Enclosure 2

Statement of Basis
Amendment 9 to the 40 C.F.R. §§ 761.61(c) and 761.62(c) Risk-Based Disposal Approval for Polychlorinated Biphenyl Bulk Product Waste at the Rainier Commons Facility, Phase III
3100 Airport Way South, Seattle, Washington
EPA ID No. WAD 05123 9994

Background:

The original RBDA (Reference 1) establishes the baseline removal, disposal, control and monitoring activities that Rainier is required to carry out. Eight amendments (References 4-10) have thus far been issued which supplement the requirements in the RBDA through additional conditions. Amendment 1 laid out the conditions specific to Phase I of the abatement (Building 13 and west elevations of Building 10 and 11). Amendment 2 modified Amendment 1 and expired July 7, 2014. Amendment 3 modified Amendment 1 specific to terms of air monitoring conditions. Amendment 4 approved removal of paint from the south side of Building 15 (Phase IIa). Amendment 5 captured technical changes to the particulate monitoring plan that the EPA and Rainier informally agreed to during remediation activities, but due to timing constraints was not formally issued by the EPA until it was added to Amendment 7. Amendment 6 modified Condition 8 of the RBDA to remove sandstone from further substrate sampling requirements. Amendment 7 approved the completion of Phase IIa and removed concrete substrate from further sampling requirements. Amendment 8 approved abatement of Phase IIb of the campus (Buildings 6 west, 7 west and south, 8 elevator control room and parapet walls, 9 elevator shaft and parapet walls, 10 south, and the Catwalk), and approved changing monitoring from air sampling to wipe sampling, as well as changing the selection catch basins for monitoring and timing for catch basin sample collection. The EPA also issued a letter acknowledging completion of Phase I (Reference 11).

Abatement Plan:

Rainier will remove paint from exterior surfaces through pressure blasting using a copper slag sand mixture in a fully contained enclosure with secondary containment. Blasting will be followed by hand grinding and scraping where blasting does not completely remove the paint. A dust collector such as the Cyclone 12 DC or equivalent will collect the dust generated by sandblasting. The dust collector will be equipped with a purge system that back blows the filters with a blast of compressed air. The dust then settles into a hopper which will be vacuumed with a sand retriever and disposed of as PCB bulk product waste.

Sandblasting is not appropriate for all features of Phase III. Items constructed of metal may be removed, disposed, and replaced by new materials. These include the flashing and caps on the roofs of Buildings 3, 4, 5a, 7, 12, and 15, as described in Condition 14 of Amendment 9, metal window frames, and other metal components identified during pre-blasting inspection inside the Negative Pressure Enclosure (NPE). To ensure any applied paint on components being removed and replaced will not be disturbed, a combination of poly sheeting and duct tape will be applied to all exposed surfaces prior to removal. Any cutting to reduce the size of components for disposal and transportation will be performed inside an NPE. All removed materials and containment poly sheeting will be loaded into containers in accordance with the DOT Hazardous Materials Regulations at 49 C.F.R**. §§** 171 through 180, labeled as PCB bulk-

product waste, characterized per the waste handler requirements, and properly disposed of as PCB bulk product waste.

Other small areas of painted metal will remain in place and be treated with a chemical stripper. Rainier currently anticipates this will only be applied to window frames, but pre-blasting inspection within the NPE may identify other components Rainier wishes to abate with chemical stripper rather than disposing of the component or abating it with sand blast. All window frames in Phase III are subject to chemical stripping except for Building 21, 22, 24, and 25. These window frames are not painted. Piranha 4 is the gel solvent selected by Rainier to abate these areas. Although chemical stripping does not require negative air containment, any chemical stripping will be conducted inside the containment, under negative air pressure. To protect against rust and corrosion abated window frames will be treated with appropriate primer and topcoat after visual inspection and clearance and prior to NPE breakdown. All resultant waste materials will then be wrapped together and stored in containers based on the original PCB concentration in the adhered paint, or in lieu of further testing, based on an assumed concentration of 50 ppm or greater. Materials shall be disposed of as PCB waste in accordance with 40 C.F.R. § 761.62.

