SECTION 00296 - PAINT AND PAINTED MATERIALS

(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence, or bullet, then include them in the project. The specifications may be modified to include project specific specifications, but all additions, deletions, or modifications must be sent to the ODOT Technical Resource and Senior Specifications Engineer for review and approval.)

Section 00296, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00296.00 Scope - In addition to the requirements of Section 00290, remove lead, chromium, and cadmium based paints, and materials coated with lead, chromium, and cadmium based paints, according to these specifications.

(Use the following paragraph and table when there is lead, chromium, or cadmium paints on concrete structures. Fill in the first blank describing the painted concrete portions of the structure. Fill in the second blank with the structure name and number.)

Lead, chromium and cadmium based paints coat the concrete on the _____ on the _____ bridge. Analysis of paint samples collected from this bridge detected the following concentrations of total lead, cadmium and chromium in the concrete paint:

(Note to spec writer - The metric values listed below are an industry recognized standard geometry for measuring lead. DO NOT convert the value to an English unit.)

Sample Location and Material	Total Lead (mg/kg)	Total Chromium (mg/kg)	Total Cadmium (mg/kg)

ND = not detected above the laboratory detection limit.

(Use the following paragraph and table when a TCLP analysis is available.)

Toxicity Characteristic Leaching Procedure (TCLP) analysis of bulk painted concrete samples, representative of the waste that will be generated during demolition, detected the following concentrations of TCLP lead, chromium, and cadmium:

(Note to spec writer - The metric values listed below are an industry recognized standard geometry for measuring lead. DO NOT convert the value to an English unit.)

Sample Location and Material	Total Lead (mg/L)	Total Chromium (mg/L)	Total Cadmium (mg/L)

ND = not detected above the laboratory detection limit.

(Use the following paragraph and table when there is lead, chromium, or cadmium paints on steel structures. Fill in the first blank describing the painted metal portions of the structure. Fill in the second blank with the structure name and number.)

Lead, chromium and cadmium based paints coat the metal on the _____ on the _____ bridge. Analysis of paint samples collected from this bridge detected the following concentrations of total lead, cadmium, and chromium in the metal paint:

(Note to spec writer - The metric values listed below are an industry recognized standard geometry for measuring lead. DO NOT convert the value to an English unit.)

Sample Location and Material	Total Lead (mg/kg)	Total Chromium (mg/kg)	Total Cadmium (mg/kg)

ND = not detected above the laboratory detection limit.

(Use the following paragraph and table when there is lead, chromium, or cadmium paints on wood structures. Fill in the first blank describing the painted wood portions of the structure. Fill in the second blank with the structure name and number.)

Lead, chromium and cadmium based paints coat the wood on the _____ on the _____ bridge. Analysis of paint samples collected from this bridge detected the following concentrations of total lead, cadmium, and chromium in the wood paint:

(Note to spec writer - The metric values listed below are an industry recognized standard geometry for measuring lead. DO NOT convert the value to an English unit.)

Sample Location and Material	Total Lead (mg/kg)	Total Chromium (mg/kg)	Total Cadmium (mg/kg)

ND = not detected above the laboratory detection limit.

(Fill in the blanks with the date and name of report that will be available from the Engineer.)

The _____ ODOT report, titled _____ documenting these analyses, is available from the Engineer.

Unless otherwise tested, assume that all coatings contain lead, chromium, and cadmium and handle paint and painted materials accordingly during demolition.

00296.03 Submittals - Submit the following documents:

- A job specific written compliance program, according to 29 CFR 1926.62(e)(2), at least 10 Calendar Days before the pre-construction conference. When applicable, include compliance procedures for cadmium and chromium VI, according to 29 CFR 1926.1127 and 29 CFR 1926.1126.
- Modifications to the written compliance program within 7 Calendar Days of the modifications.
- Current employee training certificates and medical surveillance information before beginning work that disturbs paint containing lead, cadmium or chromium.
- Within 48 hours of completing or receiving them:
    - Disposal and recycling facility permits.
    - Transport manifests and bill-of-ladings.
    - All reuse, recycling, and disposal receipts.
    - All analytical test results.

00296.04 Documentation - Include paint and painted materials management and planned reuse, recycling, and disposal information in the pollution control plan. Obtain Engineer approval for the specific reuse, recycling, and disposal methods for all materials before beginning demolition work.

Complete, sign and pay all required fees for all required permits, manifests, and bill-of-lading forms for transport and disposal of the paint and painted materials.

Labor

00296.30 Personnel Qualifications - Provide employees trained in lead awareness, according to 29 CFR 1926.62(l), and also trained according to 29 CFR 1926.1126(j)(2) for chromium and 29 CFR 1926.1127(m)(4) for cadmium, during demolition of painted portions of the structures.

Construction

00296.40 Handling - Minimize employee exposure to the metals contained in the paint. Provide containment that prevents release of paint chips to the environment. Do not remove or separate paint from painted substrates, unless required to accomplish repair activities.

