



State of Ohio Environmental Protection Agency

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**Certified Mail**  
**Return Receipt Requested**

**Re: M & M Drying, Ltd., dba Aluminum One**  
**fka Structural Stoneware, Inc.**  
**EPA ID # OHD 004 449 427**  
**Decision Document of Corrective Action**

November 14, 2005

Mr. Thomas Grist, Esq.  
M & M Drying, Ltd.  
217 Roosevelt Avenue  
Minerva, Ohio 44657

Dear Mr. Grist:

Here is the final Decision Document of Corrective Action Remedies (Decision Document) and Declaration for the former Structural Stoneware, Inc. site in Minerva, Ohio. Staff at the Ohio EPA, Division of Hazardous Waste Management (DHWM), reviewed M & M Drying Ltd.'s Corrective Action Measures Work Plan submitted for the former Structural Stoneware property and issued a Statement of Basis on August 30, 2005 seeking public input on the proposed remedies. The Agency did not receive written comments concerning the Statement of Basis.

This Decision Document and Declaration identifies Ohio EPA's selected remedies and explains our reasons for selecting the remedies in accordance with the policies of Ohio EPA and the statues and regulations of the State of Ohio.

In accordance with the Environmental Covenant section of the Declaration, use of appropriate portions of the site will be restricted to industrial purposes only through an enforceable, written agreement with Ohio EPA pursuant to Ohio Revised Code (ORC) Sections 5301.90 to 5301.92. The property may not be used for residential, commercial or agriculture activities. You are encouraged to regularly review and comply with all selected remedies.



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Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P. Koncelik, Director

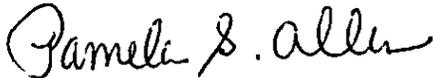
Ohio EPA is an Equal Opportunity

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M & M Drying, Ltd.  
November 14, 2005  
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If you have any questions concerning the Corrective Action Remedies, please call Paul Dolensky of Ohio EPA's Northeast District Office at (330) 963-1200.

Sincerely,



Pamela S. Allen, Manager  
Regulatory and Information Services  
Division of Hazardous Waste Management

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cc: Edwin Lim, ERAS, DHWM, CO  
Jeremy Carroll, ERAS, DHWM, CO  
Kurt Princic/Paul Dolensky, DHWM, NEDO  
Harriet Croke, US EPA, Region 5  
Carol Hester, PIC  
file

# DECLARATION

## SITE NAME AND LOCATION

M & M Drying, LTD., dba Aluminum One  
(fka Structural Stoneware, Inc.)  
Minerva, Carroll County, Ohio

## STATEMENT OF BASIS AND PURPOSE

This Decision Document Declaration presents the selected remedial actions for the Structural Stoneware property (M & M Drying dba Aluminum One) in accordance with the policies of the Ohio Environmental Protection Agency and the statutes and regulations of the State of Ohio.

## ASSESSMENT OF THE SITE

An assessment of the former ceramic manufacturing site has identified an environmental concern with a historical waste pile that is approximately one acre in size and contains broken clay tiles both fired and unfired. It also contains some glazing material and miscellaneous solid waste that was placed in it over the years. Although the four locations containing hazardous levels of lead and cadmium were removed, the remaining soil and solid waste including the tiles may contain elevated levels of cadmium and/or lead. Ohio EPA finds that implementation of selected remedies will further protect public health and the environment by permanently reducing risks to acceptable levels.

## DESCRIPTION OF THE SELECTED REMEDIES

- Security - A fence will be installed to prohibit access to M & M Drying's property. This will be installed between the waste pile and the apartment complex. The waste pile and the back portion of their property will be surrounded by the new building, the railroad tracks and the fence. These barriers should help prevent people from coming in contact with the waste during construction activities.
- Construction of Concrete Parking Lot and Building Expansion - The remaining clay and tile material will be graded and covered with 8 inches of concrete to create a paved surface to be used for storage, parking and vehicular traffic. The existing building will be removed and replaced with a new building to be used for storage and processing of aluminum scrap. The new building will extend over a portion of the graded waste material. Two mounds will be constructed using excess clay and topsoil along the north and south sides of the waste pile. Grass and trees will be planted to act as a noise barrier.
- Soil and Waste Management - During construction and grading activities, the site will be cleared of material not consistent with the tile making process (wood,

metal, plastic, etc.). Unknown materials will be properly containerized, evaluated in accordance with OAC Rule 3745-52-11 and disposed.

