



Statement of Basis

Lockheed Martin The Dalles Facility
3850 River Road, The Dalles, OR, 97058
Draft Hazardous Waste Post-Closure Permit Renewal

EPA ID No. ORD 052 221 025

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INTRODUCTION

Lockheed Martin Corporation has applied for renewal of the hazardous waste post-closure permit for their The Dalles facility. DEQ is preparing this Statement of Basis in accordance with Title 40 Code of Federal Regulations Sections 124.7 and 124.8 as adopted by the Oregon Environmental Quality Commission.

The initial hazardous waste post-closure permit was issued July 2000 and expired July 2010. An application for permit renewal was received in December 2009. Since the application for renewal was received in a timely manner, the permit has been administratively continued and remains in effect until DEQ issues a renewed permit.

Because of the length of time between receipt of the renewal application and development of the draft permit, DEQ required Lockheed Martin to submit an updated renewal application in 2023. An updated Part A and Part B application, dated May 24, 2023, was received on June 5, 2023.

REGULATORY BACKGROUND

Oregon Revised Statute 466 requires closed hazardous waste landfills obtain a post-closure permit containing the applicable regulations found at Oregon Administrative Rule 340 Chapters 100 through 106 with adopted federal regulations in Title 40 Code of Federal Regulation Sections 264 and 270.

HISTORY AND DESCRIPTION OF THE RCRA LANDFILL AND CERCLA UNITS

This facility is located at 3850 River Road, The Dalles, OR, 97058. The facility consists of a closed hazardous waste landfill with a volume of 40,000 cubic yards on 5.59 acres.

The Lockheed Martin hazardous waste landfill is located at the former Martin Marietta Reduction Facility (MMRF) in The Dalles, Oregon. The MMRF was operated by Martin Marietta from 1970 through 1984 for the production of aluminum. Wastes generated during the aluminum production process, primarily potliner waste (EPA waste code K088), were released to the site soils and groundwater. In 1984, potliner waste was stockpiled on a lined storage pad. The waste pad was subsequently closed in place as a landfill (known as the RCRA Landfill) in accordance with a DEQ-approved closure plan in 1991. Following closure of the landfill, DEQ directed Martin Marietta to submit a RCRA permit application for post-closure care.

In 1986, EPA listed the Martin Marietta Aluminum Company on the federal CERCLA National Priorities List. The NPL site included the majority of the Martin Marietta property (approximately 350 acres), but specifically excluded the RCRA landfill. Therefore, the RCRA landfill was surrounded by but not part of the CERCLA site. Martin Marietta remediated the CERCLA site under a consent decree. EPA, DEQ and (now) Lockheed Martin are parties to the consent decree. EPA provided oversight to the remediation under its CERCLA authority.

In 1991, Martin Marietta sold the aluminum plant and the majority of the surrounding property to Northwest Aluminum Company. Martin Marietta retained the RCRA landfill and the portions of the CERCLA site where wastes continued to be managed following remediation. These sites are the CERCLA landfill, the cyanide destruction system (now removed), and the scrubber sludge ponds. The CERCLA landfill and the scrubber sludge ponds are part of the CERCLA operation and maintenance program. There is also a CERCLA filtration unit that treats leachate from the CERCLA landfill with subsequent discharge to The Dalles municipal wastewater treatment system.

In 1995, Lockheed merged with Martin Marietta to form the Lockheed Martin Corporation, which now owns and maintains the RCRA landfill and CERCLA units.

In 1996, following completion of the remedial action, and subsequent monitoring to demonstrate the effectiveness of the remedy, EPA removed the site from the NPL (i.e., delisted). EPA continues oversight of operation and maintenance care of the CERCLA site under the provisions of the consent decree.

DEQ first issued the hazardous waste post-closure permit on July 3, 2000. In accordance with the permit, Arcadis Inc., on behalf of Lockheed Martin, submitted a timely new Part B permit application on December 9, 2009. This permit is the second issuance of the post-closure permit. Since the RCRA landfill closed in 1991 the site has been well maintained and no groundwater releases from the landfill have been detected.

