



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

SEP 21 2011

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-084

Mr. Shimon Mizrahi
Managing Partner
Rainier Commons, LLC
3317 3rd Avenue South
Seattle, Washington 98134

Re: Risk-Based Disposal Approval for Polychlorinated Biphenyl Waste at the Rainier Commons Facility, 3100 Airport Way South, Seattle, Washington, EPA ID No. WAD 05123 9994

Dear Mr. Mizrahi:

This letter provides approval under the authority of 40 Code of Federal Regulations (C.F.R.) §§ 761.61(c) and 761.62(c) for the sampling of polychlorinated biphenyl (PCB) remediation waste and disposal of bulk product waste located at the Rainier Commons Facility, 3100 Airport Way South, Seattle, Washington (RC Facility). This approval pertains to the sixth-floor stairwell project area in Building 6 of the RC Facility documented in the project proposal dated February 11, 2011, (Reference 1) and is subject to conditions established below. The rationale of the U.S. Environmental Protection Agency (EPA) for establishing these conditions is contained in the Statement of Basis appearing as Enclosure 2 of this letter.

This written decision for a risk-based method for disposal of PCB bulk product waste is based on documentation provided by Rainier Commons, LLC (Rainier) to the EPA identified in Enclosure 1 and supplemental information identified in Enclosure 2. In issuing this approval, the EPA finds that the method for sampling of PCB remediation waste and disposal of PCB bulk product waste, subject to the conditions below, will not pose an unreasonable risk of injury to health or to the environment. The terms and conditions of this approval are enforceable under the Toxic Substances Control Act (TSCA) and implementing regulations at 40 C.F.R. §§ 761.61(c) and 761.62(c). Any actions which deviate from the terms and conditions of this approval may result in administrative, civil, or criminal enforcement in accordance with Section 16 of TSCA, 15 U.S.C. § 2615.

Background

Any applied dried paint, wherever found, and including but not limited to paint on the surfaces of buildings at the RC Facility, which contains PCBs at a concentration of equal to or greater than 50 parts per million (ppm), lacks authorization for use under TSCA, and is classified as *PCB bulk product waste* according to 40 C.F.R. § 761.3. PCB bulk product waste must be disposed of pursuant to the requirements of 40 C.F.R. § 761.62. If any portion of the substrate of the buildings is found to also be contaminated by PCBs, then the contaminated substrate material is *PCB remediation waste* according to 40 C.F.R. § 761.3, and as such must be addressed in the manner prescribed by 40 C.F.R. § 761.61.

Existing sampling has documented the presence of applied dried paint containing PCBs at a concentration of greater than or equal to 50 ppm in multiple interior and exterior surface locations of buildings at the RC Facility, including the internal walls of the sixth and seventh-floor levels in the Building 6 stairwell of the RC Facility (References 1, 3, 4 and 5 of Enclosure 1). These areas are defined as the 6th floor stairwell project area in Condition 1 of this approval.

Rainier is authorized to remove the applied dried paint containing PCBs (PCB bulk product waste) via soda blasting using sodium bicarbonate, or other blasting media which may be suitable based on field conditions, from approximately 320 square feet of wall surface in the stairwell of Building 6 according to the terms and conditions of this approval. Removed paint and blasting media must be disposed of according to the applicable requirements of 40 C.F.R. § 761.62(a) and (b). Following this paint removal and disposal work, Rainier will evaluate the performance of the blasting method(s) used by measuring the extent to which any paint remains on the surface area, and will further assess whether there are PCBs in the substrate material. This evaluation and assessment will include visual observation of the surface area and sampling and analysis of the substrate material.

Rainier will provide the EPA with the evaluation and assessment information described above. Taking into account this information, the EPA will determine what additional action, if any, is necessary in the sixth-floor stairwell project area of Building 6. If further action, which could include additional paint removal and/or application of a protective coating or sealant to the surface area, is deemed necessary, the EPA will so inform Rainier, and Rainier will then submit a supplemental written application to the EPA for the performance of such further work. Upon approval by the EPA of this supplemental written application, and as a modification of the approval provided by this letter, Rainier will implement the further work as delineated by the EPA.

The EPA also expects to use the evaluation and assessment information provided by Rainier to develop appropriate performance standards for effective paint removal techniques, and for cleanup of PCBs that may remain in building substrate materials following paint removal. It is anticipated that these performance standards may then be used for the remaining interior and exterior surfaces of buildings at the RC Facility where there is applied dried paint containing PCBs at concentrations greater than or equal to 50 ppm. The EPA and Rainier are currently developing a schedule for the performance of such work by Rainier.

Conditions

- 1) Rainier is authorized to remove applied dried paint (PCB bulk product waste) via soda blasting, or other blasting media which may be suitable based on field conditions, and conduct post-blasting cleanup and removal of containment structures, as documented in Reference 1, in the 6th floor stairwell project area. For purposes of this approval, the 6th floor stairwell project area is defined as all vertical brick/mortar and concrete surfaces on the north and east walls of the 6th floor level and the north wall of the 7th floor level of Building 6 stairwell in the Rainier Commons complex that were in existence prior to installation of the associated stairwell. As part of this work, Rainier may divide the brick/mortar section of the project area into as many as four sub-sections to correlate blasting operating parameters (e.g., air pressure, quantity of blasting media per unit surface area, blasting media) to the degree of paint removal and the concentration of PCBs that may remain in the substrate materials. Rainier will prepare written and photographic field notes, including all blasting operating parameters. Rainier shall initiate the

work authorized by this condition within ten (10) working days following receipt of this approval.

