April 17, 2018

NYS DOT
50 Wolf Road POD 5-1
Albany, NY 12232

RE: File No. 18-0381

Dear Sir/Madam:

STATE OF NEW YORK
DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH

The attached is a copy of Decision, dated, 4/17/2018, which I have compared with the original filed in this office and which I DO HEREBY CERTIFY to be a correct transcript of the text of the said original.

If you are aggrieved by this decision you may appeal within 60 days from its issuance to the Industrial Board of Appeals as provided by Section 101 of the Labor Law. Your appeal should be addressed to the Industrial Board of Appeals, State Office Building Campus, Building 12, Room 116, Albany, New York, 12240 as prescribed by its Rules and Procedure, a copy of which may be obtained upon request.

WITNESS my hand and the seal of the NYS Department of Labor, at the City of Albany, on this day of 4/17/2018.

Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)
The Petitioner, pursuant to Section 30 of the Labor Law, having filed Petition No. 18-0381 on April 2, 2018 with the Commissioner of Labor for a variance from the provisions of Industrial Code Rule 56 as hereinafter cited on the grounds that there are practical difficulties or unnecessary hardship in carrying out the provisions of said Rule; and the Commissioner of Labor having reviewed the submission of the petitioner dated March 30, 2018; and

Upon considering the merits of the alleged practical difficulties or unnecessary hardship and upon the record herein, the Commissioner of Labor does hereby take the following actions:

<table>
<thead>
<tr>
<th>Case No. 1</th>
<th>ICR 56-3.6</th>
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<tr>
<td>Case No. 2</td>
<td>ICR 56-11.6(b)(1)</td>
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<td>Case No. 3</td>
<td>ICR 56-11.6(b)(3)</td>
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VARIANCE GRANTED. The Petitioner's proposal to follow the procedures delineated in the attached 20 page submittal to remove various non-friable ACM materials from surfaces and substrates on Bridges, Highways and Right of Ways statewide is accepted; subject to the Conditions noted below:
THE CONDITIONS

1. As written with modifications noted.

   In addition to the conditions required by the above specific variances, the Petitioner shall also comply with the following general conditions:

GENERAL CONDITIONS

1. A copy of this DECISION and the Petitioner's proposals shall be conspicuously displayed at the entrance to the personal decontamination enclosure.

2. This DECISION shall apply only to the removal of asbestos-containing materials from the aforementioned areas of the subject premises.

3. The Petitioner shall comply with all other applicable provisions of Industrial Code Rule 56-1 through 56-12.

4. The NYS Department of Labor Engineering Service Unit retains full authority to interpret this variance for compliance herewith and for compliance with Labor Law Article 30. Any deviation to the conditions leading to this variance shall render this variance Null and Void pursuant to 12NYCRR 56-12.2. Any questions regarding the conditions supporting the need for this variance and/or regarding compliance hereto must be directed to the Engineering Services Unit for clarification.

5. This DECISION shall terminate on April 30, 2021.

Date: April 17, 2018

By

ROBERTA L. READON
COMMISSIONER OF LABOR

Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

PREPARED BY: Edward A. Smith, P.E.
Professional Engineer 2 (Industrial)

REVIEWED BY: Ravi Pillar, P.E.
Professional Engineer 1 (Industrial)
Petition for Variance or Other Relief

Description of Work:
Demolition, renovation and maintenance of bridges, culverts and highways

Affected Structures:
State and County owned bridges, culverts and highways throughout New York State

Affected Agencies:
New York State Department of Transportation (NYSDOT)
New York State Thruway Authority (NYSTA)
New York State Canal Corporation (NYSCC)
County Highway Departments Statewide

Nature of Work:
Removal of non-friable asbestos-containing materials from surfaces and substrates on bridges, culverts and highways

Reason for Request for Variance

NYSDOT, NYSTA, NYSCC and County Highway Departments Statewide encounter a wide variety of nonfriable asbestos-containing materials as part of maintenance and construction programs and demolition, renovation and maintenance of bridge, culvert and highway facilities. These include various bond breakers, joint fillers, caulks, grouts, sealers, coatings, utility conduits and similar type applications, and make up greater than 90% of asbestos abatement work associated with bridge, culvert and highway work each year.

In 1997, 2000, 2003, 2006, 2009, 2012 and 2015 NYSDOT petitioned and received approval for Blanket Variances (File Numbers 9701065, 001228, 030708, 060339, 090440, 120577 and 150560) which have been greatly successful in simplifying transportation asbestos project design and facilitating abatement associated with construction and maintenance work. These variances have been necessary due to both infeasible engineering controls required in 12 NYCRR 56 and associated economic burden in applying the asbestos regulation to exterior abatement on active bridge, culvert and highway projects.

This new blanket variance petition is proposed as a means to continue to incorporate safe, effective abatement methods for the multiple non-friable asbestos applications NYSDOT, NYSTA, NYSCC and County Highway Departments Statewide encounter during bridge, culvert and highway work.

It is the intention of NYSDOT, NYSTA, NYSCC and County Highway Departments Statewide to provide an equivalent, if not higher, level of protection for removal workers and the general public, while permitting the proper removal of the non-friable asbestos materials in a cost-effective manner. The proposed procedures will not expose removal workers or the general public to unacceptable levels of asbestos fibers, and are a reasonable approach for the careful and controlled removal of non-friable asbestos-containing materials from bridges, culverts and highway right-of-way.

NYSDOL Project Designer (89-02911)
A. The following work procedures for all projects shall always apply during abatement of any nonfriable asbestos-containing transite, tarps, bond breakers, joint fillers, caulks, grouts, sealers, coatings, utility conduits or similar type applications from bridges and highway right-of-way:

1.) Regulatory relief is requested from provisions of 12 NYCRR 56, Subpart 56-11.6 (b) (1). The portion(s) of the bridge or highway right-of-way actively being worked on shall be considered to be the asbestos project regulated abatement work area(s). Delineation of the asbestos project regulated abatement work area(s) shall consist of construction fencing a minimum of 4 feet in height. For bridge work, this delineation shall apply to either the above or below deck portion of the bridge, depending on where the actual abatement is taking place. Asbestos project regulated abatement work area(s) shall be internal to any and all necessary traffic control. All traffic control shall conform to the NYSDOT Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD) and the project contract documents. Traffic control not including concrete safety shape barrier shall include use of stationary shadow vehicle(s) in accordance with §619-3.02 Basic Work Zone Traffic Control of the NYSDOT Standard Specifications. In areas where it is possible to access the non-friable materials from the ground when working below a bridge deck, or from equipment on the ground (scaffold or mechanical lift), the asbestos project regulated abatement work area shall be considered that which is delineated by the construction fence. In areas where a work platform must be suspended from the bridge, the asbestos project regulated abatement work area will be considered to be the area between the platform and the underside of the bridge deck. The area inside the construction fence shall be considered to be the asbestos project regulated abatement work area. The asbestos project regulated abatement work area shall be accessible through only one entrance/exit. The vacation of the asbestos project regulated abatement work area(s) and use of warning signs shall comply with 12 NYCRR 56, Subpart 56-7.4 (a)(b)(c). Asbestos project regulated work area access shall be limited to NYSDOL certified personnel during abatement activities.

2.) Regulatory relief is requested from provisions of 12 NYCRR 56, Subpart 56-3.6. As bridge, culvert and highway projects do not have residential and business occupants, public notification is adequately provided by site controls and asbestos project regulated abatement work area(s) delineation described in A. 1., above.

3.) Regulatory relief is requested from provisions of 12 NYCRR 56, Subpart 56-11.6 (b)(3). A remote personal decontamination enclosure system, sited as close as practicable to the asbestos project regulated work area and otherwise complies with 12 NYCRR 56, Subpart 56-7.5, shall be utilized.

4.) During non-shift periods when abatement activities are not taking place, the designated pathway to the remote personal decontamination enclosure system, as defined in 12 NYCRR 56, Subpart 56-7.5 (d)(4), may be temporarily taken down.

NYSNOL Project Designer

(89-02911)
5.) A waste decontamination enclosure system shall be utilized in conformance with 12 NYCRR 56, Subpart 56-7.5 (f).

6.) Where high volume traffic conditions do not allow partial or entire bridge, culvert or highway closure for the entire duration of the asbestos removal involving non-friable asbestos materials located within or directly below the bridge deck, culvert, approach or highway, procedures including plasticizing with 2 layers of 6 mil polyethylene under steel plating may be used to temporarily isolate the asbestos project regulated abatement work area prior to re-opening the affected travel lane(s) to traffic. Thereafter, when traffic volumes decrease and asbestos removal operations can resume, asbestos project regulated abatement work area delineation will again be in accordance with methods in place prior to temporary isolation.

7.) All non-friable asbestos-containing waste shall not be mixed with other non-asbestos construction and demolition debris for purposes of onsite storage and transport. In addition, facilities accepting non-friable asbestos-containing waste shall not pulverize the waste as defined in 6 NYCRR Part 360-7.1 (c)(2). All waste disposal shall be by appropriate legal method.

B. The additional following procedures/requirements shall apply to the removal of concrete-encased, non-friable bond breaker materials:

1.) Saw-cutting and removal of asphalt and or concrete that does not disturb the non-friable bond breaker material shall be performed prior to establishment of the asbestos project regulated abatement work area by equipment operators having a minimum of documented and current 2 hour OSHA asbestos awareness training. Equipment operators performing concrete removal to facilitate access to the non-friable bond breaker material (see B. 4.) shall possess a minimum of a Restricted Asbestos Handler Certificate. All other abatement activities, including but not limited to, asbestos project regulated abatement work area establishment and abatement/clean-up work shall be performed by NYSDOL certified handlers.

2.) During all regulated abatement activities, a full-time certified project monitor is required to be present onsite to ensure that no visible emissions and no friable asbestos debris is generated.

3.) Plasticizing of the affected bridge deck, median or sidewalk, as determined by the project monitor, will be limited to critical coverage (i.e., drains, grates, etc.) with four layers of 6 mil fire retardant polyethylene.

4.) Due to hardships incurred with manual demolition of concrete in order to access the encased bond breaker material, it is proposed that mechanical equipment be utilized to turn over the saw-cut section(s) of the concrete to expose the non-friable bond breaker material.

NYSDOL Project Designer (89-02911)
5.) Non-friable bond breaker material shall be physically removed as intact as possible from the area of initial mechanical access either using manual methods or removed and disposed of as a whole or partial concrete component. All waste disposal shall be by appropriate legal method.

6.) Cleaning methods shall include HEPA vacuuming and/or wet wiping of the entire impacted area.

7.) Excess water generated from the removal or cleaning process shall be disposed of as asbestos-containing waste or filtered through a 5 micron filtration system prior to discharge to a sanitary sewer, as permitted per applicable codes.

C. The additional following procedures/requirements shall apply to the removal of concrete-encased, non-friable utility conduits:

1.) All asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified handlers.

2.) Construction fence will be placed along both sides of the work area where utility conduits are being removed from medians and bridge sidewalks.

3.) Due to removal techniques requiring partial demolition of the concrete in order to access the utility conduit(s), plasticizing of the affected median or sidewalk, as determined by the project monitor, will be limited to critical coverage (i.e., drains, grates, etc.) with four layers of 6 mil fire retardant polyethylene.

4.) Due to hardships incurred in manual demolition of concrete in order to access the encased utility conduit(s), it is proposed that jack-hammers and/or concrete saws be utilized to initially break up or section the concrete and isolate the area surrounding the conduits using wet methods.

5.) Non-friable utility conduits will be physically removed as intact as possible from the area of initial mechanical access using manual means and wet methods and wrapped in two (2) layers of 6 mil polyethylene and sealed with duct tape.

6.) Cleaning methods shall include HEPA vacuuming and wet wiping of the entire access area and any debris and/or contamination shall be disposed of as asbestos contaminated waste.

7.) Excess water generated from the removal or cleaning process will be disposed of as asbestos waste or filtered through a 5 micron filtration system prior to discharge to a sanitary sewer, per applicable codes.

NYSDOL Project Designer (89-02911)
D. The additional following procedures/requirements shall apply to the removal of non-friable utility conduits buried in bridge approaches, highway right-of-way or similar feature:

1.) Removal of asphalt, concrete and/or soil overburden to within 6 inches of the non-friable buried utility conduit(s) shall involve no contact with the utility and be performed by power shovel or similar mechanical means prior to establishment of the asbestos project regulated abatement work area. Equipment operators performing asphalt, concrete and/or soil overburden removal shall have a minimum of 2 hours of documented and current OSHA asbestos awareness training. All subsequent asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified supervisor(s) and handlers.

2.) Hand tools or other manual methods shall be used to expose the conduit(s) on all sides in the area designated for removal.

3.) Areas of non-friable utility conduit locations requiring manual cuts or destructive separation shall be removed within commercially available glove-bags or within a HEPA filtered, vacuum shrouded tool.

4.) Areas of non-friable utility conduit locations that can be uncoupled or otherwise disconnected in an intact manner, as determined by the project monitor, shall be removed using wet methods and localized HEPA- vacuum ventilation at the area(s) of uncoupling/disconnection using a 6-mil polyethylene shroud. A single layer of 6-mil polyethylene sheeting will be provided on the walls and floor of the trench to ensure proper ground and water protection. The contractor shall provide proper traction surfaces to ensure safety of the workers during work in the trench. The polyethylene sheeting shall be wet wiped or HEPA-vacuumed at the end of each shift or before tear-down and movement to a new poly-shrouded work area.

5.) Non-friable utility conduits will be physically removed as intact as possible from the area of initial mechanical access using wet methods and wrapped in two (2) layers of 6 mil polyethylene and sealed with duct tape.

6.) Equipment operators performing wrapped conduit transfer onsite where the cab of the equipment is within the asbestos project regulated abatement work area shall possess a minimum of a Restricted Asbestos Handler Certificate. Equipment operators performing wrapped-conduit transfer onsite where the cab of the equipment is outside the asbestos project regulated abatement work area shall have a minimum of documented and current 2 hour OSHA asbestos awareness training. Workers performing activities associated with rigging wrapped conduit for transfer and onsite or transport placement shall possess a minimum of an Operations and Maintenance Certificate.

7.) Earth surfaces within the asbestos project regulated abatement work area shall be scraped clean of any residual debris/contamination and be disposed of by appropriate legal method.

NYSDOL Project Designer

(89-02911)
8.) A project monitor visual inspection, performed in accordance with 12 NYCRR 56, Subpart 56-9.2(e)(1), shall be conducted for each glove-bag/shrouded tool operation and each entire asbestos project regulated abatement work area prior to tear down.

E. The additional following procedures/requirements shall apply to the removal of non-friable suspended utility conduits from bridge components or similar feature:

1.) All asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified handlers.

2.) Areas of non-friable utility conduit locations requiring cuts or destructive separation shall be removed within commercially available glove-bags or within a HEPA filtered, vacuum shrouded tool.

3.) Areas of non-friable utility conduit locations that can be uncoupled or otherwise disconnected in an intact manner, as determined by the project monitor, shall be removed using wet methods and localized HEPA-vacuum ventilation at the area(s) of uncoupling/disconnection within a scaffold or platform supported 6-mil polyethylene shroud. A single layer of 6-mil polyethylene sheeting will be provided on the walls and floor of the scaffold or platform to ensure proper ground and water protection. The contractor shall provide proper traction surfaces to ensure safety of the workers during work on the scaffold or platform. The polyethylene sheeting shall be wet wiped or HEPA-vacumed at the end of each shift or before tear-down and movement to a new poly-shrouded work area.

4.) Non-friable utility conduits will be physically removed as intact as possible from the area using manual means and wet methods and wrapped in two (2) layers of 6 mil polyethylene and sealed with duct tape.

5.) Equipment operators performing wrapped conduit transfer onsite where the cab of the equipment is within the asbestos project regulated abatement work area shall possess a minimum of a Restricted Asbestos Handler Certificate. Equipment operators performing wrapped-conduit transfer onsite where the cab of the equipment is outside the asbestos project regulated abatement work area shall have a minimum of documented and current 2 hour OSHA asbestos awareness training. Workers performing activities associated with rigging wrapped conduit for transfer and onsite or transport placement shall possess a minimum of an Operations and Maintenance Certificate.

6.) Removal of non-friable tarpaper or similar non-friable pipe coverings can be performed within a scaffold or platform supported 6-mil polyethylene shroud. A single layer of 6-mil polyethylene sheeting will be provided on the walls and floor of the scaffold or platform to ensure proper ground and water protection. The contractor shall provide proper traction surfaces to ensure safety of the workers during work on the scaffold or platform. The polyethylene sheeting shall be wet wiped or HEPA-vacumed at the end of each shift or before tear-down and movement to a new poly-shrouded work area.

NYSDOL Project Designer (89-02911)
7.) A project monitor visual inspection, performed in accordance with 12 NYCRR 56, Subpart 56-9.2(e)(1), shall be conducted for each glove-bag/shrouded-tool operation and each entire asbestos project regulated abatement work area prior to tear down.

F. The additional following procedures/requirements shall apply to the removal, renovation, repair or minor painting of structural steel components having non-friable asbestos-containing coatings:

1.) All asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified handlers. Equipment operators performing steel component transfer onsite where the cab of the equipment is within the asbestos project regulated abatement work area shall possess a minimum of a Restricted Asbestos Handler Certificate. Equipment operators performing steel component transfer onsite where the cab of the equipment is outside the asbestos project regulated abatement work area shall have a minimum of documented and current 2 hour OSHA asbestos awareness training. Steel workers performing work associated with rigging steel components for transfer and onsite or transport placement shall possess a minimum of an Operations and Maintenance Certificate.

2.) Prior to any steel removal, renovation, repair or painting work, asbestos coatings which are loose and susceptible to falling off during the work shall be removed from the entire work area using manual methods. Coatings shall also be removed in localized areas where work requires steel cutting, welding, etc. This shall include an approximate 12 inch removal swath, spanning the entire length of each cut or repair. For re-painting, removal areas shall include the entire area to be repainted. Any mechanical removal methods used for this localized work shall include use of HEPA-filtered, vacuum-shrouded tools. Any manual removal methods used for this localized work may also be facilitated by use of chemical strippers.

3.) Removal of well-adhered, asbestos-coated structural members shall be performed without disturbance of the coatings and all dismemberment shall be directed by a licensed asbestos abatement contractor.

4.) Any onsite storage of non-friable, coated steel members shall include wrapping in two (2) layers of 6 mil polyethylene and sealed with duct tape.

5.) Any visible coating debris generated during the dismemberment, cutting or loading activities shall be cleaned up by the licensed asbestos abatement contractor. Any impacted earth/asphalt or concrete surfaces within the removal area shall be HEPA-vacuumed and/or scraped clean of any residual asbestos debris and/or contamination.

6.) Personnel air samples, collected and analyzed for OSHA personal worker protection purposes, shall be collected every day during abatement activities. All results shall be included in the daily project log for the project.

NYSDOL Project Designer 

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7.) A project monitor visual inspection, performed in accordance with 12 NYCRR 56, Subpart 56-9.2 (e) (1), shall be conducted for each asbestos abatement regulated work area prior to work area tear down.

8.) All loose asbestos and lead coating waste, accumulated during the steel removal activities, shall be packaged, transported and disposed of in accordance with Attachment A. - Treatment and Disposal of Asbestos and Lead-Based Coating Waste.

9.) Steel members with intact lead/asbestos coatings qualify for scrap metal exclusion under 6NYCRR Part 371.1 (g)(1)(iii)(b), if recycled. For all steel beam recycling, New York State Department of Environmental Conservation (NYSDEC) notifications, required under 6 NYCRR Part 371.1 (c)(7), shall be made and copies posted onsite prior to any steel member removal from the site.

G. The additional following procedures/requirements shall apply to the removal of non-friable asbestos-containing coatings from concrete surfaces using manual or HEPA-filtered, vacuum-shrouded tools:

1.) Any necessary platform and containment rigging shall involve no asbestos coating disturbance and be performed prior to establishment of the asbestos project regulated abatement work area. Platform and containment riggers shall have a minimum of 2 hours of current OSHA asbestos awareness training. All subsequent asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified handlers.

2.) Polyethylene tent/poly shrouds shall be used at the active work area where masonry coatings are being removed and a single layer of 6-mil polyethylene sheeting will be provided on the walls and floor of the scaffold or platform to ensure ground and water protection. The tent/poly shroud shall be adequately supported for the duration of the abatement activities. The contractor shall also provide proper traction on poly surfaces to ensure the safety of the abatement workers while performing work on the scaffold or platform.

3.) The area inside the polyethylene sheeting shall be considered to be the asbestos project regulated abatement work area.

4.) Prior to any gross removal work, masonry coatings which are loose and susceptible to falling off during the work shall be removed from the entire work area using manual methods. Gross removal shall include use of HEPA-filtered, vacuum-shrouded tools. Gross removal using manual methods may also be facilitated by use of chemical strippers.

5.) Personnel air samples, collected and analyzed for OSHA personal worker protection purposes, shall be collected every day during abatement activities. All results shall be included in the daily project log for the project.

NYSDOL Project Designer [Signature] (89-02911)
6.) A project monitor visual inspection, performed in accordance with 12 NYCRR 56, Subpart 56-9.2 (e) (1), shall be conducted for each asbestos abatement regulated work area prior to work area tear down.

7.) All asbestos waste shall be removed from the enclosure utilizing flex tubing directly to exterior enclosed containers by vacuum equipment equipped with HEPA filtration. All bulk waste material shall be suctioned into an enclosed, lined container by vacuum methods. All other waste not able to be vacuumed up and contaminated tools/equipment shall pass through the waste decontamination enclosure system.

H. The additional following procedures/requirements shall apply to the removal of non-friable structural steel or masonry asbestos-containing coatings by wet-blast method:

1.) Any necessary platform and lead containment rigging shall involve no asbestos coating disturbance and be performed prior to establishment of the regulated work area. Platform and lead containment riggers shall have a minimum of documented and current 2 hour OSHA asbestos awareness training. All subsequent asbestos project regulated abatement work area establishment and abatement work shall be performed by NYSDOL certified handlers.

2.) Enclosure and ventilation filtration of the asbestos project regulated abatement work area shall conform with construction details as provided in the NYSDOT Class A Containment System For Paint Removal (See Attachment B).

3.) An internal single layer of at least 9 mil impermeable polyethylene or similar sheeting, as determined by the project monitor, will also be provided on the walls and floor of the enclosure and sealed in accordance with 12 NYCRR 56, Subpart 56-7.11 (e). This sheeting can be cleaned and reused for multiple phases of a single project, but must be disposed of at the end of the project. Any temporary onsite storage of this sheeting between phases of the project shall be in accordance with the manufacturer’s recommendations.

4.) The enclosure shall apply to either the above or below deck portion of the bridge, depending on where the abatement is taking place. The area inside the enclosure shall be considered to be the asbestos project regulated abatement work area.

5.) The personal and waste decontamination enclosure system(s) shall be attached to the work area unless physical restrictions prevent attachment. Any necessary remote decontamination enclosure systems shall be sited as close as practicable to the asbestos work area.

NYSDOL Project Designer (89-02911)
6.) Coating removal methodology shall include use of pneumatically delivered blast abrasive that includes water injection. The volume of water will be controlled at the nozzle and will include a maximum percentage ratio of abrasive to water of 75:25. Percentages will be adjusted accordingly in order to eliminate any abrasive emissions inside the enclosure. All nozzle delivery technology shall be proposed by the contractor and approved by the facility owners Project Engineer.

7.) Personnel air samples, collected and analyzed for OSHA personal worker protection purposes, shall be collected every day during abatement activities. All results shall be included in the daily project log for the project.

8.) A project monitor visual inspection, performed in accordance with 12 NYCRR 56, Subpart 56-9.2 (e) (1), shall be conducted for each asbestos abatement regulated work area prior to work area tear down.

9.) All asbestos or asbestos/lead waste shall be removed from the enclosure utilizing PVC flex tubing directly to exterior enclosed containers by vacuum equipment equipped with HEPA filtration. All bulk waste material will be suctioned into an enclosed, lined container by vacuum methods. All other waste not able to be vacuumed up and contaminated tools/equipment shall pass through the waste decontamination enclosure system. All asbestos/lead waste shall be packaged, transported and disposed of in accordance with Attachment A - Treatment and Disposal of Asbestos and Lead-Based Coating Waste.
ATTACHMENT A
TREATMENT AND DISPOSAL OF ASBESTOS AND LEAD-BASED COATING WASTE

DESCRIPTION

The work shall consist of accumulating, packaging, labeling, transporting, treating, and disposing of lead-based paint and asbestos coating waste declared to be a hazardous waste containing lead and asbestos.

Paint/Asbestos Coating Removal Waste. For purposes of this item, paint removal waste is defined as removed paint and coating materials combined with any materials used to remove the waste. The paint and asbestos coating removal waste will be referred to throughout the item text as “waste”. The waste contains the following.

Asbestos Coating: Asbestos fibers, titanium dioxide, chromium oxide, yellow iron oxide, lampblack, dried tung oil, fillers, driers and other miscellaneous materials.

Paint: Lead based paint containing basic lead silica chromate, titanium dioxide, chromium dioxide, magnesium silicate, linseed oil, alkyd resin, fillers, driers, and other miscellaneous materials.

Moisture: Water added during packaging to ensure wetting of asbestos.

Testing of the typical sample indicates asbestos fibers at approximately 10-20% by weight, thereby requiring handling and disposal as an asbestos containing material and adherence to 40 CFR Part 61. Also, based on testing of a typical waste sample by the Toxicity Characteristic Leaching Procedure (TCLP), the waste is considered a lead characteristic hazardous waste of EPA waste code number, D008. Although chromium is present in the waste, the results of the TCLP procedure indicated concentrations of chromium well below TCLP criteria for hazardous waste due to chromium. TCLP semi-volatiles were all non-detectable. The analysis results are attached.

The waste is a DOT Hazardous Material; proper shipping description is as follows: Hazardous waste, solid, n.o.s., 9, NA3077, PG III, RQ (D008, Asbestos). Note: The RQ (reportable quantity) description is required for any containers containing more than the reportable quantity of 10 pounds listed on the hazardous substance list for hazardous waste code D008.

The waste does not contain PCB’s, pesticides, cyanides, or greater than 1000 ppm halogenated organic compounds. The waste is not a RCRA reactive, corrosive or ignitable, or a source-listed or chemical product-listed waste. It is not radiological or etiological.

The waste shall be handled and disposed of following all of the requirements for both a RCRA hazardous waste of code D008 and an asbestos containing waste. All testing of the waste necessary to satisfy the requirements of the chosen Disposal Facility or Transporter shall be the responsibility of the Contractor.

Hazardous Waste Disposal Facility. Prior to generating any waste, the Contractor shall supply the Engineer with a letter from a legally permitted Hazardous Waste Disposal Facility, stating that the facility has agreed to accept the waste, containing both lead and asbestos, generated by the work requirements of this project, is authorized to accept the waste under the requirements of the State of residence; has the required capacity to treat and dispose of the material; and will provide
or assure the ultimate disposal method indicated on the Uniform Hazardous Waste Manifest and Asbestos Waste Shipping Record. The letter shall be signed by a representative of the Disposal Facility who is legally authorized to sign such an agreement. The Engineer shall be given the original signed letter; facsimile copies will not be acceptable.

Waste Transport. All waste resulting from paint/coating removal operations shall be in transit to the disposal site no later than 45 calendar days subsequent to 1000 kilograms of waste accumulated at the site, or two weeks following demobilization of the site, whichever occurs first. Waste shall be accumulated, handled, packaged, loaded, transported, treated and disposed in accordance with all applicable Federal, state and local laws, rules, regulations and codes. The Contractor’s failure to comply with the aforementioned deadlines may result in actions described under Basis of Payment of this item.

Waste Transporter. Waste shall be transported by only permitted waste transporters holding current 6NYCRR Part 364 Waste Transporter Permits for transport of hazardous or industrial wastes to the selected facility. The Contractor must show evidence that they or their contracted hauler have current permits to remove the waste to the selected facility.

Minimum Work Requirements. The Contractor is hereby notified that this work requires the following as a minimum:

A. Waste transporter identification number issued by USEPA.
B. Disposal facility identification number issued by USEPA. (This will be supplied by the disposal facility).
C. Generator site identification number issued by USEPA. (This will be supplied by the Department through the Engineer).
D. Conformance to 6NYCRR364. Part 364 governs waste transporters. The Contractor shall furnish a copy of the Part 364 permit to the Engineer.
E. Conformance to 6NYCRR372. Part 372 governs manifest requirements.
F. Conformance to 6NYCRR373. Part 373 governs treatment, storage and disposal facilities and contains specific generator requirements.
G. Conformance to 40 CFR 268. Part 268 includes the Federal prohibitions for land disposal of untreated hazardous wastes. The disposal facilities must first treat the waste to meet uniform treatment standards.
H. Conformance to 40 CFR 61. Part 61 includes asbestos waste shipment records marking, labeling, packaging and disposal requirements.
I. Conformance to 49 CFR 172-173. Parts 172-173 govern the transportation of hazardous materials.
J. Conformance to 12NYCRR56 or approved variance for the project. Part 56 governs asbestos handling requirements.

NOTE: 6NYCRR regulations are administered by the N.Y.S. Department of Environmental Conservation, Albany, NY. 12NYCRR regulations are administered by the N.Y.S. Department of Labor. Title 40 of the Code of Federal Regulations (CFR) is administered by the US Environmental Protection Agency, Region II, and N.Y., N.Y. Title 49 of the CFR is administered by the US Dept of Transportation, Washington DC.

MATERIALS

Waste containerization and onsite storage shall comply with the requirements of 12NCRR56
and/or approved asbestos variances for the project as applicable and by the applicable sections of 6NYCRR Parts 372 and 373 for on site accumulation of hazardous waste. The Contractor shall supply all containers, equipment and supplies for storage and disposal. Off-site transport of the wastes shall be in double-bagged 150 micron polyethylene bags that are placed within USDOT approved drums or rolloffs. The Contractor shall furnish the Engineer with a signed statement for the Disposal Facility that the containers proposed for use by the Contractor are acceptable to the Facility. All equipment and containers or rolloffs must meet the requirements for transport of both asbestos and hazardous wastes and shall be approved by the Engineer prior to use. The dry volume capacity of the containers, in cubic meters, shall be clearly marked upon each container, in a location easily readable by the Engineer.

CONSTRUCTION DETAILS

Containers. All generated waste shall be collected and sealed concurrent with generation. Containerization shall be double-bagged within two 150 micron polyethylene bags placed within containers or rolloffs that meets the requirements of 49 CFR 172-173 for transport on public roadways. Measures must be taken to prevent the blowing or dispersion of the waste during loading operations and while being transported. Drums and rolloffs shall be closed during storage and transport. Contractor shall inspect drums and rolloffs in storage, correct any deterioration, and document at least weekly inspection. No waste shall be left exposed to the elements at the end of the working day.

All containers and rolloffs shall be located in a place secured from traffic and in a manner acceptable to the Engineer.

Each containers and rolloffs shall be labeled in accordance with US Department of Transportation regulation.

Each container or rolloff shall be permanently labeled as a hazardous waste in the following manner:

HAZARDOUS WASTE: Federal law prohibits improper disposal. If found, contact the nearest police, or public safety authority, or the US Environmental Protection Agency.

Generator’s Name: NYSDOT

Manifest Document No

Date:

BIN:

Note: The date shall be the generation date. It shall be entered by the Engineer using permanent marking material supplied by the Contractor.

In addition, containers shall be permanently labeled as an asbestos dust hazard as required by 40 CFR Part 61,

Labeling. All labeling, marking (except mark date), and placarding shall be the responsibility of the Contractor and shall be done under the supervision of the Engineer. This work shall be
completed to the Engineer’s satisfaction prior to the filling or transportation of any particular container or rolloff. All label markings shall be permanent, printed in English, displayed on a background of contrasting color unobscured by other labels, or attachments. Labeling shall be located away from other markings that could substantially reduce its effectiveness.

**Document Preparation.** All document preparation and distribution, including any Uniform Hazardous Waste Manifests, Asbestos Waste Shipment Records, Land Disposal Restriction Notifications, and Shipping emergency Response Information shall be the responsibility of the Contractor. The Engineer will sign the Generator’s Certification on the Hazardous Waste Manifest. The LDR (Land Disposal Restricted) certifications shall be completed and attached to the manifest, as required by 40 CFR Part 268 “Land Disposal Restrictions”. All waste shall be documented, transported, treated and disposed as required by Federal, State and local laws, regulations, and codes.

**Multiple Collection.** It is permissible for the transporting vehicle to pick up containerized paint waste debris from one or more bridge sites for delivery to an authorized treatment, storage and disposal facility (TSDF) if the following conditions are met:

1. The materials picked up at each site must be essentially identical in physical and chemical characteristics. No materials other than the NYSDOT paint and asbestos coating waste debris may be included if wastes from several individual sites are combined on the same vehicle.

2. All of the component shipment are presumed to be both a D008 hazardous waste and an asbestos waste and shall be disposed of as such.

3. A hazardous waste manifest and asbestos waste shipment record are prepared for each generating bridge site. Each manifest and record must reflect the accurate quantity shipped from each bridge. In sum total, the manifests and records accompanying the shipment must account for the entire volume transported.

4. All component shipments are intended to be conveyed to the same TSDF, and the TSDF has agreed to accept the consolidated load.

**Paint and Asbestos Coating Waste Stabilization.** For the purpose of this item, treatment of the lead in paint/coating waste as required by the Federal land disposal restriction regulations (40 CFR 268) is presumed to required stabilization of the waste such as mixing it with Portland cement and water as necessary at the permitted hazardous waste Treatment or Disposal facility. The stabilized waste shall meet the uniform treatment standards prior to disposal in a permitted hazardous waste landfill.

If the Department is fined or penalized as a result of the Contractor’s performance or lack thereof on this item, in addition to other remedies the Department may possess, said fine or penalty will be deducted from monies due the Contractor.

The extent of the Contractor’s compliance with the provisions under timeliness of disposal will be considered as relevant in any future determination of an award to the Contractor as the lowest responsible bidder for any project under the supervision of the Department.
ATTACHMENT B
E. Lighting. Light intensity by natural or artificial means inside the containment enclosure shall be maintained at a minimum of 50 foot-candles on the steel surface. During inspection activities, light shall be maintained at a minimum of 100 foot-candles. Auxiliary lighting shall be provided as necessary. The Contractor shall provide the Engineer with one portable light meter with a scale of 0 to 100 foot-candles. This meter will be returned to the Contractor at the completion of work. All lighting used in the containment shall be explosion-proof.

F. Containment Performance. The effectiveness of the containment enclosure shall be determined by visual inspection for dust plumes or other visible evidence of emissions materials into the environment. Throughout the duration of work there shall be no visible discharges. If there is a visible discharge the Contractor shall immediately stop work and perform necessary repairs to the containment enclosure or modifications to cleaning operations to the Engineer's satisfaction.

The Engineer may direct the Contractor to stop all work activities and immediately clean up all waste materials within the enclosure when threatening weather conditions exist or are predicted. This measure may be exercised when an apparent threat exists that could cause the release of waste material to the surrounding environment, such as high winds or heavy rain.

If the wind velocity causes the containment enclosure to billow, or to emit dust, or to otherwise be a hazard in the opinion of the Engineer, the Contractor shall immediately cease work and clean up all the debris. Under severe conditions the Contractor shall disassemble the containment enclosure.

G. Releases From the Containment. For structures that are located over or adjacent to water, if floating waste materials form on the water surface, they shall be contained from moving upstream or downstream by the use of floating water booms. Floating waste material shall be collected daily, or more frequently.

Any waste material that is released outside the containment enclosure shall be immediately cleaned up using vacuums. Care shall be taken on pavement and other surfaces to collect all waste material so as to prevent it from being redistributed into the air and environment by traffic or other means.

All used filters from dust collectors, vacuums, and straw and screening from dam devices, shall be disposed of in accordance with all applicable Local, State, and Federal Laws, regulations and codes. The cost for disposing of these materials shall be included in the lump sum price bid for this item.

570-3.08 Class A Containment. Fifteen (15) days prior to the start of any abrasive-blast cleaning or paint removal work, the Contractor shall submit for approval detailed working drawing(s) of the Class A containment system that is to be supplied for each structure. The drawings shall be prepared and stamped by a Professional Engineer. Six (6) complete copies of the working drawings shall be submitted for approval.

The working drawings shall detail the proposed containment enclosure and include the following information at a minimum:

- Plan and elevation of the containment enclosure in relation to the structure.
- The type of solid or rigid floor and working platform with appropriate safety and fall protection measures. A description of worker access to the enclosure and the procedures and equipment that will be used to provide fall-protection. If a barge or another type of floating platform is used, include details regarding its construction, such as materials and dimensions, how the platform will be tied-off, how the debris will be collected and off-loaded, etc.
- A description of how the existing drainage will be routed through the enclosure.
- A description of the type of material(s) for the containment walls, floor, and ceiling.
• The type of support structure that will be used for the floor, walls, and ceiling, including the attachment of the enclosure materials to the support structure.
• The method by which the enclosure will be supported or attached to the bridge, i.e., rollers, clamps. Welding, bolting, or similar connections will not be allowed.
• The method that will be used to seal the joints (seams) formed when fabricating the containment enclosure, and the method that will be used to seal the mating joints between the containment enclosure and the bridge structure.
• The method that will be used to seal the entryway. At a minimum, the use of multiple overlapping door tarps shall be provided to minimize dust escape through the entryway.
• The ventilation system including open-air make-up points, dust collector and exhaust fan(s), location, type of equipment, manufacturer's data sheets, and airflow capacities.
• The type, size, and configuration of auxiliary lighting provided inside the containment enclosure. All lighting must be explosion proof.
• A design analysis of the loads on the structure due to the containment enclosure including: maximum dead and live loads of the enclosure, the workers, blast abrasive, and equipment; maximum allowable load for the floor and working platform; wind loads imposed on the structure by the enclosure; and maximum wind velocity that the containment enclosure is designed to withstand.
• If the containment system is supported by the structure, the working drawing submittal shall include certification by the Professional Engineer that the loads imposed do not cause the overall stress level of any element of the bridge to exceed the Operating Rating Allowable Stresses defined in AASHTO Manual for Maintenance Inspection of Bridges.
• The analysis shall account for all loads on the structure, including the enclosure dead load, worker live load, blast-abrasive load, equipment load, wind load, structure dead load, and highway live load using H20 loading unless otherwise specified plus impact. The highway live load used for analysis purposes shall be either an HS20 truck or equivalent lane loading, whichever is greater, unless a different highway live load is shown in the contract documents. Except as noted, the analysis shall use the loadings and design assumptions in the NYSDOT Standard Specifications for Highway Bridges.
• Details on how the enclosure is assembled, disassembled and moved to a new location on the structure as surface preparation work progresses. Indicate how the dust collector will be included in the containment enclosure. All other pertinent details relating to the containment enclosure shall be included with the working drawings as notes or as written narrative.
• Details on how the use of the enclosure will be coordinated with the Work Zone Traffic Control. Encroachments onto roadways and clearances over waterways and railroads shall be clearly identified.

A. General. The containment system includes the cover panels, screens, tarps, scaffolds, supports, and shrouds used to enclose an entire work area. The purpose of the containment is to prevent all debris generated during surface preparation from entering the environment and to facilitate the controlled collection of the debris for disposal.

The containment shall meet the requirements of SSPC-Guide 6, Class 1A. The containment shall have air impenetrable-walls, rigid or flexible framing, fully sealed joints, and resealable entry ways. Negative air shall be achieved by forced air flow. Exhaust air shall be filtered.

Flexible covers for flooring shall be impermeable and will be allowed only if the ground or paved surfaces are smooth enough to vacuum debris. If a smooth surface is not available, rigid materials shall be used for the floor of the enclosure.

B. Containment Operations. All abrasive-blast cleaning and paint removal work, and all work associated with the collection of paint waste debris, including the subsequent air blow-down or
vacuuming of debris from the steel surfaces on the structure in preparation for painting and inspection, shall be performed inside the containment enclosure.

The Contractor shall attempt to limit workers from entering or exiting the containment enclosure when blast cleaning and paint removal operations are being performed.

C. Waste Collection. All waste material that results from abrasive blasting and paint removal operations shall be cleaned up and collected from the floor, walls, and other surfaces inside of the containment enclosure by vacuuming. Sweeping, shoveling, or other mechanical means to remove the waste materials will not be allowed unless the containment is intact and the vacuuming system is operating. Clean up operations shall be performed daily, prior to inspection, before new paint is applied or before a prolonged work stoppage, such as for weather interruptions.

Prior to disassembly or moving of the paint enclosure, the inside surfaces of the enclosure (walls, floors, ceiling, etc.) shall be cleaned of dust and other spent material by vacuuming. The Contractor shall take all measures necessary to prevent the release of waste material during moving or removal of the containment.

All vacuum equipment that is used for collection and cleanup work shall be equipped with HEPA filters. All used filters from dust collectors, vacuums, and straw and screening from dam devices, shall be disposed of in accordance with all applicable local, State, and Federal Laws, regulations, and codes. The cost for disposing of these materials shall be included in the lump sum price bid for this item.

D. Ventilation. The size of the exhaust-fan system supplied shall be designed to produce an average minimum cross-draft air velocity or an average minimum downdraft air velocity inside the containment enclosure. For enclosures designed with horizontal air flow, the exhaust fan shall have the capacity to produce an average minimum cross-draft velocity of 100 fpm, based on theoretical calculations. For enclosures designed with vertical air flow, the exhaust fan shall have the capacity to produce an average minimum downdraft velocity of 50 fpm, based on theoretical calculations. Forced exhaust air shall flow into dust collectors. The dust collectors shall be used and appropriately sized for the type, size of particulate matter, volume, and velocity of air moved through the containment. All air exhausted from the containment enclosure shall pass through the dust collection system.

Proper operation of the ventilation system shall be maintained after each assembly of the containment and during all phases of work.

E. Lighting. Light intensity by natural or artificial means inside the containment enclosure shall be maintained at a minimum of 50 foot-candles on the steel surface. During inspection activities, light shall be maintained at a minimum of 100 foot-candles Auxiliary lighting shall be provided as necessary. The Contractor shall provide the Engineer with one portable light meter with a scale of 0 to 100 foot-candles. This meter will be returned to the Contractor at the completion of work. All lighting used in the containment shall be explosion-proof.

F. Containment Performance. NYSDOT will perform air quality monitoring (AQM) for ambient particulate and lead during abrasive blasting/cleanup. Real-time AQM will be used for all Class A containments. High-volume AQM may be used in addition to real-time AQM. The effectiveness of the containment and accessory equipment in preventing unacceptable levels of particulate and lead emissions will be assessed based on established AQM criteria for both the real-time and high-volume monitoring. Throughout the duration of work, there shall be no visible discharges. If the Engineer observes a visible discharge, the Contractor shall immediately stop work and perform necessary repairs to the containment enclosure or modifications to blast cleaning operations to the Engineer’s satisfaction.
The Engineer may direct the Contractor to stop all work activities and require the Contractor to immediately clean up all waste materials within the enclosure when severe weather conditions exist or are predicted. This measure may be exercised when an apparent threat exists that could cause the release of waste material to the surrounding environment, such as high winds or heavy rain.

If the wind velocity causes the containment enclosure to billow or to emit dust, or to otherwise be a hazard in the opinion of the Engineer, the Contractor shall immediately cease work and cleanup all the debris. If severe conditions are predicted, the Contractor shall disassemble the containment enclosure.

G. Releases From the Containment. For structures that are located over or adjacent to water, if floating waste materials form on the water surface, they shall be contained from moving upstream or downstream by the use of floating water booms. Floating waste material shall be collected daily, or more frequently.

Any waste material that is released outside the containment enclosure shall be immediately cleaned up using vacuums. Care shall be taken on pavement and other surfaces to collect all waste material so as to prevent it from being redistributed into the air and environment by traffic or other means.

All used filters from dust collectors, vacuums, and straw and screening from dam devices, shall be disposed of in accordance with all applicable Local, State, and Federal Laws, regulations and codes. The cost for disposing of these materials shall be included in the lump sum price bid for this item.

570-4 METHOD OF MEASUREMENT.

570-4.01 Lead-Exposure Control Plan (LECP). The work under the Lead Exposure Control Plan will be measured for payment on a lump sum basis.

570-4.02 Medical Testing. The work under medical testing will be measured for payment on a dollars-cents basis.

The amount shown in the itemized proposal for this work will be considered the price bid even though payment will be made for actual work performed. This amount is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded, and the original price will be used to determine the total amount bid.

570-4.03 Personal-Exposure-Monitoring Sample Analysis. The work under the personal exposure monitoring sample analysis will be measured for payment on a dollars-cents basis.

The amount shown in the itemized proposal for this work will be considered the price bid even though payment will be made for actual work performed. This amount is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded, and the original price will be used to determine the total amount bid.

570-4.04 Decontamination Facilities. The quantity to be measured for payment will be in calendar weeks.

570-4.05 Environmental Ground Protection. This work will be measured for payment on a lump sum basis.

570-4.06 Environmental Water Protection. This work will be measured for payment on a lump sum basis.

570-4.07 Class B Containment. This work will be measured for payment on a lump sum basis.
February 15, 2019

Mr. Edward Smith  
New York State Department of Labor  
Division of Safety & Health  
Engineering Services Unit  
State Office Campus, Building 12  
Albany, NY 12240

RE: 2018 NYSDOT Blanket Variance (BV 14) Reopening  
File No. 18-0381

Dear Mr. Smith:

In accordance with our recent discussion regarding the need for reopening of NYSDOT Blanket Variance 14, please find the enclosed proposed replacement language for page 8 in association with Section G.

Please contact me directly at (518) 485-5315 or by email at jonathan.bass@dot.ny.gov should you have any questions or if further discussion is needed.

Sincerely,

JONATHAN BASS  
Senior Environmental Specialist  
Office of Construction

ASBLetter2019-01

Enclosure
The Additional following procedures/requirements shall apply to the removal of non-friable asbestos-containing coatings from concrete surfaces using manual or HEPA-filtered, vacuum-shrouded tools:

2.) Polyethylene sheeting shall be used in the active work area where masonry coatings are being removed. A minimum of a single layer of 6-mil polyethylene sheeting shall be used for ground protection during at-grade abatement of masonry coatings or on floors and walls of buckets, scaffolds and platforms during above-ground removal work. Additional controls (including increased surfactant, polyethylene shielding, tenting, tenting with HEPA vacuum filtration etc.) shall be implemented, as necessary, to eliminate any visible emissions that may occur during shrouded tool work on irregular surfaces. All polyethylene shall be adequately supported for the duration of the abatement activities in each location. The contractor shall also provide proper traction on polyethylene surfaces to ensure the safety of the abatement workers during the work.