

CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES

****From Bennington-Mt. Tabor BF BPNT(16)(Re-Advertised)**

- xx. DESCRIPTION. This work shall consist of the containment, collection, temporary storage, transportation, and disposal of waste from lead paint removal operations. Waste requiring containment and control includes, but is not limited to, old paint, spent abrasives, corrosion products, mill scale, dirt, dust, grease, oil, salts, and water used for cleaning the surface of existing lead coatings.
- xx. GENERAL REQUIREMENTS. The existing coatings contain lead and may also contain other toxic metals. This specification provides the requirements for containment and for the protection of the public and the environment from exposure to harmful levels of toxic metals that may be present in the paint being removed or repaired. The Contractor shall take reasonable and appropriate precautions to protect the public from the inhalation or ingestion of dust or debris from the operations, and is responsible for the clean-up of all spills of waste at no additional cost to the Agency.

The Contractor shall comply with the requirements of this specification and all applicable Federal, State, and Local laws, codes, and regulations. These include but are not limited to the regulations of the United States Environmental Protection Agency (USEPA), Vermont Occupational Safety and Health Administration (VOSHA), Vermont Department of Health (VDOH), and the Vermont Agency of Natural Resources (ANR). The Contractor shall comply with all applicable regulations even if the regulation is not specifically referenced herein. If a Federal, State, or Local regulation is more restrictive than the requirements of this specification, the more restrictive requirements shall prevail as determined by the Engineer.

- xx. SUBMITTALS. The Contractor shall submit to the Engineer, in accordance with Subsection 105.03 for Construction Drawings, the following information for completing the work. Complete submittals shall be provided a minimum of 21 days prior to the anticipated start of the work. For the duration of the project, the Contractor shall also maintain on site printed copies of the following standards and regulations referenced herein:

SSPC Guide 6: Guide for Containing Debris Generated During Paint Removal Operations;

SSPC Guide 7: Guide for Disposal of Lead Containing Surface Preparation Debris;

29 CFR 1926.62 - Lead in Construction;

40 CFR Part 50, Appendix B - Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method);

40 CFR Part 50, Appendix G - Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air;

SSPC Guide 16: Guide to Specifying and Selecting Dust Collectors; and

SSPC TU-7 - Conducting Ambient Air, Soil, and Water Sampling Activities During Surface Preparation and Paint Disturbance Activities.

- (a) Containment Plan. The Containment Plan shall include drawings, equipment specifications, and calculations (wind load, air flow, and ventilation when negative pressure is specified). The plan shall include copies of the manufacturer's specifications for the containment materials and equipment that will be used to accomplish containment and ventilation. The plan shall note the type of abrasive that is to be used and account for the weight of spent abrasive on the containment system.

The submittal shall provide calculations that assure the structural integrity of the bridge under all loading conditions.

Loading conditions shall include but not be limited to all equipment, materials, and containment system loads. The calculations and drawings shall be prepared, signed, and sealed by a qualified Vermont Licensed Professional Engineer. The Vermont Licensed Professional Engineer shall inspect the containment system, review the materials used for its construction, and certify that the as-erected containment is in conformance with the drawings.

The design shall indicate the maximum wind speed allowed for the containment system.

When working over the railroad or navigable waterways, unless otherwise directed by the Engineer, the Contractor shall provide evidence that the Railroad, Coast Guard, Corps of Engineers, and other applicable agencies are satisfied with the clearance provided and other safety measures that are proposed.

- (b) Site Specific Health and Safety Plan. The Health and Safety Plan shall identify the Contractor's Health and Safety Officer. The plan shall discuss the Contractor's lead testing program for workers and what course of action will be followed if the levels become too high.

The plan shall also identify the VOSHA Competent Person for the VOSHA regulated activities. The Competent Person shall be on site during the progress of the regulated activities. In addition to the lead removal activities the plan should emphasize best practice fall protection and prevention and include plans for rescuing individuals hanging from fall arrest devices.