For the CERCLA units their status, history and documentation can be found at the following EPA site: <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=1000424>

The RCRA landfill and associated leachate collection and removal system, which is regulated under this permit, consists of four subunits including the 5.59-acre Lockheed Martin RCRA hazardous waste landfill that contains approximately 40,000 cubic yards of spent potliner from past aluminum production, a 482-gallon leachate collection unit, a leachate trench and leachate piping.

WHAT IS BEING PROPOSED?

DEQ proposes the Lockheed Martin hazardous waste post-closure permit be renewed for another 10 years.

DEQ has reviewed the permit renewal application and developed a draft permit for public comment. In accordance with Oregon Revised Statutes DEQ is proceeding with a notice and providing an opportunity for a public hearing for the public to give comments on the draft permit renewal.

The Lockheed Martin The Dalles facility is a closed hazardous waste landfill containing spent aluminum potliner hazardous waste (EPA ID K088). The waste was generated when Martin Marietta owned and operated the nearby aluminum reduction and manufacturing facility. The landfill was capped in 1991 that then required a hazardous waste post-closure permit. The initial post-closure permit was issued in July 2000.

Lockheed and Martin Marietta merged in 1995 and retained ownership of the post-closure landfill. Lockheed Martin submitted a timely permit renewal application and DEQ proposes to renew the permit for another 10 years.

U.S. EPA Superfund Program and the ODEQ Hazardous Waste program has deferred operation, maintenance, monitoring and enforcement to Superfund for Lockheed Martin's nearby operable units called the CERCLA landfill and scrubber sludge ponds.

The draft permit allows for the continued operation, maintenance, inspection, continued post-closure financial assurance and groundwater monitoring for the hazardous waste post-closure landfill. The draft permit also proposes such post-closure care period continue for another 30 years upon the date of the permit issuance. In the event that releases from the hazardous waste post-closure landfill occur or new releases are discovered, the draft permit can require additional investigation and remediation, as necessary, through RCRA corrective action and permit modification.

CONDITIONS IN THE DRAFT PERMIT

The draft permit contains six sections three attachments. A summary of each permit section follows. Additional information is provided where appropriate to provide background as well as explain DEQ's basis for the specific permit conditions.

Section I – Standard Conditions.

These are boilerplate permit conditions found in all federal and state authorized hazardous waste permits.

Condition I.B.2: Comments/discussion about timing for submission of a renewal application, i.e., while the regulations say the renewal application needs to be submitted 180 days before the expiration date, an earlier submittal may be helpful for DEQ to renew the permit in a timely manner. Many states are asking for the renewal applications as early as two years prior to expiration.

Condition I.E.7: Neither federal nor state regulations require an expressed onsite operating record for post-closure facilities. Since the permittee, Lockheed Martin, does not have an office in The Dalles, DEQ has concluded that the majority of the correspondence and documents do not need to be physically located in The Dalles and allows records to be maintained at Lockheed Martin's Burbank, CA, location.

Condition I.E.8: For permit conditions I.E.8.a., I.E.8.b., and I.E.8.c., "reasonable times" means that practical amount of time between DEQ request and coordination with permittee for the permittee to provide records, copying, sampling, electronic documents, meetings, and inspection.

Condition I.G: As of 2023, DEQ is implementing an electronic data management system, known as Your DEQ Online or YDO. When this system is fully functional, DEQ will direct the permittee to make all submissions electronically through this system rather than mailing documentation (including paper documents, CDs, thumb-drives, etc.) or sending email with attachments. YDO is intended to simplify the submission of documents and information to a single electronic location where it will be maintained as required under Oregon record retention requirements.

Condition I.I: YDO functionality will allow DEQ to generate invoices electronically as well as provide permittees the options to make electronic payments. All invoices generated through YDO will include a technology fee (currently 4%). Electronic payments made by credit card may also include bank

transaction fees.

Section II General Facility Conditions.