- 2) Rainier shall dispose of the paint/blasting media as PCB bulk product waste pursuant to the requirements of 40 C.F.R. § 761.62(a) or (b), and shall also dispose of containment structure materials, personal protective equipment, and all non-liquid cleaning materials in a manner consistent with 40 C.F.R. § 761.61(a)(5)(v).
- 3) Within five (5) working days following completion of the paint removal work according to Condition 1, Rainier shall perform an evaluation of the performance of this work and of any remaining paint according to the requirements of Enclosure 3.
- 4) Within fifteen (15) working days following completion of paint removal work according to Condition 1, Rainier shall provide the EPA with a written report documenting the evaluation required by Condition 3. In addition to the text of this report, Rainier shall include complete supporting documentation, including field notes, photographic documentation, and the specific methodology, used to satisfy the requirement of Condition 3. This report will identify and document key operating parameters for media blasting as applied to each substrate material and any sub-sections of the project area, and will include the field notes required by Condition 1.
- 5) Within five (5) working days following completion of the work according to Condition 3, Rainier shall initiate sampling and analysis of distinct building substrate material (e.g., brick/mortar, and concrete) from which applied dried paint has been removed according to the requirements of Enclosure 4.
- 6) Within ten (10) working days following receipt of validated analytical data obtained from samples obtained pursuant to Condition 5, Rainier shall provide the EPA with a draft written report documenting the results of sampling of building substrate material pursuant to Condition 5. This report shall document the media blasting operating parameters used for each substrate material (brick/mortar and concrete) and any sub-sections of the project area.
- 7) In advance of the work authorized by this approval, Rainier shall provide written assurance to the EPA that all on-site personnel who will be conducting activities pursuant to this approval have appropriate qualifications and training for such work.
- 8) By no later than November 1, 2011, or such other time as agreed to by the EPA, Rainier shall provide a written request to the EPA for modification of this approval for authorization to conduct paint removal from the two interior spaces where PCBs remain in the paint at greater than or equal to 50 ppm (paint on the ceiling beam in Building 7 and paint in the second floor staircase in Building 24, as documented in References 3, 4 and 5). This modification request must include detailed plans and schedules that ensure that the corresponding work will be completed by no later than December 30, 2011, or such other time as agreed to by the EPA. Plans provided to the EPA pursuant to this condition must reflect any determinations made by the EPA and provided to Rainier based on the EPA's review of the reports required by Conditions 4 and 6.
- 9) Rainier shall be responsible for conducting all work subject to this approval according to a written health and safety plan to maintain a work environment, including use of personal protective equipment, which prevents dermal, inhalation, or other exposure to PCB bulk product waste, PCB remediation waste, and blasting media which may pose an unreasonable risk of injury to health and the environment. Rainier shall provide a copy of this written health and safety plan to the EPA at least five (5) working days prior to the start of work subject to this approval.

- 10) Rainier shall prepare and maintain records documenting completion of work according to the terms and conditions of this approval. At a minimum, records shall include all field notes and photographs of activities conducted pursuant to this approval. Records shall be maintained by Rainier for a minimum period of five years, following completion of work subject to this approval.
- 11) At least thirty (30) days prior to the effective date of any sale or transfer of ownership, in whole or part, of real property subject to requirements of this approval, Rainier shall provide a copy of this approval to all prospective owners. Rainier shall establish as an enforceable condition of such sale or transfer that each new owner must provide the EPA a written request to modify this approval to establish each owner as being responsible for compliance with the requirements of this approval.
- 12) Rainier is responsible for the actions of all officers, employees, agents, and contractors involved in activities conducted under this approval. Rainier shall provide each contractor conducting work subject to this approval a written or electronic copy of this approval at least five (5) working days prior to the start of such work.
- 13) Rainier shall allow authorized representatives of the EPA to inspect areas of the RC Facility subject to requirements of this approval at reasonable times, and to take samples as may be necessary to determine compliance with the PCB regulations and this approval. Any refusal by Rainier to allow access for inspection (as authorized by Section 11 of TSCA) or sampling may be grounds for enforcement.
- 14) Nothing in this approval relieves Rainier of any obligations to comply with all other rules and regulations applicable to the activities subject to this approval.
- 15) If any time before, during or after work required under this approval is completed or underway, Rainier possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application for this risk-based disposal approval) indicating that activities approved herein may pose an unreasonable risk of injury to health or the environment, Rainier must report such data, via facsimile or e-mail to the EPA within five (5) working days, and in writing to the Regional Administrator within thirty (30) calendar days, of first being made aware of that data. Rainier shall immediately cease all activities approved herein that may pose an unreasonable risk of injury to health or the environment. Such activities shall not resume until the EPA provides written notification that the activities in question no longer pose an unreasonable risk of injury to health or the environment.
- 16) The EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 15, or any other information available to the EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. Rainier may request modification of this approval by providing written notice to the EPA. If the EPA agrees with a request for modification, the EPA will provide written approval to Rainier. Prior to obtaining written approval of a modification request, Rainier shall comply with the existing approval conditions.
- 17) Submissions, reports, or notices required by or submitted pursuant to this approval shall be provided to the EPA as follows:

EPA: Edward J. Kowalski, Director
Office of Compliance and Enforcement
EPA Region 10
1200 6th Ave., Suite 900, MS OCE-164
Seattle, WA 98101

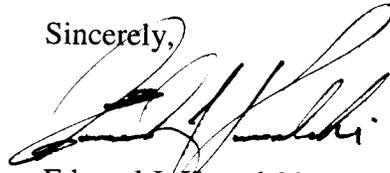
E-mail: Kowalski.edward@epa.gov
Facsimile: (206) 553-7176

With copies to Dave Bartus
Office of Air, Waste and Toxics
EPA Region 10
1200 6th Ave., Suite 900, MS AWT-122
Seattle, WA 98101

E-mail: Bartus.dave@epa.gov
Facsimile: (206) 553-8509

Should you have any questions or comments, please contact Dave Bartus at (206) 553-2804, or Bartus.dave@epa.gov.

Sincerely,



Edward J. Kowalski
Director

Enclosures

1. Risk-Based Disposal Approval – Supporting Documentation
2. Statement of Basis
3. Performance Evaluation Requirements for Paint Removal via Soda Blasting
4. Substrate Sampling and Analysis for Paint Removal via Soda Blasting

cc: Lenford O'Garro
Washington State Department of Health

Arnaud Girard
King County Wastewater Treatment Division

Brian Robinson
Seattle Public Utilities

Beth Schmoyer
Seattle Public Utilities

Richard Thomas
Washington State Department of Ecology

Erin Kochaniewicz
Washington State Department of Health

Enclosure 1
Risk-Based Disposal Approval
Rainier Commons, Seattle, Washington

Supporting Documentation

- 1) Letter, "Rainier Commons, LLC – Old Rainier Brewery Paint Abatement," Jo M. Flannery, Ryan, Swanson & Cleveland, PLLC, to Richard Mednick, EPA Region 10, dated February 11, 2011.
- 2) E-mail, "FW: Building 6 – Level 6 – Stairwell," Jo M. Flannery, Ryan, Swanson & Cleveland, PLLC to Richard Mednick, EPA Region 10, dated 2/28/2011.
- 3) Site Specific Sampling Plan, Rainier Commons PCB, Ecology and Environment Inc., 5/19/2010.
- 4) Analytical Report, Job Number: 580-19886-1, Test America, 06/25/2010
- 5) "Sampling and Analysis Plan for Three Interior surfaces, Rainier Commons Facility, 3100 Airport Way S., Seattle, WA," Prepared by CDM, Bellevue, WA, dated October 19, 2010.
- 6) Inspection Report, Lower Duwamish Waterway, King County Industrial Waste, Seattle Public Utilities Local Hazardous Waste Management Program, conducted at Rainier Commons LLC 10/12/2005.
- 7) E-mail, "FW: NVL Labs Online - Requested Results," Lior Abada, Rainier Commons, LLC to Dave Bartus, United States Environmental Protection Agency, Region 10, dated July 14,2011.
- 8) Report, "Catch Basin Sediment Field Sampling Results Report," Vernon Environmental, Inc., dated June, 2006.

Enclosure 2

Statement of Basis Risk-Based Disposal Approval Rainier Commons, Seattle, Washington

Background

The Lower Duwamish Waterway (“LDW”) is a navigable water of the United States which receives discharges of water and solids from various sources. Due in large part to the presence of PCBs, the LDW has been placed on the list of priority hazardous sites established for cleanup by the EPA in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”).

As part of uplands source control work associated with the LDW, the City of Seattle Public Utilities Department (SPU) conducted an inspection of the storm water drainage system at the Rainier Commons Facility (RC Facility), located at 3100 Airport Way S., Seattle, Washington, in 2005 (Reference 6)¹. The results of this action indicted the presence of polychlorinated biphenyls at concentrations ranging from 17 to 2,200 parts per million (“ppm”). In 2006, Rainier Commons, LLC (Rainier) performed additional sampling and analysis of the storm water drainage system at the RC Facility (Reference 8). Results of this analysis of sediment samples showed there to be PCBs in this system at concentrations ranging from 3.2 to 9.8 ppm. These sample results confirmed that the storm water system at the RC Facility demonstrated that the water and solids discharged from the storm water drainage system at the RC Facility are a potential source of PCBs to the LDW.

Suspecting that a potential source of these PCBs was dried paint which had peeled and dislodged from buildings at the RC Facility, Rainier obtained a sample of dried paint in 2006 from the exterior surface of one of these buildings. The analysis of this sample showed there to be PCBs in the dried paint at a concentration of 2,300 ppm. In 2009, the U.S. Environmental Protection Agency conducted two inspections at the RC Facility. During these inspections, the EPA observed dried paint peeling from the exterior surfaces of buildings, and also found pieces of dried paint on ground surfaces and in the storm water drainage system. Sampling of exterior paint on the RC Facility buildings indicated the presence of PCBs in numerous locations, including 18,000 ppm PCBs in dried paint on the exterior surface of Building 6.