(Use the following subsection .42 when removing painted concrete.)

00296.42 Painted Concrete Debris Management - Reuse, recycle, or dispose of painted concrete debris according to any of the following:

(Use the following bullets as instructed below. Include only the relevant options, based on the paint testing results and the options that are feasible for the specific project based on the scope of work and location. If different portions of the concrete structure have different types of paint, clearly specify which portions of the concrete each option applies to.)

(Use this bullet for all painted concrete, unless the bulk concrete waste will be a hazardous waste.)

- **Recycle as New Concrete** - Recycle the concrete into new concrete on site or at an off-site fixed facility. Only use concrete containing recycled concrete debris on the Project when testing demonstrates that the mix meets applicable design standards for the intended use and is acceptable to the Engineer. Before beginning on-site crushing, obtain permits required under OAR 340-216-0020 and comply with all the permit conditions.

(Use this bullet and sub-bullets for concrete that has <u>less than</u> 1000mg/kg total lead in the paint and low levels of cadmium and chromium and the project team has determined there are places where crushed concrete can be used on the project site.)

- **Recycle as Aggregate** - Use as aggregate within the road prism or embankment, only when:
  - The concrete debris meets the applicable design standards for the intended use.
  - It is placed on the project between Station ____ and Station _____ as shown.
  - It is placed at least 4 feet above the mean high groundwater table.
  - It is placed more than 50 feet from all surface water body and sensitive environment areas.
  - It will be paved over or will be covered with least one foot of clean fill material.

(Use this bullet and sub bullets for concrete that has <u>more than</u> 1000 mg/kg total lead in the paint and where the bulk concrete waste will not be a hazardous waste. Only use when Region approves the use of a SWLA and discussions with DEQ have confirmed that they will likely issue a SWLA for that specific use. Note: SWLA permits are only valid for 6 months with one 6 month extension; therefore, the SWLA permit cannot be obtained by ODOT before construction begins.)

- **Recycle as Fill Material** - Obtain a DEQ Solid Waste Letter of Authorization (SWLA) and reuse the material as fill material within the ODOT road prism. Complete all submittals and pay all fees required to obtain a SWLA. Sign the application form and provide the signed application form to the Engineer to sign on behalf of ODOT, at

least 60 Calendar Days before beginning placement of the concrete debris. Submit the completed and signed SWLA application to DEQ. Do not begin placement of the concrete debris until DEQ has issued the SWLA permit. The SWLA permit expires 6 months from the date of issuance. Complete the filling work before the permit expires or obtain a 6 month permit extension from DEQ and pay all associated permit extension fees. Only one 6 month extension is allowed.

- Place fill material:

(Modify these sub-bullets to comply with the SWLA permit conditions or conditions agreed to with DEQ in preparation for issuing a SWLA during construction. Follow the Specification and Writing Style manual when making modifications.)

  - At least 4 feet above the mean high groundwater table.
  - That will be paved over or will be covered with at least one foot of clean fill material.
  - That is more than 50 feet from all surface water body or sensitive environment areas.
  - It is placed on the project between Station ____ and Station _____ as shown.

(Use this bullet for all painted concrete, unless the bulk concrete waste will be a hazardous waste.)

- **Recycle or Dispose of at Landfill** - Recycle at a permitted municipal solid waste landfill or a permitted construction and demolition landfill as aggregate material for roads or other infrastructures within the landfill area or dispose of at a permitted municipal solid waste landfill or a permitted construction and demolition landfill for disposal.

(Use this bullet when discussions with DEQ have resulted in an alternate management option acceptable to the Region. Follow the Specification and Writing Style manual when editing.)

- **Recycle, Reuse, or Dispose** - Recycle, reuse, and dispose of painted concrete waste according to the following:

(Use the following subsection .43 when removing painted metal.)

00296.43 Painted Metal Management - Reuse, recycle, or dispose of painted metal according to any of the following:

- **Reuse by Others** - Provide or sell painted non-structural scrap metal to the following:

  - Provide to ODOT for use on other projects.
  - Provide to ODOT Maintenance Section.
  - Provide or sell to other government Agencies.
  - Provide or sell to contractors for their reuse.

Obtain the recipients signature on the attached disclaimer form, acknowledging their awareness that the scrap metal contains lead, chromium, and cadmium based paint before giving them possession.

- **Recycle at Recycling Facility** - Transport the painted scrap metal along with the paint analytical results to a recycling facility. Obtain the recipients signature on the attached disclaimer form, acknowledging their awareness that the scrap metal contains lead, chromium and cadmium based paint.

(Use this bullet for painted metal when reuse or recycling is not feasible or disposal may be the only economic option and the bulk waste will not be a hazardous waste. (For example, there is very little painted metal and it's not worth separating and transporting it to a recycler).

