

September 22, 2006

Mr. Chris Alonge
New York State Department of Labor
Department of Safety & Health
Engineering Services Unit
State Office Building Campus – Bldg. 12
Albany, NY 12240

Re: Site Specific Variance Petition
Spot Removal of ACM Spandrel Mastic for Scaffold Installation
Fiterman Hall - 30 West Broadway, New York, NY

Dear Mr. Alonge:

The Dormitory Authority of the State of New York (DASNY), through Airtek Environmental Corp. (Airtek) as its representative, is requesting a site-specific variance to perform the spot removal of spandrel mastic to allow for the installation of scaffolding bracing tie-ins to the spandrel beam web. PAL Environmental Safety Corp. (DOL Asbestos Handling License No. 99-0690) has been selected to perform the spot removal. As is required under the original variance, all access to the facility is permitted only under the conditions of the site Health & Safety Plan (HASP).

In connection with the Remediation and Deconstruction of Fiterman Hall, 30 West Broadway, New York, NY, a NYC code-compliant scaffolding system, including debris netting, will be erected on all elevations of the building for its full height. To brace the scaffold & resist anticipated wind loads, the scaffolding must be tied to the building using the procedure detailed below.

Existing Conditions:

The exterior construction consists of a single wythe of brick veneer supported on lintels, which in turn are hung from a steel spandrel beam. The depth from the exterior face of the brick to the web of the spandrel beam is approximately 10". This space is partially filled with masonry (Non-ACM Brick & Mortar), which exists on both sides of the spandrel beam. The exterior facing surface of the spandrel web is coated with non-friable ACM mastic for its entire length as detailed on drawing #ASB-21 (Figure F-1).

Tie-In Methodology:

Each scaffold tie connection to the building will be made with four (4) powder actuated domehead nails shot directly into the spandrel web. Domehead nails will have cross hatched threading that will heat up via friction during the installation and form a weld with the spandrel. The nails will install a half inch (.5") bolt housing connector. Two inch (2") diameter tube piping, varying in length from eighteen inches (18") to thirty-six inches (36"), will be attached to the housing connector with a .5" bolt. Scaffolding legs will be braced by attaching to the tube piping with a ninety (90) degree clamp. Please refer to the attached detail for an engineer's drawing and calculations for the tie-ins.

A minimum of one thousand two hundred (1,200) tie-ins are required to attach the scaffolding system around the façade for the full height of the Building. Tie-ins will be installed on every floor (with the exception of the 1st Floor) for every two (2) tiers of scaffolding. The tie-ins require a six inch by six inch (6" x 6") section of the spandrel web be exposed in order to make the attachment. This equates to approximately forty (40) square feet per floor; six hundred (600) square feet for the entire building. Please note that it will not be necessary to penetrate the Building envelope or for workers to enter the Building during the performance of scaffolding installation operations.

Pilot Program:

Prior to the commencement of tie-in work, the Owner's Environmental Consultant will oversee a pilot program performed by the contractor, PAL. The purpose of the pilot program is twofold. The first pilot operation will be to perform brick removal to expose the spandrel and then mastic spot abatement under environmental controls to visually determine whether there is residual WTC dust within the façade gap, and to conduct air testing for asbestos during the operation to determine if elevated airborne asbestos levels result from the scaffolding attachment operation. The second pilot operation will be to remove the remaining brick in the work area to expose the entire surface of the façade block to again visually inspect for residual WTC dust, and again conduct air testing for asbestos to determine if elevated airborne asbestos levels result from fascia brick removal. Pilot program tent operations will be executed at four (4) locations. In order to obtain comprehensive data, the pilot program will be performed at one (1) location on each side of the Building. The sidewalk shed will be used as a working platform for all Pilot Program locations.

The Pilot Program will be performed at the following locations (see Drawing #ASB-6):

Pilot Location No. 1: An intact four (4') foot wide section of brick on the 2nd Floor at the southeast corner of the Building in the gash area. The sidewalk shed will serve as the working platform to access this location.

Pilot Location No. 2: An intact four (4') foot wide section of brick on the 2nd Floor of the west side of the Building façade. The sidewalk shed will serve as the working platform to access this location.

Pilot Location No. 3: An intact four (4') foot wide section of brick on the 2nd Floor of the north side of the Building façade. The sidewalk shed will serve as the working platform to access this location.

Pilot Location No. 4: An intact four (4') foot wide section of brick on the 2nd Floor of the east side of the Building façade. The sidewalk shed will serve as the working platform to access this location.

The following control measures will be implemented during the Pilot Program:

- All work shall be conducted by NYS DOL licensed asbestos handlers and handler supervisors. A competent person/asbestos supervisor shall be present on site and will oversee all work.
- Air monitoring, project monitoring and community monitoring will be conducted by the Owner's Environmental Consultant.
- Remote worker and waste decons will be utilized for this procedure. The decons will be located on the northwest corner of the site inside the construction barrier. A sidewalk shed will be installed by others prior to commencing any work on site. The sidewalk shed does not require tie-ins on the 1st Floor level.
- Prior to commencement of the Pilot Program, an air tight, weatherproof waste storage facility will be established against the east side of the Building under the overhang. PPE and any waste water generated will be drummed and stored in this facility while it is sampled to determine the proper method of disposal.
- A forty (40) yard asbestos waste container will be located in the northwest corner of the site inside the construction barrier. This container will be used for the disposal of all waste generated by the pilot program.
- The pilot program will be conducted by NYS DOL licensed asbestos handlers and handler supervisors.
- All handlers and handler supervisors will utilize the proper personal protective equipment while performing the brick removal and the mastic abatement under the pilot program.

Personal protective equipment (PPE) to be utilized for the abatement procedure will be: half face respirators with P100 filter cartridges, disposable coveralls with hoods, safety goggles, nitrile gloves, boots and boot covers.

- Tent enclosures will be constructed at each pilot location. The tent enclosures will contain the entire exterior surface area (whole wythe 4' wide of bricks) of each section of bricks.
- All tent enclosures shall be constructed of 2 layers of poly and will have functioning air locks.
- After construction, tents will be placed under negative pressure during preparatory activities. The interior of the tents will be cleaned, including all building surfaces within the tents, and clearance air testing for asbestos will be conducted. Upon successful air clearance, pilot operations will commence.
- Negative pressure will be shut down prior to the commencement of brick removal since the purpose of the pilot program is to determine if removal operations will release asbestos into the surrounding environment.
- TEM sampling will be performed inside and outside of each tent enclosure to monitor for asbestos during the brick removal and mastic spot abatement.
- Mechanical chipping hammers or manual means (hammers and chisels) will be utilized to cut out the sections of brick, while airless sprayers containing amended water are used to wet the work area.
- Debris from the pilot program brick removal will be bagged, labeled, processed through the waste decon and placed in the asbestos waste container for disposal as ACM waste.
- Once the bricks have been removed asbestos handlers will adequately wet down a 6" x 6" spot of the asbestos mastic on the spandrel with amended water.
- Once the mastic has been sufficiently wetted down, the handlers will remove the 6" x 6" spot of mastic by manual methods using handheld scrapers.
- Directly upon detachment from the spandrel, the mastic material will be double bagged, labeled, processed through the waste decon and placed in the asbestos waste container located on the northwest corner of the Building site for disposal as asbestos waste.
- Once the mastic has been removed, the exposed surface of the spandrel beam will be HEPA vacuumed and wet wiped.
- The cleaned surface will then be encapsulated.
- Upon completion of the encapsulation, the TEM sample runs will be terminated. The samples will then be sent to the laboratory for analysis. Only after sample results are below 70 structures per millimeter squared, a new set of TEM samples will be initiated, and the full brick removal operation will be started. If samples results are above 70 s/mm², the tents will be recleaned and a new set of TEM samples will be run again until successful clearance is met.
- All brick within the pilot tent from the window sill down to the next ribbon window will be wetted with amended water, removed, bagged as ACM waste, and transported to the ACM waste container. At the completion of the brick removal operation, the second air sample run will be terminated, and the samples sent to the laboratory. Tents will remain in place until the sample analysis has been completed.
- Tents will only be broken down if all sample results are less than seventy (70) structures per millimeter squared.

Should TEM results from all pilot locations indicate that brick and mastic removal operations did not generate asbestos contamination then PAL will proceed with the removal at all tie-in locations for the entire Building. Visual inspections for residual WTC dust will continue to be conducted at each tie-in location by the Owner's Environmental Consultant. The results of the pilot program will also be applied to work procedure planning for the eventual removal of all fascia brick during the Deconstruction Phase of the project. The removal procedure in support of the scaffold tie-in operation will be conducted as outlined below. Fascia brick and mortar will be handled and disposed as C&D waste. All materials associated with spandrel mastic removal will be handled and disposed as ACM waste.

Removal Procedure:

- All work shall be conducted by NYS DOL licensed asbestos handlers and handler supervisors. A competent person/asbestos supervisor shall be present on site and will oversee all work.
- Air monitoring, project monitoring and community monitoring will be conducted by the Owner's Environmental Consultant.
- Remote worker and waste decons will be utilized for this procedure. The decons will be located on the northwest corner of the site inside the construction barrier. A sidewalk shed will be installed by others prior to commencing any work on site. The sidewalk shed does not require tie-ins on the 1st Floor level.
- All asbestos waste generated will be placed into the 40 yard ACM waste container on the northwest corner of the Site for disposal.
- Before tie-in removal operations can begin, it is necessary to perform the removal of the existing netting on the south side and southwest corner of the Building. PAL will perform the netting removal from the ground up one floor at a time as the scaffolding rises. One layer of six (6) mil fire-retardant polyethylene sheeting (poly) will be installed on the floor surface of the scaffolding working platform. From the platform asbestos handlers will thoroughly wet down the netting with amended water using airless sprayers. Once the netting has been adequately wetted down, PAL asbestos handlers will cut it into manageable sections by manual methods utilizing a combination of utility knives and metal snips. Each section will be placed onto the work platform, rolled into a bundle and wrapped in two (2) layers of poly. Wrapped bundles of the netting will be labeled, processed through the waste decontamination unit and placed in the asbestos waste container for disposal as asbestos waste. When a section of netting has been removed the exposed cables will be wet wiped. Cables will remain in place until the netting has been completely removed. The poly on the platform surface shall remain in place until the completion of the spandrel tie-in spot abatement.
- As the scaffolding rises, each tier will become the working platform for the next tier to be erected on the floor above. For instance, once the scaffolding is in place on the 2nd Floor, that tier will be the working area to perform the abatement necessary to install scaffolding to the 3rd Floor level.
- The scaffold platform where the work is to be conducted will be designated as a regulated area which will be restricted to only allow access to properly licensed personnel. Signage will be posted in accordance with applicable regulations.
- Personal protective equipment (PPE) to be utilized for the abatement procedure will be: half face respirators with P100 filter cartridges, disposable coveralls with hoods, safety goggles, nitrile gloves, boots and boot covers.
- Workers shall comply with the HASP, and protocols established for the project by DASNY. Protocols for fall protection outlined in the HASP will be strictly enforced by the competent person.
- Please note that in the south side gash area the spandrel is already exposed with the exception of the southeast corner (intersection of West Broadway and Barclay Street) where sections of brick remain intact.
- Due to the presence of residual urban road dust on the exterior brick on the first two (2) floors, it is necessary to clean the dust before commencing brick removal. Cleaning materials will be disposed as ACM waste. Residual liquids will be drummed for testing for NYC Sewer discharge parameters and eventual filtration to the NYC Sewer if analytical results allow. Once the scaffolding rises to the 2nd Floor level, focused cleaning of the entire 1st and 2nd Floor facades will take place. It is necessary to perform the

cleaning from the 2nd Floor down. Run-off water generated during cleaning will be controlled to prevent it from pooling or migrating to the outside environment. A trough will be constructed of poly at the Building grade level. Mops and rags will be used to absorb any run-off water from the trough. It is not anticipated that cleaning activities will generate a large quantity of run-off water. For the focused cleaning, minor amounts of water will be considered any volume of run off less than ten (10) gallons. In the event that a large quantity of run off water (greater than 10 gallons) is generated it will be drummed in fifty-five (55) gallon barrels. Drummed water will be tested for NYC Sewer discharge parameters and eventual filtration to the NYC Sewer if analytical results allow. Above the 2nd Floor, residual dust will be cleaned from the areas where it exists. It is not believed that there is widespread residual dust contamination above the 2nd Floor. As the scaffolding rises dust inspection will be performed by the Owner's Environmental Consultant and it will be cleaned according to this procedure in any areas where it exists.

- The brick surface of the tie-in areas will be free of residual dust before removal activities begin. PAL laborers will utilize mechanical chipping hammers and manual means (hammers and chisels) to perform the brick removal. Water will be used to control dust. The cleaned bricks will be disposed of as conventional waste.
- At each tie-in location one (1) layer of poly will be affixed to the scaffolding work platform One (1) layer of poly will also be attached to the façade below each 8" x 8" brick opening creating a basin to prevent asbestos mastic material from falling onto the scaffolding. PAL asbestos handlers will thoroughly wet down the mastic at each opening with amended water using airless sprayers. OSHA monitoring will be performed on the platform for the duration of spot removal activities as required by the CFR1926. Removal of the mastic will be performed by manual methods utilizing hand held scrapers. Mastic material will be placed into six (6) mil asbestos bags immediately upon detachment from the spandrel beam. Once full, or at least daily, each bag will be placed inside a second six (6) mil asbestos bag and sealed. Bags of asbestos waste will be clearly labeled, processed through the waste decontamination unit and placed in the asbestos waste container for disposal as asbestos waste. The abated areas of spandrel beam will be HEPA vacuumed, wet wiped and encapsulated. Abatement activities will proceed in a clockwise manner around the Building beginning at the southwest corner. Once the tie-in locations on one (1) side of the Building have been abated, cleaned and encapsulated the poly will be removed from the façade and scaffolding on that side of the Building. The poly will be disposed of in the same manner as the mastic waste. When the poly is removed, the abatement work will proceed clockwise around the corner to the next side of the Building. With the cleaning and encapsulation complete, the scaffolding work area will be rendered accessible for the scaffolding subcontractor to continue with the installation.
- At the conclusion of each scheduled operation the workers shall proceed to the Decontamination Unit and shower out. Tools shall be wet wiped and HEPA vacuumed at the end of the scheduled work and left in a non-permeable container until their next use.

Asbestos Air Monitoring:

Pilot program: As noted above, TEM air sampling for asbestos will be conducted both inside and outside the pilot tents, and TEM clearance sampling will be conducted after a re-cleaning of any tent in which a pilot program sample exceeds 70 s/mm².

Scaffold Attachment: Air sampling by TEM will be conducted within the restricted areas where the brick removal, mastic abatement and tie-in attachment operations are conducted. Typically, two area air samples will be collected at the perimeter of each work location. This may be adjusted by the site hygienist dependent on site conditions and the configuration of the work areas, but the intent will be to provide area air sampling in close proximity to the perimeter of the restricted abatement areas. In addition, daily air sampling of the site (decons, critical barriers, negative air exhausts, etc.) will continue as required under the original variance #05-0919 for this project. Asbestos air sampling at the community monitoring locations

will be conducted as a part of the Environmental Community Monitoring Program, which will be fully functional during all scaffold erection operations.

Please contact me if I may provide any further information on this variance request. Thank you for your time and consideration.

Sincerely,

Aric Domoziak
Compliance Manager – NYS Project Designer

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