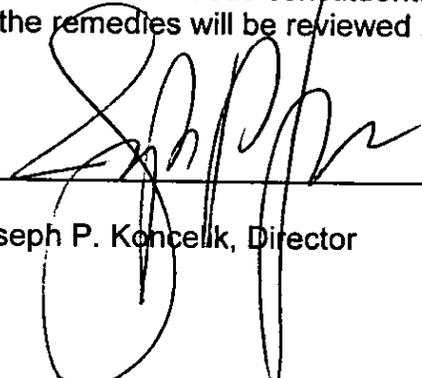
- **Additional Controls and Activities** - A storm water permit will be applied for and secured before site grading commences. Provisions will be made to contain run-off during construction. The facility's NPDES permit for storm water discharge will be revised to include the new parcel. Fugitive dust emissions will be minimized during construction by utilizing water spray and preventing grading during windy days. The existing groundwater wells will be abandoned following the procedures found in ODNR's Technical Guidance for Sealing Unused Wells (1996).
- **Environmental Covenant** - Use of appropriate portions of the site will be restricted to industrial purposes only through an enforceable, written agreement with Ohio EPA pursuant to Ohio Revised Code (ORC) Sections 5301.80 to 5301.92. This restriction will run with the land and will be binding upon a future property owner should the property be sold. The Environmental Covenant will include a legal description of the subject property, identify the contaminated areas and describe acceptable and unacceptable land uses. Ohio EPA will monitor the property owner's adherence to the Environmental Covenant to ensure continued protection of human health and the environment. The types of limitations for this property include:
  - A. **Industrial land use limitations.** The Property shall not be used for residential, commercial (other than those associated with and incidental to industrial operations) or agricultural activities, but may be used for certain industrial activities. The term "residential activities" shall include, but not be limited to, the following:
    - i. Single and multi-family dwelling and rental units;
    - ii. Day care centers and preschools;
    - iii. Hotels and motels;
    - iv. Educational (except as a part of industrial activities within the Property) and religious facilities;
    - v. Restaurants and other food and beverage services (except as a part of industrial activities within the Property);
    - vi. Entertainment and recreational facilities (except as a part of industrial activities within the Property);
    - vii. Hospitals and other extended care medical facilities (except as a part of industrial activities within the Property); and
    - viii. Transient or other residential facilities.

The term "industrial activities" shall include manufacturing, processing operations and office and warehouse use, including but not limited to production, storage and sales of durable goods and other non-food chain products and parking/driveway use.

- B. **Construction and disturbance limitations.** Appropriate measures shall be taken to minimize worker exposure to the waste material beneath the new building and concrete parking lot. Appropriate measures shall also be taken to prevent mixing of subsurface soils with "clean" soil and limit dust formation during construction activities. The facility shall contact the Ohio EPA, Division of Hazardous Waste Management, Northeast District Office before any activity that may disturb the waste including but not limited to cap maintenance, new building construction and underground utility installation and maintenance.

STATUTORY DETERMINATIONS

Today's selection and required implementation of final remedies is protective of human health and the environment, is in accordance with applicable State and federal laws and included appropriate public participation opportunities. The remedies use permanent solutions to the maximum extent practicable to reduce toxicity, mobility and volume of hazardous constituents at the Structural Stoneware site. The effectiveness of the remedies will be reviewed regularly.



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Joseph P. Koncek, Director

November 14, 2005

Date

**DECISION DOCUMENT OF CORRECTIVE ACTION REMEDIES**  
**AT**  
**M & M DRYING, LTD., dba Aluminum One**  
**fka Structural Stoneware, Inc.**  
**MINERVA, OHIO**  
**OHD 004 449 427**

**October 2005**

## **INTRODUCTION**

### **Executive Summary**

The Ohio Environmental Protection Agency (Ohio EPA) has prepared this Decision Document for the remediation of the Structural Stoneware property (M & M Drying dba Aluminum One) in Minerva, Ohio. This Decision Document identifies Ohio EPA's selected remedies and explains our reasons for selecting the remedies.

