

**PUGET SOUND NAVAL SHIPYARD (PSNS) &
INTERMEDIATE MAINTENANCE FACILITY (IMF)
ADDENDUM I
CLOSURE AND FINANCIAL ASSURANCE
CHANGE CONTROL LOG**

Change Control Logs ensure that changes to this unit are performed in a methodical, controlled, coordinated, and transparent manner. Each unit addendum will have its own change control log with a modification history table. The “**Modification Number**” represents Ecology’s method for tracking the different versions of the permit. This log will serve as an up to date record of modifications and version history of the unit.

Modification History Table

Modification Date	Modification Number
03/18/2022	PSNS.2021.1F

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ADDENDUM I
CLOSURE AND FINANCIAL ASSURANCE

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I. CLOSURE AND FINANCIAL ASSURANCE

I.1 Closure Plan

I.1.1 Introduction and Facility Description

The purpose of this facility Closure Plan is to document the steps to clean close the Mixed Waste Storage Facility (MWSF) located at Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) on Naval Base Kitsap–Bremerton (NBK–Bremerton). The closure will be performed in accordance with the schedule provided in Section I.1.4. This Closure Plan complies with the Washington Administrative Code (WAC) 173-303-610(2) through WAC 173-303-610(6), Dangerous Waste Regulations, *Closure and post-closure*, and represents the baseline for closure and the enforceable compliance requirements for conducting closure. Amendments to this Closure Plan will be submitted as a permit modification in accordance with WAC 173-303-610(3)(b). This plan has been written using the *Guidance for Clean Closure of Dangerous Waste Facilities*, Washington State Department of Ecology (Ecology) Publication #94-111, dated May 2005.

I.1.1.1 Unit Description

The MWSF is a 42-foot by 54-foot building used to store mixed waste in containers prior to shipment off-site for treatment and disposal. Solid and liquid mixed wastes are stored in closed containers in accordance with Addendum D of this permit renewal application. All shipping containers in the MWSF are kept closed except the rare occasion where consolidation, validation of contents, or unexpected circumstances requires opening a container.

The MWSF is designed to prevent the release of hazardous constituents from the facility to the environment. Storage operations at the MWSF are performed by a dedicated, trained, and qualified staff in a manner that minimizes the potential for contamination of structures, equipment, and surrounding property. Inspections occur weekly as a minimum, and repair and replacement of equipment and structures occurs as necessary.

In order to close the MWSF, all wastes and equipment will be removed from the facility, and visual inspection to the “clean debris surface” standards will occur as described in the following sections.

I.1.1.2 Maximum Waste Inventory

The MWSF is one containerized waste storage unit. The maximum inventory of waste at the MWSF will not exceed the equivalent volume of 24,750 gallons. This estimate is based on the capacity of the facility.

I.1.1.3 Maximum Extent of Operation

Mixed waste has been stored at the MWSF since September 1996. Initially the MWSF was operated under interim status and Ecology approved the facility’s Resource Conservation and Recovery Act (RCRA) permit on June 28, 2006. Operations at the facility are limited to the consolidation and storage of pre-packaged mixed waste. Figure I-1 shows the interior layout of the MWSF with a typical arrangement of waste.