The use of PCBs, other than in a totally enclosed manner, has been prohibited by Section 6(e)(2)(A) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e)(2)(A). PCBs in paint is not identified at

¹In the context of finding contaminant sources to LDW sediments, SPU “traces” sources by sampling the storm water solids that collect in catch basins, manholes, in-line sediment traps, or other structures. These structures are located primarily within public rights-of-way, but also on private properties which are sampled during storm water site inspections. In general, SPU uses 1 ppm (solids, dry weight, total PCBs) as a signal the additional investigation and source control are needed.

40 Code of Federal Regulations (C.F.R.) § 761.20 as the use of PCBs in a totally enclosed manner. Further, 40 C.F.R. § 761.30 does not authorize the use of PCBs in paint.

Under TSCA and implementing regulations at 40 C.F.R. Part 761, PCBs not authorized for use must be disposed of in accordance with Federal law. Any applied dried paint, wherever found, which contains PCBs at a concentration of equal to or greater than 50 ppm is *PCB bulk product waste* according to 40 C.F.R. § 761.3, and as such must be disposed of pursuant to the requirements of 40 C.F.R. § 761.62. If any portion of the substrate of buildings is found to also be contaminated by PCBs, then the contaminated material is *PCB remediation waste* according to 40 C.F.R. § 761.3, and as such must be addressed in the manner prescribed by 40 C.F.R. § 761.61.

Rainier has already established certain interim measures to control further migration of PCBs into the LDW through the storm sewer system, and to control human exposure to paint chips and dust which may enter or be tracked into occupied spaces in the RC Facility. These steps include filter fabric in storm sewer drains, and periodic vacuuming of the building grounds to collect paint chips and properly dispose of them.

As an initial step to removing paint containing PCBs, and as a means of evaluating potential paint removal techniques that may be applied elsewhere in the RC Facility, Rainier will be removing paint from concrete and masonry surfaces in the 6th floor stairwell project area. As noted above, very high concentrations of PCBs (up to 22,700 ppm) have been found in existing and former exterior surfaces of this building, which now form part of the stairwell. This area is a priority area for abatement given the concentration of PCBs in the paint at the 6th floor stairwell project area, and its now-enclosed proximity to occupied spaces. Floors one through five of the subject stairwell have been inspected. Since these walls are not painted, PCBs are not suspected to be present there.

Rainier will be removing affected paint from approximately 320 square feet of wall surface in the 6th floor stairwell project area via blasting using soda (sodium bicarbonate) or other blasting media, and disposing of the removed paint and blasting media, according to the requirements of this approval. Following paint removal, Rainier will perform an evaluation of the performance of paint removal via blasting, and conduct sampling and analysis to evaluate the quantity and concentration of PCBs which may remain in substrate building materials from which paint has been removed.

EPA's Evaluation of Rainier's Risk-Based Disposal Approval Application

As noted above, any applied dried paint, wherever found, which contains PCBs at a concentration of equal to or greater than 50 ppm is PCB bulk product waste according to 40 C.F.R. § 761.3. Such material lacks authorization for use, and consequently must be removed from service and disposed of as PCB bulk product waste.

Rainier has proposed soda (sodium bicarbonate) blasting as a technique for removal of applied dried paint containing PCBs that lacks authorization for use, and has determined that this technology will remove such paint in a manner that does not adversely affect the structural integrity or longevity of the concrete and masonry surfaces which underlies the paint. The EPA currently lacks sufficient data to show the degree to which soda blasting will remove the applied dried paint, and hence whether additional or alternate paint removal technologies, such as use of blasting media other than sodium bicarbonate, may be required. The EPA is establishing requirements in this approval to quantify the

level of performance of soda blasting by visual means. Using the protocol documented in Enclosure 3, Rainier will measure the percentage of the surface area that has been cleaned via soda blasting from which paint is fully removed. Data quantifying the extent to which soda blasting completely removes paint will provide the EPA with a basis to determine whether soda blasting is a suitable technology for paint removal at the remainder of the RC Facility, and whether additional paint removal actions may be necessary.

The EPA discussed the proposed work during a site visit on July 6, 2011, with a Rainier representative and the blasting contractor Rainier expects to use for work authorized by this approval. During this site visit, the blasting contractor confirmed that soda blasting is likely to be effective, but that if soda blasting is not fully successful in achieving complete removal of paint containing PCBs, evaluation of alternate, more aggressive blasting media may be warranted. Given that one of the objectives of the 6th floor stairwell project area paint removal project is to evaluate the effectiveness of alternate blasting media, the EPA is explicitly authorizing use of blasting media other than soda at the discretion of Rainier and its media blasting contractor.

Following the evaluation of paint removal discussed above, this approval requires Rainier to sample the substrate material (brick, mortar, concrete) from which paint has been removed to evaluate whether and to what extent there are PCBs in this material. This work requirement is being established pursuant to the risk-based disposal approval authority for PCB remediation waste at 40 C.F.R. § 761.61(c). The sampling protocol to be used is documented in Enclosure 4, and is designed to obtain representative samples of the surface of the cleaned substrate material without unduly affecting the appearance of this substrate material following sampling. Data characterizing PCBs whether and to what extent there are PCBs in the substrate material will provide the EPA a basis to evaluate the appropriate next steps for addressing any PCB remediation waste. This could range from no further actions being required (if justified by the concentration and location of the PCBs), to the selection and application of appropriate sealants/coatings so that the PCB remediation waste will not pose an unreasonable risk of injury to human health or the environment. If the EPA's review of substrate sampling data indicates the need for further remediation activities, the EPA will require Rainier to develop and submit to the EPA a risk-based plan under 40 C.F.R. § 761.61(c). If acceptable to the EPA, the additional work will be authorized through a modification to this risk-based disposal approval.