The RBDA approves the use of copper slag or chemical strippers. If Rainier determines that a remediation method other than those listed above is necessary, or if different blast media or chemical strippers are required, Rainier will seek the EPA approval prior to implementing a change.

Condition 4 of Amendment 9 requires all personnel conducting blasting to be HAZWOPER certified and to don full body disposable suits with hoods and booties, full face supplied air pressure demand respirators, hard hats, safety vests, cut resistant gloves, eye protection, protective footwear, and hearing protection. There will be first aid and CPR trained employee on site as well.

Several areas of the Phase III work require specific means of protection. These include roof mounted HVAC equipment, heat exchange units (air conditioners), air ducts, and furnace concentric vents. Condition 5 and Reference 2, Exhibit 48b detail additional protective measures for these items and a checklist to document implementation.

Roof drains will be protected with filter fabric over the roof inlets and outlets on roof drains near blasting activity. Storm and sanitary inlets will be protected in accordance with the plan in Reference 2, Exhibit 43c, and Condition 6 of the RBDA as well as Conditions 6, 7, and 19 of Amendment 9. This includes placement and management of sealant or filters at the sewer inlets, weekly vacuum truck cleaning of the parking surfaces, monitoring the area for paint chip debris and hand vacuuming and hand collecting paint chips, and testing storm water run-off and sediment at catch basins.

Scaffolding will be erected in stages to minimize disruptions to tenants. Scaffolding will be erected in accordance with the plans in Exhibit 40 of Reference 2, as revised by Reference 3. Scaffolding will be shrink-wrapped in poly sheeting, include protective measures for windows, doors and other penetrations, secondary containment and be maintained under negative pressure in accordance with Condition 9 of Amendment 9.

The enclosure around the scaffolding will be maintained under negative pressure using Negative Air Machines (NAMs) during non-blasting periods, or by vacuum dust collection systems during blasting operations. Pressure will be monitored with a manometer. Requirements for maintaining and monitoring negative pressure are included in Amendment 9, Conditions 10 and 11.

The interior space opposite any blasting activity will be protected from any potential release of PCBs through primary and secondary containment, disabling any vents, and tenants and pets vacating the space during blasting, as detailed in Reference 2, Exhibits 40, 48(a), 48(b), 48(d), 48(e), and in accordance with Conditions 12, 13, 15, and 26 of Amendment 9. Note- wherever it is mentioned that entry is either restricted or granted to tenants, the same also applies to pets. Verification that the controls continue to perform as expected shall be demonstrated during Phase III through daily inspections and sample collection as described below, and as required following the detailed flow chart and checklists in Reference 2, Exhibits 48(a), 48(d), and 48(e), and Amendment 9, Conditions 15-17.

Interior containment consists of fully enclosing the wall opposite the NPE. All through penetrations will be plugged or protected and the wall draped in poly sheeting. Secondary containment will be used as a protection from any unforeseen breach during the blasting process. Secondary containment will be constructed by hanging a single layer poly sheeting 2-3 feet away from the primary containment barrier. Details are provided in Reference 2 and Amendment 9, Condition 12. Elevator shafts will be protected as required in Condition 13 of Amendment 9. Rainier will place residential air purifiers in the units once interior containment is constructed until it is removed. Access inside the secondary containment area is restricted to monitoring personnel and Contractor personnel conducting containment integrity inspections. Access to the remainder of the room outside of the contained area is limited to the same personnel until tenant entry is granted at the end of the day or after a spill is properly cleaned up. Access points will remain closed and locked, with warning signs posted.

At the beginning of every day, Rainier shall inspect the interior units to ensure the containment is in-tact, and all other controls are still in place, prior to blasting beginning for the day. When blasting is complete for the day Rainier shall inspect interior barriers and containment to ensure no visual evidence of a breach is detected. These requirements are provided in Amendment 9, Condition 15.

To verify that containment is effective visual inspection will be supplemented with interior dust monitoring through the collection of wipe samples. Sampling and analysis for PCBs in accordance with Condition 16 of Amendment 9 will ensure no unreasonable risk of injury to health or the environment to tenants from blasting activity. Interior sample locations are provided in Reference 2, Set-Ups 1-38 as revised, and Reference 3, Set-Up 39. The wipe sampling plan is provided in Reference 2, Exhibit 44.