I.1.2 Closure Performance Standard

I.1.2.1 Minimization of Further Maintenance

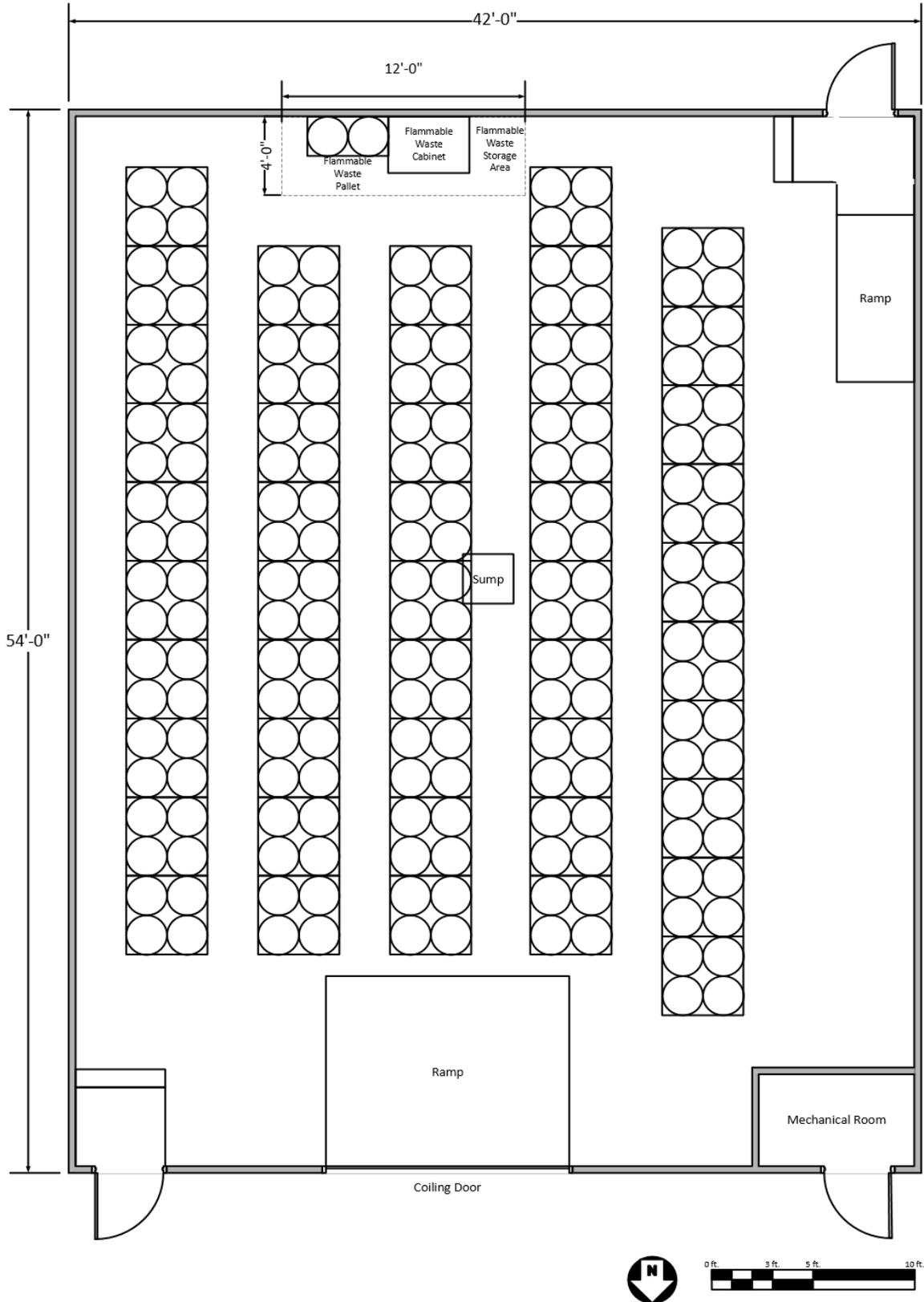
The MWSF will be closed per this plan, thereby eliminating the need for further maintenance. Specifically, at closure, all mixed wastes will be removed from the MWSF; equipment will be removed for disposal (as necessary); and the floor, walls, sump, and sump grate of the MWSF will be visually inspected to the “clean debris surface” standards.

1 **I.1.2.2 Control of Hazards Post-Closure**

2 The MWSF is designed, operated, and maintained in a manner that minimizes the potential for
3 contamination of the facility structures, equipment, and surrounding property. The MWSF is operated
4 only as a storage area. Operations are limited to the consolidation of previously packaged containerized
5 waste.

6 The secondary containment system has been designed to prevent the release of mixed waste from the
7 MWSF to the environment during operation, and will also prevent such releases during closure
8 operations. The secondary containment consists of a concrete slab with an 8-inch berm, equipped with an
9 impervious floor coating. The floor of the storage area is sloped toward a blind collection sump. The
10 collection sump has no drain. The waste storage area is located completely inside a building thereby
11 eliminating the potential for contaminated run-off.

12 The MWSF is located within the boundary of Operable Unit (OU) B-Terrestrial at NBK–Bremerton. The
13 Environmental Protection Agency (EPA), U.S. Navy, and Ecology approved a Record of Decision (ROD)
14 for this OU in November of 2003. Section 12 of the ROD for OU B-Terrestrial covers the selected
15 remedy for OU B-Terrestrial and contains requirements for any excavations or soil exposure operations to
16 ensure protection of human health and the environment.



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Figure I-1 Mixed Waste Storage Facility Layout – 55-Gallon Drums

1 **I.1.2.3 Future Use**

2 The MWSF is located in the controlled industrial area of NBK–Bremerton. This area is zoned heavy
3 industrial. The operations or existence of this facility does not affect the surrounding land. After closure,
4 PSNS & IMF will convert the MWSF into an industrial warehouse. Converting the building into an
5 industrial warehouse is consistent with the ROD for OU B-Terrestrial.