Discussion of Conditions

- 1) Rainier is authorized to remove applied dried paint (PCB bulk product waste) via soda blasting, or other blasting media which may be suitable based on field conditions, and conduct post-blasting cleanup and removal of containment structures, as documented in Reference 1, in the 6th floor stairwell project area. For purposes of this approval, the 6th floor stairwell project area is defined as all vertical brick/mortar and concrete surfaces on the north and east walls of the 6th floor level and the north wall of the 7th floor level of Building 6 stairwell in the Rainier Commons complex that were in existence prior to installation of the associated stairwell. As part of this work, Rainier may divide the brick/mortar section of the project area into as many as four sub-sections to correlate blasting operating parameters (e.g., air pressure, quantity of blasting media per unit surface area, blasting media) to the degree of paint removal and the concentration of PCBs that may remain in the substrate materials. Rainier will prepare written and photographic field notes, including all blasting operating parameters. Rainier shall initiate the work authorized by this condition within ten (10) working days following receipt of this approval.

This condition provides authorization to remove from service applied dried paint from the Building 6 stairwell. Rainier's risk-based disposal approval written application (Reference 1) anticipated treating the entire project area within the stairwell as a single unit, with paint removal to be conducted uniformly over the entire area. During discussion of the proposed work on June 28, 2011, the EPA and Rainier recognized that it may be beneficial to use a more aggressive media blasting than would be required solely to remove paint from the surface area, as such an approach could potentially remove additional substrate materials containing PCBs which may have migrated from the paint source.

Since one purpose of the stairwell paint removal as authorized by this approval is to obtain data to characterize the effectiveness of media blasting technique(s), the EPA supports the option of evaluating the effect of various media blasting technique operating parameters, including the choice of blasting media, and the associated degree to which PCBs may be reduced or eliminated in the substrate materials. The EPA is authorizing field changes to media blasting technique operating parameters, including the choice of blasting media, consistent with the stated goals of complete removal from service of applied dried paint containing PCBs at concentrations greater than or equal to 50 ppm. These data are anticipated to be useful in establishing requirements for removal of applied dried paint from exterior surfaces of the RC Facility buildings, which are primarily brick construction.

The EPA recognizes that work authorized by this approval may involve re-cleaning of some or all of the project area in order to meet the objective of complete removal from service of applied dried paint. If re-cleaning of the project area, or of selected sub-areas, is conducted, post-paint-removal sampling and analysis should be conducted only following re-cleaning and satisfaction of the goal of complete removal from service of dried applied paint. However, field documentation (field notes and photographs) are to be maintained to describe initial and re-cleaning procedures for purposes of evaluating appropriate application of media blasting to remaining interior and exterior areas of the RC complex requiring paint removal.

The project area subject to this approval contains both brick/mortar and concrete substrates. Initial scoping of the 6th floor stairwell project area indicated that the only concrete area with paint containing PCBs greater than 50 ppm was located on the north wall of the 6th floor level of the Building 6 stairwell. During a field visit with RC and the EPA on June 30, 2011, RC noted that similar paint was located on concrete surfaces on the east wall of the 6th floor level of the stairwell, and on the north wall of the 7th floor level of the stairwell. Subsequent to the site visit, RC voluntarily obtained paint samples from these areas, and reported them to the EPA via e-mail of July 14, 2011, (Reference 7). The reported sample results indicated that paint on these two areas did in fact contain PCBs greater than 50 ppm. As a result, the EPA is including these areas within the scope of this authorization.

- 2) Rainier shall dispose of the paint/blasting media as PCB bulk product waste pursuant to the requirements of 40 C.F.R. § 761.62(a) or (b), and shall also dispose of containment structure materials, personal protective equipment, and all non-liquid cleaning materials in a manner consistent with 40 C.F.R. § 761.61(a)(5)(v).

This condition documents disposal requirements for wastes expected to be generated from the authorized work activities. Although the cited regulatory requirements are generally self-implementing, the EPA is including this condition for the sake of clarity and completeness.

- 3) Within five (5) working days following completion of the paint removal work according to Condition 1, Rainier shall perform an evaluation of the performance of this work and of any remaining paint according to the requirements of Enclosure 3.
- 4) Within fifteen (15) working days following completion of paint removal work according to Condition 1, Rainier shall provide the EPA with a written report documenting the evaluation

required by Condition 3. In addition to the text of this report, Rainier shall include complete supporting documentation, including field notes, photographic documentation, and the specific methodology, used to satisfy the requirement of Condition 3. This report will identify and document key operating parameters for media blasting as applied to each substrate material and any sub-sections of the project area, and will include the field notes required by Condition 1.

Since applied dried paint containing PCBs at concentrations greater than or equal to 50 ppm lacks authorization for continued use, the EPA expects that such paint will be removed from service. However, there is a current lack of information to show whether the soda blasting technology is capable of achieving such removal, or what particular operating parameters may be associated with successful application of soda blasting. The evaluation and report required by conditions 3 and 4 are anticipated to provide these data. The EPA expects to use these data in evaluating future proposals from Rainier for interior and exterior paint removal, and to establish performance standards for such work.