- (c) Environmental Monitoring Plan. The Environmental Monitoring Plan shall address the visual inspections and cleanup of the soil and water that the Contractor will perform, including final project inspection and cleanup. The plan shall address the daily visible emissions observations that will be performed and the corrective action that will be implemented in the event emissions or releases occur.
- (d) Waste Management Plan. The Waste Management Plan shall address all aspects of waste handling, storage, testing, hauling, and disposal. The plan shall include the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities and the name and qualifications of the laboratory proposed for Toxicity Characteristic Leaching Procedure (TCLP) analysis. The use of any steel or iron based material, such as but not limited to grit, shot, fines, or filings as an abrasive additive, is prohibited.
- (e) Contingency Plan. The Contractor shall prepare a Contingency Plan for emergencies including fire, accident, failure of power, failure of dust collection system, failure of supplied air system, or any other event that may require modification of standard operating procedures during lead removal. The plan shall include specific procedures to ensure safe egress and proper medical attention in the event of an emergency.
- (f) Permits. The Contractor shall submit a copy of the site specific Lead Abatement Permit issued by the Vermont Department of Health (VDOH) for the project.

The Contractor shall also submit the EPA ID # for hazardous waste disposal issued by ANR.

When the Engineer accepts the submittals, the Contractor will receive written notification. The Contractor shall not begin any work until the Engineer has accepted the submittals. The Contractor shall not construe Engineer acceptance of the submittals to imply approval of any particular method or sequence for conducting the work, or for addressing health and safety concerns. Acceptance of the plans does not relieve the Contractor from the responsibility to conduct the work according to the requirements of Federal, State, or Local regulations, this specification, or to adequately protect the health and safety of all workers involved in the project and any members of the public who may be affected by the project. The Contractor remains solely responsible for the adequacy and completeness of the programs and work practices, and adherence to them.

- xx. CONTRACTOR QUALIFICATIONS. The cleaning and painting Contractor shall possess current SSPC certifications and shall maintain certified status throughout the duration of the painting work under the Contract. An SSPC-QC2 certification shall be maintained for hazardous paint removal in the field.
- xx. QUALITY CONTROL (QC) INSPECTIONS. The Contractor shall perform first line, in process QC inspections of all environmental control and waste handling aspects of the project to verify compliance with these specification requirements and the accepted drawings and plans. The Contractor shall use an environmental daily report form approved by the Engineer to record the results of the inspections. The completed reports shall be provided to the Engineer before work resumes the following day.

Contractor QC inspections shall include, but not be limited to, the following:

- (a) Proper installation and continued performance of the containment system(s) in accordance with the Containment Plan.
- (b) Visual inspections of emissions into the air and verification that the cause(s) for any unacceptable emissions is corrected.
- (c) Visual inspections of spills or deposits of contaminated materials into the water or onto the ground, pavement, soil, or slope protection. Included is verification that proper cleanup is undertaken and that the cause(s) of unacceptable releases is corrected.
- (d) Proper implementation of the Waste Management Plan, including laboratory analysis and providing the results to the Engineer within the time frames specified herein.
- (e) Proper implementation of the Contingency Plan for emergencies.

The personnel providing the QC inspections shall possess current SSPC-C3 certification or equal, including the annual training necessary to maintain that certification (SSPC-C5 or equal), and shall provide evidence of successful completion of 2 projects of similar or greater complexity and scope that have been completed in the last 2 years. References shall include the name, address, and telephone number of a contact person employed by the project owner. Proof of initial certification and the current annual training shall also be provided.

- xx. QUALITY ASSURANCE (QA) OBSERVATIONS. The Engineer will conduct QA observations of any or all of the QC monitoring inspections that are undertaken. The presence or activity of Engineer observations in no way relieves the Contractor of the responsibility to provide all necessary daily QC inspections and to comply with all requirements of this specification. The Engineer and/or the Engineer's designee shall be allowed access to all work areas, including the containment.

xx. CONTAINMENT REQUIREMENTS. The Contractor shall install and maintain containment systems surrounding the work for the purpose of controlling emissions of dust and debris according to the requirements of this specification. Working platforms and containment materials that are used shall be firm and stable. Platforms shall be designed to support the workers, inspectors, spent surface preparation media (e.g., abrasives), and equipment during all phases of surface preparation and painting. Platforms, cables, and other supporting structures shall be designed according to VOSHA regulations. If the containment needs to be attached to the structure, the containment shall be attached by bolting, clamping, or similar means. The Contractor shall obtain approval from the Structures Engineer prior to drilling into the structure. Welding onto the structure is prohibited.

