an enclosure within an enclosure. This type of design was necessary to prevent the entrance of precipitation. Kaiser had sealed the top of the roof vent which prevented release of dust through it. The crews were able to

access the inner enclosure from the south end of the building and swept the accumulated dust through an opening in the bottom of the vent and onto the building floor where it was swept and vacuumed. The inner surface of the outer enclosure was cleaned during the wash down phase of the cleaning and was done by spraying from below and inside the building. The roof vent interior was inspected on January 2 and met the visible cleaning standard. Crews were unable to access all areas of the large overhead crane.

Rhine graded the ground surface surrounding the building to remove brush and provide a proper area to build a containment 'moat' around the building due to concerns that during washing of the interior, some wash water could leak through the siding. A 1 to 1-1/2 ft high berm was constructed around the entire building approximately 4 to 5 ft from the exterior building wall. The berm was lined with Visqueen. The Visqueen was wrapped around 1 x 2's and nailed to the wall to form a seal. Joints in the Visqueen were either elevated to prevent wash water escape or were caulked and sealed. Doorways were bermed.

Washing of the interior of the building began on January 2. NRC crews started by washing the roof vent and proceeding down one side of the building at a time. Washing was done from the top down. Wash water was supplied by a pumper truck through a one-inch diameter hose at moderate pressure (70-75 psi). This kept the generation of wash water to a minimum and met the visible cleaning standard. Waste wash water was kept vacuumed by using squeegees to direct the water to low areas in the floor where it was vacuumed using the same vacuum turck and hose as used earlier. The truck was staged outside of the building. Personnel were staged as needed to assure there were no leaks or releases of wash water. Additional personnel managed the Visqueen berm and kept the waste wash water vacuumed using an additional truck. Final inspection of the structure was completed on January 22. The inspected surfaces met the visible cleaning standard. The south second floor mezzanine and floor areas were washed with a high pressure washer to prepare for the demolition to begin at that end of the building.

During an inspection of the roof vent vacuuming on January 2, it was noted that the roof appeared to be coated with a silver colored mastic material over a fabric backing. Samples were taken and analyzed for asbestos and found to be positive. To prevent release of the asbestos coating, the roof was sprayed with an encapsulant prior to demolition. Weather conditions during January delayed the spraying of the encapsulant and ultimately resulted in a postponement of the building demolition for about a month. The metal roof panels were then managed as a regulated (asbestos containing) material.

Building demolition began in late February with the removal of the interior duct work. The duct work was lowered to the floor to allow cleaning. Demolition began at the south wall and progressed with the roof and side walls. The materials were staged inside the building until the visible cleaning standard was met and additional touchup cleaning completed. Once the materials were clean, they were staged, processed, and sorted outside the building. The overhead crane was lowered to the floor and cleaned. Oil from the oil reservoirs was drained and collected. NRC crews were onsite to manage cleanup. Dickson crews were onsite to manage asbestos. The asbestos containing roof panels were loaded directly into trucks for proper disposal.

By March 7, the metal portion of the building had been demolished except for some wall vents. NRC focused on high pressure washing the north mezzanine floor, the mezzanines along the sidewalls, and the main floor. Particular care was taken with the first floor to clean several areas of

chipped concrete. Care was also taken to clean around the wall vents, barricades, and some electrical panels. Electrical panels were opened so that the interiors could be cleaned. Final cleaning was completed on March 9.

Personnel involved the Building #65 cleaning project were provided with RCRA site-specific and DOT hazardous materials training.

Cleanup of the building was generally accomplished as follows:

1. Removal of materials stored within the building
    a. Materials were managed for reuse/proper disposal
2. Removal of asbestos containing materials
3. Vacuuming of dust from interior building structure, floors, etc.
    a. Dust was vacuumed directly into a specially designed roll-off type vacuum box to minimize handling and reduce releases of dust to the atmosphere
4. Construction of wash water containment dikes at building doorways and construction of containment berm (moat) around entire perimeter of building
    a. Berm was lined with Visqueen to provide impermeable surface
    b. Visqueen was attached and sealed to the building stem wall
5. Washing of building interior using medium pressure wash water supplied from tanker truck
    a. Wash water was vacuumed up as it was generated and accumulated in a rented tanker trailer
6. Decontamination of equipment as its use was completed
7. Cleanup debris, PPE, etc. was accumulated in drums/roll-off boxes
8. Wastes were managed as K088 wastes, packaged, and shipped for proper disposal
9. Building was demolished including the concrete stem walls
10. Building materials were managed for reuse/recycle where possible and for proper disposal if not reusable

During the cleaning, the building was periodically inspected by Sterling Technologies personnel to confirm that the cleaning met EPA and WDOE standards. This involved inspections using a manlift and or ladders as necessary to access the areas that had been cleaned. Deficiencies were documented in the field report and reported to the onsite contractor involved as well as to the onsite project manager.

4.0 Regulated and Unregulated Wastes

Unregulated wastes and asbestos waste were sent to the LRI Landfill near Puyallup, Washington.

Dangerous waste materials that contained SPL were sent to the Chemical Waste facility at Arlington, Oregon.

Four roll-off boxes of particle waste were shipped to Clean Harbors Environmental Services in Kimball, Nebraska.

Smaller quantities of regulated waste were properly managed and were sent to approved vendors, as needed.

On June 18, 2007, Paul Skyllingstad, DOE Hydrologist, conducted an inspection and approved the cleaning of the slab and surrounding area.

5.0 Regulatory Considerations

The primary regulatory considerations were the federal EPA hazardous waste regulations governing RCRA cleaning (40 CFR 268) and the Washington Dept. of Ecology dangerous waste regulations (WAC 173-303) and solid waste regulations governing waste materials.

Asbestos is regulated under EPA regulations (40 CFR 763) and Washington Labor and Industries Washington Industrial Safety and Health Act (WISHA) regulations and the Puget Sound Clean Air Agency regulations (Regulations III, Article 4).

Lead containing paint is primarily covered under the WISHA regulations (WAC 296-155-17603).

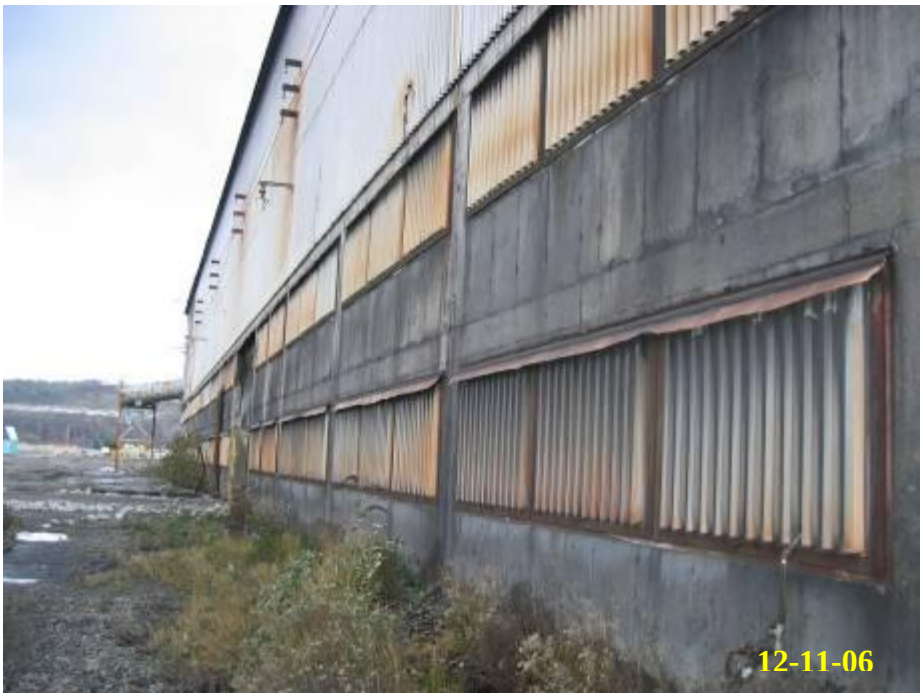
Shipping requirements are covered under the federal Dept. of Transportation Hazardous Materials Transportation regulations (49 CFR).

Other requirements are covered under WISHA and OSHA regulations.

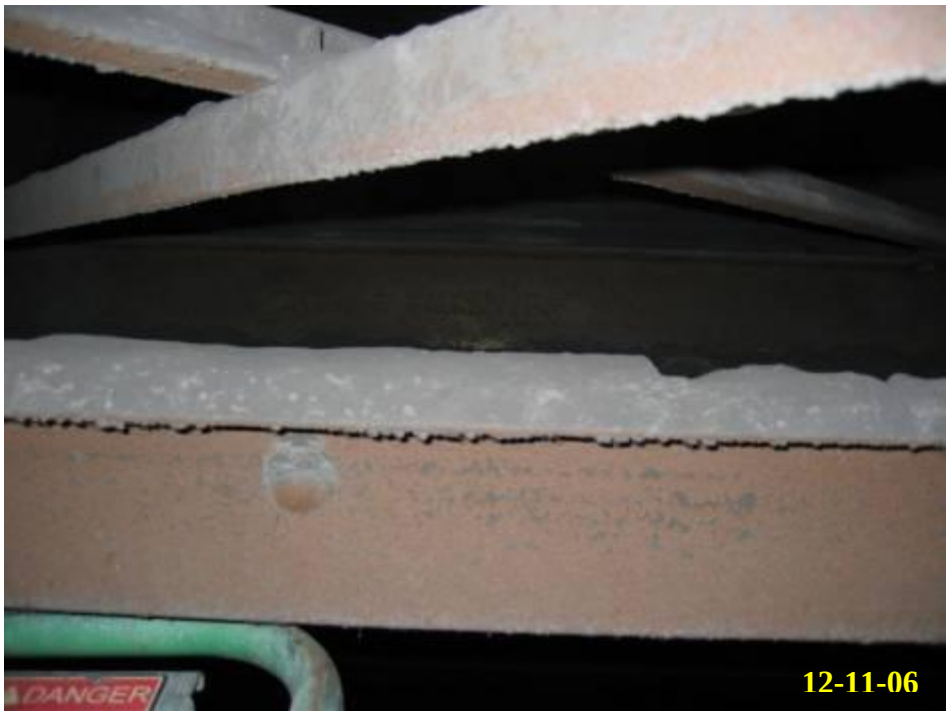
6.0 Report Photos

The following are selected photos of the cleanup/decontamination and demolition of Building #65. A CD of all the photos is included with this report.

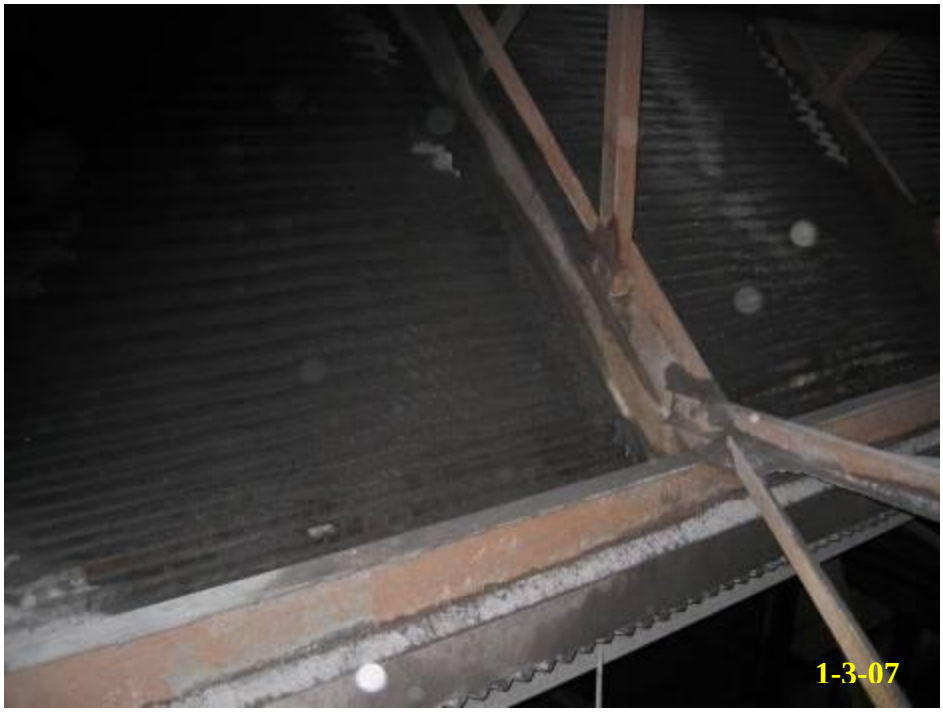
6.0 - East side of Building 65 prior to demolition; also shows encapsulant sprayed roof



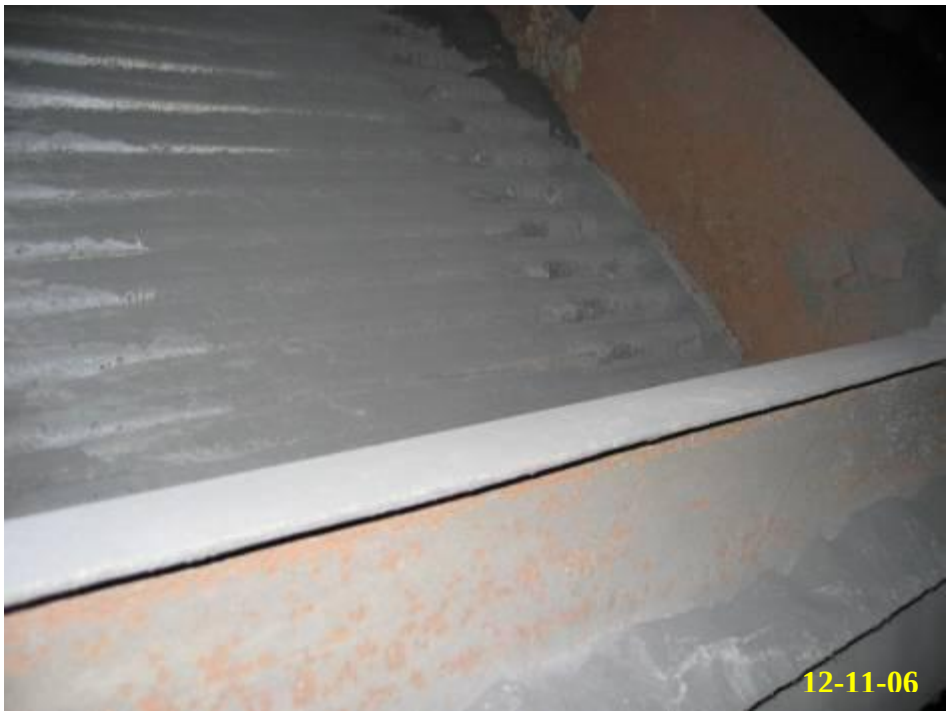
6.1 - West exterior of building prior to construction of wash water containment



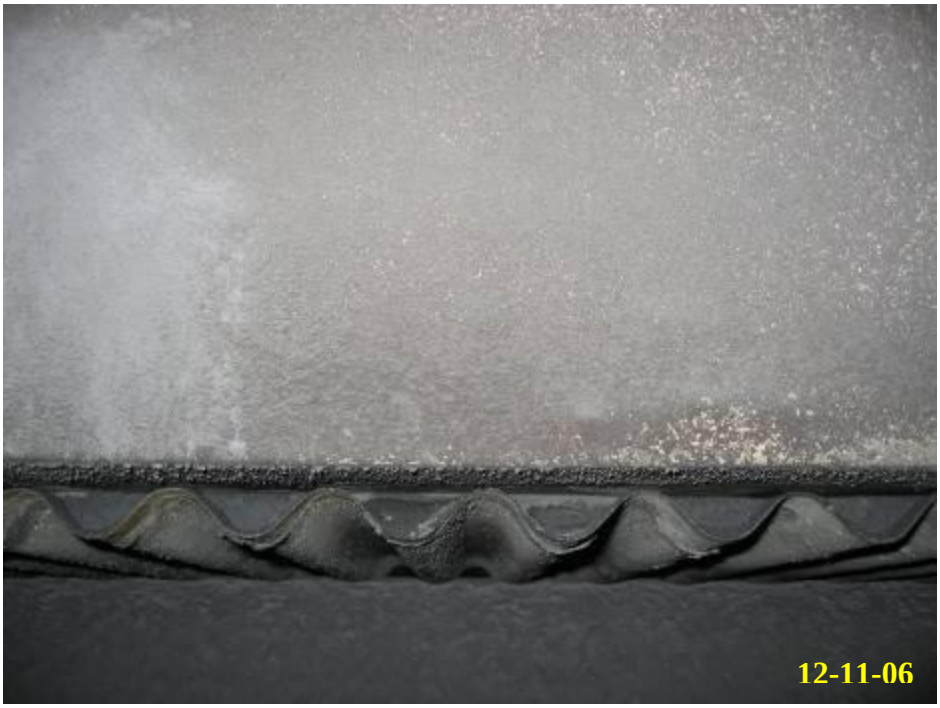
6.3 - Trusses prior to cleaning



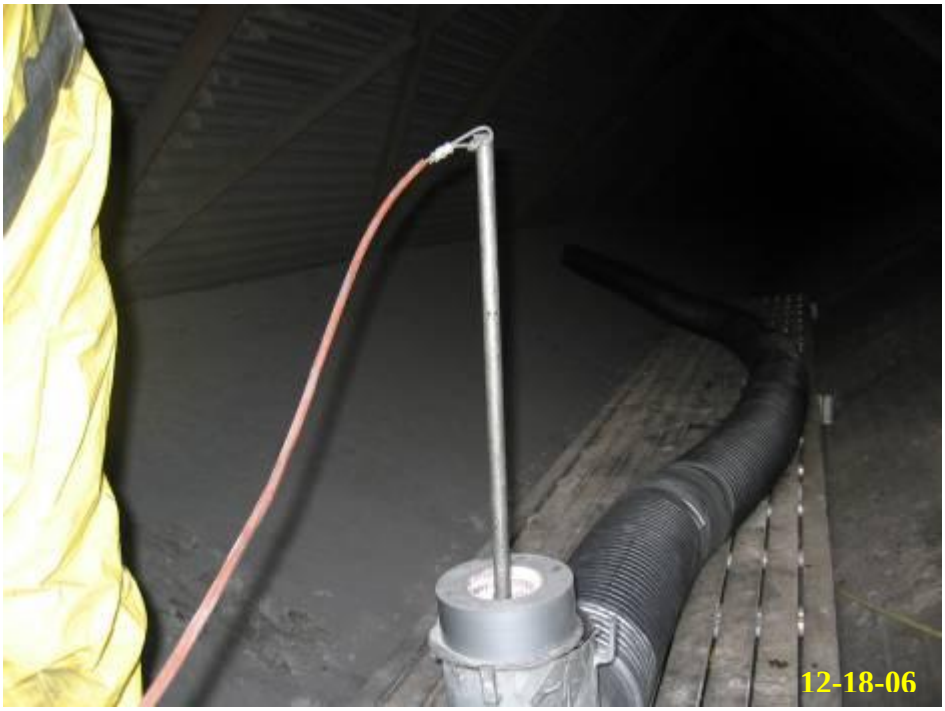
6.4 - Vent to roof joint prior to cleaning