- **Dispose of at Landfill** - Dispose of the painted scrap metal at a permitted municipal solid waste landfill or a permitted construction and demolition landfill.

(Use the following subsection .44 when removing painted wood.)

00296.44 Painted Wood Management - Dispose of painted wood at a permitted municipal solid waste landfill or a permitted construction and demolition landfill, according to the DEQ "Hazardous Waste/Toxics Reduction Policy Clarification: Management of Building Demolition Waste" Policy 1997-PO-002A.

(Use one or both subsections .45 and .46 only for lead-based paint removal that is incidental to other demolition or repair activities. Do not use them where removal of lead-based paint is a primary construction task (removal of lead-based paint for bridge painting projects). For removal of lead-based paint is primary, coordinate paint removal with the Structure Coatings Engineer. Do not duplicate the Structure Coatings Engineer specifications here.)

(Use this subsection .45 when the paint that is not a hazardous waste may be separated from the substrate during construction. Paint may become separated because it is peeling or because the planned repairs may require paint removal.)

00296.45 Non-Hazardous Waste Paint Management - When non-hazardous paint is separated from its substrate, contain all the paint waste and dispose of it at a permitted municipal solid waste landfill.

(Use this subsection .46 when the paint that is a hazardous waste may be separated from the substrate during construction.)

00296.46 Hazardous Waste Paint Management - When hazardous waste paint is separated from its substrate, store all the separated paint waste in labeled, sealed, watertight containers and handle the hazardous waste according to 00290.20(d).

Measurement

(Use one of the following subsection .80's as instructed below. Delete the one that does not apply.)

(Use this subsection .80 when separate bid items are required. Delete the measurement paragraphs that do not apply.)

00296.80 Measurement -

(Use one of the following paragraphs for painted concrete recycling and disposing as instructed below. Pay for the work or keep it incidental, depending on the project logistics, likely quantities to be generated, and nature of the work. Delete the paragraph that does not apply.)

(Use this paragraph when quantities for painted concrete will be measured and paid for.)

The quantities of painted concrete recycled or disposed will be measured on the weight basis, per ton, based on the recycling or disposal facility weigh tickets.

(Use this paragraph when no measurement will be made for painted concrete.)

No measurement of quantities will be made for recycling or disposing of painted concrete.

The quantities of painted wood disposed will be measured on the weight basis, per ton, based on the recycling or disposal facility weigh tickets.

The quantities of paint separated from substrates will be measured on the weight basis, per pound, at least to the nearest 1 pound, based on the recycling or disposal facility weigh tickets.

No measurement of quantities will be made for reusing, recycling, or disposing of painted metal.

(Use this subsection .80 when no separate measurement will be made for work performed under this Section.)

00296.80 Measurement - No measurement of quantities will be made for work performed under this Section.

Payment

(Use one of the following subsection .90's as instructed below. Delete the one that does not apply.)

(Use this subsection .90 when separate bid items are required. Delete the bid items that do not apply. Re-alphabetize the bid items as necessary.)

00296.90 Payment - The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

(Include pay item (a) painted concrete only when it will be paid for. Delete it and re-alphabetize the bid items if it's not used.)

Pay Item	Unit of Measurement

(a) Painted Concrete.....Ton
(b) Painted Wood.....Ton
(c) Separated Paint.....Pound

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for:

(Include the first bullet below only when no payment will be made for painted concrete. Delete it if payment is included in pay item (a) above.)

- Recycling and disposing of painted concrete.
- Reusing, recycling, or disposing of painted metal and related demolition and repair activities necessary to complete the work.
- Containment activities.

(Use this subsection .90 when no separate payment will made for work performed under this Section.)

00296.90 Payment - No separate or additional payment will be ~~paid~~ made for work performed under this Section. Payment will be included in payment made for the appropriate items under which this work is required.

Attachment A
Lead, Chromium, and Cadmium Based Paint Acknowledgement Form

[Contractor] _____
[Bridge Identification] _____
[Description of Scrap Metal] _____

_____ [Recipient] acknowledges that they are aware that metal and materials received from _____ [Contractor] on _____ [Date(s)] may contain lead, chromium, or cadmium based paint. Recipient further acknowledges that it is aware of the risk to human health and the environment posed by exposure to lead, chromium and cadmium based paint. All storage, use, sale, and disposal of materials containing lead, chromium or cadmium based paint and any removal of lead, chromium, or cadmium based paint from the materials by Recipient will be conducted in compliance with all applicable Federal and State statutes and regulations, including but not limited to 40 CFR 262 through 265 and OAR Chapter 340, Divisions 100 through 106. Recipient acknowledges that they are solely responsible for any liability or damages resulting from the storage, use, sale, and disposal of the materials and removal of lead, chromium or cadmium based paint by Recipient and Recipient will indemnify and hold harmless the Contractor and the Oregon Department of Transportation from any such claims of liability or damages.

_____ [Signature]
_____ [Title]
_____ [Date]