The containment shall be dropped in the event of sustained winds of 64 kph (40 mph) or greater and all materials and equipment secured.

The Contractor shall provide drawings showing the containment system and indicating the method(s) of supporting the working platforms and containment materials to each other and to the bridge. When the use of negative pressure and airflow inside containment is specified, the Contractor shall provide all ventilation calculations and details on the equipment that will be used for achieving the specified airflow and dust collection.

The Contractor shall submit calculations and drawings, signed and sealed by a qualified Vermont Licensed Professional Engineer, that assure the structural integrity of the bridge under the live and dead loads imposed, including the design wind loading.

When working over railroads, the Contractor shall provide evidence that the proposed clearance and the safety provisions that will be in place (e.g., flagman) are acceptable to the railroad. In the case of work over navigable waters, the Contractor shall provide evidence that the proposed clearance and provisions for installing or moving the containment out of navigation lanes is acceptable to authorities such as the Coast Guard and Army Corps of Engineers. The Contractor shall include plans for assuring that navigation lighting is not obscured, or if it is obscured, that temporary lighting is acceptable to the appropriate authorities (e.g., Coast Guard) and will be utilized.

Engineer review and acceptance of the drawings and calculations shall not relieve the Contractor from the responsibility for the safety of the working platforms; safety and operation of the containment; and for providing ample ventilation to control worker and environmental exposures. After the work platforms and containment materials are erected, additional measures may be needed to ensure worker safety according to VOSHA regulations. The Contractor shall institute such measures at no additional cost to the Agency.

Containment for the cleaning operation of this Contract is defined as follows:

The containment system shall maintain the work area free of visible emissions of dust and debris according to all provisions of this specification, with no debris permitted outside of the regulated area at any time. All debris within the regulated area and within the containment shall be collected at the end of the last shift each day or every 24 hours for continuous operation, and properly stored in sealed containers.

The containment systems shall comply with the specified SSPC Guide 6 classifications.

The Contractor shall take appropriate action to avoid personnel injury or damage to the structure from the installation and use of the containment system. If the Engineer determines that there is the potential for structural damage caused by the installed containment system, the Contractor shall take appropriate action to correct the situation.

In addition to complying with the specific containment requirements in SSPC Guide 6 classifications for each method of removal, the Contractor shall provide and maintain coverage over the ground in the areas to be cleaned. This coverage shall be capable of catching and containing surface preparation media, paint chips, and paint dust in the event of an accidental escape from the primary containment. The containment materials shall be cleaned of loose material prior to relocation or dismantling. If paint chips or dust are observed escaping from the containment materials during moving, all associated operations shall be halted and the materials and components shall be re-cleaned by HEPA vacuuming.

The containment systems shall also meet the following requirements:

- (a) Dry Abrasive Blast Cleaning - Full Containment with Negative Pressure (SSPC Class 1A). The enclosure shall be designed, installed, and maintained to sustain maximum anticipated wind forces, including negative pressure. Flapping edges of containment materials are prohibited and the integrity of all containment materials, seams, and seals shall be maintained for the duration of the project. Airflow inside containment shall be designed to provide visibility and reduce worker exposures to toxic metals according to VOSHA regulations and as specified in the submitted Containment Plan. The minimum airflow shall be 1.70 m³/min. (60 cfm) for down draft systems and 2.8 m³/min. (100 cfm) for cross draft systems.

When the location of the work on the bridge permits, the blast enclosure shall extend a minimum of 1 m (3 feet) beyond the limits of surface preparation to allow the workers to blast away from, rather than into, the seam between the containment and the structure. The blast enclosure shall have an entrance chamber to allow entrance

and exit from the enclosure without allowing the escape of blasting residue.