- 5) Within five (5) working days following completion of the work according to Condition 3, Rainier shall initiate sampling and analysis of distinct building substrate material (e.g., brick/mortar, and concrete) from which applied dried paint has been removed according to the requirements of Enclosure 4.
- 6) Within ten (10) working days following receipt of validated analytical data obtained from samples obtained pursuant to Condition 5, Rainier shall provide the EPA with a draft written report documenting the results of sampling of building substrate material pursuant to Condition 5. This report shall document the media blasting operating parameters used for each substrate material (brick/mortar and concrete) and any sub-sections of the project area.

PCBs in building materials such as paint and caulk may migrate into underlying building substrates. Although some *ad hoc* sampling of building substrate material has been conducted, the associated data are inadequate to evaluate what quantity and/or concentration of PCBs may remain in the RC Facility building substrate materials. The requirements of Conditions 5 and 6 are anticipated to provide such data. The EPA will use these data both to evaluate what future requirements, if any, are necessary to ensure that residual PCBs remaining in the project area do not pose an unreasonable risk of injury to health and the environment, as well as for areas subject to additional interior and exterior paint removal.

- 7) In advance of the work authorized by this approval, Rainier shall provide written assurance to the EPA that all on-site personnel who will be conducting activities pursuant to this approval have appropriate qualifications and training for such work.

This condition ensures that workers have the appropriate training to conduct work authorized by this approval in a safe manner. While the EPA is not specifying the particular training requirements, the EPA expects they will include applicable Community and Worker Right-to-Know and Chemical Hazard Communication information.

- 8) By no later than November 1, 2011, or such other time as agreed to by the EPA, Rainier shall provide a written request to the EPA for modification of this approval for authorization to conduct paint removal from the two interior spaces where PCBs remain in the paint at greater than or equal to 50 ppm (paint on the ceiling beam in Building 7 and paint in the second floor staircase in Building 24, as documented in References 3, 4 and 5 of Enclosure 1). This modification request must include detailed plans and schedules that ensure that the corresponding work will be completed by no later than December 30, 2011, or such other time as agreed to by the EPA. Plans provided to the EPA pursuant to this condition must reflect any determinations made by the EPA and provided to Rainier based on the EPA's review of the reports required by Conditions 4 and 6.

Existing characterization sampling and analysis data indicates that two additional interior areas at the Rainier Commons facility have paint containing PCBs at greater than or equal to 50 ppm (References 3, 4 and 5 of Enclosure 1). This condition establishes the requirement for Rainier to provide the EPA with plans and schedules for removal of this paint. Following receipt of this application, the EPA anticipates establishing work requirements as a modification to this approval that reflect data and experience gained through the Building 6 stairwell paint removal and sampling and analysis work.

- 9) Rainier shall be responsible for conducting all work subject to this approval according to a written health and safety plan to maintain a work environment, including use of personal protective equipment, which prevents dermal, inhalation or other exposure to PCB bulk product waste, PCB remediation waste, and blasting media which may pose an unreasonable risk of injury to health and the environment. Rainier shall provide a copy of this written health and safety plan to the EPA at least five (5) working days prior to the start of work subject to this approval.

Similar to Condition 7, this condition will ensure that work authorized by this approval will be conducted in a manner that does not pose an unreasonable risk of injury to health or the environment.

- 10) Rainier shall prepare and maintain records documenting completion of work according to the terms and conditions of this approval. At a minimum, records shall include all field notes and photographs of activities conducted pursuant to this approval. Records shall be maintained by Rainier for a minimum period of five years following completion of work subject to this approval.

This condition establishes recordkeeping requirements that will allow the EPA to confirm that work conducted pursuant to this approval reflects full compliance with the approval's conditions.

- 11) At least thirty (30) days prior to the effective date of any sale or transfer of ownership, in whole or part, of real property subject to requirements of this approval, Rainier shall provide a copy of this approval to all prospective owners. Rainier shall establish as an enforceable condition of such sale or transfer that each new owner must provide the EPA a written request to modify this approval to establish each owner as being responsible for compliance with the requirements of this approval.

This condition ensures that any prospective purchaser of the RC facility is fully aware of the requirements of this approval, and is willing and able to assume responsibility for complying with its requirements following sale or transfer of the property.

- 12) Rainier is responsible for the actions of all officers, employees, agents and contractors involved in activities conducted under this approval. Rainier shall provide each contractor conducting work subject to this approval a written or electronic copy of this approval at least five (5) working days prior to the start of such work.

This condition ensures that all individuals and organizations who will be conducting work authorized by this approval are aware of the conditions and requirements of the approval, and that Rainier has responsibility for ensuring compliance with the approval.

- 13) Rainier shall allow authorized representatives of the EPA to inspect areas of the RC Facility subject to requirements of this approval at reasonable times, and to take samples as may be necessary to determine compliance with the PCB regulations and this approval. Any refusal by Rainier to allow access for inspection (as authorized by Section 11 of TSCA) or sampling may be grounds for enforcement.

This condition ensures that the EPA has adequate access to the RC facility to ensure full compliance with requirements of this approval.

- 14) Nothing in this approval relieves Rainier of any obligations to comply with all other rules and regulations applicable to the activities subject to this approval.