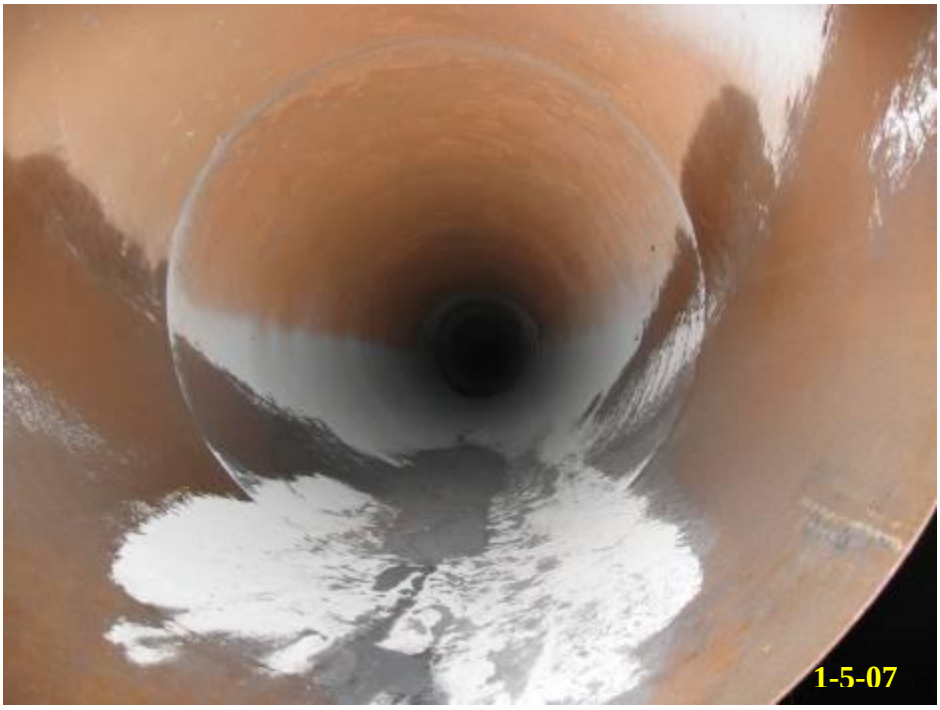
6.5 - Roof to vent structure prior to cleaning



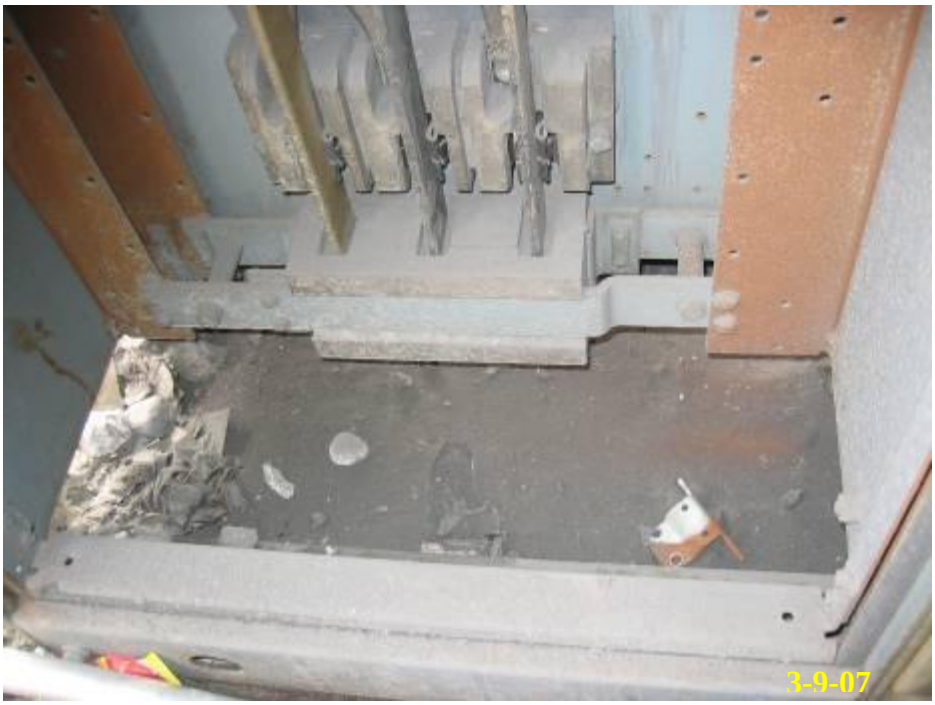
6.6 - Roof vent joint prior to cleaning



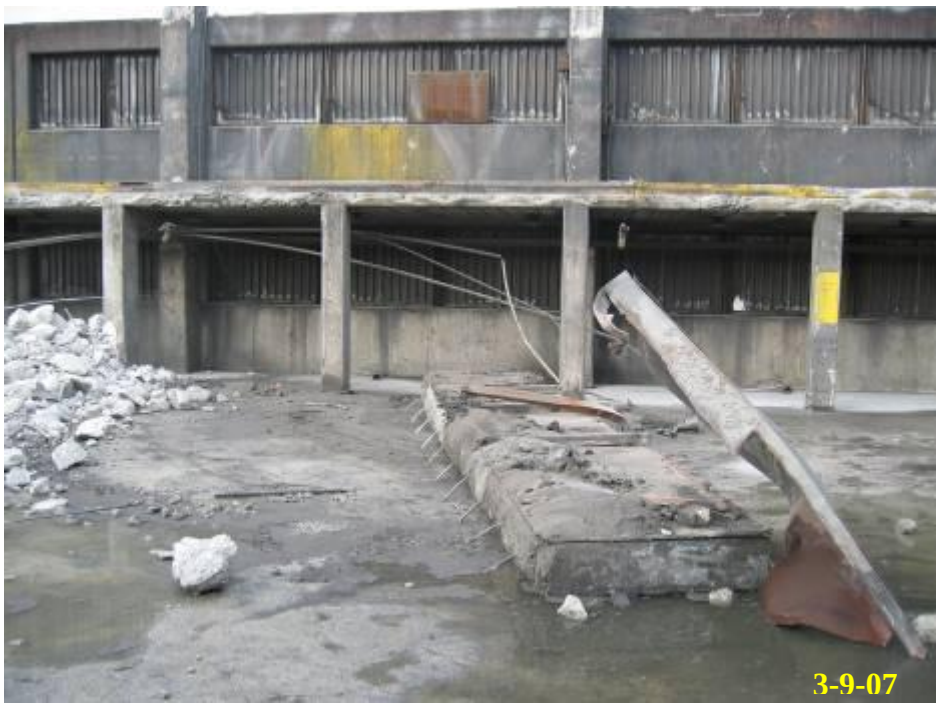
6.7 - Roof vent interior prior to cleaning



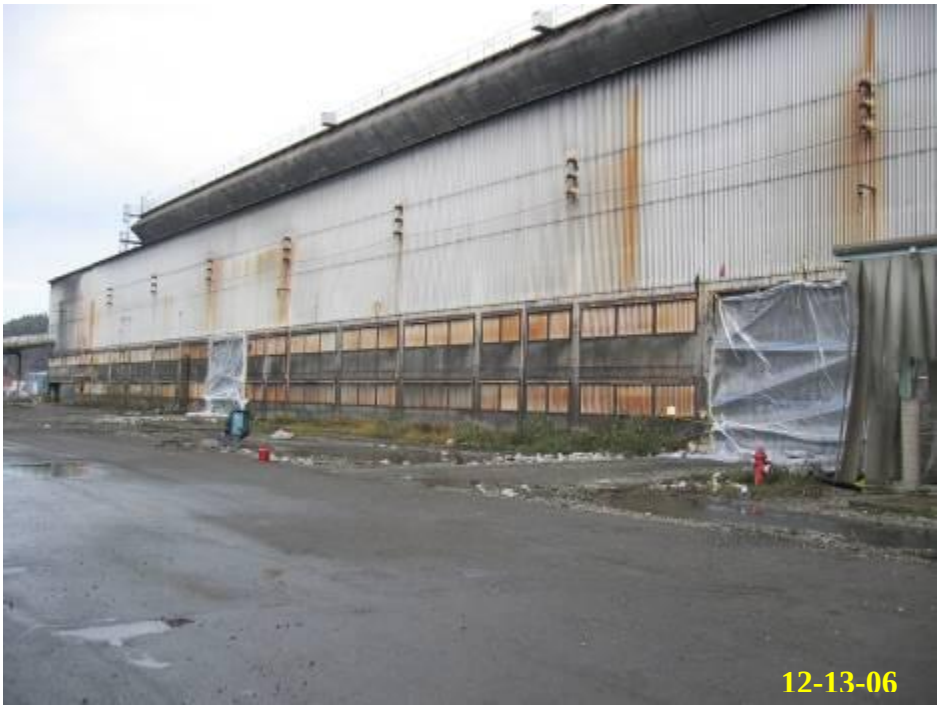
6.8 - Building duct work prior to cleaning



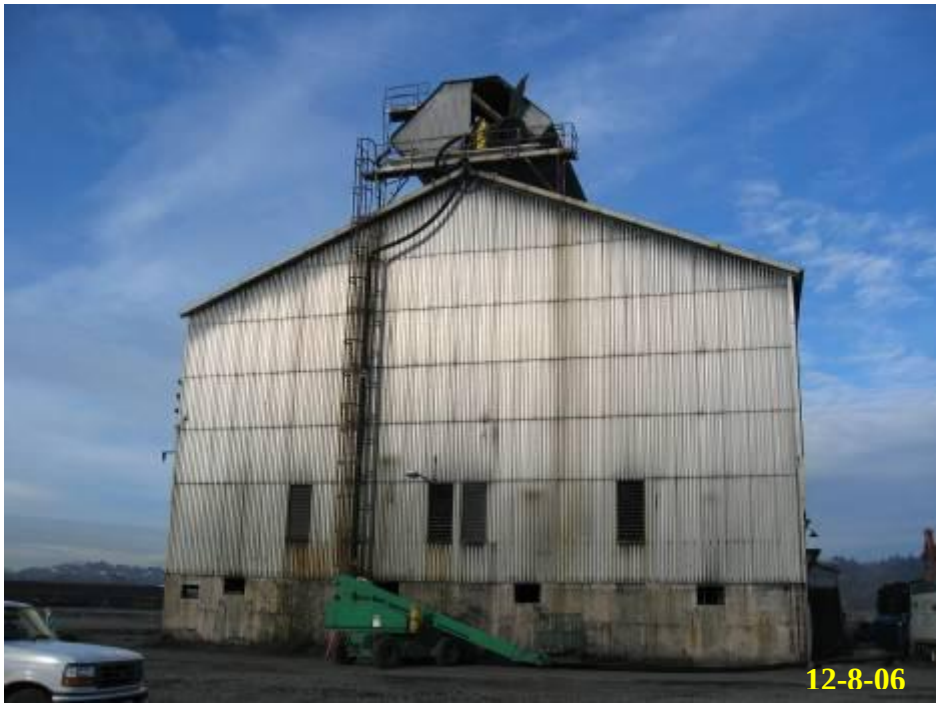
6.9 - Inside of main MCC breaker panel prior to cleaning



6.10 - Interior building divider prior to cleaning



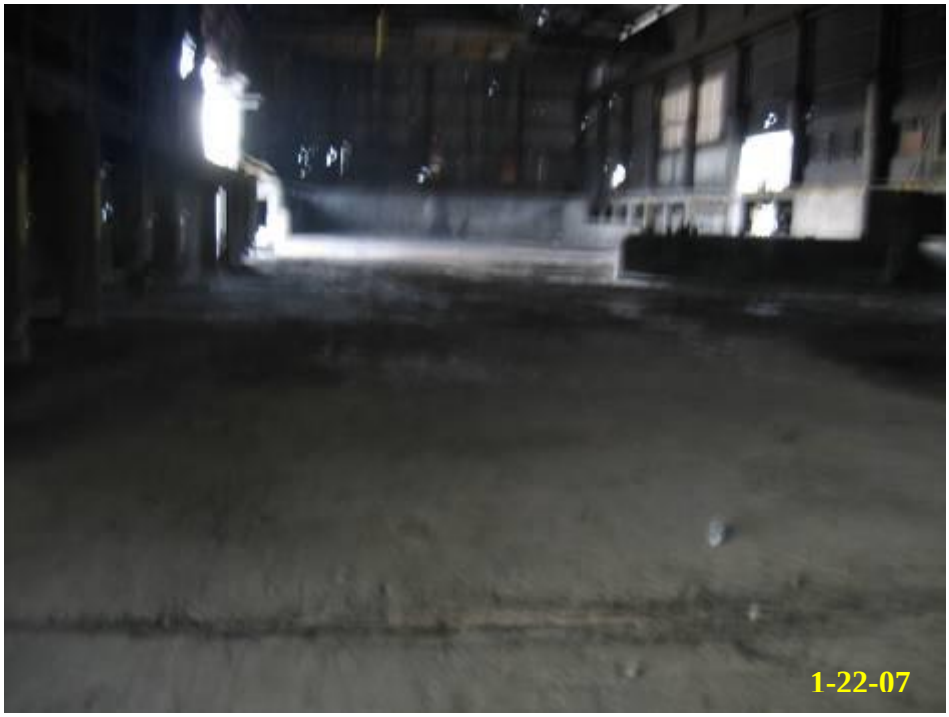
6.11 - Doorway sealing during building cleaning



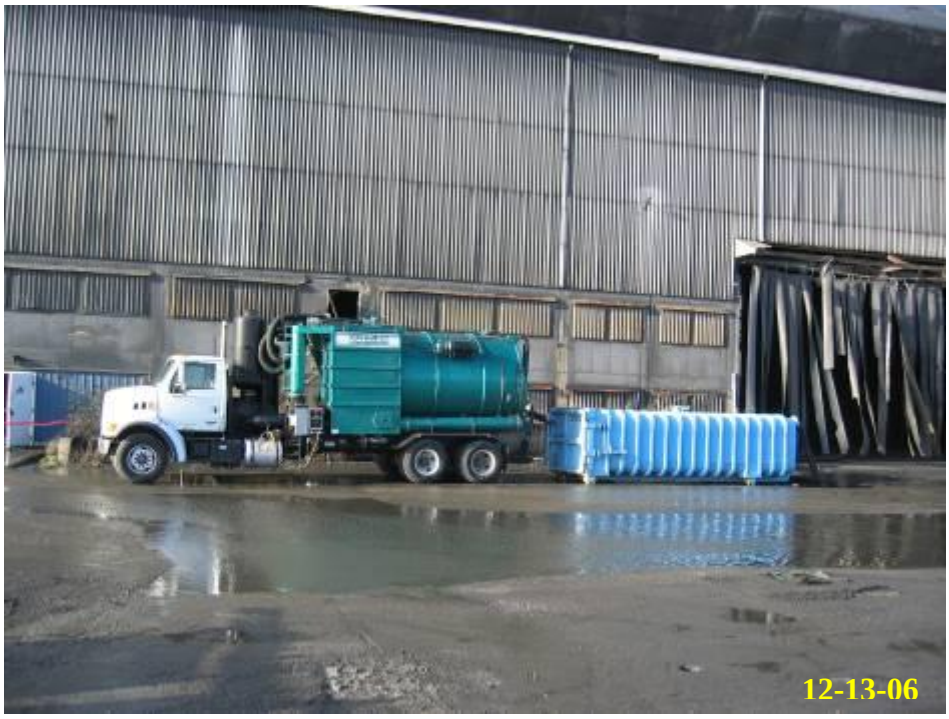
6.12 - Vacuuming of roof vent interior at south end of building

6.13 - Vacuuming of building structural

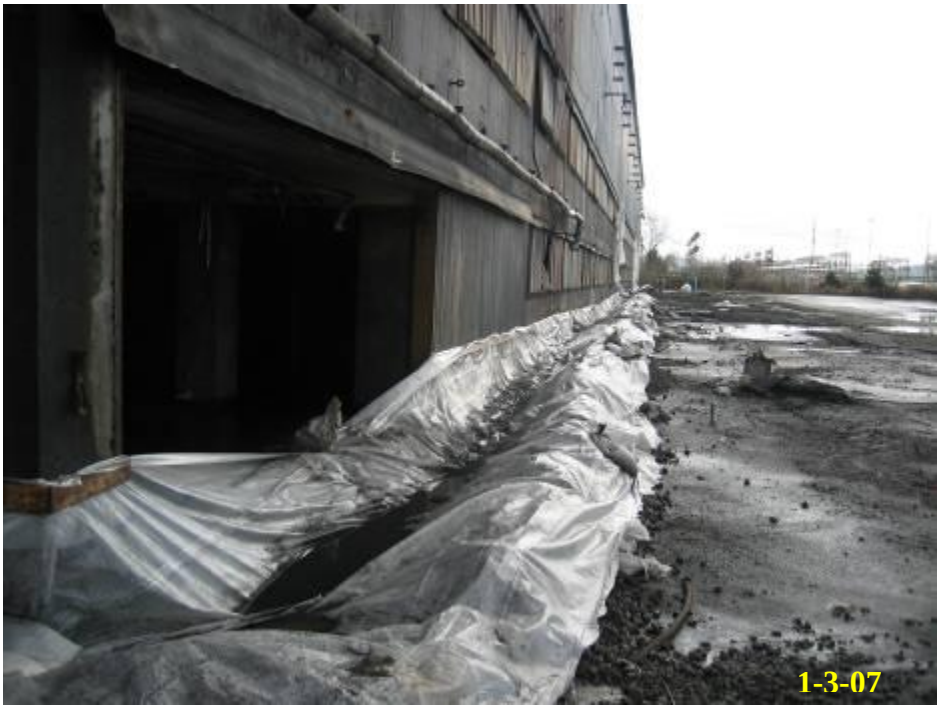
6.14 - Main breaker panels during cleanup



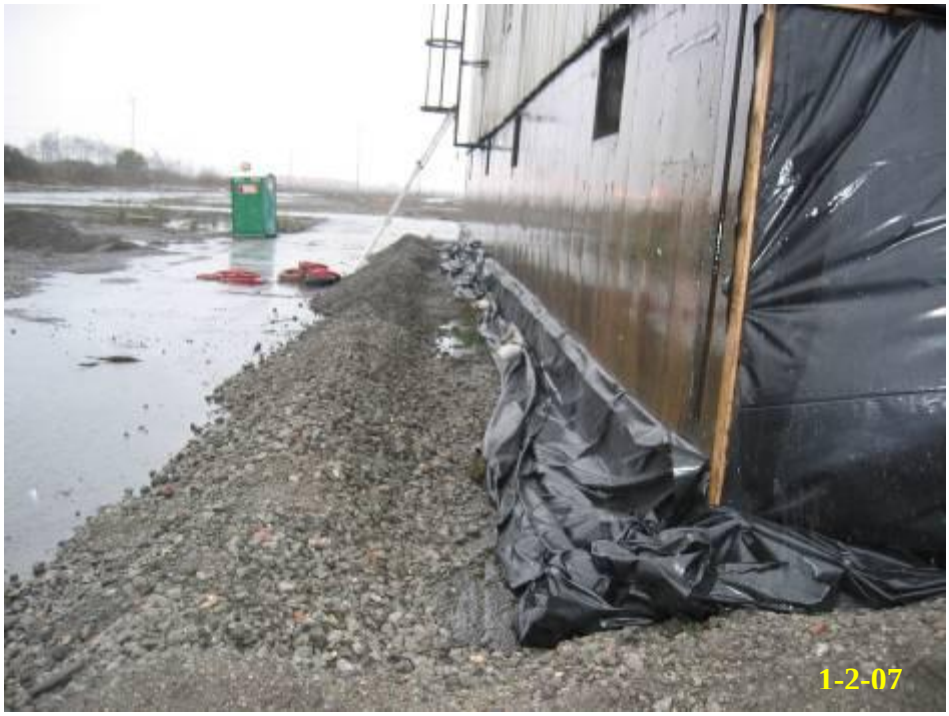
6.15 - Floor during cleaning



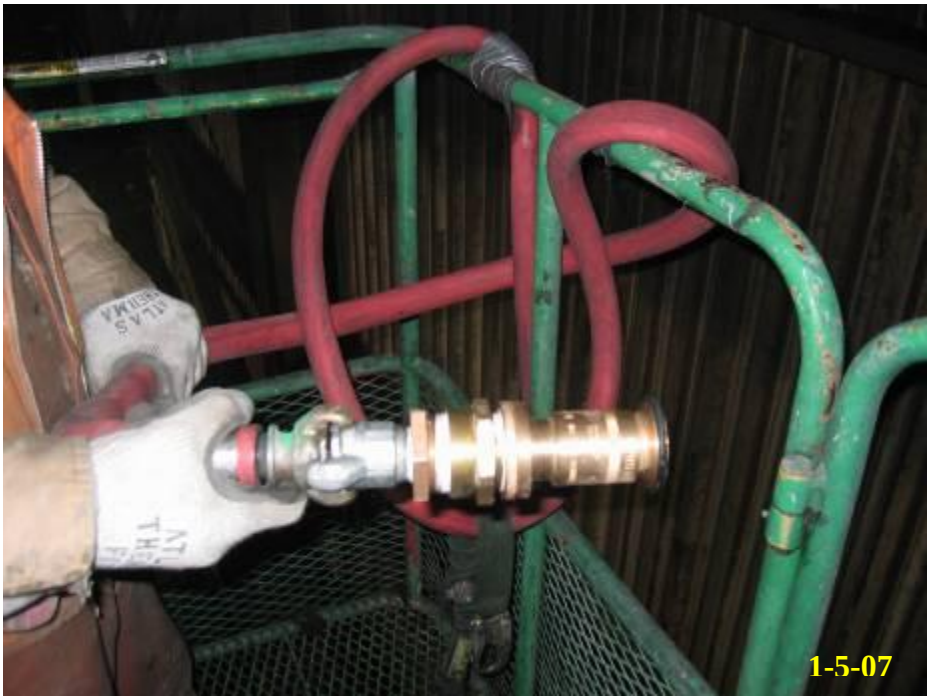
6.16 - Vacuum truck and dust enclosure type roll-off box during vacuuming