All spent abrasive shall be removed from the containment at the conclusion of each work shift.

If recyclable metallic abrasives are used, the Contractor shall operate the equipment in a manner that minimizes waste generation. Steps shall also be taken to minimize dust generation during the transfer of all abrasive/paint debris (expendable or recyclable abrasives) for recycling or disposal. Acceptable methods include, but are not limited to vacuuming, screw or belt conveyance systems, or manual conveyance. Manual conveyance is only permitted if the work is performed inside a containment that is equipped with an operating ventilation system capable of controlling the dust that is generated.

Appropriate filtration shall be used on the exhaust air of dust collection and abrasive recycling equipment as required to comply with VDOH Lead Abatement Permit and State and Federal regulations. The equipment shall be enclosed if visible dust and debris are being emitted and/or the regulated area or high volume monitor lead levels are not in compliance.

Areas beneath containment connection points that were shielded from abrasive blast cleaning shall be prepared by vacuum blast cleaning or vacuum-shrouded power tool cleaning after the containment is removed.

- (b) Vacuum Blast Cleaning (SSPC-Class 4A). Vacuum blasting equipment shall be fully automatic and capable of cleaning and recycling the abrasive. The system shall be designed to deliver cleaned, recycled blasting abrasives and provide closed system containment during blasting. The removed coating, mill scale, and corrosion shall be separated from the abrasive and stored for disposal.

The Contractor shall ensure that the vacuum shrouds are fully engaged while the tool is in use to prevent the escape of abrasive and lead paint chips. The Contractor shall attach containment materials around and under the work area to catch and contain abrasive and waste materials in the event of an accidental escape from the vacuum shroud. This containment is in addition to the ground covers specified earlier.

It is possible that the close proximity of some structural steel members, such as the end diaphragms or end cross-frames underneath transverse deck expansion joints, preclude the use of the vacuum blasting equipment for the removal of the old paint. For surfaces that are inaccessible for the nozzles of the vacuum blasting equipment, the Contractor shall remove the paint by means of full containment inside a complete enclosure as directed by the Engineer.

- (c) Vacuum-Shrouded Power Tool Cleaning (SSPC-Class 3P). The Contractor shall ensure that the vacuum shrouds are fully engaged while the tool is in use to prevent the escape of abrasive and lead paint chips. The Contractor shall utilize power tools equipped with vacuums and High Efficiency Particulate Air (HEPA) filters. The Contractor shall attach containment walls around the work area and install containment materials beneath the work area to catch and contain waste materials in the event of an accidental escape from the vacuum shroud. This containment is in addition to the ground covers specified earlier and shall be installed within 3 m (10 feet) of the areas being cleaned.
- (d) Power Tool Cleaning without Vacuum (SSPC-Class 2P). When the use of power tools without vacuum attachments is authorized by the Engineer, the Contractor shall securely install containment walls and flooring around the work area to capture and collect all debris that is generated. The containment material requirements for this Class 2P are similar to Class 3P used for vacuum-shrouded tools, but the supporting structure will be more substantial in Class 2P to better secure the containment materials from excessive movement that could lead to the loss of waste paint chips and debris. Containment beneath the work shall be within 3 m (10 feet) of the areas being cleaned, and is in addition to the ground covers specified earlier.
- (e) Water Washing, Water Jetting, or Wet Abrasive Blast Cleaning (SSPC Class 2W-3W). Water washing of the bridge for the purpose of removing chalk, dirt, grease, oil, bird nests, and other surface debris, and water jetting or wet abrasive blast cleaning for the purpose of removing paint and surface debris, shall be conducted within a containment designed, installed, and maintained in order to capture and contain all water and waste materials. The containment shall consist of impermeable floors and lower walls to prevent the water and debris from escaping. Permeable upper walls and ceilings are acceptable provided the paint chips, debris, and water, other than mists, are collected. A fine mist passing through the permeable upper walls is acceptable, provided the environmental controls specified herein are met. If paint chips, debris, or water, other than mists, escape the containment system, impermeable walls and ceilings shall be installed.