This condition establishes that this approval under TSCA does not relieve Rainier of any other obligation that it may have with respect to the approved activities.

- 15) If any time before, during, or after work required under this approval is completed or underway, Rainier possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application for this risk-based disposal approval) indicating that activities approved herein may pose an unreasonable risk of injury to health or the environment, Rainier must report such data, via facsimile or e-mail to the EPA within five (5) working days, and in writing to the Regional Administrator within thirty (30) calendar days, of first being made aware of that data. Rainier shall immediately cease all activities approved herein that may pose an unreasonable risk of injury to health or the environment. Such activities shall not resume until the EPA provides written notification that the activities in question no longer pose an unreasonable risk of injury to health or the environment.
- 16) The EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 15, or any other information available to the EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. Rainier may request modification of this approval by providing written notice to the EPA. If the EPA agrees with a request for modification, the EPA will provide written approval to Rainier. Prior to obtaining written approval of a modification request, Rainier shall comply with the existing approval conditions.

Conditions 15 and 16 ensure that if any information not available to the EPA at the time this approval is issued becomes known, it will be made available to the EPA for purposes of ensuring that activities subject to this approval continue to pose no unreasonable risk of injury to health or the environment. These conditions also ensures the EPA's ability to make changes to the authorized activities, including withdrawing approval, as necessary to ensure no unreasonable risk of injury to health or the environment.

- 17) Submissions, reports, or notices required by or submitted pursuant to this approval shall be provided to the EPA as follows:

EPA: Edward J. Kowalski, Director
Office of Compliance and Enforcement
EPA Region 10
1200 6th Ave., Suite 900, MS OCE-164
Seattle, WA 98101

E-mail: Kowalski.edward@epa.gov
Facsimile: (206) 553-7176

With copies to:

Dave Bartus
Office of Air, Waste and Toxics
EPA Region 10

1200 6th Ave., Suite 900, MS AWT-122
Seattle, WA 98101

E-mail: Bartus.dave@epa.gov
Facsimile: (206) 553-8509

Enclosure 3

Performance Evaluation Requirements for Paint Removal via Soda Blasting Rainier Commons, Seattle, WA

Following completion of soda blasting, cleanup of removed paint and blasting media, and removal of containment structures, a rectilinear visual evaluation grid will be established that generally covers each distinct building substrate (e.g., brick/mortar, concrete, stone) from which paint has been removed. Each axis of each rectilinear grid will be divided into ten equal segments, and numbered from 1-10. Chalk lines can be used to lay out the rectilinear grid pattern.

Next, a series of ten (x,y) coordinates will be selected, with each x and y coordinate being randomly selected (using a “pick from the hat methodology,” or via a random number generator that produces integers in the closed interval [1, 10]) and that corresponds to one of the x or y axis segments. The intersection of the x and y grid segments will be a grid element. If the corresponding rectilinear grid element to any particular (x, y) point includes paint that has not been obviously removed via soda blasting, that (x, y) pair will be discarded, and another chosen until a set of ten grid elements are chosen within the rectilinear grid system where paint has been obviously removed over the entire grid element. The final set of grid elements will be recorded.

Next, the cleaned surface within each of the selected grid elements will be examined, by visual means without magnification, to evaluate the percentage of the surface area of each grid element from which paint is fully removed. Observations, including supporting photographic documentation with adequate lighting and resolution to allow subsequent verification of field visual examination, must be documented in writing. Field observations must include a description of any visible paint, such as whether it occurs over contiguous areas within a grid element, in isolated cracks, pits or crevices, etc. This process will be repeated for each distinct building substrate material.

Rainier may apply soda blasting to as many as four sub-sections of the project area to correlate soda blasting operating parameters (e.g., air pressure, quantity of blasting media per unit surface area, etc.) to the concentration of PCBs that may remain in substrate material. If Rainier elects to do so, then the visual evaluation procedure documented above will be applied to each sub-section of the project area.

The EPA recognizes that alternate grid arrangements other than the specified 10x10 grid may be more practicable for the concrete substrate that is part of the Building 6 stairwell paint removal activity. Documented field modifications to the specified grid arrangement that result in an equivalent number of grid elements evaluated and that provide grid elements representative of the cleaned substrate will be acceptable to the EPA.

Enclosure 4

Substrate Sampling and Analysis Requirements for Paint Removal via Soda Blasting

Rainier Commons, Seattle, WA

Condition 5 of the risk-based disposal approval for Rainier establishes a requirement for sampling and analysis of building substrate materials from which PCB-containing paint has been removed via soda blasting. The EPA is establishing this requirement to evaluate the extent to which PCBs from paint may have migrated into substrate materials. The EPA intends to use this data to evaluate whether or not encapsulation, monitoring, and institutional controls which may be necessary to meet the no unreasonable risk of injury to health or the environment standard of 40 C.F.R. § 761.61(c). The purpose of this Enclosure is to document the sampling and analysis requirements which must be satisfied.

Sampling Objective

The objective of this sampling methodology is to obtain a representative sample of substrate material in close contact to PCB-containing paint without unduly diluting the sample with “clean” substrate material further below the surface.