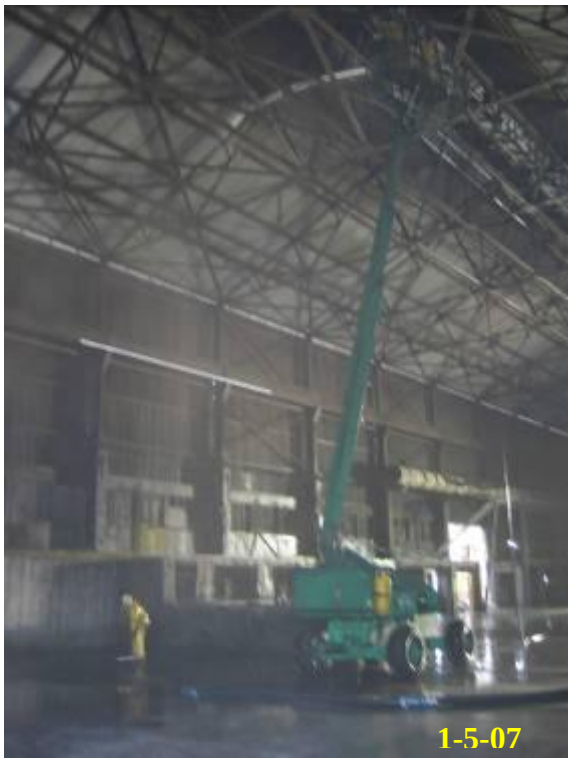
6.17 – Wash water containment berm constructed around building



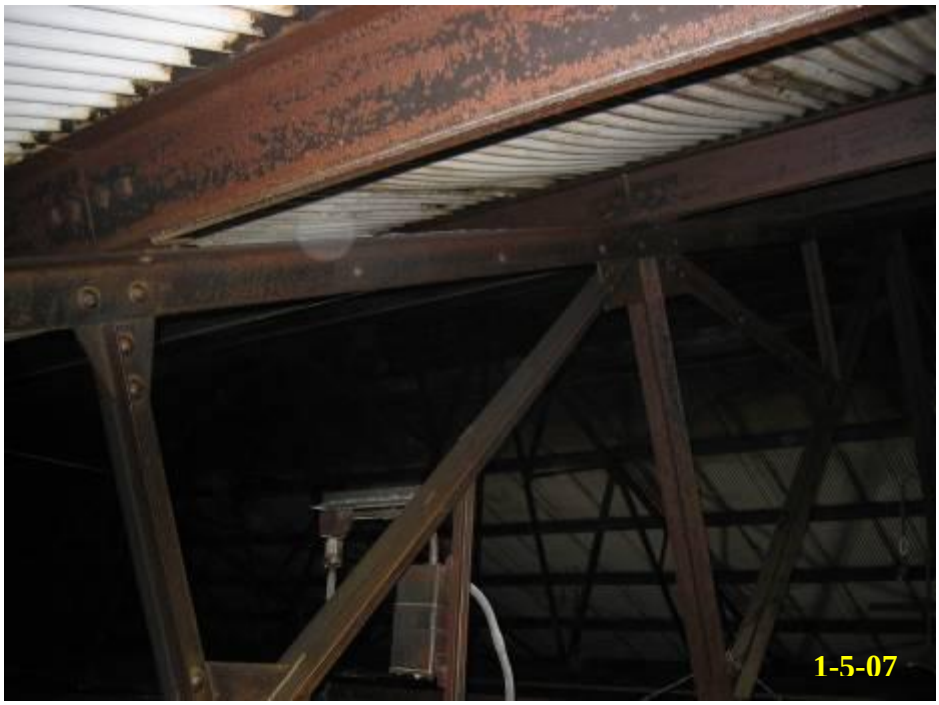
6.18 – Wash water containment berm showing attachment of Visqueen to building wall



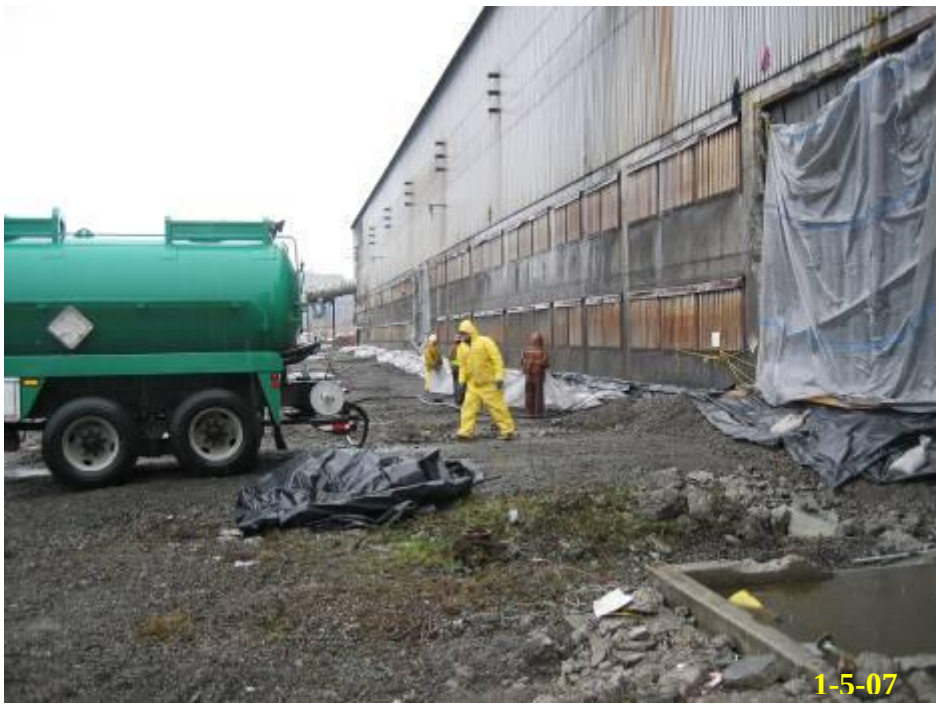
6.19 - Typical wash nozzle used for building washing



6.20 - Washing of building structure from manlift; Vacuuming of wash water from floor

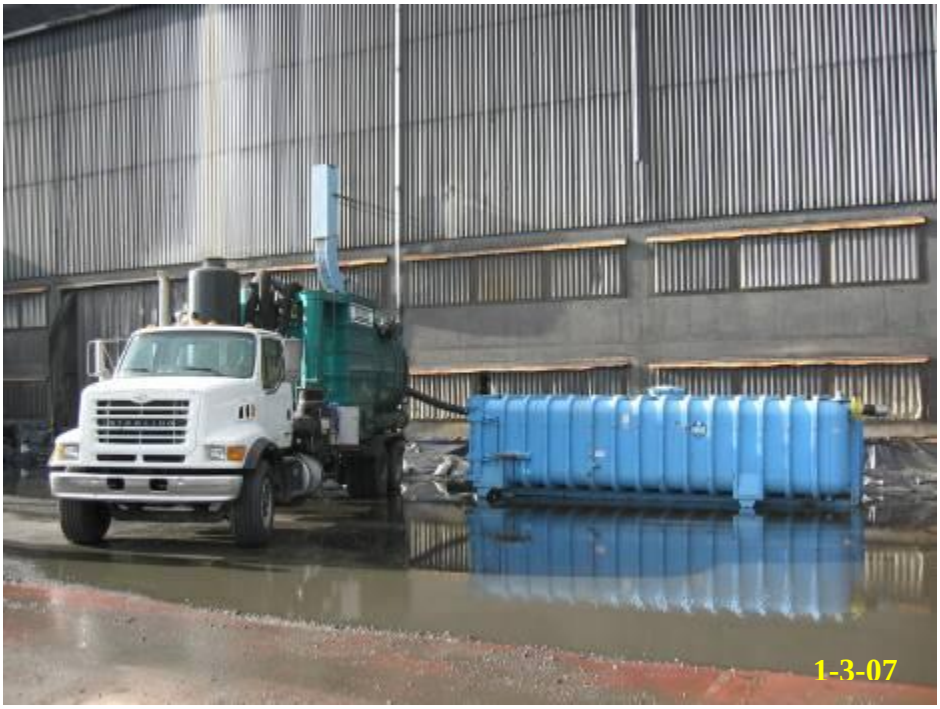


6.21 - Roof trusses during washing

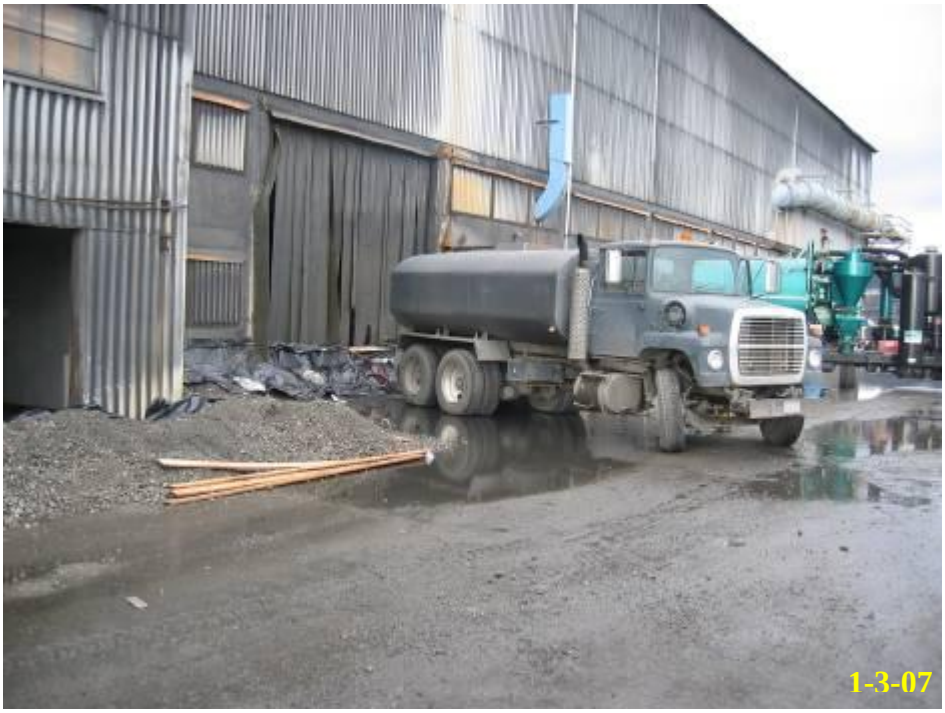


6.22 - Typical vacuuming of wash water from containment during washing

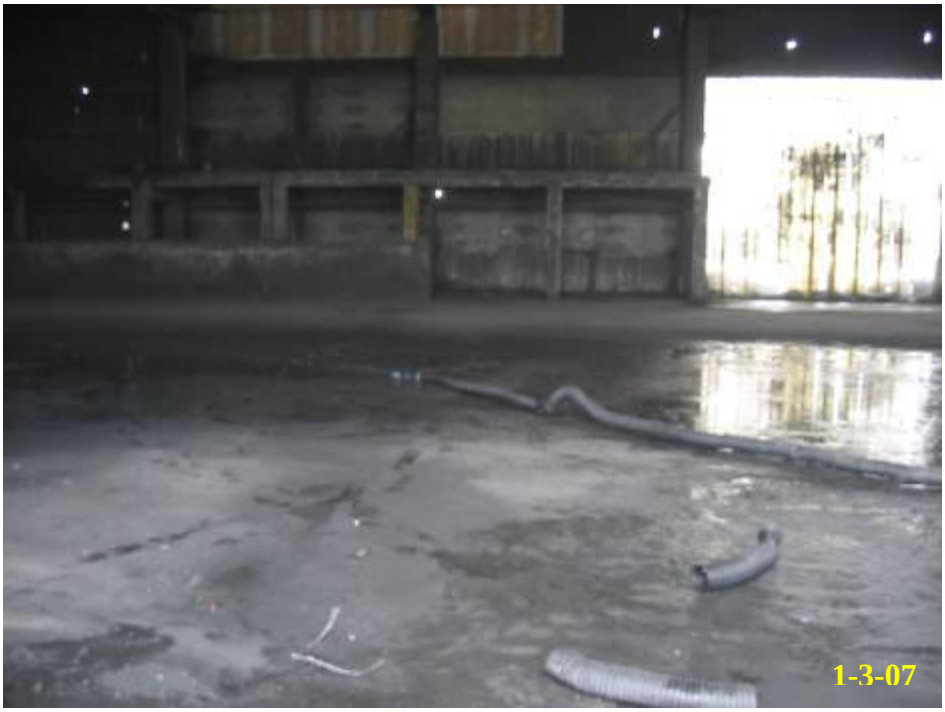
6.23 – Wash water containment management during washing of wall interior



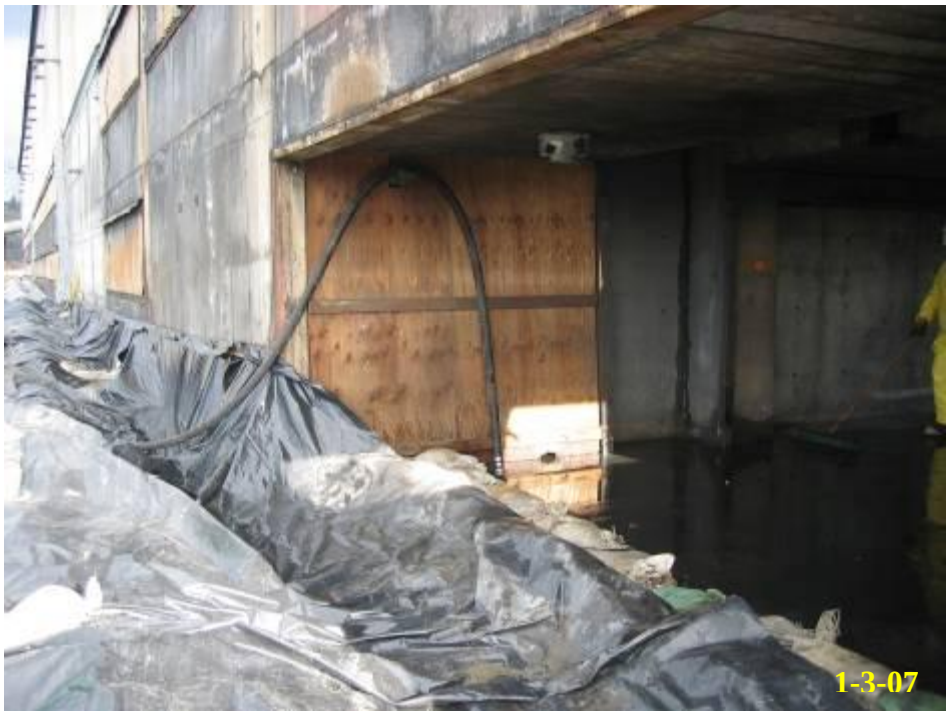
6.24 - Vacuum truck staging during building washing



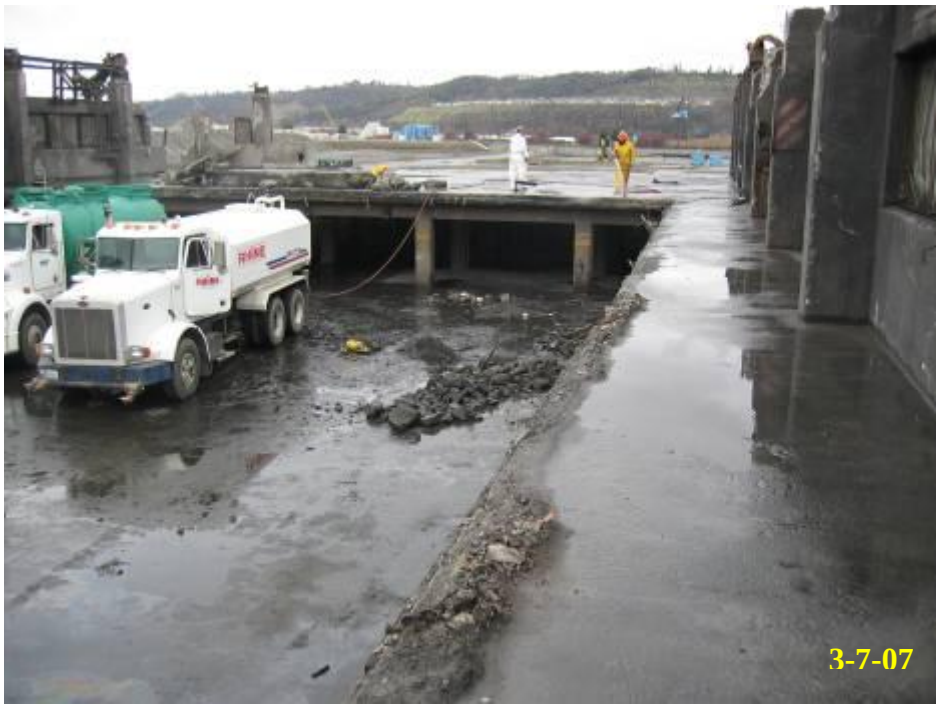
6.25 – Wash water tanker/pumper Truck



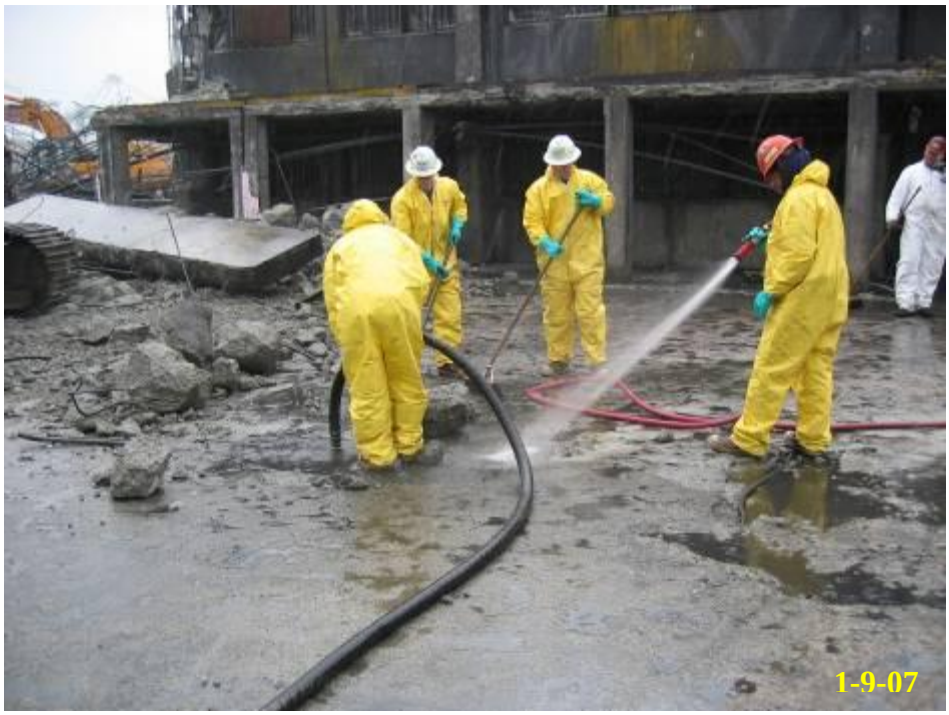
6.26 - Typical wash water vacuuming from floor during building washing