When water is used for surface cleaning, the collected water shall be filtered to separate the particulate from the water. Recycling of the water is preferred in order to reduce the volume of waste that is generated. The water after filtration shall be collected and disposed of according to the waste handling portions of this specification.

If high pressure water jetting is proposed, the Contractor's Health and Safety Plan shall clearly identify the respiratory protection that will be used to protect against aerosol form of lead ingestion.

xx. ENVIRONMENTAL CONTROLS AND MONITORING. The Contractor shall prepare and submit to the Engineer an Environmental Monitoring Plan for review and acceptance. The purpose of the plan is to address the observations and equipment monitoring undertaken by the Contractor to confirm that project dust and debris are not escaping the containment into the surrounding air, soil, and water.

- (a) Soil and Water. Containment systems shall be maintained to prevent the escape of paint chips, abrasives, and other debris into the water, and onto the ground, soil, slope protection, and pavements. Releases or spills of paint chips, abrasives, dust and debris that have become deposited on surrounding property, structures, equipment or vehicles, and bodies of water are unacceptable. If there are inadvertent spills or releases, the Contractor shall immediately shut down the emissions-producing operations, clean up the debris, and change work practices, modify the containment, or take other appropriate corrective action as needed to prevent similar releases from occurring in the future.

When feasible, water booms, boats with skimmers, or other means as necessary shall be used to capture and remove paint chips or project debris that falls or escapes into the water.

At the end of each workday at a minimum, the work area inside and outside of containment, including ground tarpaulins, shall be inspected to verify that paint debris is not present. If debris is observed, it shall be removed by HEPA-vacuuming. If wet methods of preparation are used, the damp debris can remain overnight provided it is protected from accidental release by securely covering the waste, folding the waste into the ground tarps, or by other acceptable methods. Prior to commencing work the next day, the debris from the folded ground tarps shall be removed.

Upon project completion, the ground and water in and around the project site are considered to have been properly cleaned if paint chips, paint removal media (e.g., spent abrasives), fuel, materials of construction, litter, or other project debris have been removed, even if the material being cleaned was a pre-existing condition.

- (b) Visible Emissions. The Contractor shall conduct observations of visible emissions and releases on an ongoing daily basis when dust-producing activities are underway, such as paint removal, clean up, waste handling, and containment dismantling or relocation.

If visible emissions or releases are observed, the Contractor shall immediately shut down the emission-producing operations, clean up the debris, and change work practices, modify the containment, or take other appropriate corrective action as needed to prevent similar releases from occurring in the future.

xx. REGULATED AREAS. Physically demarcated regulated area(s) shall be established around exposure producing operations at the OSHA Action Level for the toxic metal(s) present in the coating. The Contractor shall provide all required protective clothing and equipment for personnel entering into a regulated area. Unprotected street clothing is not permitted within the regulated areas.

xx. HYGIENE FACILITIES/PROTECTIVE CLOTHING/BLOOD TESTS. The Contractor shall provide clean lavatory and hand washing facilities according to VOSHA regulations and confirm that employees wash hands, forearms, and face before breaks. The facilities shall be located at the perimeter of the regulated area in close proximity to the paint removal operation. Shower facilities shall be provided when workers' exposure exceed the Permissible Exposure Limit. Showers shall be located at each bridge site. The shower and wash facilities shall be cleaned at least daily during use.

All wash and shower water shall be filtered and containerized. The Contractor is responsible for filtration, testing, and disposal of the water.

The Contractor shall make the decontamination facilities on the project available for use by Agency personnel and other Agency representatives assigned to the project.

xx. SITE EMERGENCIES.