Two types of samples, one for PCBs, and one for metals, will be collected. Sample collection for PCBs will be done pre- and post-abatement. Sample collection for metals will be done post abatement and will only be analyzed if PCBs are detected in settled dust > 10ug/100cm^2. Metal results will be compared to the known metal profile of the blasting media to evaluate if PCBs were introduced by blasting activity vs. tracked in. Previous sampling of the blasting media during identified the following metals: chromium, copper, nickel, zinc and lead. The action level for PCBs is ≥ 10 µg/wipe. If any PCB wipe sample exceeds the action level, Rainier will follow the procedure in Condition 17(d) to clean and re-test

the location. Residential, Commercial, and elevator sampling protocols are detailed in Amendment 9, Condition 16.

If the end of day inspection of the interior containment structures or area within the primary or secondary containment for either residential or commercial spaces provides visual evidence of a dust breach Rainier shall mitigate the cause, report to the EPA, sample and cleanup in accordance with Amendment 9, Condition 17.

The only interior spaces where interior containment will not be constructed are the Building 12 chimney or smokestack, Building 5a, 8 and 9 freight elevator shafts, Building 21 passenger elevator shaft, Building 7, 8, and 18 roof Doghouses and Skylights, the Red Silos, and Buildings 19 and 20. Erecting interior containment is not practical in these spaces. Blasting on walls outside of the building is not anticipated to cause dust to enter the elevator shafts. Additionally, access to the elevator shaft is limited – people access the elevator car, not the open shaft. In an e-mail from Doug Lansing to Michelle Mullin on March 18, 2020, (Reference 6) Doug explained that the freight elevators have unenclosed (open) cabs and are not equipped with pressurized shafts. Rainier plans to restrict access to these elevators during blasting, as required by Condition 13 of Amendment 9. The Building 21 passenger elevator does have fully enclosed cabs and a shaft pressurization system. This elevator will also be disabled during blasting, and the shaft pressurization system will be activated. Pre-blasting inspection and post-blasting clearance of these elevators for tenant use will follow the same inspection protocol as all other affected spaces. Dust monitoring through the collection of wipe samples will verify that existing controls are effective to prevent unreasonable risk of injury to health or the environment. Sampling requirements are provided in Amendment 9, Condition 16. The chimney has not been operational for several decades. It was rendered inoperable during a seismic upgrade 20+ years ago with a concrete plug at the top of the column, and any other access points are permanently sealed. Building 19 and the Red Silos are uninhabited, and access to the interior spaces of both areas is unsafe. Building 20 is a vacant, 62-foot tall staircase that was used to access the red silos during beer production. Building 20 windows and points of ingress will be protected, but an interior secondary poly barrier will not be installed due to impracticalities in the interior, and the confined configuration of the building. Skylights and Doghouses will have modified interior containment, due to the configuration of the space, as required in Condition 13(a) of Amendment 9.

Sewer catch basins and manholes will be sampled and monitored in accordance with the plan detailed in Reference 2, Exhibit 43, Condition 19 of Amendment 9 and Condition 6 of the RBDA. At any given time, concurrent Set-Ups will be in any one of four stages: Mobilization, Abatement, Verification, and Demobilization. Since the Set-Ups will be located at several different locations throughout the campus it is imperative that the catch basin monitoring plan address the effectiveness of protective measures at the campus-wide level, rather than at localized sampling locations.

Rainier has identified five on-site zones and their points of entry to the sewer systems. For each of these five zones a sampling location has been identified, representing the system access point closest to the discharge into the public systems (Reference 2, Exhibits 43 and 43a). Each of the five zones will be tested for the presence of PCBs on a monthly basis. Samples will also be collected for metals (chromium, copper, nickel, zinc and lead). Metal samples will be held by the laboratory and analyzed only if PCB concentrations in the samples are identified above the action levels in Condition 6 of the RBDA. The metals data is useful to see if there is a correlation to the blasting media which may indicate a breach of the NPE, as opposed to an unrelated source of metals such as the adjacent Interstate 5.