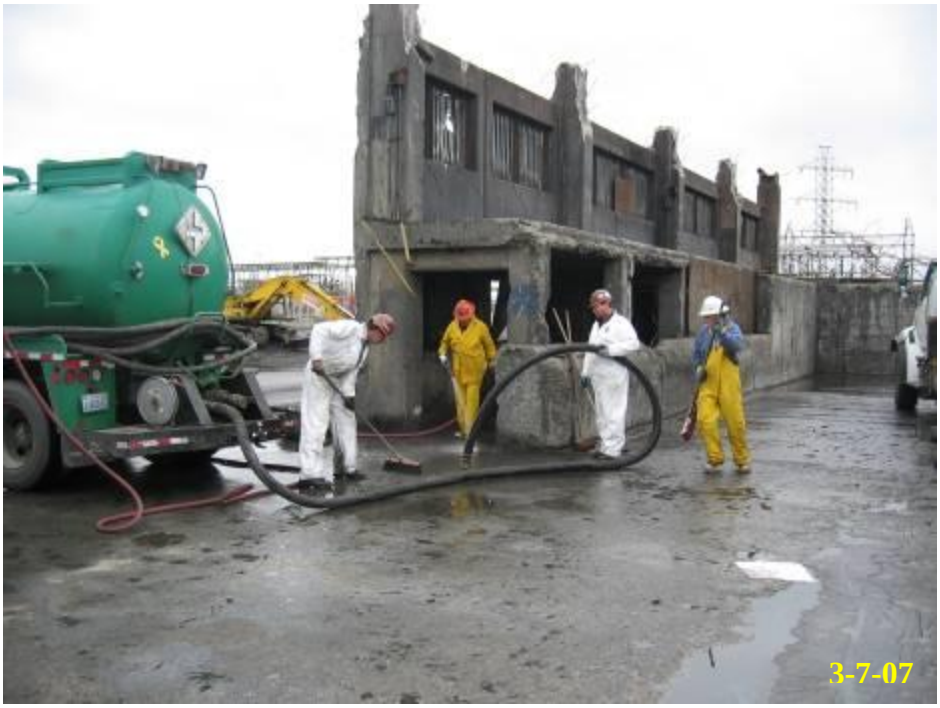
6.27 – Wash water vacuuming/containment (typical)



6.28 - Washing of north mezzanine floor

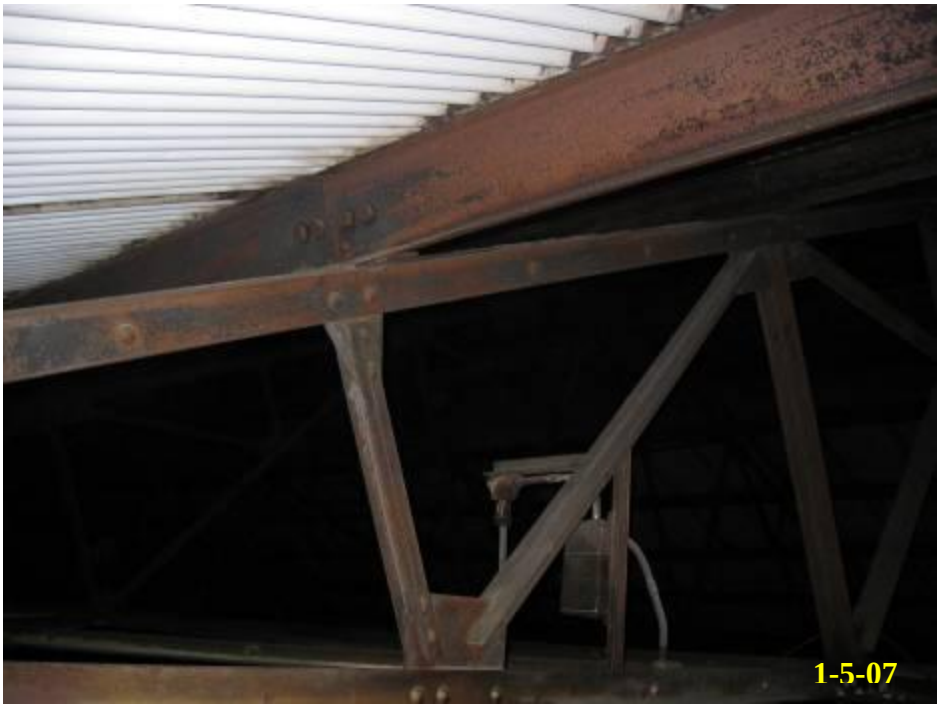


6.29 - Final washing of building floor after demolition of main metal portion of the building

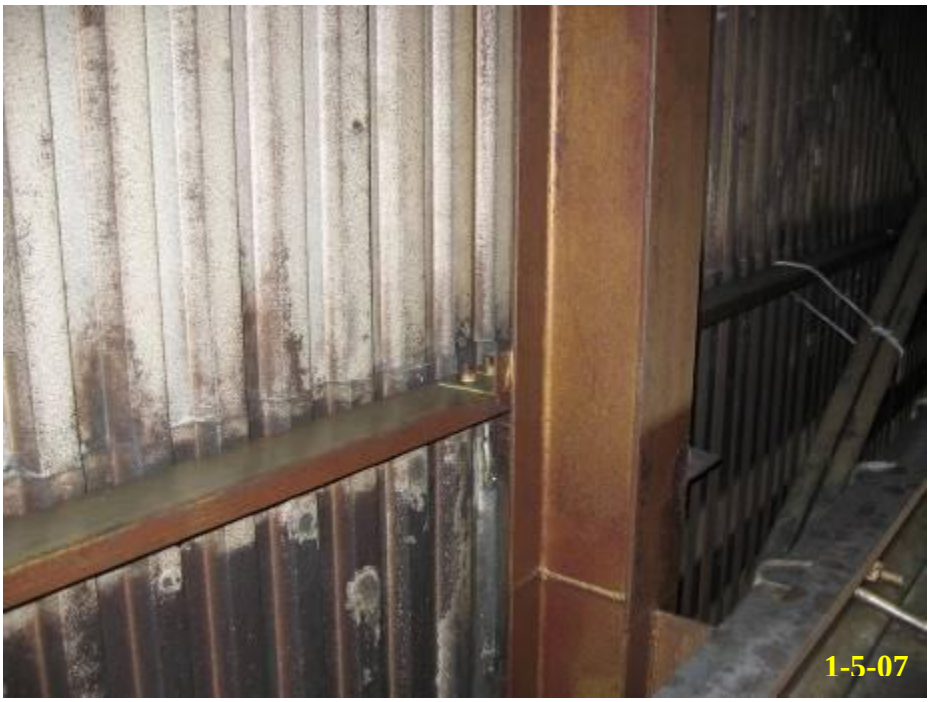


6.30 - Washing/cleanup vacuuming of floor under east mezzanine

6.31 - Roof vent interior after final cleaning



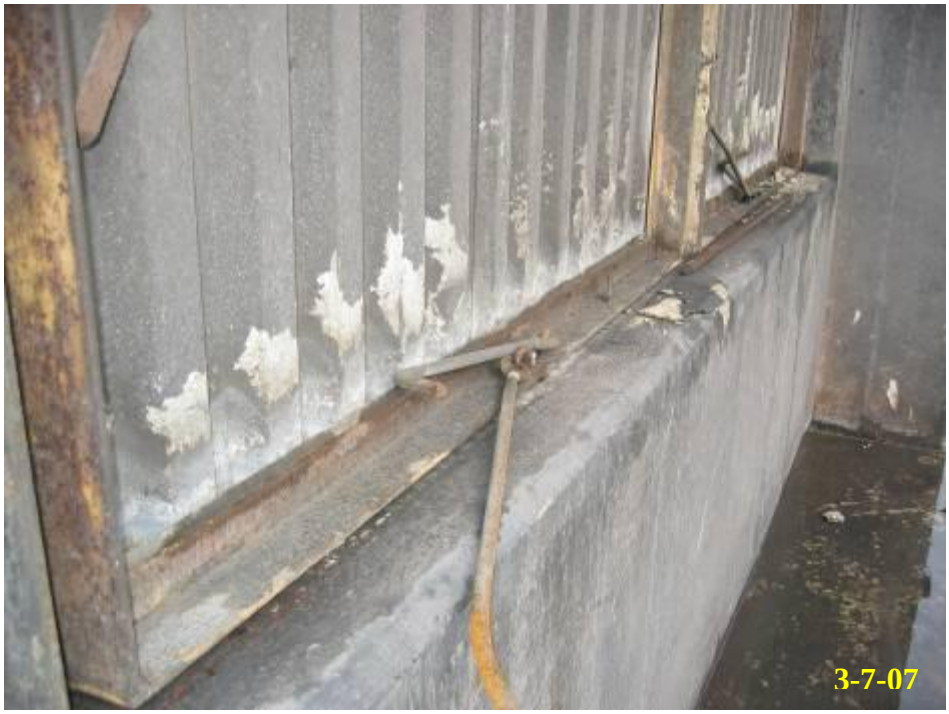
6.32 - Building trusses after final cleaning



6.33 - Building wall structural after final cleaning

6.34 - Typical roof structural after cleaning

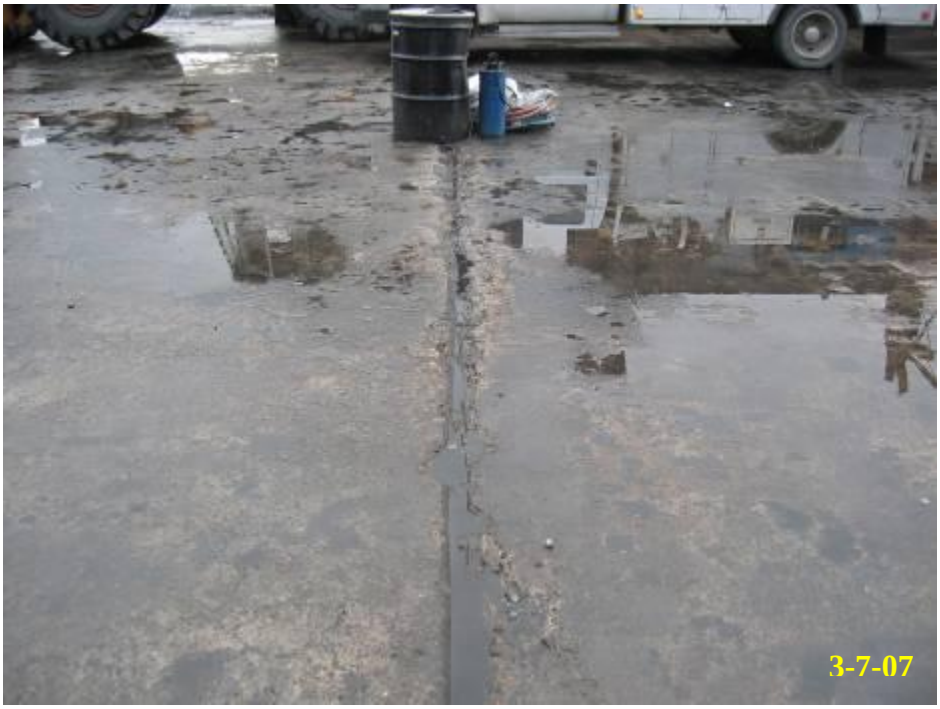
6.35 - North mezzanine floor after final cleanup



6.36 - Wall louver area after final cleaning

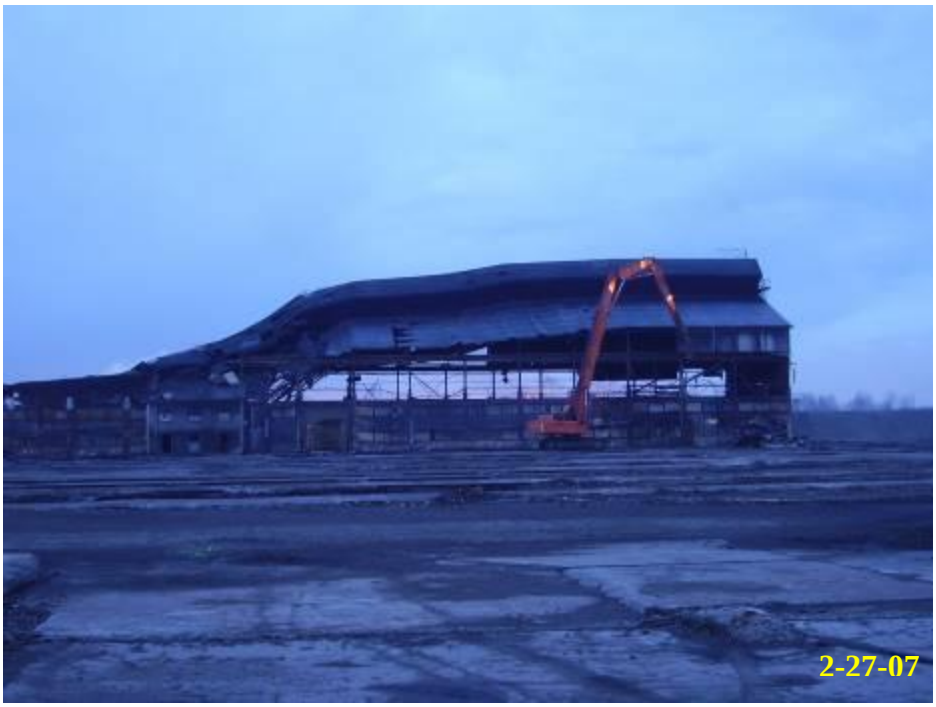
6.37 - Floor under NW mezzanine after fnal cleanup

6.38 - Motor Control Center after final cleaning

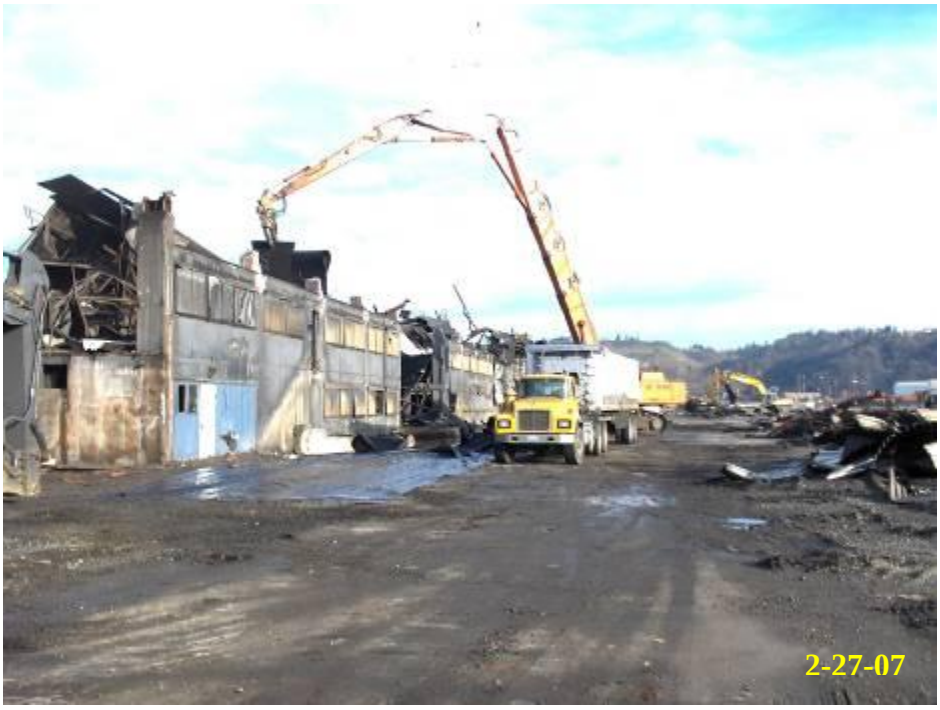


6.39 - Floor of main building after final cleaning

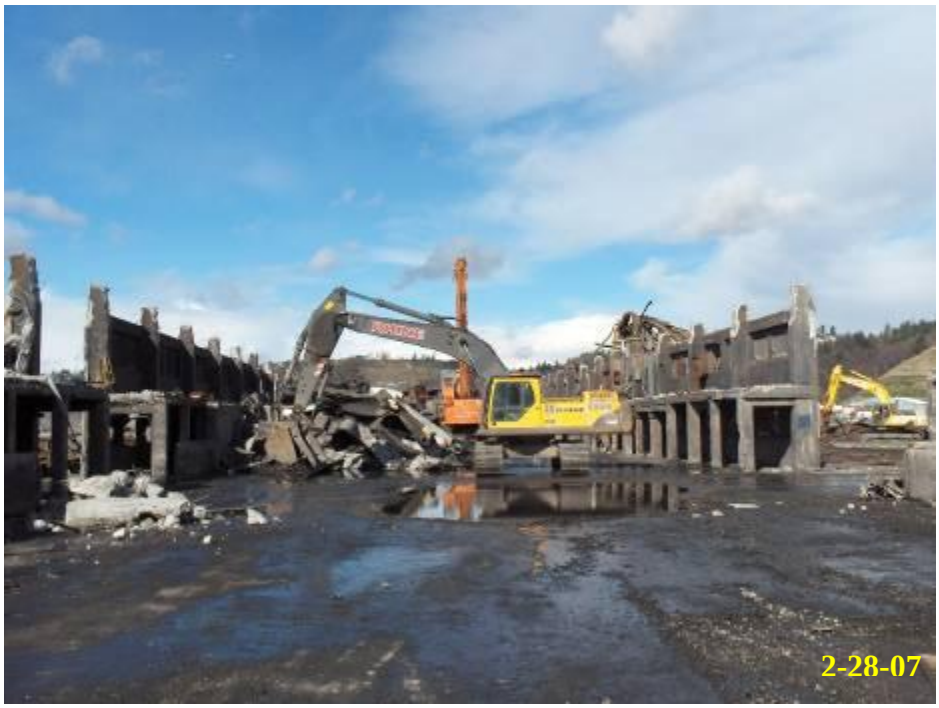
6.40 - Start of building demolition at south end