This section incorporates and enforces inspection and repair requirements specified in Attachment B to the draft permit. This section also defines the 30-year post-closure period and financial assurance requirements.

Condition II.C: The post-closure landfill contains only K088 aluminum spent potliner waste. Since the permittee is prohibited from accepting any more solid or hazardous wastes, a general waste analysis plan is not required. This condition of the permit is [Reserved] should any changes occur that require a general waste analysis plan.

Condition II. E: Lockheed Martin proposed an inspection plan that includes four inspections per year. The quarterly inspections include evaluation of the landfill cap cover, gas vent system, lightening rod system, cap drainage discharge pipes, drainage system, leachate sump, fence, areas adjacent to the landfill, and the leachate collection and removal system. Details on elements of each inspection are included in the Inspection checklist in Appendix B. In addition, every 4½ years, the RCRA landfill is surveyed to determine if settling has occurred on the landfill. If the survey concludes that settling has occurred, then additional investigation will be required to determine if damage has occurred to the landfill liner, which would necessitate repair to prevent impacts to public health or the environment.

Condition II.F: Since this facility is regulated under a RCRA post-closure permit, no active treatment or storage of hazardous waste occurs. Moreover, based on the quantity of leachate produced from the landfill, the facility classifies as a VSQG, but chooses to operate as an SQG. Under 40 CFR 262.17 and 264.16, only LQG and TSD are required to maintain employee training programs. However, DEQ may require a personnel training program should any changes occur that require a personnel training program, so this section in the permit is identified as [Reserved] should a future action be required.

Condition II.G. Oregon established state requirements under OAR 340-104-0075 for periodic reporting that replaced the federal requirements under 40 CFR 264.75 and 40 CFR 265.75. Under 340-104-0075(3), Lockheed Martin is required to provide the following information in an annual report:

(a) Information required for purposes of notification of hazardous waste activity and/or annual verification of hazardous waste generator or management or recycling facility status;

(b) Information required for purposes of describing hazardous waste management and facility information, including information pertaining to storage, treatment, disposal, and recycling of hazardous waste received, or generated on-site; and

(c) Information required for the assessment of fees;

(d) Information required for the Department's preparation and completion of the Biennial Report and capacity Assurance Plan;

(e) The most recent closure cost estimate under 40 CFR 264.142, or 40 CFR 265.142, as appropriate, and, for disposal facilities, the most recent post-closure cost estimate under 40 CFR 264.144, or 40 CFR 265.144, as appropriate;

(f) A certification signed by the owner or operator of the facility, or his authorized representative as required by 40 CFR 270.11(b); and

(g) Monitoring data under 40 CFR 265.94(a)(2)(ii) and (iii), and (b)(2), where required.

Condition II.H. Lockheed Martin must continue post-closure care for the RCRA landfill and the leachate collection and removal system for an additional 30 years, unless changed by permit modification or changed in statute.

Condition II.I: Lockheed Martin has been maintaining Financial Assurance for post-closure care of both the RCRA and CERCLA units located at the facility. With this permit renewal, the CERCLA and RCRA units are regulated separately. Therefore, Condition II.I.1 requires Lockheed Martin to determine a post-closure cost estimate for the RCRA unit alone within 60 days of permit issuance. DEQ and the permittee agreed that post-closure cost-estimate and financial assurance will be based on a rolling 20-year estimate adjusted annually for inflation. The permittee must update the post-closure cost estimate annually.

Lockheed Martin proposed a rolling 20-year cost estimate because it fits with Lockheed Martin's 20-year budgeting system. DEQ agrees with a 20-year rolling estimate because it is more conservative than a 30-year cost estimate that decreases each year in annual amounts spent providing post-closure care. DEQ recognizes that the cost estimate starting with a 30-year cost estimate that decreases in annual chunks is more conservative for the first 10 years in the post-closure period until the remaining 20 years in the post-closure period estimate matches the 20-year rolling estimate provided by Lockheed Martin. From then on, the Lockheed Martin 20-year rolling cost estimate is more conservative than the typical annual decreasing cost estimate. Given the site-specific facts that the facility has been stable and well maintained since the landfill closed in 1991, the risk of a rolling 20-year estimate being lower than a theoretical 30-year cost estimate for the first 10 years of the post-closure period is negligible. It is also worth mentioning that providing a rolling 20-year cost estimate is administratively more efficient to implement for both Lockheed Martin and DEQ than to annually review, approve, and then change the financial assurance mechanism to reflect the decreasing 30-year cost estimate.