(a) Stop Work. The Contractor shall stop work at any time the conditions are not within specifications and take the appropriate corrective action. The stoppage will continue until conditions have been corrected to the satisfaction of the Engineer. Standby time and cost required for corrective action is at the Contractor's expense. The occurrence of any of the following events shall be reported in writing to the Agency and shall require the Contractor to automatically stop lead paint removal and initiate clean up activities:

- (1) Break in containment barriers.
- (2) Visible emissions in excess of the specification tolerances.
- (3) Loss of negative air pressure when negative air pressure is specified (e.g., for dry abrasive blast cleaning).
- (4) Serious injury within the containment area.

- (5) Fire or safety emergency.
- (6) Respiratory system failure.
- (7) Power failure.

(b) Contingency Plans and Arrangements. The Engineer will refer to the Contingency Plan for site specific instructions in the case of emergencies. The Contractor shall prepare a Contingency Plan for emergencies including fire, accident, failure of power, failure of dust collection system, failure of supplied air system, or any other event that may require modification of standard operating procedures during lead removal. The plan shall include specific procedures to ensure safe egress and proper medical attention in the event of an emergency. The Contractor shall post the telephone numbers and locations of emergency services including fire, ambulance, doctor, hospital, police, power company, and telephone company on clean side of personnel decontamination area.

A copy of the Contingency Plan shall be maintained at each bridge during cleaning operations and during the time the Contractor's personnel are at the bridge site under this Contract. The Contractor shall designate the emergency coordinator(s) required who shall be responsible for the activities described.

xx. COLLECTION, TEMPORARY STORAGE, TRANSPORTATION, AND DISPOSAL OF WASTE. All paint removal wastes shall be considered hazardous regardless of the TCLP test results. The Contractor and the Agency are considered to be co-generators of the waste.

The Contractor is responsible for all aspects of waste collection, testing and identification, handling, storage, transportation, and disposal according to these specifications and all applicable Federal, State, and Local regulations. The Contractor shall provide for Engineer review and acceptance a Waste Management Plan that addresses all aspects of waste handling, storage, and testing, and provides the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities. The Agency will not perform any functions relating to the waste.

The Contractor is responsible for paying all taxes, fees, and permit costs associated with the removal, transportation, and disposal of waste.

All surface preparation/paint residues shall be collected daily and deposited in all-weather containers supplied by the Contractor as temporary storage. The storage area shall be located outside of any flood plain and secure to prevent unauthorized entry or tampering with the containers.

Acceptable measures include storage within a fully enclosed (e.g., fenced-in) and locked area, within a temporary building, or implementing other reasonable means to reduce the possibility of vandalism or exposure of the waste to the public or the environment (e.g., securing the lids or covers of waste containers and roll-off boxes). Waste shall not be stored outside of the containers.

Waste shall be collected and transferred to bulk containers, taking extra precautions as necessary to prevent the suspension of residues in air or contamination of surrounding surfaces. Precautions may include the transfer of the material within a tarpaulin enclosure. All waste storage containers shall be placed on tarpaulins. Transfer into roll-off boxes shall be planned to minimize the need for workers to enter the roll-off box.

No residues shall remain on surfaces overnight, either inside or outside of containment. Waste materials shall not be removed through floor drains or by throwing them over the side of the bridge. Flammable materials shall not be stored around or under any bridge structures.

The all-weather containers shall meet requirements for the transportation of hazardous materials. The Contractor shall insure that no breaks and no deterioration of these containers occurs and shall maintain a written log of weekly inspections of the condition of the containers. A copy of the log shall be furnished to the Engineer upon request. The containers shall be kept closed and sealed from moisture except during the addition of waste. Each container shall be permanently identified with the date that waste was placed into the container, contract number, hazardous waste name and ID number, and other information required by ANR.

The Contractor shall have each waste stream sampled for each project and tested by TCLP and according to EPA and disposal company requirements. The Engineer shall be notified in advance when the samples will be collected. The samples shall be collected and shipped for testing within the first week of the project, with the results due back to the Engineer within 10 days. Copies of the test results shall be provided to the Engineer prior to shipping the waste.