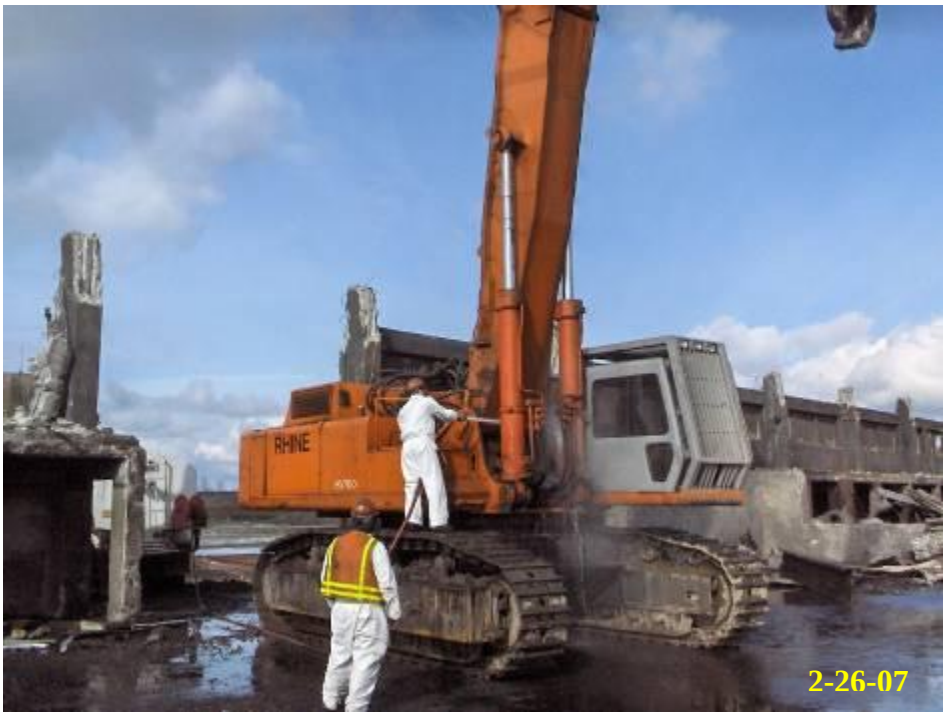
6.41 - Demolition of building siding/columns



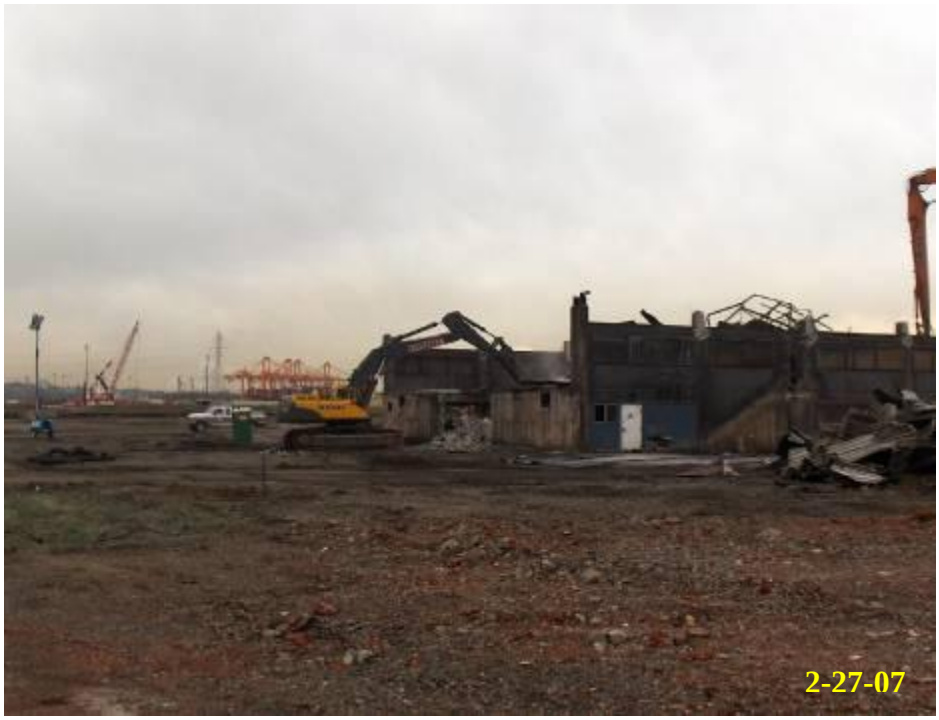
6.42 - Metal processing and loading of roof panels for disposal



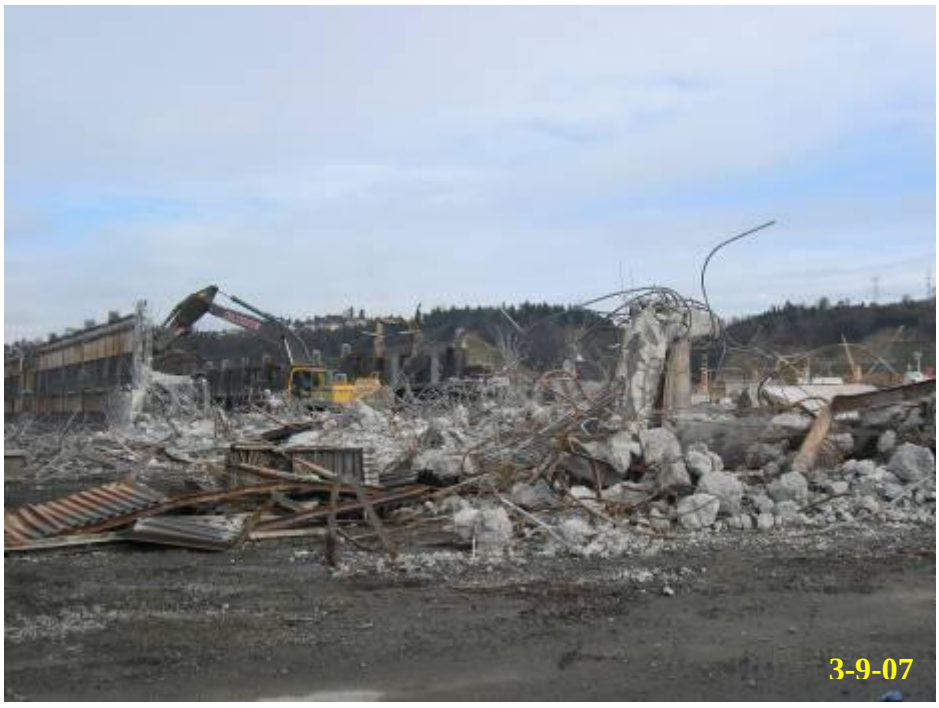
6.43 - Metal processing during building demolition



6.44 - Decontamination of equipment (typical)

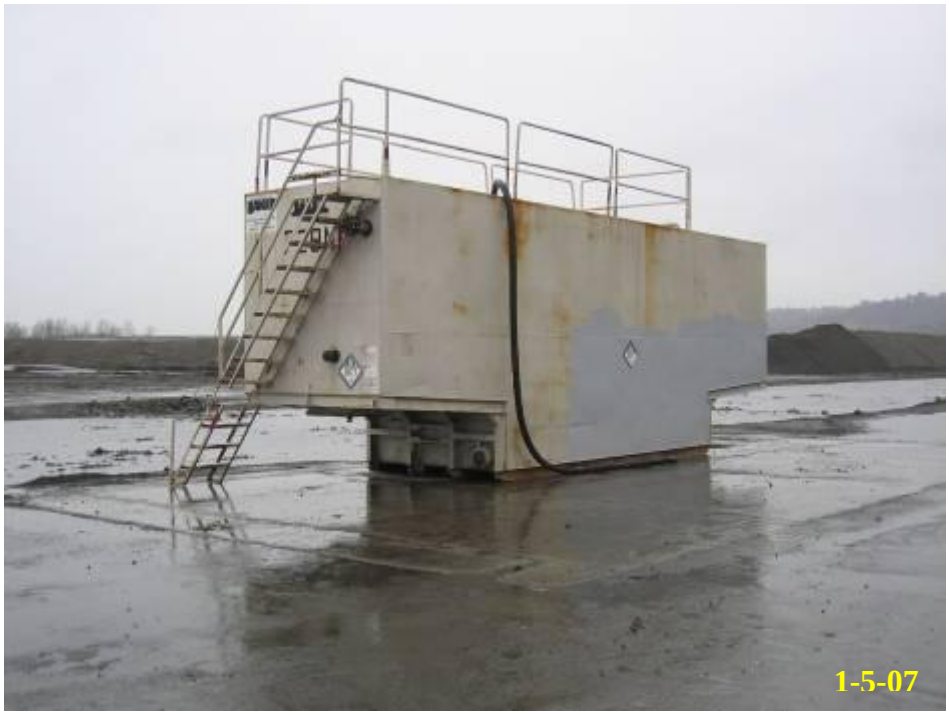


6.45 - Beginning of concrete wall demolition at south end



6.46 - Demolition of west concrete walls

6.47 - Storage and shipping roll-off for dust



6.48 - First rented tank used for waste wash water storage

Appendices

Appendix I

Building #65 DW Administrative Order & Cleaning Plan

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF AN ADMINSTRATIVE ORDER FOR PORT OF TACOMA with Chapter 70.105 RCW and the Regulations of the Department of Ecology	))))	ADMINISTRATIVE ORDER No. 2636 DW05

To: Port of Tacoma
P.O. Box 1837
Tacoma, WA 98401
Attn: Suzanne Dudziak

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations," designates those solid wastes which are dangerous or extremely hazardous to the public health and environment; and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely.

FINDINGS:

Kaiser Aluminum, Tacoma Works, was formerly a primary aluminum smelter with associated rod mill located in the industrial area of Tacoma, WA. The aluminum smelter was closed by Kaiser in summer 2000; Kaiser closed the rod mill a year later, in summer 2001. The Kaiser facility was purchased by the Port of Tacoma on February 10, 2003. The purchase included four inactive aluminum production lines which contain a total of 400 reduction cells. The “west lines” consist of two buildings containing 2 lines each, with a total of 160 reduction cells. The “east lines” consist of two buildings containing 4 lines each, with a total of 240 reduction cells.

Each reduction cell consists of a steel shell base, electrical bus bar conductor, and an anode/ore storage superstructure that collectively are used to produce aluminum. Each of the steel shell bases is lined with a carbon material known as potliner. The steel shell base and carbon potliner, along with insulating materials and steel collector bars, are collectively known as the cathode. When the potliner is no longer serviceable it is removed from the cathode and is termed “spent potliner”. Spent potliner is a listed dangerous waste (K088) and subject to the State Dangerous Waste Regulations, Chapter 173-303. The primary constituents of concern in the spent potliner are cyanide and polycyclic aromatic hydrocarbons (PAHs).

Air pollution control equipment (duct work) is located above each cell, and collected air emissions during aluminum production. The duct work contains dust that is considered a waste, and which is subject to the State Dangerous Waste Regulations, Chapter 173-303. The duct dust contains polycyclic aromatic hydrocarbons (PAHs). Duct dust is considered a persistent extremely hazardous waste when PAHs levels exceed a total concentration of greater than 1 percent (WAC 173-303-100(6)) [waste code WP03]. The duct work does not include fans and bag house equipment. The fans, bag house equipment and PAH residue contained therein are not subject to this order.

The Port of Tacoma plans to redevelop the property, which will entail removal of all reduction cells and air pollution control duct work, and demolition of other existing structures. Spent potliner will be generated during the removal of the 400 reduction cells and duct dust will be generated during the removal of air pollution control duct work. The pots will be dismantled on site in accordance with the approved Work Plan. The reduction cells will be removed from the lines and the potliner removed in an area approved on site. The Port of Tacoma requests this Administrative Order to facilitate timely redevelopment of the property.

Once the potliner is generated there are currently two potential management options and two potential transportation options being considered by the Port of Tacoma. The transportation and potliner management options are as follows: 1) shipping the spent potliner by truck or railroad car to a permitted off-site dangerous waste disposal facility on an as generated basis with minimal sizing, and 2) sizing the spent potliner on-site to facilitate disposal, with transportation by truck or railroad car to a permitted off-site dangerous waste disposal facility. The option involving crushing spent potliner on-site requires short term material storage for effective waste management. At this time the shipping option has not been defined by the Port of Tacoma. Shipment by railroad involves unpredictable shipping schedules.

Duct dust will be shipped by truck to a permitted off-site dangerous waste disposal facility on an as-generated basis. Short term material storage is required for effective waste management of the duct dust.

Currently potliner is considered waste when the spent potliner is removed from the cathode. Duct dust is considered dangerous waste when the material is removed from the duct work, analyzed, and designated WP03 waste. Once generated, the Port of Tacoma is then subject to WAC 173-303-200 and under current regulations has up to 90 days to move the spent potliner and/or duct dust off site to a designated facility permitted to receive K088/ WP03 waste. For the Port of Tacoma to effectively manage spent potliner and duct dust waste during reduction cell dismantling, the Department of Ecology has redefined the regulatory point at which the spent potliner and duct dust is considered generated.

Revised Code of Washington (RCW) 70.105.095 reads in part:

> "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provisions of the Chapter, the Department may issue an Order requiring compliance either immediately or within a specified period of time."

WAC 173-030-200(3) requires that the ninety-day accumulation period begins on the date that the generator first generates a dangerous waste.

In view of the foregoing and in accordance with the provisions of RCW 70.105.095:

IT IS ORDERED THAT the Port of Tacoma shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

1. This Order is only applicable to the dismantling of the East and West reduction cell lines and air pollution control duct work at the former Kaiser Aluminum plant located in Tacoma, WA. The facility is now owned by the Port of Tacoma.

2. The date that K088 spent potliner waste is considered generated shall be the day the last cathode from the last reduction cell line at the facility is dismantled. The Port of Tacoma shall have 90 days from this date to ship all spent potliner off-site to a designated facility per WAC 173-303-200(1)(a).

3. The Port of Tacoma shall have a total of 12 months from the date of this Order to complete the disposal of all spent potliner waste (K088) from the 400 reduction cells.

4. During dismantling and removal of duct work, the Port of Tacoma shall manage generated duct dust in a covered, three sided bunker or enclosed building. Only one or two bunkers/buildings shall be used to store duct dust. When the bunkers/buildings contain one shipment (approximately 30 cubic yards) of WP03 duct dust waste, the ninety-day accumulation period shall begin. The Port of Tacoma shall have 90 days from this date to ship the one shipment of WP03 duct dust waste in the bunkers/buildings to a designated facility per WAC 173-303-200(1)(a). The Port of Tacoma shall keep a log on site that contains for each shipment the date at which each 90 day period began and each transport date. Transport to the designated facility shall be by truck that is both lined and covered to prevent escape of the duct dust.

5. The Port of Tacoma shall have a total of 12 months from the date of this Order to complete the disposal of all WP03 duct dust from the air pollution control duct work.

6. Prior to the start of demolition of pots the Port of Tacoma shall submit for approval a Site Pot and Ductwork Work Plan. During the dismantling, removal, processing, recovery, recycling, storage, and transportation activities at the site, the Port of Tacoma shall adhere to the Ecology approved Site Pot and Ductwork Work Plan or any Ecology approved revisions or addendums to the plan.

7. If spent potlining material is to be crushed, broken by mechanical means or stockpiled on site Ecology shall approve the location of these activities prior to commencement and shall determine if an administrative air order is necessary to operate the material handling equipment. Prior to the crushing or mechanical breaking of potliner the Department shall have issued an administrative air order, if deemed necessary.

8. If the dismantling of reduction cell superstructures is to be performed in an area that is not enclosed and covered, Ecology shall approve the location of the dismantling area(s) and the runoff management plan to be used to control surface water runoff

water runoff from the dismantling area(s), prior to the start of dismantling work.

9. The Port of Tacoma shall keep records documenting the progress of dismantling activities at the facility. During construction, the Port of Tacoma shall submit a monthly report to the Department of Ecology that includes the number of reduction cells dismantled during the month, the volume of material stockpiled at the end of the month, the volume of material crushed during the month, and the volume of spent potlining shipped off-site for disposal during the month. The Port of Tacoma shall submit the monthly report to the Department no later than the 15th day of the following month. The Port of Tacoma shall also notify Ecology of the date that the last cathode from the last reduction cell line is dismantled. This information shall be provided in the corresponding monthly report. The requirement to submit a monthly report shall terminate upon the final shipment of spent potlining off-site.

10. Port of Tacoma shall clean the potrooms of any dust and residue from the pot dismantling operations. Two levels of decontamination shall be used by the Port of Tacoma.

    A. Where spent potliner has been stored in passageways and potrooms; and where pots have been disassembled decontamination shall include the building interior, including the walls, floor, beams, roof panels and girders. The building shall be cleaned of dust. If necessary, the concrete floor shall be cleaned by an abrasive blast specified in ASTM Standard D4259 to remove all traces of potliner. Waste residue and dust shall be collected by an industrial vacuum. Remaining surfaces, including the roof surface and girders, will be cleaned by industrial vacuum.

    Interior cleaning will be preformed until no visual indication of waste residue or dust is observed by a professional engineer. Collected waste dust will be handled as K088 hazardous waste and transported to a licensed off-site hazardous waste facility for treatment and/or disposal.

    The areas where spent potliner was stored and cleaned shall be examined and certified completed in accordance with this Order and using good engineering practices by a professional engineer.

    B. Where spent potliner was dug from pots the walls, floor, beams, roof panels, and girders shall be decontaminated of waste residue or dust using an industrial vacuum. Internal cleaning of the potrooms shall be performed until no visual indication of the waste residue or dust is observed by a Port of Tacoma manager. Collected waste residue or dust shall be handled as solid waste and transported to a licensed off-site solid waste facility for disposal.

Compliance with this Order does not relieve the Port of Tacoma of responsibility for compliance with any Federal, State, or local laws or ordinances.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

This Order may be appealed. Your appeal must be filed with the Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington 98504-0903 within thirty (30) days of your receipt of this Order. The notice of appeal shall contain a copy of the order or decision appealed from. At the same time, a copy of your appeal must be sent to: Paul Skyllingstad, Department of Ecology, Industrial Section, PO Box 47706, Olympia, Washington 98504-7706. Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Chapter 43.21B RCW.

DATED this 21st day of July, 2005 at Olympia, Washington.

_____

Carol Kraege, P.E.
Industrial Section Manager
Department of Ecology

NRC ENVIRONMENTAL SERVICES

August 21, 2006

Mr. Joel Simmonds
Vice President
R. W. Rhine, Inc.
1124 112th Street East
Tacoma, Washington 98445

Subject: Kaiser Tacoma Works Demolition
Building 65 Cleaning Plan

Dear Joel,

This letter documents the proposed work plan for the cleaning of the Potline 3 building at the former Kaiser Tacoma Works facility. The Potline 3 building is also referred to as Building 65 in the project specifications.

This plan is being submitted in order to obtain prior review and acceptance by R.W. Rhine, Inc. as the general contractor for the demolition of the facility, the Port of Tacoma as the project owner, and the Washington State Department of Ecology as the regulatory authority with purview over dangerous waste management at the facility.

This work plan is being submitted for review and acceptance because listed dangerous wastes were formerly managed in this building. This is necessary because of the project owner's assumption that interior building surfaces are potentially contaminated with listed dangerous waste residues. These residues are to be removed and surfaces properly cleaned in order to minimize the quantity of dangerous waste generated by the demolition of the building. The dangerous waste involved has been designated with waste code K088, which is described as spent potliners from primary aluminum reduction.

The requirements, planned means and methods, planned construction quality control measures, and concluding comments related to the cleaning of this building are presented in the sections of this letter below.

Requirements

Dusts and residues remaining in Building 65 require a "RCRA Like Decontamination" as defined in the project specifications. This "RCRA Like Decontamination" definition is to be met in order for the demolition contractor to certify that the equipment and materials in this building have been decontaminated in accordance with the text requirement at Title 40 Code of Federal Regulations, Part 268.45, Table 1, Note 3.

The definition of a clean surface pursuant to the regulatory citation above is:

> *"the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste, except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such*

staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area."

This is the standard that this plan has been developed to meet.