Condition II.K: This permit condition references the actions that must be taken in the event of bankruptcy.

Section III Post-Closure Care.

Federal hazardous waste regulations that the Oregon Hazardous Waste Program adopted state that hazardous waste post-closure permits must include a hazardous waste post-closure plan. This section serves as that plan.

The need for the permittee to have a hazardous waste post-closure permit is found at 40 CFR 270.1(c). The document that serves as a post-closure plan must be submitted as part of the Part B application in accordance with 40 CFR 270.14(b)(13). The proposed hazardous waste permit contains permit conditions meeting the standards listed in 40 CFR Part 264. 40 CFR 264.118(a) states there must be a post-closure *Written Plan* and that this plan is incorporated into the permit.

However, the regulations for a post-closure permit and the requirements for a written post-closure plan are greatly duplicative. DEQ is unaware of any specific guidance that deals with this duplication. The Model RCRA Permit for Hazardous Waste Management Facilities (Draft, 530SW88001, Sept. 1988) suggests that there be within the permit a post-closure section with an attached post-closure plan. This format could lead to having triplicate conditions for the same requirement.

With this permit issuance, DEQ makes this Section III of the permit, the post-closure plan required by 40 CFR 264.118(a). If there is an enforcement issue with duplicative permit requirements found within this permit, DEQ will determine which permit conditions will apply.

Condition III.B: DEQ and EPA agreed to refer to the regulated hazardous waste unit as hazardous waste landfill and associated leachate collection and removal system. In the past, the 482-gallon fiberglass subunit where leachate collects was referred to as a “tank” or “sump.” In identifying the landfill and associated leachate collection and removal system as a single regulated entity, DEQ and EPA agreed that the fiberglass collection system was not used for the storage or treatment of hazardous waste. Consequently, the collection system is not subject to the tank requirements under Subpart J of Part 264. However, leachate generated from the landfill is a hazardous waste and Lockheed Martin is subject to the hazardous waste generator requirements under Part 262 at the time when the leachate is removed from the leachate collection and removal system and placed into container to be manifested offsite.

Condition III.C: Under 40 CFR 264.117, the period for post-closure care at a RCRA landfill unit must continue for at least 30 years after the date of closure. Post-closure care has been on-going since the original permit was issued in 2000 and is expected to exceed 30 years. 40 CFR 264.117 also allows DEQ to shorten the post-closure period if the permittee demonstrates that the full term is not necessary to protect human health and the environment. DEQ approval of a shortened post-closure period is a Class 3 permit modification. Similarly, DEQ may extend the post-closure period beyond 30 years when necessary to protect human health and the environment. Extension of the post-closure period is a Class 2 permit modification.

Condition III.D: Along with condition II.E of the permit, this condition requires the permittee to complete at least quarterly inspections of the facility. At least one of the quarterly inspections must include elements that require only annual review. The inspection plan and checklists are incorporated into the permit as Attachment B.

Condition III.E: Use of property on which hazardous waste remains must not disturb the wastes or the integrity of the landfill cover or other components of the landfill system. Although removal of the waste or disturbance of the site is not anticipated, this condition requires a permit modification for any disturbance of the waste or landfill system.

Condition III.F: Along with Conditions II.I, II.J, and II.K, Lockheed Martin is required to maintain financial assurance for on-going post-closure care of the RCRA landfill and associated leachate collection and removal system. Lockheed Martin maintains financial assurance through a post-closure letter of credit and must specifically comply with the requirements at 40 CFR 264.145(d).