Both aqueous and sediment samples will be collected as available. Rainier will make best efforts to time the collection of aqueous samples during or immediately following rain events. If no significant rain events occur during the sampling period, samples will be collected during the next rain event, without waiting for the next monthly round. Monthly sampling will begin during initial Mobilization activities for the first Set-Up and will continue for 12 consecutive months following the last demobilization of the final Set-Up. These requirements are provided in Amendment 9, Condition 19.

The plan states that the action level for PCBs in aqueous samples is 0.1 ug/L per Aroclor, and 1 mg/kg per Aroclor PCBs in sediment, with corresponding reporting limits. The action level for aqueous samples is based on the King County discharge authorization granted to Rainier. For sediments, the EPA requires that the action level is calculated for total PCBs rather than PCBs per Aroclor, as clarified in Condition 6 of the RBDA which was amended to reflect this requirement during Phase IIa. These action levels are used only in monitoring the performance of the NPE and other controls on active blasting. As stated in Condition 6 of the RBDA, the detection of PCBs >0.1 Micrograms/Liter in aqueous samples, or >1 ppm total PCBs during active removal shall trigger an evaluation of the containment structure and interim measures by both Rainier and the EPA at the project management level to devise and implement appropriate improvements where applicable.

Personnel and Material Decontamination shall take place in a dirty room work area space, shower & clean room space, and a clean room work area space as described in Reference 2, Exhibit 40 and required by Amendment 9, Condition 20. No water shall be discharged out of the work area to the sanitary sewer or storm drain systems but shall be collected in drums for additional testing and proper off-site disposal or use as required by Amendment 9, Condition 20. A detailed checklist for scaffolding erection, NPE construction, NAM installation and the decontamination unit is provided in Reference 2, Exhibit 48(e).

Reference 2 Exhibit 40 describes removing blasting debris daily by hand loading from the dust collector into plastic bags prior to placing in drums or “Super-sacks” for disposal. The waste storage area will contain secondary containment barrier surrounding the designated area. Waste will be managed and stored according to the requirements of 40 C.F.R. § 761.65(b) or 761.65(c) and Condition 21 of Amendment 9.

The process flow for waste is to be transported via forklift to the loading dock located at the west entrance to building 9-100. From there the containers will be moved with a pallet jack through the Building 9 lobby onto the freight elevator. The freight elevator will move the waste to building 6-400. If any material is released from the containers during transportation to the storage facility, it shall be cleaned up in accordance with the PCB Spill Cleanup Policy in 40 C.F.R. § 761.125(b)(1), and 761.130. The storage facility will be inspected weekly by a HAZWOPER-trained person documented in the weekly checklist in Reference 2, Exhibit 47. When the waste is ready for off-site disposal it will reverse through this process flow back to the loading dock. PCB wastes will be transported offsite for disposal by Chemical Waste Management of the Northwest at their hazardous waste landfill in Arlington, Oregon.

After paint is removed, Rainier shall conduct visual inspection of 100 percent of the surface from which paint was removed and conduct detailed visual verification analysis of 2 percent of the substrate, in

accordance with Condition 7 of the RBDA and Reference 2, Exhibit 41. Although Reference 2 Exhibit 41 states that "The goal will be complete removal of the paint, with the understanding that the infrequent, small fleck of paint remaining post-abatement is functionally unavoidable as a practical matter." The EPA requires complete removal of all PCB contaminated paint. Ongoing use of paint contaminated with PCBs is unauthorized. Therefore, all paint contaminated with PCBs is required to be removed and disposed. Rainier's plans for carrying out this condition are detailed in Reference 2, Exhibits 41 and 42.

Once visual inspection confirms that all paint has been removed through blasting and/or hand grinding and scraping with hand tools, the building surfaces will be brushed down and HEPA vacuumed in accordance with Reference 2, Exhibit 48(e) and Amendment 9, Condition 22. Post abatement substrate sampling for any porous substrate not already eliminated from further sampling requirements is required. The EPA previously approved removing brick, mortar, concrete and sandstone from further substrate sampling (Reference 1). All other porous substrate types encountered shall be sampled according to Condition 8 of the RBDA. At this time Rainier has not identified any other substrates in Phase III. If substrates other than those eliminated from sampling requirements are identified after paint is removed, Rainier must submit a plan to sample those in accordance with Condition 20 of the RBDA.

Scaffolding shall be de-mobilized in a manner that will not cause release of PCB contaminated dust or PCB contaminated paint from the NPE, as detailed in Reference 2 Exhibit 40, as revised by Reference 3. Prior to dismantling, a protection and containment area will be established at each designated staging area. All elements of scaffolding system will be lowered to the protection and containment area for a final wipe down and/or inspection prior to loading onto trucks. Amendment 9, Condition 22 incorporates all requirements for scaffolding breakdown.

Interior containment will only be removed once the NPE is dismantled. Rainier shall follow the protocol in Reference 2, Exhibit 48(a). Specifically, primary containment will be removed first, and inspected for visual indication of a breach. If there is a visual indication of a breach the wall shall be cleaned in accordance with the Spill Cleanup Policy at 40 C.F.R. § 761.125(b)(1), and 761.130, followed by removal of the secondary containment. If not, the secondary interior containment barrier shall be removed. The interior wall, floor and ceiling within the interior containment area shall be cleaned and then sampled in accordance with Amendment 9, Conditions 23 and 16.

The workplan includes wipe sampling the dust collector to ensure it is properly decontaminated before leaving the jobsite. 40 C.F.R. § 761.79(c)(2) allows decontamination of movable equipment, tools, etc via self-implementing procedures. All equipment used on-site that has come in contact with PCBs and is planned to be re-used off-site must be properly decontaminated, see Amendment 9, Conditions 11 and 20, and Condition 5 of the RBDA. Rainier may elect to utilize the self-implementing procedures in 40 C.F.R. § 761.79(c) rather than collecting wipe samples. Personnel and material decontamination will take place using a 3-room system: dirty room work area space, shower with clean room, and a clean work area space. Any water used will be contained, tested, and if contaminated it will either be disposed or decontaminated in accordance with Amendment 9, Condition 20. No water will be discharged into the storm or sanitary sewer system.

To address the potential of PCB contaminated paint released to soils on-site, either during the history of paint in use on the building or from abatement activities, soils adjacent to the building will be sampled once all paint abatement is concluded. If any PCBs are found at concentrations >1ppm, the soil will be further characterized until the extent of contamination >1ppm is delineated. Locations further from the buildings will also be sampled in the event PCBs >1ppm are found adjacent to the building. All soils with PCBs >1ppm will be removed and disposed of as PCB remediation waste. Confirmation sampling will verify the complete removal of all PCB contaminated soils.

Upon completion of all site paint abatement activities, soil characterization, and any soil removal activities, Rainier will clean out on-site storm and sanitary sewer conveyances. The storm and sanitary line cleanout plan was submitted to both Seattle Public Utilities (SPU) and King County on September 9, 2020. The plan closely follows previously successful line cleanouts at the site and is based on protocols and practices that were coordinated with SPU and King County during those events (May 24, 2010, for King County and February 8, 2013, for SPU). On September 30, 2020, Michael Jeffers of SPU provided correspondence stating the plan is acceptable. Waste generated from the cleanout will be stored onsite and decanted, then sampled to determine the appropriate disposal pathway. Equipment will be decontaminated in accordance with Condition 25 and Reference 3, Exhibit 50.

Rainier has developed a series of Checklists in Reference 2, Exhibit 48. These checklists provide guidance for interior protections, critical engineering and management controls implemented for each individual scaffolding set up and breakdown, abatement procedures, daily field notes, photographs, etc. Rainier intends to collect these checklists, photographs and daily field notes into weekly files and make them available electronically upon the completion of each Set-Up. Amendment 9, Condition 26 requires the collection of this information as well as specific details to be included in the daily field notes. Condition 26 also establishes a weekly reporting requirement to the EPA on project status.

Rainier will provide notice to tenants 30 days prior to Mobilization. Rainier will provide weekly updates, via email, to each tenant occupying interior space opposite of the abatement work. Rainier will communicate more frequently, as needed, with any tenant. Rainier will have access to each of the tenant spaces daily and in case of emergency. Rainier will reiterate the need for and right to this access at least one week in advance of the work commencing. No tenant shall be inside a space which is being blasted outside. Tenants shall have access to the interior space outside of the interior containment in accordance with Reference 2, Exhibit 48(d), and Amendment 9, Condition 12.