Means and Methods

The cleaning standard will be met by our work crew that is currently performing other environmental services at the site for R.W. Rhine, Inc. A series of dry and wet cleaning methods will be used to remove bulk material, dust, and other removable residues on interior building surfaces.

In general, accumulated dust will be removed from the building's interior with vacuum loader trucks, then the building will be water rinsed with volume and pressure methods to remove caked material and dust residue. Personnel lifts will be used to provide access to interior surfaces not accessible from the building's slab-on-grade floor.

Then the above-grade structure of the building will be demolished and properly recycled or disposed of. The structure will be demolished over the existing building foundation and floor in an effort to provide greater containment of waste materials and separation from other uncontaminated materials.

During and after the demolition of the building, dust residues will be vacuum loaded and wet cleaning methods will be used as needed to decontaminate the concrete floor that forms the building's foundation. Cracks and crevices with significant accumulations of materials will be cleaned also in compliance with the "RCRA Like Decontamination" definition listed aboved. Waste materials from cleaning will be collected, managed, and disposed of as listed dangerous waste.

Further details about the steps used to conduct the cleaning is presented in the outline below.

I. Preparation
   a. Existing waste materials temporarily accumulated in the building will be removed and handled as is appropriate based on the nature of each.
   b. Materials that appear to have not been contaminated with listed dangerous waste will be removed and properly handled. This appears to include the non-dangerous materials located under the north mezzanine structure of the building.
   c. Specific additional measures for containing any wash water accumulation in the building will be determined and planned for.
   d. Specific additional measures for managing dust emissions from the building will be determined and planned for.
   e. A safety review of the final cleaning to be performed will be conducted in order to verify that the project-specific health and safety plan developed for our work addresses the hazards expected for the work.

II. Dry Cleaning
   a. Dust and granular material that has accumulated on accessible rafter, structural, and other features of the building materials will be removed using vacuum loader trucks equipped with nominal 5 micron filters. The dust accumulated in the trucks will be unloaded into drums, rolloff containers, or other containers for temporary accumulation and shipping.
   b. Remaining dust, granular material, and other residues will be noted by cleaning personnel to guide further cleaning activities.

c. Based on other operations conducted at the site, it appears that existing access doors equipped with overlapping clear plastic strips will be adequate to manage dust generated within the building during cleaning operations. The cleaning process will be monitored for dust emissions. Other measures will be implemented as needed to control any unexpected and undesirable dust emissions from building cleaning operations.

III. Wet Cleaning

a. Containment

i. Containment measures will be installed to address the collection of water from the wet cleaning process. These measures generally include plastic sheeting and sand bag containment berms, draped plastic sheeting, and the use of temporary or existing drainage sumps for collecting and pumping rinse water.

b. Water Cleaning

i. High flow, low pressure (typically provided by fire supply water service) water rinsing will be used if this method is expected to be effective in removing large, difficult to access, or widely distributed accumulations of dust and granular materials.

ii. Low flow, high pressure water rinsing with nominal 3,000 pounds per square inch portable pressure washing machines will then be used on remaining surfaces to removed caked material, dust residue, or other visible waste material remaining on interior building surfaces.

c. Collection

i. Water accumulated from water cleaning will be removed from the building with pumps or liquid vacuum trucks and accumulated in containers at the site. Containment measures will be monitored by our personnel for effectiveness.

IV. Waste Handling

a. Dry materials generated by cleaning will be disposed of as listed dangerous waste. This material will be loaded into containers for accumulation, shipping, and disposal.

b. Liquid generated by cleaning will be disposed of as listed dangerous waste. Any temporary tanks used in this process will be cleaned and triple rinsed after use. The waste generated by this cleaning process will be managed and disposed of as dangerous waste also.

c. The applicable dangerous waste management requirements provided in Title 173, Chapter 303 of the Washington Administrative Code will be used to manage listed dangerous waste generated by cleaning Potline 3. These include generator-related and administrative requirements listed in sections 140 through 270, as well as other sections of the chapter listed above.

Construction Quality Assurance

Compliance with the requirements noted above will be verified by inspections conducted during and after cleaning operations. These inspections will be conducted by cleaning, general contractor, Port of Tacoma staff members, and Port of Tacoma construction monitoring personnel.

Specification requirements listed under section 2050, paragraph 3.01F will be used along with this approved cleaning plan to guide inspection activities. The general focus of inspection activities will be to ensure that dust and water containment measures are effective and that the cleaning standard is met.

Deficiencies will be communicated to the appropriate personnel and corrected. Demolition operations will be temporarily suspended, if necessary, to prevent the unacceptable release of listed wastes or to address other significant concerns that may arise during the cleaning process.

Concluding Comments

Thank you again for working with us on this project. We do hope that you find our work plan for this activity responsive. Please call me at (206) 546-7176 or email to jboone@nrces.com with any questions or comments that you may have.

Sincerely,

Jim Boone, P.E.
Business Development Manager
Seattle Division

Appendix II

Daily Field Reports

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2006

Date: 12/13/06 **Arrival Time:** 11:05 am **Departure Time:** 2:55 pm
Weather Conditions: Temp=45° F, overcast, SW wind 10-30 mph, intermittent rain, heavy at times

Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental
Dave - NRC Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: Checked in with Joe Roddy. NRC was completing the covering of the SW equipment door with reinforced plastic. They were covering it because high SW winds were blowing dust out of the east equipment doors. We also had them cover the NW equipment door since there was still dust blowing. Higher winds are expected tomorrow afternoon (Thursday).

NRC Environmental has vacuumed the roof structural over the 1st two bays at the south end of building #65. The overhead crane has not been done since it was not accessible. Joe and I went up with the manlift and inspected the work that had been done. It looked ok. The space between the roofing and the roof channel has not been cleaned. NRC couldn't reach it. It may be easier to wash it. There were a few intermediate structural members in the roof trusses that were not vacuumed. NRC was made aware of this. NRC is vacuuming the material into a vacuum type rolloff box directly using their truck for the vacuum source. This minimizes dust generation by minimizes handling. I requested that they attach a hazardous waste label to the rolloff box. By mid-afternoon, the crew was no longer vacuuming. The crew may go to 12 hr shifts to expedite the work. Crew size was one supervisor and five laborers.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2006

Date: 12/18/06 **Arrival Time:** 11:05 am **Departure Time:** 2:55 pm
Weather Conditions: Temp=40° F, mostly overcast with broken clouds, light wind 3-5 mph,

Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental
Dave - NRC Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: Checked in with Joe Roddy. NRC started vacuuming the roof ventilator inner section at around 1:30 pm by entering the ventilator from outside the south end of the building. The dust buildup varies from around 2" deep on the west inside surface to about ½" deep on the east inside surface. According to the crew, the buildup is consistent along the length of the ventilator. They completed approximately half of the inner structure at the south end of the building. There is a section between the inner portion of the ventilator and an outer enclosure that cannot be safely accessed for thorough cleaning. The crew will wash down as much of it as they can.

NRC Environmental plans to focus on the ventilator for the next several days. The crew plans to work 10-12 hr shifts each day. Crew size was one supervisor and five laborers.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2006

Date: 12/26/06 **Arrival Time:** 11:15 am **Departure Time:** 12:20 pm
Weather Conditions: Temp=40° F, mostly overcast, slight W wind, raining

Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental
Jeff – Rhine
Dave - NRC Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: The focus of this visit was to check on the progress of cleanup of Building #65 by NRC Environmental. The crew was not on site this day due to it being a holiday for them. I inspected the work done so far with the exception of climbing up to the vent. The NRC crews had completed the vacuuming of the roof vent according to Joe Roddy. They had removed their hoses and planks. However, they will still be washing the area down after they complete the vacuuming of the rest of the building. Some cleaning of the floor at the south end of the building had been done. Joe said that about 2/3 of the building structure had been vacuumed starting at the south end. There was one drum of rinse water and one drum of PPE that were not labeled. Joe was made aware that they would need to put 'Hazardous Waste' labels on the two drums and also on the two rolloff type vacuum boxes that were being used to contain the vacuumed dust from the building. Joe wasn't sure they had labels. I asked him to check and let me know. I told him that I could obtain labels if needed.

I mentioned that part of the vent/roof looked like it might have a silver colored asphaltic coating and that when I was in next time I would look at it. I also mentioned that there was some material on the outside of the roof directly under the vents.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 01/02/07 **Arrival Time:** 10:55 am **Departure Time:** 3:45 pm
Weather Conditions: Temp=50° F, overcast, SE wind at 20-30 mph, intermittent rain, heavy at times

Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: The berm has been completed around the perimeter of the building. Rhine graded the gravel/soil along the exterior wall of the building which removed any brush. This allowed NRC to attach the visqueen directly to the exterior concrete stem wall. The visqueen is attached to the building stem wall with 1 X 3 lumber that has been nailed to the wall. The visqueen was rolled around the lumber several times to afford a seal against the wall. Rhine built up a berm of soil approximately 4-5 feet from the wall that was 1 to 1-1/2 ft tall. The visqueen was then draped over the berm to form a containment 'moat' around the building to contain any wash water that might leak through the siding during washing of the interior of the building. An additional berm was constructed across the door openings. The doorways on the west side and east side have all been bermed except one on the east side. Rhine/NRC plans to glue or caulk the visqueen at the joints where the visqueen sheets overlap.

I inspected the interior of the roof ventilator from the access point at the south end. It looked good. NRC swept the interior of the ventilator and then vacuumed it.

The office area and the motor control center (MCC) beneath it still need cleaning. The floor area in the main building has been swept.

Lance with NRC has taken numerous pictures of the work that has been done.

A rental tank (Baker tank) has been delivered to the site for collection of wash water. It has been staged west of the building.

I gave DOT placards to Joe for the rolloff boxes and the Baker tank. These included class '4.3' and '9' placards.

NRC plans to start washing the interior of the building today. They will use the Rhine water truck and pump to pump water at moderate pressure through about a 1" diameter hose to wash the building. This will keep the volume of wash water waste to a minimum.

I grabbed a small sample of the roof coating and delivered it to Nowicki/Orion Environmental Services for asbestos analysis. The roof has a silver colored mastic type coating over a mesh type cloth. This was not noted during the original hazard assessment.

There was no visible dust from the building.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 01/03/07 **Arrival Time:** 10:30 am **Departure Time:** 4:00 pm
Weather Conditions: Temp=45-50° F, overcast, SW wind at 5-10 mph, intermittent rain

Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: NRC is washing the section of the roof ventilator between the inner shell and the outer shell using a 1" diameter hose and spray nozzle from the water truck/pumper. They started at the north end and worked their way to the south end. They started early in the morning and finished by 1 pm. The wash water dripped to the center of the building floor where it was vacuumed up. A small amount of runoff from the roof was contained in the 'moat' constructed around the building perimeter. Some drippage inside of the building at the south end flowed into the storage area where it was squeegee'd to the corner and vacuumed up.

There were no visible dust emissions from the building. The wash water was primarily contained within the building and vacuumed up as it was generated. Waste wash water was then transferred to the Baker tank for eventual disposal.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 01/05/07 **Arrival Time:** 10:50 am **Departure Time:** 3:20 pm
Weather Conditions: Temp=45° F, overcast, SW wind at 10-20 mph, light to moderate rain starting at mid-day
Report Preparer: Tim Mace

Site Contact: Joe Roddy – Shaw Environmental
Rick – Rhine
Lance - NRC

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: NRC had completed washing about ⅔ of the west half of the building and about ½ of the east half of the building. The washing is being done with a 1" diameter hose and nozzle. I inspected several areas of the sidewalls, roof structure, and bottom of the roof vent from a manlift. Generally, the areas looked good. There were some spotty areas on the structural steel flanges that needed additional cleaning. This information was given to Lance with NRC, Rick with Rhine, and Joe Roddy with Shaw Environmental.

It was also noted that the inside ductwork will need cleaning. Rick with Rhine suggested that the ductwork be removed prior to building demolition and then have NRC clean it.

There is a concern with dust on the outside of the upper sheet metal on the inner portion of the roof vent. This concern was relayed to the above personnel, too.

Pacific Rim was onsite earlier and sampled several areas of the roof coating for asbestos. It appears the entire roof is coated according to Joe. Asbestos sample results of the roof coating taken by Sterling earlier in the week were emailed from Nowicki/Orion Environmental Services to Bill and Joe earlier and copied to Thomas.

Dickson is proposing to spray encapsulant on the roof prior to demolition. They estimate that it will take six hours for the job.

Two personnel were working in the manlift basket and were washing the structure, two were operating squeegee's and a vacuum hose on the floor, and four personnel were managing the visqueen containment around the exterior of the building to capture any splash from the roof

and walls. NRC is doing one side of the building at a time to allow the outside crew to man the containment.

Wash water is supplied by a pumper truck at about 70-75 psi.

There were no visible emissions from the building.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2006

Date: 01/08/07 **Arrival Time:** 10:10 am **Departure Time:** 4:00 pm
Weather Conditions: Temp=40° F, broken overcast, slight W wind, rain late

Report Preparer: Tim Mace

Report: NRC Environmental was finishing the initial cleaning of the inside of Building 65. The crew was washing down the south end of the building in the morning. Early in the afternoon they started the final rerinse of the building. There were several areas that had been identified that needed additional cleaning. I inspected the work that was going on and inspected the outside areas of the building. An area of the ground outside the SW corner of the building had some staining. NRC was asked to clean the area. Containment looked good. Crews were maintaining the wash water in the visqueen lined moat around the building. Other crews were vacuuming the washdown water that was contained within the building as the wash water was generated.

After lunch, one of the NRC personnel and myself used the manlift to inspect the building walls and underside of the roof. The areas had been rerinsed and looked very good. Areas between the roofing corrugations and the roof truss surfaces looked clean. Areas behind the overhead crane rails had been cleaned as well. The crane had been cleaned. However, NRC was asked to do additional cleaning after the crane is removed and set on the floor. There were areas under the gearboxes, electrical junction boxes, motors, etc. that NRC was unable to clean adequately.

So far, NRC has generated two rolloff type vacuum boxes of dust, one rolloff of miscellaneous debris such as PPE and cleanup materials, and one partial tank of washdown water. Currently, the washdown water tank contains about 8,000 gallons of waste water. The containers all had hazardous waste labels.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 02/28/07 **Arrival Time:** 1:20 pm **Departure Time:** 3:50 pm
Weather Conditions: Temp=45° F, mostly overcast, light SW wind at 10-15 mph, intermittent rain

Report Preparer: Tim Mace

Site Contact: Chris Milewski – Shaw Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: The focus of this visit was to check on the progress of final cleanup of Building #65 by NRC Environmental and Rhine as Rhine was in the process of demolishing the building. The roof and metal portion of the sidewalls were down. Rhine was in the process of processing/shearing the steel structure and removing the roof panels. The materials were being managed inside the building until it could be confirmed that they were free of contamination. The steel and aluminum siding were being segregated and shipped for recycle. The roof panels which had an asbestos coating were being shipped to LRI for disposal. The materials looked clean and were being managed appropriately.

NRC Environmental was working onsite intermittently as needed for cleanup and Dixon was working onsite as needed manage and tranport the asbestos.

Areas of Environmental Concern/Incidents/Spills:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 03/07/07 **Arrival Time:** 9:15 am **Departure Time:** 3:50 pm
Weather Conditions: Temp=50° F, overcast, light W wind at 8-12 mph, intermittent rain

Report Preparer: Tim Mace

Site Contact: Chris Milewski – Shaw Environmental
Jeff – Rhine
Dave-NRC Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: The focus of this visit was to check on the progress of final cleanup of Building #65 by NRC Environmental and Rhine. The metal portion of the building has been removed except for the wall vents and some miscellaneous metal. The metal that has been removed has been processed and shipped. All that remains of the building are the floor, the concrete portion of the walls which are about 18 ft high, two narrow mezzanines along the east and west walls, and a large mezzanine at the north end of the building. The south end of the building has been cleaned. This includes the floor areas and the walls. NRC was focusing on cleanup of the north end of the building.

I inspected the cleaned portions of the building which was about 2/3 of the south portion of the building. The areas looked very good except for some material still remaining around the bottom of some of the west wall vents. Jeff with Rhine was made aware of this and had NRC and Rhine clean these areas after the morning break. Care was taken to contain the wash water and to sweep it to the vacuum hose for immediate collection. After cleaning, the areas looked good. There were two sections of flooring that had been badly chipped/fractured during use of the building. NRC and Rhine removed the loose concrete and carefully vacuumed out the cracks. Floor expansion joints were cleaned and looked good.

Currently, there are two additional rolloffs on site in addition to the previous two that were on site. They are being used for cleanup debris. The two vacuum type rolloffs that were previously on site are still onsite. The 'Baker' tank that was onsite previously has been shipped. There is currently another 'Baker' type tank on site that is being used for collection of wash water. It is a 19,000 gallon capacity steel tank and is about 1/8 full.

The south 1/3 of the building cleaning was accepted at about 10:20 am and the center 1/3 of the building was accepted at about 11:10 am. These areas were then taped off so that Rhine could begin demolishing the remaining walls in this area.

The mezzanine along the NE section of the building wall was cleaned in the early afternoon. The mezzanine at the north end of the building was cleaned in the afternoon as well.

Areas of Environmental Concern/Incidents/Spills: There is one 55-gallon drum outside the west side of the building that is unlabelled. According to Rhine, it contains used oil that was drained from the building crane. Rhine was asked to label the drum.

Rhine was asked to cleanup some possibly contaminated soil just outside the NW corner of the building.

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

KAISER-TACOMA FIELD REPORT
2007

Date: 03/09/07 **Arrival Time:** 9:10 am **Departure Time:** 3:00 pm
Weather Conditions: Temp=47° F, overcast, broken clouds, slight W wind at 1-3 mph, no rain in am

Report Preparer: Tim Mace

Site Contact: Chris Milewski – Shaw Environmental
Jeff – Rhine
Dave - NRC Environmental

Contractors on site: Rhine
NRC Environmental

Report: Building #65 Cleaning and Demolition: The focus of this visit was to check on the progress of final cleanup of Building #65 by NRC Environmental and Rhine. Rhine has started demolishing the remaining concrete walls at the south end of the building.

NRC has cleaned the north end of the building which completes the bulk of the cleanup work. I inspected the north area which had not been cleaned when I left on Wednesday, March 7, 2007. The rest of the building was inspected previously. The walls, floor areas, and ceilings under the mezzanines looked good. Some additional cleaning was requested for some steel structural under the north mezzanine and the interior of several electrical cabinets. Jeff with Rhine and NRC were shown these areas. During demolishment of the south end, Rhine removed a short (about 3 ft high) stub wall that had a steel shell along one side. There was some considerable dust between the steel shell and concrete stub which NRC was in the process of cleaning. This was cleaned as well as some additional cleaning of the interior of the motor control center disconnect cabinets and some other smaller electrical cabinets.

An additional rolloff has been brought on site in addition to the previous three that were on site. It is being used for cleanup debris. The two vacuum type rolloffs that were previously on site are still onsite. The 'Baker' type tank is about ½ full. It has 19,000 gallon capacity.

The gravel/soil from a small area outside the NW end of the building that possibly had some contamination has been removed.

The 55-gallon drums outside the west side of the building have been labeled as well as the rolloff containers.

The equipment was decontaminated as needed. The cleanup of the building was completed by 3:00 pm.

Areas of Environmental Concern/Incidents/Spills:

Appendix III

Analytical Results

ORION Environmental Services

An Environmental Compliance Consulting Firm

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Nowicki Environmental
34004 – 9th Avenue South, Suite # 12
Federal Way, WA 98003

Date January 3, 2007
Page Page 1 of 1
Invoice 070009
Date Received January 2, 2007

Client Name / Number Sterling Technologies / L07-0003
Project Name Port of Tacoma

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
POTK-65010207	70102-25	Silver Coat Homogeneous	Chloroform	3	Chrysotile	Cellulose

Dup: Laboratory QA/QC Duplicate; M; Mastic [(a), (b), (c), etc.]: Sample layers numbered from front to back. Comments: For layered samples, each component has been analyzed separately. ND means non-detect for asbestos fibers by EPA Method 600/R-98/116.Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus negative PLM results cannot be guaranteed. Per EPA guidelines samples will be archived for 30 days then will be disposed of. This report may only be reproduced in full with written approval of ORION Environmental Services.