Waste water generated from bridge washing, hygiene purposes, and cleaning of equipment shall be filtered on site to remove particulate and disposed of at a Publicly Owned Treatment Works (POTW) according to State regulations. The Contractor shall provide the Engineer with a letter from the POTW indicating that they will accept the waste water. If the POTW allows the filtered water to be placed into the sanitary sewer system, the Contractor shall provide a letter from the POTW indicating that based on the water test results, disposal in the sanitary sewer is acceptable to them. Water shall not be disposed of until the above letter(s) are provided to, and accepted by, the Engineer.

If approved abrasive additives are used that render the waste non-hazardous as determined by TCLP testing, the waste shall be classified as a non-hazardous special waste, transported by a licensed waste transporter, and disposed of at a permitted disposal facility.

When paint is removed from the bridge without the use of abrasive additives, the paint, together with the surface preparation media (e.g. abrasive) shall be handled as a hazardous waste, regardless of the TCLP results. The waste shall be transported by a licensed hazardous waste transporter, treated by a permitted treatment facility to a non-hazardous special waste, and disposed of at a permitted disposal facility.

The treatment/disposal facilities shall be approved by the Engineer, and shall hold an ANR permit for waste disposal and waste stream authorization for the cleaning residue. The ANR permit and waste stream authorization must be obtained prior to beginning cleaning, except that if necessary, limited paint removal will be permitted in order to obtain samples of the waste for the disposal facilities. The waste shall be shipped to the facility within 90 days of the waste generation. Arrangements for the final waste pickup shall be made with the waste hauler by the time blast cleaning operations are completed, or as required to meet the 90 day limit.

The Contractor shall prepare a manifest approved by ANR for off-site treatment and disposal before transporting the hazardous waste off-site. The Contractor shall prepare a land ban notification for the waste to be furnished to the disposal facility. The Contractor shall obtain the handwritten signature of the initial transporter and date of the acceptance of the manifest. The Contractor shall send one copy of the manifest to ANR within two working days of transporting the waste off-site. The Contractor shall furnish the generator copy of the manifest and a copy of the land ban notification to the Engineer. The Contractor shall give the transporter the remaining copies of the manifest.

All other project waste shall be removed from the site according to Federal, State, and Local regulations, with all waste removed from the site prior to final Contractor demobilization.

The Contractor shall make arrangements to have other hazardous waste generated by the Contractor, such as used paint solvent, transported to the Contractor's facility at the end of each day that the waste is generated. These hazardous wastes shall be manifested using the Contractor's own generator number to a treatment or disposal facility from the Contractor's facility. The Contractor shall not combine solvents or other wastes with cleaning residue wastes. All waste streams shall be stored in separate containers.

The Contractor is responsible for the payment of any fines and undertaking any clean up activities mandated by State or federal environmental agencies for improper waste handling, storage, transportation, or disposal.

Contractor personnel shall be trained in the proper handling of hazardous waste and the necessary notification and clean up requirements in the event of a spill. The Contractor shall maintain a copy of the personnel training records at each bridge site.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Containment and Disposal of Lead Paint Cleaning Residues) at the location specified to be measured for payment will be on a lump sum basis in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Containment and Disposal of Lead Paint Cleaning Residues) will be paid for at the Contract lump sum price. Payment will be full compensation for performing the work specified, including soil, water, and air monitoring; containment, collection, temporary storage, transportation, testing, and disposal of all project waste; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made as follows:

- (a) Thirty (30) percent of the Contract unit price will be paid when all submittal requirements have been met and accepted by the Agency, and the Contractor is fully mobilized to begin work.
- (b) An additional thirty (30) percent of the Contract unit price will be paid when the lead is 50% abated.
- (c) An additional thirty (30) percent of the Contract unit price will be paid when the lead is 100% abated.
- (d) The final ten (10) percent of the Contract unit price will be paid when the Contractor has fully demobilized the containment equipment and properly disposed of the waste to the satisfaction of the Engineer.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.645 Special Provision (Containment and Disposal of Lead Paint Cleaning Residues)	Lump Sum
900.645 Special Provision (Containment and Disposal of Lead Paint Cleaning Residues) (Route - Br. No. xx)(For multiple structure contracts)	Lump Sum