6 **I.1.2.4 Clean Closure Levels**

7 The MWSF will be closed using the “clean debris surface” standard. The “clean debris surface” standard
8 is verified visually. A “clean debris surface” “...means the surface, when viewed without magnification,
9 shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil
10 and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in
11 cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks,
12 crevices, and pits shall be limited to no more than 5% of each square inch of surface area” as defined by
13 40 Code of Federal Regulations (CFR) 268.45 Table 1 Footnote 3 incorporated by reference in
14 WAC 173-303-140.

15 The “clean debris surface” standard will be applied to the floor, walls, sump, and sump grate of the
16 MWSF. Any surface requiring decontamination based on visual examination will be decontaminated
17 using an appropriate physical or chemical extraction technology from the alternative treatment standards
18 for hazardous debris as defined in 40 CFR 268.45, incorporated by reference by WAC 173-303-140.

19 When a physical extraction method is used on concrete, the performance standard is based on removal of
20 the contaminated layer of debris. The physical extraction performance standard for concrete is removal of
21 0.6 centimeter of the surface layer and treatment to a “clean debris surface.”

22 **I.1.3 Closure Activities**

23 The MWSF will not be partially closed. Final closure will occur at the end of its active life, estimated for
24 the year 2055.

25 The approach to the closure of the MWSF is to send all dangerous waste for final disposition at an
26 appropriate facility, evaluate the operating record for spill history, and verify that the floor, walls, sump,
27 and sump grate of the MWSF meet “clean debris surface” standards as described in Section I.1.2.4.

28 The MWSF operating record will be reviewed to identify any previous spills and releases that occurred.
29 The review will also verify the cleanup of spills was performed and that these cleanups satisfied the
30 closure performance standards at the time of the cleanup. Results of the operating record review will be
31 documented in the MWSF field logbook described in Section I.1.3.1.

32 Attainment of a “clean debris surface” is verified visually in accordance with the performance standard.
33 When the performance standard is not met, decontamination of surfaces within the MWSF will be
34 accomplished using physical extraction methods from the alternative treatment standards for hazardous
35 debris as defined in 40 CFR 268.45, and incorporated by reference in WAC 173-303-140. Inspections to
36 verify achievement of a “clean debris surface” will be performed and documented in the MWSF field
37 logbook.

38 MWSF surfaces will be reexamined visually after decontamination. Areas that do not satisfy the
39 “clean debris surface” performance standard will be reevaluated for more rigorous decontamination or
40 removal, designation, and disposal. If this circumstance is encountered, it will be considered an
41 unexpected event during closure, and this closure plan will be modified and submitted to Ecology as a
42 permit modification no later than 30 days after identified in accordance with WAC 173-303-610(3)(b)(iii)
43 and WAC 173-303-830.

1 **I.1.3.1 Mixed Waste Storage Facility Field Logbook**

2 All information relative to the closure process will be entered into the MWSF field logbook. The MWSF
3 field logbook will be used to create the final closure report and for review by the Independent Qualified
4 Registered Professional Engineer (IQRPE). The MWSF field logbook will be maintained with the MWSF
5 operating record for a minimum of five years after closure of the MWSF. All entries in the MWSF field
6 logbook will be made in ink, signed, and dated. The MWSF field logbook will contain:

- 7 • Daily log of activities at the MWSF relating to closure,
- 8 • Results of the Operating Record review,
- 9 • Results of the visual inspection based on the “clean debris surface” criteria, including
10 photographs,
- 11 • Selection of a decontamination method, if necessary,
- 12 • Results of the visual inspection based on the “clean debris surface” criteria after decontamination,
13 including photographs, if necessary,
- 14 • Sample results of wastes generated during decontamination, if necessary, and
- 15 • Any unusual circumstances encountered during closure.

16 **I.1.3.2 Removing Dangerous Wastes**

17 All containerized mixed waste will be removed from the facility and transported to an off-site Treatment,
18 Storage, and Disposal Facility (TSDF). The categories of mixed wastes stored in the MWSF include
19 ignitable, toxic (federal and state regulated), Polychlorinated Biphenyl (federal and state regulated), and
20 corrosive (federal and state regulated) as well as wastes that designate as F003. The off-site TSDF will
21 treat all wastes as required in land disposal regulations.