Analyzed By Donna McNeal
Laboratory Director, CEO

Reviewed By for Allen Clark
Laboratory Analyst

Leading Environmental Compliance Consulting Into the 21st Century

34004 - 9th Avenue South ♦ Suite 5 ♦ Federal Way, Washington 98003-6740
♦ Tacoma (253) 952-6717 ♦ Seattle (253) 874-8118 ♦ Facsimile (253) 927-4714 ♦ Email Info@OrionES.net

WBE W2F9219763

Nowicki Environmental Services Inc.
Laboratory Services – Chain of Custody Form

Client/Name:	Port of Tacoma / Sterling	**Laboratory ID:**	
Address:	~~Attn~~	**Project#/Name:**	
		Date Sampled:	01-02-07 / 1310 pm
Telephone:	Sterling 360 576-6331	**Sampled By:**	TRM
FAX:	Sterling 360 576-6373		
Cellular:	Sterling - 360 749-3224		
E-mail:	tim@sterling-llc.com		

Turn-Around Time (Please check appropriate box)
☐ 4-hour * ☒ 24-hour * ☐ 3-day

☐ **FULL PARTICULATE (Air Sample Only)**

Sample #	Description of Sample	Analysis (check appropriate box)
POTKGS010207	Roof Coating	☒ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
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		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other
		☐ Asbestos ☐ Lead ☐ Mold ☐ Other

Relinquished By:		***Received By:***	
Signature:	T. R. Mace	Signature:	[signature]
Printed Name:	T. R. Mace	Printed Name:	Wendy Erickson
Company Name:	Sterling Technologies	Company Name:	NESIES
Time:	Date:	Time: 1500	Date: 1/3/7

Notice: *Samples must be enclosed in a sealed bag or container. Unless otherwise requested all samples will be disposed of five (5) working days after analysis. You will be contacted if the sample is insufficient in quantity for analysis. Analysis method is in accordance with EPA Method 600/R-93-116 for Polarized Light Microscopy.*

Received By:	
Signature:	
Printed Name:	
Company Name:	
Time:	Date:

**** Additional charges apply for 4-hour and 24-hour sample analysis. Please contact Nowicki Environmental for further details.***

34004 9th Avenue South, Suite 12, Federal Way, WA 98003
Phone: (253) 927-5233 FAX: (253) 924-0323
E-mail: info@nowickienvironmental.com Website: www.nowickienvironmental.com

Orion Environmental Services

WBE W2F5912535

34004 9th Avenue South ¨ Building A Suite 5 ¨ Federal Way, Washington 98003-6740
Telephone Seattle (253) 874-8118 ¨ Tacoma (253) 952-6717 ¨ Facsimile (253) 927-4714 ¨ email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Nowicki Environmental Services
34004 9th Avenue South, Suite 12
Federal Way, WA 98003

Date January 4, 2007
Page Page 1 of 1
Invoice 070031
Date Received January 3, 2007

Client Name / Number Sterling Technologies / L07-0004
Project Name South West End of Building 65
Port of Tacoma

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos		Other Fibers
POTK010304	70103-45	Roof Coating Homogeneous	Chloroform	2	Chrysotile	-

Dup: Laboratory QA/QC Duplicate; M; Mastic [(a), (b), (c), etc.]: Sample layers numbered from front to back. Comments: For layered samples, each component has been analyzed separately. ND means non-detect for asbestos fibers by EPA Method 600/R-98/116.Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus negative PLM results cannot be guaranteed. Per EPA guidelines samples will be archived for 30 days then will be disposed of. This report may only be reproduced in full with written approval of ORION Environmental Services.

Analyzed By _____
Nelson B. Miles III
Sr. Industrial Hygienist

Reviewed By _____
Dennis Rauschenberg
Laboratory Analyst

Appendix IV

Waste Profiles & Manifests

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☒ YES ☐ NO — Profile Number:

☒ Hazardous ☐ Non-Hazardous ☐ TSCA — Renewal Date

A. Waste Generator Information

1.	Generator Name:	Port of Tacoma Kaiser Works	2.	SIC Code	3334
3.	Facility Street Address:	3400 Taylor Way	4.	Phone	(253) 593-4563
5.	Facility City:	Tacoma	6.	State/Province:	Washington
7.	Zip/Postal Code:	98421	8.	Generator USEPA/FED ID #:	WAD001882984
9.	County:	Pierce	10.	State/Province ID#:	
11	Customer Name:	NRC Environmental Services	12.	Customer Phone::	206 546 7176
13.	Customer Contact:	Jim Boone	14.	Customer Fax:	206 289 1035
15.	Billing Address	20500 Richmond Beach Drive NW, Seattle, WA 98177			☒ Same as above

B. Waste Stream Information

1. **DESCRIPTION**

a. Name of Waste: Building 65 Dust

b. Processing Generating Waste: Preparation of building for demolition

c. Color	d. Strong odor	e Physical state @ 70°F	f. Layers	g. Free liquid range
Black, brown, grey	None	☒ Solid ☐ Liquid ☐ Gas ☐ Sludge ☐ Other	☒ Single Layer ☐ Multi-Layer	0 to 0 %
				h. PH: Range
				NA to %

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ Not Applicable

j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):.

Constituents	Concentration Range	Constituents	Concentration Range
Dust, scale, aluminna, K088 dust, other inorganics, dirt	Up to 100%		
See attached analytical results from analysis of constituents from 40CFR 268.40	Less than 1%		
Concrete, metal, and other debris	Up to 25%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive
☐ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA Notification? (list in Section B.1.) ☒ YES ☐ NO

m. Does the waste represented by this profile contain dioxins? (list in B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☒ YES ☐ NO
If yes... ☐ friable ☒ non-friable

o. Does the waste represented by this profile contain benzene ☐ YES ☒ NO
If yes, concentration ppm _____
Is the waste subject to benzene waste operations NESHAP? ☐ YES ☒ NO

p. Is the waste subject to RCRA Subpart CC controls ☐ YES ☒ NO
If yes, volatile organic concentration _____ ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substance? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Section B.1.j) ☒ YES ☐ NO

2. **Quantity of Waste**

Estimated Annual Volume: Less than 100 ☒ Tons ☐ Yards ☐ Drums ☐ Other (specify) _____

3. **Shipping Information**

a. Packaging:
☒ Bulk Solid; Type/Size: Truck and trailer ☐ Bulk Liquid, Type/Size _____
☐ Drum; Type/Size: _____ ☐ Other: _____

b. Shipping Frequency: Units 100 tons est. Per: ☐ Month ☐ Quarter ☐ Year ☒ One Time ☐ Other _____

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e and f) ☒ YES ☐ NO

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

d. Reportable Quantity (lbs.; kgs.): 10 pounds e. Hazard Class/ID#: 9/NA3077

f. USDOT Shipping Name: Hazardous Waste, Solid n.o.s. 9, NA3077, III, RQ(KO88)

g. Personal Protective Equipment Requirements: NRCES personnel wear Level C PPE with GME P100 cartridges

h. Transporter/Transfer Station: Waste Management Transporter

C. Generator's Certification (Please check appropriate responses, sign, and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2. ☒ YES ☐ NO
   a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U) KO88
   b. If a characteristic hazardous waste, do underlying hazardous constituents B.1.j) (UHCs) apply? (if yes, list in Section ☐ YES ☐ NO
   c. Does this waste contain debris? (if yes, list size and type in Chemical Composition- B.1.) ☒ YES ☐ NO

2. Is this a state hazardous waste? ☐ YES ☒ NO
   Identify **ALL** state hazardous waste codes

3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? ☐ YES ☒ NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up for activity. For state mandated clean-up, provide relevant documentation.

4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission? ☐ YES ☒ NO

5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (if yes, list in Chemical Composition - B.1.j) ☐ YES ☒ NO
   a. If yes, were the PCBs imported into the U.S.? ☐ YES ☐ NO

6. Do the waste profile sheet and all the attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒ YES ☐ NO

7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ☒ YES ☐ NO

☒ Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: Title:

Name (Type or Print) Company Name **Port of Tacoma** Date:

☒ Check if additional information is attached. Indicate the number of attached pages. 2 pages

D. WMI Management's Decision FOR WMI USE ONLY

1. Management Method ☐ Landfill ☐ Non-hazardous Solidification ☐ Bioremediation ☐ Incineration ☐ Hazardous Stabilization ☐ Other (Specify)
2. Proposed Ultimate Management Facility:
3. Precautions, Special Handling Procedures, or Limitation on Approval
4. Waste Form: 5. Source 6. System Type

Special Waste Decision ☐ Approved ☐ Disapproved

Salesperson's Signature: Date:

Division Approval Signature (Optional): Date:

Special Waste Approvals Person Signature Date:

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☒ YES ☐ NO — Profile Number: _____

☒ Hazardous ☐ Non-Hazardous ☐ TSCA — Renewal Date _____

A. Waste Generator Information

1.	Generator Name:	Port of Tacoma Kaiser Works	2.	SIC Code	3334
3.	Facility Street Address:	3400 Taylor Way	4.	Phone	(253) 593-4563
5.	Facility City:	Tacoma	6.	State/Province:	Washington
7.	Zip/Postal Code:	98421	8.	Generator USEPA/FED ID #:	WAD001882984
9.	County:	Pierce	10.	State/Province ID#:	
11	Customer Name:	NRC Environmental Services	12.	Customer Phone::	206 546 7176
13.	Customer Contact:	Jim Boone	14.	Customer Fax:	206 289 1035
15.	Billing Address	20500 Richmond Beach Drive NW, Seattle, WA 98177			☒ Same as above

B. Waste Stream Information

1. **DESCRIPTION**

a. Name of Waste: Building 65 Wash Water

b. Processing Generating Waste: Cleaning of building for demolition

c. Color	d. Strong odor	e Physical state @ 70°F	f. Layers	g. Free liquid range
Black, brown, grey	None	☐ Solid ☒ Liquid ☐ Gas ☐ Sludge ☐ Other	☒ Single Layer ☐ Multi-Layer	100 to 100 %
				h. PH: Range 5 to 9

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ Not Applicable

j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):.

Constituents	Concentration Range	Constituents	Concentration Range
Dust, scale, aluminna, K088 dust, other inorganics, dirt, and water	Up to 100%		
See attached analytical results from analysis of constituents from 40CFR 268.40	Less than 1%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive
☒ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA Notification? (list in Section B.1.) ☒ YES ☐ NO

m. Does the waste represented by this profile contain dioxins? (list in B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☐ YES ☒ NO
If yes... ☐ friable ☐ non-friable

o. Does the waste represented by this profile contain benzene ☐ YES ☒ NO
If yes, concentration ppm _____
Is the waste subject to benzene waste operations NESHAP? ☐ YES ☒ NO

p. Is the waste subject to RCRA Subpart CC controls ☐ YES ☒ NO
If yes, volatile organic concentration _____ ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substance? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Section B.1.j) ☒ YES ☐ NO

2. **Quantity of Waste**

Estimated Annual Volume: Less than 40,000 ☐ Tons ☐ Yards ☐ Drums ☒ Other (specify) gallons

3. **Shipping Information**

a. Packaging:
☐ Bulk Solid; Type/Size: _____ ☒ Bulk Liquid, Type/Size 5,000 gal or less
☐ Drum; Type/Size: _____ ☐ Other: _____

b. Shipping Frequency: Units Less than 40,000 gallons Per: ☐ Month ☐ Quarter ☐ Year ☒ One Time ☐ Other

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e and f) ☒ YES ☐ NO

WM
WASTE MANAGEMENT, INC.

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

d. Reportable Quantity (lbs.; kgs.): 10 pounds e. Hazard Class/ID#: 9/NA3082

f. USDOT Shipping Name: **Hazardous Waste, Liquid, n.o.s. 9, NA3082, III, RQ (K088)**

g. Personal Protective Equipment Requirements:

h. Transporter/Transfer Station: **NRC Environmental Services or other transporter**

C. Generator's Certification (Please check appropriate responses, sign, and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2. ☒ YES ☐ NO
   a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U) **K088**
   b. If a characteristic hazardous waste, do underlying hazardous constituents B.1.j) (UHCs) apply? (if yes, list in Section..... ☐ YES ☐ NO
   c. Does this waste contain debris? (if yes, list size and type in Chemical Composition- B.1.)..... ☒ YES ☐ NO

2. Is this a state hazardous waste?..... ☐ YES ☒ NO
   Identify **ALL** state hazardous waste codes

3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up?..... ☐ YES ☒ NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up for activity. For state mandated clean-up, provide relevant documentation.

4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission?..... ☐ YES ☒ NO

5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (if yes, list in Chemical Composition - B.1.j)..... ☐ YES ☒ NO
   a. If yes, were the PCBs imported into the U.S.?..... ☐ YES ☐ NO

6. Do the waste profile sheet and all the attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?..... ☒ YES ☐ NO

7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?..... ☒ YES ☐ NO

☒ Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: Title:

Name (Type or Print): Company Name: **Port of Tacoma** Date:

☒ Check if additional information is attached. Indicate the number of attached pages. 2 pages

D. WMI Management's Decision — FOR WMI USE ONLY

1. Management Method ☐ Landfill ☐ Non-hazardous Solidification ☐ Bioremediation ☐ Incineration ☐ Hazardous Stabilization ☐ Other (Specify)
2. Proposed Ultimate Management Facility:
3. Precautions, Special Handling Procedures, or Limitation on Approval
4. Waste Form: 5. Source 6. System Type

Special Waste Decision..... ☐ Approved ☐ Disapproved

Salesperson's Signature: Date:

Division Approval Signature (Optional): Date:

Special Waste Approvals Person Signature Date:

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☒ YES ☐ NO

☒ Hazardous ☐ Non-Hazardous ☐ TSCA

Profile Number:

Renewal Date

A Waste Generator Information

1.	Generator Name:	Port of Tacoma Kaiser Works	2.	SIC Code	3334
3.	Facility Street Address:	3400 Taylor Way	4.	Phone	(253) 593-4563
5.	Facility City:	Tacoma	6.	State/Province:	Washington
7.	Zip/Postal Code:	98421	8.	Generator USEPA/FED ID #:	WAD001882984
9.	County:	Pierce	10.	State/Province ID#:	
11	Customer Name:	NRC Environmental Services	12.	Customer Phone::	206 546 7178
13.	Customer Contact:	Jim Boone	14.	Customer Fax:	206 289 1035
15.	Billing Address	20500 Richmond Beach Drive NW, Seattle, WA 98177			☒ Same as above

B Waste Stream Information

1. **DESCRIPTION**

a. Name of Waste: Building 65 Dust

b. Processing Generating Waste: Preparation of building for demolition

c. Color	d. Strong odor	e. Physical state @ 70°F	f. Layers	g. Free liquid range
Black, brown, grey	None	☒ Solid ☐ Liquid ☐ Gas ☐ Sludge ☐ Other	☒ Single Layer ☐ Multi-Layer	0 to 0 %
				h. PH: Range NA to %

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ Not Applicable

j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):

Constituents	Concentration Range	Constituents	Concentration Range
Dust, scale, aluminna, K088 dust, other inorganics, dirt	Up to 100%		
See attached analytical results from analysis of constituents from 40CFR 268.40	Less than 1%		
Concrete, metal, and other debris	Up to 25%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☐ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA Notification? (list in Section B.1.) ☒ YES ☐ NO

m. Does the waste represented by this profile contain dioxins? (list in B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☒ YES ☐ NO

If yes, ☐ friable ☒ non-friable

o. Does the waste represented by this profile contain benzene ☐ YES ☒ NO

If yes, concentration ppm

Is the waste subject to benzene waste operations NESHAP? ☐ YES ☒ NO

p. Is the waste subject to RCRA Subpart CC controls ☐ YES ☒ NO

If yes, volatile organic concentration ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substance? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Section B.1.j) ☒ YES ☐ NO

2. **Quantity of Waste**

Estimated Annual Volume: Less than 100 ☒ Tons ☐ Yards ☐ Drums ☐ Other (specify)

3. **Shipping Information**

a. Packaging:

☒ Bulk Solid; Type/Size: Truck and trailer ☐ Bulk Liquid, Type/Size

☐ Drum; Type/Size: ☐ Other:

b. Shipping Frequency: Units 100 tons est. Per: ☐ Month ☐ Quarter ☐ Year ☒ One Time ☐ Other

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e and f) ☒ YES ☐ NO

GENERATOR'S WASTE PROFILE SHEET
PLEASE PRINT IN INK OR TYPE

INSTRUCTIONS

Information on this form is used to determine if the waste may be transported, treated, stored or disposed in a legal, safe, and environmentally sound manner. This information will be maintained in strict confidence. Answers must be provided for sections A, B, and C and must be printed in ink or typed. A response of "NONE" or NA" (not applicable) can be made if appropriate. If additional space is needed, indicate on the form that additional information is attached, and attach the information to Generator's Waste Profile Sheet. If you have questions concerning this form, please contact the Contractor's sales representative.

A Waste Generator Information

1. **Generator Name** - Enter the name of the facility where the waste is generated.
2. **SIC Code** - Enter the four digit Standard Industrial Classification Code for the facility where the waste is generated.
3. **Facility Street Address** -Enter the street address (not P.O. Box) of the facility where the waste is generated.
4. **Phone** - Enter Generator's area code and phone number.
5. **Facility City** - Enter the city where the waste is generated.
6. **State/Province** - Enter the state or province where the waste is generated.
7. **Zip/Postal Code** - Enter the generating facility's zip or postal code.
8. **Generator USEPA/FEDERAL ID #** - Enter the identification number issued by the USEPA, Canadian, or Mexican Federal Agency to the facility generating the waste(if applicable).
9. **County** - Enter the county where the waste is generated.
10. **State/Province ID#** - Enter the identification number issued by the state or province to the facility generating the waste (if applicable).
11. **Customer Name** - Entity that the Contractor is directly working with regarding the represented waste stream. If the same as the Generator, mark "Same as Above".
12. **Customer Phone** - Enter technical contact's area code and telephone number.
13. **Customer Contact** - Enter the name of the person who can answer technical questions about the waste.
14. **Customer Fax** - Area code and facsimile number for the customer.
15. **Billing Address** - Address where bill for services should be sent.

B Waste Stream Information

1.a. **Name of Waste** - Enter a name generally descriptive of this waste (e.g., paint sludge, fluorescent bulbs).

1.b **Process Generating Waste** - Describe the process generating the waste in detail. List the specific process/operation or source that generates the waste (e.g., incineration of municipal refuse, asbestos removal, wastewater treatment, building maintenance).
At a minimum, the Generator should answer the following questions in determining the process generating the waste.
- What chemicals are stored and/or used at the facility?
- Is the waste generated from the production /manufacturing of any of the following industries: wood preservation; inorganic pigments; organic pigments; pesticides; explosives; petroleum refining; iron and steel, copper, lead or zinc production?
- Is the waste a result from degreasing, solvent parts cleaning, recovery/reclaiming of solvents (bottoms), waste water treatment (slugs), or electroplating?

1.c. **Color** - Describe the color of the waste (e.g., blue, transparent, varies).

1.d. **Strong odor** - DO NOT SMELL THE WASTE! If the waste has a known odor, then describe (e.g., acrid, pungent, solvent, sweet.).

1.e. **Physical state @ 70°F** - If the four boxes provided do not apply, a descriptive phrase may be entered after "Other" e.g., multi-phase).