Section IV Groundwater Detection Monitoring.

Since the RCRA landfill is unlined, groundwater contamination is a potential environmental impact from wastes disposed in the RCRA landfill. The climate, site hydrology, and institutional controls that limit the use of downgradient wells for drinking water reduce potential impacts to human health and the environment. Moreover, groundwater data to date indicates that the post-closure landfill is not leaking leachate to groundwater. The draft permit proposes a detection monitoring program that if elevated levels of either total cyanide, fluoride or sulfate are detected that this would indicate a possible leak from the landfill and require that groundwater protection standards be established.

The initial post-closure permit included groundwater protection standards that were established at the nearby Superfund remediation project at the former Martin Marietta facility. Because there is no evidence that the landfill is leaking and due to regulatory changes since the initial permit was issued, the draft permit proposes a new detection monitoring program.

Nearby monitoring wells MW-5S and MW-37S are not screened in the S Aquifer (determined to be the uppermost aquifer per 40 CFR 264.96) and are not included in the detection monitoring network. The monitoring wells listed in IV.A.1 are screened in the S Aquifer and are monitored as part of the detection monitoring network.

Condition IV.H. Under condition IV.G.3, the permittee must complete the statistical and evaluation procedures under permit conditions IV.F and IV.G with 45 days of receiving the analytical reports from the laboratory. The permittee must then submit its report to DEQ within 5 days of completing their analysis (or 50 days from receipt of the laboratory reports). 40 CFR 264.98(f)(2) gives DEQ the authority to specify a reasonable period of time to submit their groundwater analysis. DEQ determined that 60 days was an adequate period of time to complete the statistical analysis and evaluation on the data before submitting to DEQ. Sixty days is also the time allowed for resampling and submission of reports to DEQ (see IV.H.3.b).

Condition IV.J: If release is determined then Lockheed Martin would need to sample for the K088 constituents listed under 40 CFR 268.40

Section V Landfill and Leachate Tank.

This section includes permit conditions specific to the landfill and its associated leachate collection and removal system.

At this post-closure facility there is only the RCRA Landfill and its associated Leachate Collection and Removal System. Historically, the landfill started as waste pile that subsequently closed as a landfill under interim status. In accordance with the regulations Lockheed Martin submitted a Parts A and B RCRA hazardous waste permit application dated July 30, 1993. In July 2000, DEQ issued the initial post-closure permit. The permittee submitted a renewal permit application January 2010 and an updated permit renewal application June 2023. This permit is the first renewal permit.

Condition V.B: Over the years leachate production has diminished, but relatively low volumes of leachate are still generated. Lockheed currently manages the leachate as a generator by collecting it and shipping offsite to a permitted hazardous waste facility. Lockheed Martin sends leachate offsite for treatment and disposal. The RCRA landfill leachate is pumped from the leachate tank to DOT-certified containers to be properly manifested and shipped to a RCRA hazardous waste permitted facility under the hazardous waste generator rules at 40 CFR Part 262.

Condition V.D: Post-closure care requirements for the landfill and associated leachate collection and removal system are included in Section III of the permit and have not been repeated here. The post-closure plan is also included in the Part B application.

Section VI Corrective Action for Solid Waste Management Units.

The initial RCRA permit included requirements at the CERCLA landfill and scrubber sludge ponds in tandem with the Superfund requirements. Since all operation, maintenance and monitoring requirements and enforcement at these operable units will be implemented by the federal Superfund Program,

corrective action requirements described in the permit pertain only to the RCRA landfill and associated leachate collection system.

Units designated as solid waste management units (SWMUs) are areas or units that either in the past or present manage *any* type of solid waste. Pursuant to federal law (Section 3004(u) of RCRA, as amended by HSWA), which was codified at 40 CFR 264.101 and adopted as Oregon Rule by OAR 340-100-0002, all hazardous waste permits must have conditions that address possible or actual releases of environmental contamination from SWMU units. See ORS 466.105(10) and ORS 466.215(3)(b).