22 Dangerous waste that could be generated as a result of closure operations includes; debris or wastewater
23 from decontamination operations and personnel protective equipment potentially contaminated with
24 dangerous constituents. Newly generated waste designated as a dangerous waste in accordance with
25 WAC 173-303-170, *Requirements for generators of dangerous waste*, will be managed in accordance
26 with all applicable requirements of WAC 173-303-170, through 173-303-230, *Special conditions*.

27 The waste will be containerized, labeled, sampled for waste characterization, designated as a dangerous or
28 non-dangerous waste, accumulated or stored, and transported off site where it will be treated
29 (if necessary) to meet Land Disposal Restrictions in 40 CFR 268, *Land Disposal Restrictions*,
30 incorporated into WAC 173-303-140(2)(a), *Land disposal restrictions*, by reference, then ultimately
31 disposed of in an appropriate waste disposal facility.

32 **I.1.3.3 Decontaminating Structures, Equipment, and Soil**

33 The MWSF operating record will be reviewed for spill history, and the MWSF will be photographed and
34 visually inspected for staining, cracks, and other openings to meet the inspection criteria for a
35 “clean debris surface” listed in Section I.1.2.4. Locations where the visual inspection criteria are not met
36 will be annotated on a map of the MWSF. These maps and the photo essay will be placed in the MWSF
37 field logbook.

- 38 a. If during the review of the MWSF operating record there is spill history of polychlorinated
39 biphenyls (PCB) wastes where spill cleanup has not been performed and documented in
40 accordance with 40 CFR 761 Subpart G, PCB swipe samples shall be performed in the area of the
41 PCB spill in accordance with 40 CFR 761.123. The results of the swipe samples will be compared
42 to the decontamination standard for non-porous surfaces of 10 µg/100 cm² from 40 CFR 761.79.

1 The need to perform decontamination is considered remote because the MWSF is designed and safely
2 operated in a manner that minimizes the need for clean-up and decontamination. There have been no
3 spills at the MWSF since it began operation in 1996. If decontamination is necessary based on initial
4 visual examination, decontamination of surfaces within the MWSF will be accomplished using physical
5 or chemical extraction methods from the alternative treatment standards for hazardous debris as defined in
6 40 CFR 268.45 Table 1, and incorporated by reference in WAC 173-303-140. The method of
7 decontamination used will depend on the nature of the structure and the extent and type of contamination.
8 Decontamination methods include water washing and spraying, abrasive blasting, high pressure steam and
9 water sprays, or other methods listed in Table 1 of 40 CFR 268.45 depending on the extent of
10 contamination. Decontamination of concrete surfaces by physical extraction methods requires removal of
11 0.6 cm of the surface layer. Decontamination wastes will be minimized and collected in appropriate
12 containers. Each container of decontamination wastes will be sampled and tested for volatiles
13 (SW-846 Method 8260), PCBs (SW-846 Method 8082), and Toxic Characteristic Leaching Procedure
14 (TCLP) metals (SW-846 Methods 1311 and 6010) to determine applicable waste codes prior to disposal
15 in accordance with WAC 173-303-070 through -100 and managed in accordance with WAC 173-303-
16 200. Decontamination is considered successful when the “clean debris surface” criteria are met.

17 After decontamination, the area will be inspected to the “clean debris surface” criteria. The result of this
18 inspection will be entered into the MWSF field logbook. If the “clean debris surface” standard is met, no
19 further action is required. A final photo essay of the decontaminated area will be compiled and
20 maintained with the closure final report.

21 Safety precautions will be followed in accordance with 29 CFR 1910 and the direction of PSNS & IMF’s
22 Environmental, Safety and Health Office based on the physical extraction method used, if necessary, in
23 the MWSF.

24 **I.1.3.4 Sampling and Analysis to Identify Extent of Decontamination/Removal Needed** 25 **and to Verify Achievement of Closure Standard**

26 The “clean debris surface” standard will be applied to the floor, sump, and sump grate of the MWSF. Any
27 surface requiring decontamination based on visual examination will be decontaminated using an
28 appropriate physical or chemical extraction technology from the alternative treatment standards for
29 hazardous debris as defined in 40 CFR 268.45 Table 1, incorporated by reference by WAC 173-303-140.

30 When a physical extraction method is used on concrete, the performance standard is based on removal of
31 the contaminated layer of debris. The physical extraction performance standard for concrete is removal of
32 0.6 centimeter of the surface layer and treatment to a clean debris surface.

33 If the sump grate is determined to not meet the “clean debris surface” standard, it will be disposed of at an
34 appropriate disposal facility.