Sampling Methodology

Prior to the start of sampling, residual paint, dust and blasting media should be removed from the surfaces to be sampled as part of general paint removal cleanup. Since one of the objectives of sampling is to evaluate the performance of soda blasting, cleanup should not use any abrasive or aggressive cleaning techniques, or any soap, solvent or other surfactant that might remove PCBs which would otherwise remain on or in the substrate after soda blasting other than residual dust, paint or blasting media. The walls may be wiped down with a damp rag to remove the surficial dust.

Using the set of random grid elements selected according to Enclosure 3, randomly select five of the grid elements for each distinct building substrate material (i.e., brick, concrete) from which paint has been removed. Since substrate material removal to obtain samples (as described in the following paragraph) may generate dust or particulates that could cross-contaminate other grid elements to be sampled, the EPA recommends that all grid elements to be sampled (except for the first grid element to be sampled) be covered with paper or plastic film prior to sampling. The paper or plastic film can then be removed just prior to each subsequent sample being obtained. Painters or masking tape may be used to secure the paper or plastic film, provided the tape adhesive is placed at least 1-2 cm from the area from which sample will be obtained. Since the PCB concentration in the substrate material is not known, appropriate dust control practices, use of personal protective equipment (PPE), and post-sampling cleanup equipment, must be in place during sampling.

From each grid element, collect one 1-inch diameter by 1-inch deep core sample per 250 cm² of each grid element, rounded to the nearest integral number of core samples, evenly distributed within the grid element. For example, if a grid element is 1000 cm,² four core samples would be required. The number of samples may be rounded to the nearest integral number of samples. The purpose of obtaining multiple core samples is to evaluate the average concentration of PCBs remaining within each grid element. Field modifications to this requirement with EPA approval are acceptable. Core samples will be obtained using standard concrete coring methodology. The diameter of the final core must be at least 1 inch, so a

larger core size (e.g., 1.25 inch) may be necessary. The core will be collected by coring to the specified depth, then using a small chisel and hammer, break the core loose from the substrate.

Once collected the core should be briefly rinsed with water to remove particulates generated during coring. The sample core will be placed into a laboratory supplied glass container labeled, and submitted to the analytical laboratory. The laboratory will section off and analyze the top 0.25 inch of the core. Multiple core sections from each grid element will be composited by the laboratory following sectioning. The remainder of each core will be archived by the laboratory for potential future analysis.

At its discretion, Rainier may elect to apply soda blasting to up to four distinct sub-sections of brick/mortar substrate to correlate media blasting operating parameters (e.g., air pressure, quantity of blasting media per unit surface area, choice of blasting media, etc.) to the concentration of residual PCBs remaining in substrate material. If Rainier elects to do so, Rainier will apply the sampling protocol described above to each sub-subsection of brick/mortar substrate, and the number of grid elements selected from each sub-section of brick/mortar substrate may be reduced to from five to three within each sub-section.

Sampling Nomenclature and Documentation

Each collected sample will be provided with a unique identifier consisting of the sample x,y coordinates and the sample type (i.e., brick, concrete). For example, the second core from a brick grid element collected from x coordinate 6 and y coordinate 2 will be identified as: 6, 2-B-2.

Field Quality Assurance/Quality Control

One field duplicate must be obtained from each distinct building substrate (brick, concrete), selected randomly from the set of grid elements for each substrate. The field duplicate will be collected by extending a second set of core samples adjacent to the randomly-selected grid element, with the number and location of field duplicate core samples selected as described above under "Sampling Methodology." One field blank must be obtained from building substrates comparable to distinct building substrate sampled that is within the stairwell area but has not received paint. The field blank may be a single core sample.

One equipment decontamination blank will be collected from re-usable sampling equipment each day. The equipment decontamination blank will consist of a hexane rinse.

All samples must be managed under chain-of-custody control.

Analysis

Samples will be analyzed for total PCBs, reported as measured by Aroclor mixture, using EPA SW-846 Method 8082, with sample extraction performed using EPA SW-846 Method 3540C (Soxhlet extraction) to ensure representative extraction from sample media. Other sample extraction methods may be used with prior written approval by the EPA.

Data Quality Acceptance Criteria

Data from analysis of samples must meet the following data quality criteria to be acceptable for use:

Sensitivity: A maximum reporting/detection limit of 1 part per million.

Equipment Decontamination

All nonporous tools and equipment used for sampling must be cleaned and decontaminated before use, and after each sample is obtained. Porous materials such as grinding wheels/disks, if used, cannot be

reliably decontaminated between uses, and must be discarded after each use. Cleaning/decontamination should be accomplished according to the following procedure:

- 1) Prepare two decontamination buckets, the first containing potable or organic-free water and a suitable residue-free detergent according to manufacturer's directions. The second bucket should contain potable or organic-free rinse water. Place all used tools and equipment in the detergent/water bucket, and scrub each piece thoroughly using a scrub brush. Next, rinse each item in the rinse bucket, and then rinse with hexane, either from a laboratory wash bottle, or using a hexane-moistened paper towel or wipe. Take care to properly dispose of spent hexane and wipes. Place the cleaned and rinsed items on a clean surface in an area where free of dust from sampling activities, and allow to thoroughly air dry prior to re-use.
- 2) Lightly-contaminated items and items that cannot be immersed in water (e.g., the motorized part of the coring device) may be cleaned by wiping with a hexane-moistened paper towel or wipe.
- 3) Clean, previously unused disposable gloves must be used at each sample location.