In the immediate area around the Lockheed Martin facility, Martin Marietta operated an aluminum reduction facility. Offsite from the former Martin Marietta Reduction Facility contamination was found in groundwater wells initiating an environmental investigation. In 1987, Martin Marietta was listed on the CERCLA National Priorities list. EPA Region 10 issued a Record of Decision outlining the environmental remedies resulting in a Consent Decree¹ listing Martin Marietta, EPA Region 10, and Oregon DEQ as parties to the Decree.

In 1995 EPA Region 10 determined that site remediation was completed and now only operation and maintenance was required. The site was then removed from the NPL list.

In 1995 Lockheed and Martin Marietta merged with the new company, Lockheed Martin, retaining the environmental obligations at the site.

The CERCLA remedy resulted in the creation of a CERCLA landfill, placing a soil cap on scrubber ponds, and installing a treatment system for the CERCLA leachate. By definition the CERCLA landfill and scrubber ponds are also SWMUs.

This hazardous waste permit therefore recognizes the following CERCLA units as Lockheed Martin SWMUs as defined at 55 FR 30874 (July 27, 1990, Federal Register).

Name	Partition Plat Designation (Attachment 1)	Areal Extent (acres)	Description
CERCLA Landfill and Leachate Treatment	Parcel 1	21.97	Landfill constructed as part of the Superfund (CERCLA) remediation. Landfill contains some aluminum production waste along with other solid waste. This landfill has dedicated groundwater monitoring wells. Within this parcel is a leachate treatment unit that discharges to The Dalles wastewater treatment system.
Scrubber Sludge Ponds	Parcel 3	22.42	Formerly used as wastewater holding ponds (from water used at air pollution control units). Currently an unused fenced-off area containing no holding waters, native soils, and tree vegetation.

Corrective action at this site also falls under federal CERCLA authority from the Consent Decree. It is not uncommon to have State Authorities and CERCLA share their authority at one location, as it does at Lockheed Martin.

¹ Civil Action No. 89-714-MA, Lodged July 5, 1989.

EPA guidance states that when there are two or more corrective action authorities at a site it is recommended that tasks and decision making not be duplicative.² The guidance states the authorities should come together and decide what tasks and decisions will be delegated to which authority.

For this permit renewal, DEQ decided to have all CERCLA operation and maintenance tasks be reviewed, implemented, and enforced by the EPA Region 10 CERCLA program. EPA Region 10 regulates the CERCLA SWMUs pursuant to the Consent Decree mentioned above. This decision is consistent with the National Contingency Plan.

As a party to the Consent Decree, DEQ retains all rights and privileges under the Decree.

Section VI of this permit addresses required corrective action associated with the hazardous waste landfill and associated leachate collection system. If by new information DEQ concluded that the hazardous waste landfill posed a threat to human health and the environment, the authority under this section and 40 CFR 270.32(b)(2) would be used to address the risk posed to human health and the environment.

This section of the permit also addresses newly identified SWMUs. For instance, if drums of hazardous substances were found by chance on the RCRA landfill and associated leachate collection system, these would be newly identified SWMUs which require notification and corrective action under this section of this permit.

ORS 466.105(10) and 40 CFR 264.101 require hazardous waste permits address corrective action for releases of hazardous wastes including hazardous constituents from any solid waste management unit (SWMU) at the facility, regardless of when the waste was placed in the unit.

Attachments.

Attachment A Wasco County Partition Plat Showing Lockheed Martin Facility

Attachment B RCRA Landfill Operations, Maintenance, and Inspection Plan

Attachment C Sampling and Analysis Plan RCRA Landfill

ALTERNATIVE FORMATS

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.oregon.gov.

NON-DISCRIMINATION STATEMENT

DEQ does not discriminate on the basis of race, color, national origin, disability, age, or sex in administration of its programs or activities. Visit DEQ's Civil Rights and Environmental Justice website for more details.

² For example, The September 24, 1996, memo: [Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities](#) (EC-G-2002-008)