35 MWSF surfaces will be reexamined visually after decontamination. Areas that do not satisfy the
36 “clean debris surface” performance standard will be reevaluated for more rigorous decontamination or
37 removal, designation, and disposal. If this circumstance is encountered, it will be considered an
38 unexpected event during closure, and this closure plan will be modified and submitted to Ecology as a
39 permit modification no later than 30 days after identified in accordance with WAC 173-303-610(3)(b)(iii)
40 and WAC 173-303-830.

1 I.1.3.5 Other Activities

2 **Role of the Independent Qualified Registered Professional Engineer:** An IQRPE will be contracted by
 3 PSNS & IMF to become familiar with PSNS & IMF's closure activities. The IQRPE will be responsible
 4 for, at a minimum, reviewing MWSF visual inspection(s), observing field activities, and reviewing
 5 records and the MWSF field logbook. The IQRPE will record his/her observations and review of records
 6 in a written report. This report will be used to develop the clean closure certification, which will then be
 7 provided to Ecology. PSNS & IMF will place the IQRPE's report in their operating record.

8 **Certification of Clean Closure:** Within 60 days of closure of the MWSF, PSNS & IMF will submit
 9 certification to Ecology that the MWSF has been closed in accordance with this closure plan. The closure
 10 certification will be signed by a principle executive officer and stamped by an IQRPE. The certification of
 11 clean closure will include:

- 12 • Field notes and photographs related to closure activities,
- 13 • Documentation of the removal and final disposition of all dangerous wastes and dangerous waste
 14 residues, including contaminated media, debris, and all treatment residuals,
- 15 • Documentation that "clean debris surface" standards were met, and if necessary, decontamination
 16 procedures were followed, and
- 17 • A summary report that itemizes the data reviewed by the IQRPE to determine and/or confirm
 18 closure based on the "clean debris surface" standard.

19 **Conditions of Clean Closure:** PSNS & IMF plans to meet "clean debris surface" standards and
 20 decontaminate the MWSF if necessary. When closure is complete, the building structure will remain on
 21 site as an industrial warehouse.

22 I.1.4 Schedule for Closure

23

Table I-1 Schedule for Final Closure of the Mixed Waste Storage Facility

Item	Activity	Timeline in Number of Days	Estimated Date
1	Notify Ecology of intended closure and submit revised Closure Plan.	T-45	January 15, 2055
2	Receive final volume of mixed waste.	T=0	March 1, 2055
3	Transfer existing inventory to an off-site TSDF.	T+90	May 30, 2055
4	Conduct records review and "clean debris surface" visual inspection.	T+90	May 30, 2055
5	If necessary, decontaminate MWSF.	T+120	June 29, 2055
6	Perform "clean debris surface" visual inspection after decontamination.	T+150	July 29, 2055
7	If necessary, update closure plan to conduct sampling.	T+180	August 28, 2055
8	Disposition wastes generated during closure operations.	T+180	August 28, 2055
9	Conduct final walkthrough inspection and prepare letter of certification that closure has been accomplished in accordance with this closure plan. Closure activities complete.	T+180	August 28, 2055
10	Submit closure certification to Ecology.	T+240	No later than October 27, 2055

24

1 **I.1.4.1 Extension for Closure Time**

2 An extension for closure is not being requested at the time of the submittal of this permit renewal
3 application.

4 **I.2 Closure Cost Estimate**

5 **I.2.1 Financial Assurance Mechanism for Closure**

6 Per WAC 173-303-620(c), federal facilities are exempt from preparing financial assurance mechanisms.

7 **I.3 Notice in Deed of Already Closed Disposal Units**

8 There are no disposal operations associated with this permit renewal application.

9 **I.4 Post-Closure Plans**

10 There are no land-based units or tank systems associated with this permit application, and the MWSF will
11 be closed such that no dangerous waste constituents above the “clean debris surface” standards will
12 remain on-site after closure.

13 **I.5 Liability Requirements**

14 Per WAC 173-303-620(c), federal facilities are exempt from financial requirements associated with
15 liability.

16 **I.5.1 Coverage for Sudden Accidental Occurrences**

17 Per WAC 173-303-620(c), federal facilities are exempt from financial assurance requirements.

18 **I.5.2 Coverage for Non-sudden Accidental Occurrences**

19 There are no miscellaneous units used for disposal, surface impoundments, landfills, land treatment areas,
20 or waste piles associated with this permit renewal application.

21 **I.5.3 Request for Variance**

22 Per WAC 173-303-620(c), federal facilities are exempt from financial requirements associated with
23 liability.