1.f. **Layers** - Single Layers means the waste is homogenous. Multi-layer means the waste is comprised of two or more layers (e.g., oil/water/sludge).

1.g. **Free liquid range** - Range (in percent by volume) of free liquids in the waste.

1.h. **pH Range** - Indicate the pH range.

1.i. **Liquid Flash Point** - Indicate the flash point obtained using the appropriate test method.

1.j. **Chemical Composition** - List all organic and/or inorganic components of the waste using chemical names. If trade names are used, attach Material Safety Data Sheets or other documents that adequately describe the composition of the waste. For each component, estimate the range (in percent) in which the component is present.

1.k.. Check all that apply.

1.l. Identify any element, chemical compound, or mixture in concentration of ≥0.1 percent or greater that is considered a carcinogen or potential carcinogen pursuant to OSHA.

1.m. Indicate if the waste contains any dioxins (list in Section B.1.)

1.n. Indicate if the waste contains asbestos. Indicate if the asbestos is friable.

1.o. Indicate if the waste contains benzene, the level in ppm, and whether it is subject to the benzene NESHAP.

1.p. Indicate if the waste is subject to RCRA Subpart CC control. In addition, indicate the volatile organic concentration, if known, in parts per million weight.

1.q. Indicate if the waste contains any Class I or Class II ozone-depleting controlled substances.

1.r. Indicate if the waste contains debris (list size and type in B.1.j.)

2. **Quantity of Waste** - Approximate volume in tons, yards, or other (e.g., drums, gallons) that will be received by the ultimate management facility. This volume amount is not intended for use in complying with state and/or permit restrictions.

3.a. **Packaging** - Choose the appropriate option or "other" along with a description.

3.b. **Shipping Frequency** - Choose the appropriate option or "other" along with a description.

3.c. **Is this a U.S. Department of Transportation (USDOT) hazardous material?** - Choose the appropriate response: yes or no.

GENERATOR'S WASTE PROFILE SHEET
PLEASE PRINT IN INK OR TYPE

INSTRUCTIONS

3.d. **Reportable quantity (lbs.; kgs.)** If the answer to 3.c. is yes, enter the Reportable quantity (RQ) established by 40 CFR 302.4 or equivalent Canadian or Mexican regulation for this waste. Indicate the appropriate units for the RQ.

3.e. **Hazard Class/ID #** - If the answer to 3.c. is yes, indicate the proper USDOT hazard class and identification number.

3.f. **USDOT Shipping Name** - IF the answer to 3.c. is yes, enter the proper USDOT shipping name for the waste.

WM

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

d. Reportable Quantity (lbs.; kgs.): 10 pounds e. Hazard Class/ID#: 9/NA3077
f. USDOT Shipping Name: Hazardous Waste, Solid n.o.s. 9, NA3077, III, RQ(KO88)
g. Personal Protective Equipment Requirements: NRCES personnel wear Level C PPE with GME P100 cartridges
h. Transporter/Transfer Station: Waste Management Transporter

C. Generator's Certification (Please check appropriate responses, sign and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2 ☒ YES ☐ NO
   a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U) KO88
   b. If a characteristic hazardous waste, do underlying hazardous constituents B.1.j) (UHCs) apply? (If yes, list in Section ☐ YES ☐ NO
   c. Does this waste contain debris? (If yes, list size and type in Chemical Composition- B.1.) ☒ YES ☐ NO
2. Is this a state hazardous waste? ☐ YES ☒ NO
   Identify ALL state hazardous waste codes
3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? ☐ YES ☒ NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up for activity. For state mandated clean-up, provide relevant documentation.
4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission? ☐ YES ☒ NO
5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (If yes, list in Chemical Composition - B.1.j) ☐ YES ☒ NO
   a. If yes, were the PCBs imported into the U.S.? ☐ YES ☐ NO
6. Do the waste profile sheet and all the attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒ YES ☐ NO
7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ☒ YES ☐ NO

☒ Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: Joe Rodeby Title: Inspector 1-15-07
Name (Type or Print): Joe Roddy Company Name: Port of Tacoma Date:

☒ Check if additional information is attached. Indicate the number of attached pages. 2 pages

D. WMI Management's Decision FOR WMI USE ONLY

1. Management Method ☐ Landfill ☐ Non hazardous Solidification ☐ Bioremediation ☐ Incineration ☐ Hazardous Stabilization ☐ Other (Specify)
2. Proposed Ultimate Management Facility:
3. Precautions, Special Handling Procedures, or Limitation on Approval
4. Waste Form: 5. Source 6. System Type

Special Waste Decision ☐ Approved ☐ Disapproved
Salesperson's Signature: Date:
Division Approval Signature (Optional): Date:
Special Waste Approvals Person Signature Date:

3.g. **Personal Protective Equipment Requirements** - All personal protective equipment necessary to safely manage the waste stream.
3.h. **Transporter/Transfer Station** - Transporter and/or transfer station name.

C Generator's Certification (Please check appropriate responses, sign and date below.)

Indicate the appropriate response to questions/statements 1,2,3,4,5,6, and 7. By signing this Generator's Waste Profile Sheet, the Generator certifies the responses are true and accurate with respect to the waste stream(s) listed.

Certification Signature - Signature of an authorized employee of the Generator or representative of the generator if authorized in writing by the generator.
Title - Enter Employee's title.
Name Type or Print Employee's name.
Company Name Company employing the person certifying the Generator's Waste Profile Sheet.
Date - Enter the date this Generator's Waste Profile Sheet is signed.

D WMI Management's Decision FOR WMI USE ONLY

To be completed by WMI.

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.specra-lab.com

01/04/2007

P.O.#: 195764
Project: Kaiser-22764
Client ID: B-65
Sample Matrix: Soil
Date Sampled: 12/22/2006
Date Received: 12/22/2006
Spectra Project: 2006120343
Spectra Number: 1
Rush

NRC Environmental Services
20500 Richmond Beach Dr. N.W.
Seattle, WA 98177
Attn: Barton Dodson

Analyte	Result	Units	Method
Fluoride	NA	mg/Kg	EPA 340.2
Total Cyanide	13	mg/Kg	SM4500CN-E
TCLP Arsenic	< 0.05	mg/L	SW846 6010B
TCLP Barium	0.14	mg/L	SW846 6010B
TCLP Cadmium	0.088	mg/L	SW846 6010B
TCLP Chromium	0.062	mg/L	SW846 6010B
TCLP Lead	< 0.04	mg/L	SW846 6010B
TCLP Selenium	< 0.01	mg/L	SW846 6010B
TCLP Silver	< 0.007	mg/L	SW846 6010B
Total Arsenic	< 5	mg/Kg	SW846 6010B
TCLP Mercury	< 0.0002	mg/L	SW846 7470A
PCB AR1232	10.3	mg/Kg	SW846 8082
2-Methylnaphthalene	<0.08	mg/Kg	SW846 8270C
Acenaphthene	<0.08	mg/Kg	SW846 8270C
Acenaphthylene	<0.08	mg/Kg	SW846 8270C
Anthracene	2.85	mg/Kg	SW846 8270C
Benzo(a)Anthracene	39.8	mg/Kg	SW846 8270C
Benzo(a)Pyrene	9.32	mg/Kg	SW846 8270C
Benzo(b)Fluoranthene	83.9	mg/Kg	SW846 8270C
Benzo(ghi)Perylene	16.1	mg/Kg	SW846 8270C
Benzo(k)Fluoranthene	29.2	mg/Kg	SW846 8270C
Chrysene	181	mg/Kg	SW846 8270C
Dibenz(a,h)Anthracene	5.22	mg/Kg	SW846 8270C
Fluoranthene	125	mg/Kg	SW846 8270C
Fluorene	<0.08	mg/Kg	SW846 8270C
Indeno(1,2,3-cd)Pyrene	15.5	mg/Kg	SW846 8270C
Naphthalene	<0.08	mg/Kg	SW846 8270C
Phenanthrene	17.2	mg/Kg	SW846 8270C
Pyrene	89.5	mg/Kg	SW846 8270C
Total Organic Carbon	85000	mg/Kg	SW846 9060

Surrogate	Recovery	Method
Nitrobenzene-d5	37	SW846 8270C
2-Fluorobiphenyl	41	SW846 8270C
p-Terphenyl-d14	77	SW846 8270C
Decachlorobiphenyl	61	SW846 8082

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14/sgh

SPECTRA Laboratories

CHAIN of CUSTODY

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

PAGE _____ of _____

STANDARD ☐ RUSH ☒

CLIENT: NRC (Port of Tacoma) ADDRESS: ADDRESS CHANGE ☐

PROJECT: Kaiser - 22764

CONTACT: Lance Baza

PHONE: 206-730-1847 FAX:

e-MAIL: Prefer FAX ☐ or e-MAIL ☐

PURCHASE ORDER #: 195764

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS	HYDROCARBONS: NWTPH-HCID	BTEX	BTEX/NWTPH-G	NWTPH-G	NWTPH-Dx	1664 SGT-HEM	1664 HEM	ORGANICS: 8260/624 VOA	8260 CHLOR SOLVENTS	8270/625 SEMI VOA	8270 PAH/PNA	8082/608 PCB	METALS: TOTAL METALS RCRA8	TOTAL METALS (SPECIFY)	TCLP METALS RCRA 8	TCLP METALS (SPECIFY)	OTHER: pH 9040/9045	TX/TOX 9076	TURBIDITY	FLASH POINT	BOD	SOLIDS (SPECIFY)						
1	B-65 -	12/22/06	1130								See	Attachment																				
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																

SPECIAL INSTRUCTIONS/COMMENTS:

	SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME
RELINQUISHED BY		Lance Baza	NRC	12/22/06	1205
RECEIVED BY			Spectra	12/22/06	1205
RELINQUISHED BY					
RECEIVED BY					

RETURN SAMPLES ☐ DISPOSE SAMPLES ☐

(Shipping Fee Applies)

Payment Terms: Net 30 days. Past due accounts subject to 1½% per month interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other costs of collection regardless of whether suit is filed in Pierce Co., WA venue. *Spectra Analytical, Inc.*

CleanHarbors
ENVIRONMENTAL SERVICES®

2247 South Highway 71
Kimball, NE 69145

308-235-4012
FAX 308-235-4307
www.cleanharbors.com

DATE: 3/28/2007

MANIFEST: 001018067FLE

Dear Valued Customer:

Clean Harbors Environmental Services, Inc. makes every effort to ensure that signed copies of manifests are returned to the waste generator as quickly as possible following receipt of your waste at our facility. This allows us to provide you with rapid verification that your waste shipment arrived safely at our waste management facility.

Once your waste has been received, Clean Harbors' personnel verifies that the quantity that has been received matches the quantity that was shipped. We also inspect the material to ensure that it meets the facility's waste acceptance criteria as described in our Waste Analysis Plan. Every effort is made to complete the waste verification as quickly as possible; however, it is possible that the signed copy of the manifest may be returned to you before the waste verification process is completed. If a significant discrepancy, as defined by US EPA regulations (40 CFR 264.72), is discovered during the waste verification process, we will contact you in order to reconcile the discrepancy. Additionally, we will make any corrections to the waste manifest that are necessary.

Please contact Dave Hickman (Compliance Specialist) at (308) 235-8228 if you have any questions or wish to discuss this issue further.

Sincerely,

Compliance Department

B0?03162

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	[illegible]	[illegible]	[illegible]	001018067 FLE

GENERATOR

5. Generator's Name and Mailing Address: Port of Tacoma, [illegible] Taylor Way, Tacoma, WA [illegible]
Generator's Site Address (if different than mailing address):
Generator's Phone: [illegible]

6. Transporter 1 Company Name: [illegible] Environmental Services — U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name: NRC Environmental — U.S. EPA ID Number: [illegible]00044

8. Designated Facility Name and Site Address: Clean Harbors Environmental Services [illegible], [illegible] South Highway [illegible], [illegible] — U.S. EPA ID Number: [illegible]
Facility's Phone: [illegible]

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
[illegible]	1. HAZARDOUS WASTE, SOLID, N.O.S. [illegible], 9, NA3077, PG III	1	CM	21080	P	[illegible]
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
[illegible]
Gov # 77CC54

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. on behalf of The Port of Tacoma
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Chris Milewski	Chris Milewski	3	23	07

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	Brandon Baker	[signature]	3	23	07
Transporter 2	[illegible]	[signature]	3	26	07

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	03	28	07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

ENVIRONMENTAL SERVICES®

2247 South Highway 71
Kimball, NE 69145

308-235-4012
FAX 308-235-4307
www.cleanharbors.com

DATE: 3/28/2007

MANIFEST: 001018068FLE

Dear Valued Customer:

Clean Harbors Environmental Services, Inc. makes every effort to ensure that signed copies of manifests are returned to the waste generator as quickly as possible following receipt of your waste at our facility. This allows us to provide you with rapid verification that your waste shipment arrived safely at our waste management facility.

Once your waste has been received, Clean Harbors' personnel verifies that the quantity that has been received matches the quantity that was shipped. We also inspect the material to ensure that it meets the facility's waste acceptance criteria as described in our Waste Analysis Plan. Every effort is made to complete the waste verification as quickly as possible; however, it is possible that the signed copy of the manifest may be returned to you before the waste verification process is completed. If a significant discrepancy, as defined by US EPA regulations (40 CFR 264.72), is discovered during the waste verification process, we will contact you in order to reconcile the discrepancy. Additionally, we will make any corrections to the waste manifest that are necessary.

Please contact Dave Hickman (Compliance Specialist) at (308) 235-8228 if you have any questions or wish to discuss this issue further.

Sincerely,

Compliance Department

B070316

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
[illegible]	1	[illegible]	001018068 FLE

5. Generator's Name and Mailing Address
Port of Tacoma
3400 Taylor Way
Tacoma WA 98421
Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
NRC Environmental Services
U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name
NRC Environmental
U.S. EPA ID Number: ORG000020644

8. Designated Facility Name and Site Address
Clean Harbors Environmental Services Inc
2247 South Highway 71
Kimball NE 69145
Facility's Phone: (308) 235-4012
U.S. EPA ID Number: [illegible]

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. HAZARDOUS WASTE, SOLID, N.O.S., (BLAST DUST, DEBRIS), 9, NA3077, PG III	1	CM	12580	P	K088
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 [illegible]

Box # 27C1CC

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. on behalf of the Port of Tacoma
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Chris Milewski	[signature]	3	23	07

INT'L — 16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER — 17. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	Brandan L Baker	[signature]	03	23	07
Transporter 2	Tim Chinlund	[signature]	3	26	07

DESIGNATED FACILITY — 18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	3	26	07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

CleanHarbors
ENVIRONMENTAL SERVICES®

2247 South Highway 71
Kimball, NE 69145

308-235-4012
FAX 308-235-4307
www.cleanharbors.com

DATE: 5/11/2007

MANIFEST: 001018070FLE

Dear Valued Customer:

Clean Harbors Environmental Services, Inc. makes every effort to ensure that signed copies of manifests are returned to the waste generator as quickly as possible following receipt of your waste at our facility. This allows us to provide you with rapid verification that your waste shipment arrived safely at our waste management facility.

Once your waste has been received, Clean Harbors' personnel verifies that the quantity that has been received matches the quantity that was shipped. We also inspect the material to ensure that it meets the facility's waste acceptance criteria as described in our Waste Analysis Plan. In accordance with 40 CFR 264.12(b), Clean Harbors Environmental Services, Inc., Kimball Facility, has appropriate state and federal permits to accept, store, and/or treat the waste you shipped to our facility. Every effort is made to complete the waste verification as quickly as possible; however, it is possible that the signed copy of the manifest may be returned to you before the waste verification process is completed. If a significant discrepancy, as defined by US EPA regulations (40 CFR 264.72), is discovered during the waste verification process, we will contact you in order to reconcile the discrepancy. Additionally, we will make any corrections to the waste manifest that are necessary.

Please contact Dave Hickman (Compliance Specialist) at (308) 235-8228 if you have any questions or wish to discuss this issue further.

Sincerely,

Compliance Department

B0705034 & B0705035

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number [illegible]	2. Page 1 of 1	3. Emergency Response Phone [illegible]	4. Manifest Tracking Number 001018070 FLE

5. Generator's Name and Mailing Address: Port of Tacoma, 1400 Taylor Way, Tacoma, WA 98421

Generator's Site Address (if different than mailing address)

Generator's Phone: [illegible]

6. Transporter 1 Company Name: [illegible] — U.S. EPA ID Number [illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Environmental Services Inc, 2247 South Highway 71, Kimball, NE 69145 — U.S. EPA ID Number [illegible]

Facility's Phone: (308) 235-4012

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. [illegible]	1 2	CM	49000	lb	F038
X	2. Hazardous Waste, Solid, n.o.s. (K022 ...), 9, NA3077, PG III	1	CM	23480	lb	K022
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Box # 3253 (line 2)

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. on behalf of the Port of

Generator's/Offeror's Printed/Typed Name: Chris Malinski — Signature: [signature] — Month 4 Day 19 Year 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brandon Bruce — Signature: [signature] — Month 4 Day 19 Year 07

Transporter 2 Printed/Typed Name: Tim Winlun — Signature: [signature] — Month 5 Day 8 Year 07

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

[illegible]

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040 | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [illegible] — Signature: [signature] — Month 05 Day 09 Year 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Clean Harbors
ENVIRONMENTAL SERVICES®

2247 South Highway 71
Kimball, NE 69145

308-235-4012
FAX 308-235-4307
www.cleanharbors.com

DATE: 5/4/2007

MANIFEST: 001018069FLE

Dear Valued Customer:

Clean Harbors Environmental Services, Inc. makes every effort to ensure that signed copies of manifests are returned to the waste generator as quickly as possible following receipt of your waste at our facility. This allows us to provide you with rapid verification that your waste shipment arrived safely at our waste management facility.

Once your waste has been received, Clean Harbors' personnel verifies that the quantity that has been received matches the quantity that was shipped. We also inspect the material to ensure that it meets the facility's waste acceptance criteria as described in our Waste Analysis Plan. In accordance with 40 CFR 264.12(b), Clean Harbors Environmental Services, Inc., Kimball Facility, has appropriate state and federal permits to accept, store, and/or treat the waste you shipped to our facility. Every effort is made to complete the waste verification as quickly as possible; however, it is possible that the signed copy of the manifest may be returned to you before the waste verification process is completed. If a significant discrepancy, as defined by US EPA regulations (40 CFR 264.72), is discovered during the waste verification process, we will contact you in order to reconcile the discrepancy. Additionally, we will make any corrections to the waste manifest that are necessary.

Please contact Dave Hickman (Compliance Specialist) at (308) 235-8228 if you have any questions or wish to discuss this issue further.

Sincerely,

Compliance Department

[illegible] + [illegible]

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	[illegible]	1	[illegible]	001018069 FLE

5. Generator's Name and Mailing Address
Port of Tacoma
[illegible] Taylor Way
Tacoma, WA [illegible]
Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
[illegible] Environmental Services
U.S. EPA ID Number [illegible]

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Environmental Services Inc
[illegible] South Highway [illegible]
[illegible]
Facility's Phone: [illegible]
U.S. EPA ID Number [illegible]

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. HAZARDOUS WASTE, SOLID, N.O.S. ([illegible] DUST, DEBRIS) [illegible]	1 ~~X~~	CM	[illegible] ~~[illegible]~~	[illegible]	K088
X	2. Hazardous Waste, [illegible]	1	CM	[illegible]	P	K088
	3.					
	4.					

14. Special Handling Instructions and Additional Information
[illegible] Box # R18326 ML ([illegible])
R18355 ML ([illegible])

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
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Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Wm. D. Evans	[signature]	05	01	07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	BRANDON BAKER	[signature]	05	01	07
Transporter 2					

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
[illegible]
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	05	04	07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping