Article XX, § 533 ABRASIVE BLASTING (Effective date: October 9, 1986)

A. **Definitions.** For the purposes of this Section, the following words and phrases shall have the meanings stated:

"Abrasive material" means any material used as a projectile in an abrasive blasting operation including but not limited to sand, slag, steel shot, garnet, or agricultural shells.

"Abrasive blasting" means the cleaning or preparing of an interior or exterior surface by forcibly propelling a stream of abrasive material against the surface.

"At the source" means the point at which emissions enter the open air.

"High-silica abrasive" means an abrasive which contains equal to or greater than five percent (5%), by weight, of free silica (silicon dioxide, SiO_2).

"Lead paint" means paint or other similar surface coating materials containing lead or lead compounds and in which the lead content (calculated as lead metal) is in excess of 0.5% by weight of the total nonvolatile content of the paint or the weight of the dried paint film.

"Multiple Nozzle" shall mean more than one nozzle being used to abrasive blast the same surface in such close proximity that their separate plumes are indistinguishable."

- B. **General.** No person shall conduct, or allow to be conducted, abrasive blasting of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of this Section.
- C. **Visible Emissions.** No person shall conduct, or allow to be conducted, abrasive blasting of any surface, structure, or part thereof, in such manner that emissions from such operation exceed the following amounts.

1. Abrasive blasting in the absence of lead paint. Visible emissions beyond the property line where the abrasive blasting project is being conducted shall comply with the requirements of 401.A. [§2104.01.a] of this Article [Article XXI], when conducting the abrasive blasting in the absence of lead paint.

2. **Abrasive blasting involving lead paint.** Visible emissions shall comply with the requirements of 401.A. [§2104.01.a] of this Article [Article XXI] at the source, and the owner and operator shall use Best Available Control Technology to minimize visible emissions beyond the property line, public exposure to particulate matter, and the deposition of particulate matter upon public or private property when conducting the abrasive blasting of lead paint.

3. **High-silica abrasives.** Visible emissions shall comply with the requirements of 401.A. [§2104.01.a] of this Article [Article XXI] at the source, and the owner and operator shall use Best Available Control Technology to minimize visible emissions beyond the property line, public exposure to particulate matter, and the deposition of particulate matter upon public or private property when conducting abrasive blasting using high-silica abrasives.

- D. **Multiple Nozzles.** Emissions from abrasive blasting employing multiple nozzles shall be judged as a single source which shall comply with the emission standards provided for in this section.
- E. **Permits.** It shall be a violation of this Article giving rise to the remedies set forth in [Section 305] of this Article for any person to conduct, or allow to be conducted, abrasive blasting of any surface, structure, or part thereof, to which this section applies unless the Direcxtor has first issued either a Project or Abrasive Blasting Permit for such operation.
 - 1. **Project Permit.** A project permit application shall be made for each surface, structure, or part thereof, to be blasted. The application shall be submitted at least twenty (20) working days prior to the commencement of the proposed abrasive blasting operation.
 - 2. **Annual Permit.** In place of project permits, an annual permit application may be submitted by an employer with on-going, in-house abrasive blasting operations involving continuous or intermittent abrasive blasting performed by the employer's own employees at a specified site.
 - 3. **Applications.** Project and annual permit applications shall be made on forms prepared by the Director, and shall contain, at a minimum, the following information:
 - a. Name, address, and telephone number of the owner of the site;
 - b. Names, address and telephone number of the person (e.g. contractor) to perform the abrasive blasting;
 - c. Exact location of the site;
 - d. Starting and completion dates and daily operating hours for the abrasive blasting;
 - e. Detailed description of the nature and size of the surface, structure, or part thereof, to be blasted;
 - f. Specific work practices, procedures, equipment, and abrasives to be

utilized at the site to comply with the requirements of this Section;

- g. Detailed justification for the use of abrasive blasting rather than an alternative method of surface preparation; and
- h. Detailed description of the proposed manner of disposal of the spent abrasive and blast residue.
- 4. **Testing of paint.** All projects involving the abrasive blasting of paint shall include with the permit application independent laboratory test results obtained by the laboratories certified by EPA, AIHA, or Pennsylvania indicating the lead content, if any, of the paint to be removed, and the sampling and analytical techniques used to determine these results.
- 5. **Fees.** A project permit fee in the amount of \$100.00 for an abrasive blasting project involving no more than 5000 square feet, and \$250.00 for an abrasive blasting project involving more than 5000 square feet shall accompany each project permit application. An annual permit fee of \$500.00 shall accompany each annual permit application.
- 6. **Standards for Issuance.** The Director shall not issue an Abrasive Blasting Permit under this Section unless he has received a properly completed application as specified in subsections E.1 through E.3, above, and until the applicant can demonstrate the ability to comply with the requirements of this Section.
- 7. **Term.** Unless the Director revokes an Abrasive Blasting Permit pursuant to subsection K. below, a project permit shall remain in effect until the completion of the abrasive blasting project, and an annual permit shall remain in effect for the calendar year for which it is issued.
- F. **Monitoring.** If the Director determines, on the basis of any information available to him, that emissions from an abrasive blasting operation may reasonably be anticipated to have an adverse impact upon the public health, safety, or welfare due to, among other concerns, the presence of lead paint or high silica abrasives, the Director may, by order or permit condition, require the owner or operator to implement ambient air quality monitoring programs during the abrasive blasting operation and to submit the monitoring results to the Bureau as expeditiously as possible.
- G. **Clean-up and Disposal Procedures.** A complete clean-up of all spent abrasive and blast and cleaning residue, shall be conducted upon termination of abrasive blasting activities each day. Clean-up procedures shall include, at a minimum, the following:

- 1. The daily collection of all spent abrasive and blast and cleaning residue, if any, visible in the vicinity of the blasting site.
- 2. All vacuuming of spent abrasive and blast residue visible on lawns and cultivated vegetation in the vicinity of the blasting site.
- 3. All vacuuming required hereunder shall be performed using an industrial vacuum cleaner equipped with an exhaust filter.
- 4. In order to minimize or eliminate the emission of airborne particulate matter, stockpiles of new or spent abrasive materials at the site shall be covered at all times, except and only to the extent necessary to remove or add materials to the piles.
- 5. Spent abrasive and blast residue shall be properly disposed of in accordance with all applicable Federal, State, and local environmental regulations.
- H. **Ambient Lead Levels.** The Director shall have the authority to immediately suspend any abrasive blasting operation involving lead paint if lead levels in the air equal or exceed 10 ug/m³, eight-hour average or equal or exceed 25 ug/m³ during any period of time. The operation shall remain suspended until the Director determines that ambient levels have fallen below said threshold levels, and the owner or operator specifies what additional measures will be taken to prevent future exceedances of the ambient lead levels.
- I. **Ambient Respirable Free Silica Levels.** The Director shall have the authority to immediately suspend any abrasive blasting operation involving a high-silica abrasive if the respirable (particles smaller than 10 microns in size) free silica levels in the ambient air equal 100 ug/m³, eight-hour concentration. The operation shall remain suspended until the Director determines that the ambient respirable free silica levels have fallen below the said threshold level, and the owner or operator specifies what additional measures will be taken to prevent future exceedances of this threshold level.
- J. **Notice of Commencement.** The owner or operator shall telephone the Director immediately before the actual start of the abrasive blasting operation to notify him of the operation's commencement.
 - K. **Revocation.** The Department may, at any time, revoke An Abrasive Blasting permit issued under if he finds that:
 - 1. Any statement made in the permit application is not true, or that material information has not been disclosed in the application;

- 2. The abrasive blasting operation is not being conducted in the manner required by this regulation;
- 3. The abrasive blasting operation is not being conducted in the manner indicated by the permit, or that any term or condition of the permit is not being complied with; or
- 4. Emissions from the operation are endangering the public health, safety or welfare; or
- 5. He has been denied lawful access to the site as authorized by Section 804.H [Part I] of this Article.
- 2. Rejected applications and revoked permits can not be reconsidered or reissued. Consideration and issuance of new applications and permits can only occur after submittal of a new application and fee in accordance with this Section.
- 3. Reinstatement of a suspended permit can only occur after the owner has, to the Department's satisfaction, corrected all problems and demonstrated an ability and willingness to comply with all requirements, and documented such corrections and demonstration to the Department.
- L. **Violations**. The abrasive blasting of any structure without the required permit or in violation of any condition contained in the permit or in violation of any requirement of theis Section shall be a violation of this Article giving rise to the remedies provided in [Section 305] of this Article.
- M. **Appeals.** Any person who is aggrieved by the rejection or revocation of a permit required by this Section, or the issuance of such permit with conditions, shall be entitled to an administrative hearing pusuant to the provisions of Section 804.H [2109.10] of this Article.
- N. Alternative Standards or Procedures. The Department may, on a case-by-case basis, approve an alternative standard or procedure to be followed on a specific abrasive blasting project in lieu of a requirement of this Section, provided that the requested alternative standard or procedure is submitted, in writing, and demonstrates to the Director's satisfaction that: (a) the proposed alternative standard or procedure is equivalent to a requirement of this Section; or (b) that strict compliance with the requirements of this Section are unreasonable or impossible in the particular circumstances involved, and the proposed alternative standard or procedure will minimize, to the maximum extent possible, the potential for the public's exposure to emissions from the abrasive blasting project. Approval to institute an alternative standard or procedure in lieu of a requirement must be received, in writing, from the

Director prior to the use of such alternative standard or procedure.