The Resource Conservation and Recovery Act's (RCRA - Public Law 94-580, 1976) Corrective Action program was created to address threats to human health and the environment from historic or past waste management areas at RCRA treatment, storage and disposal facilities (TSDF). The Structural Stoneware property was considered a RCRA TSDF because of management of hazardous waste in disposal units that came to the attention of Ohio EPA in 1987. Ohio EPA addressed the clean-up (closure) requirements of these post-RCRA units as detailed later in this document. However, the historic management activities at the property (pre-RCRA) still remained subject to the Corrective Action program for final clean-up.

As a result of recent discussions between Ohio EPA and M & M Drying, the facility voluntarily submitted a Corrective Action Measures Work Plan on June 8, 2005. Ohio EPA has reviewed M & M Drying's Corrective Action Measures Work Plan submitted for the Structural Stoneware property and is today selecting final remedies. On August 30, 2005 Ohio EPA issued a Statement of Basis and announced a public comment period seeking public input on proposed remedies for the site. The comment period ended on October 15, 2005 and no comments were received.

In brief, Ohio EPA is requiring the remaining waste pile be covered with a concrete parking lot and building expansion. The Agency is also requiring that an Environmental Covenant, a written agreement between Ohio EPA and M & M Drying, be used to address land affected by previous management practices. The concrete "cap" will be maintained as part of the operation and maintenance of engineering controls. Finally, a fence will be constructed around the facility as part of the security measures to limit access. Ohio EPA finds that these remedies will further protect public health and the environment by permanently reducing risks to acceptable levels.

A more detailed discussion of the final remedies is included in the Remedies Summary section of this document.

## FACILITY BACKGROUND

### **Facility History and Summary of Facility Investigation**

Structural Stoneware, Inc. (SSI) is located at 215 Bridge Street, Minerva, Ohio, Carroll County. It is surrounded by railroad tracks and industries to the north, woodlands to the west, Bridge Street and industry to the east, and an apartment complex and single family homes to the south. The site is located near the center of the alluvial filled valley of Sandy Creek and is underlain by several feet of building fill materials, which in turn overlays several feet of silty clay. Clayey sand underlies the silty clay and ranges in thickness between 2 and 7 feet. A semi-continuous fine to medium grained sand unit is present in the middle of the clayey sand unit. Two water-bearing units have been identified beneath the site. The uppermost unit is present at a depth of approximately 12 to 14 feet below ground surface and consists of a perched water zone. A deeper water-bearing zone was encountered at 19 feet which is where site monitoring wells were installed. The direction of groundwater flow was determined to be to the southwest.

SSI manufactured ceramic floor tiles at the Minerva, Ohio facility from 1962 until 1986. Before SSI, various pottery companies operated at the site beginning in the 1920's. During the glazing process at SSI, water was used to rinse the conveyor which carried tiles through the furnaces. This water was disposed of in three shallow impoundments in the rear of the property. A fourth impoundment was added to handle the clear (decanted) water stored in the third impoundment. In addition to the impoundments, SSI created a waste pile located between impoundments three and four. The waste pile was used to dispose unfired, unsolidified clay body, off-spec or broken fired tiles, glazing materials and miscellaneous solid waste.

SSI filed for bankruptcy in 1986 and stopped the production of ceramic tiles at that time. In 1987, a citizen complaint resulted in the Ohio EPA collecting samples from the impoundments and waste pile. The sludges from three of the impoundments tested hazardous for cadmium and/or lead. The waste pile was sampled in June of 1989 using a grid system to determine locations. Out of ten sample locations, four locations within the waste pile were identified as containing hazardous levels of lead and cadmium. No buried sludges were encountered in any of the waste pile sampling locations. In March of 1989, a detailed work plan was agreed upon by SSI and the Ohio EPA. The work plan outlined the scope of additional site investigative work and stipulated that a closure plan be developed addressing the problem areas of the site. Concurrently, SSI began implementation of a pilot study program plan for sludge and soil stabilization. The program studied the effects of adding lime kiln dust to sludge and soils which had exhibited EP toxic or TCLP characteristics for lead and/or cadmium.

The State of Ohio filed a complaint against SSI for the closure of the impoundments and the four locations within the waste pile. A February 18, 1992, Consent Order filed in the Court of Common Pleas, Carroll County, Ohio required SSI to submit a closure plan. The closure plan was approved before the official filing date of the Orders, November 13, 1991. Due to financial constraints, SSI performed closure steps when funds became available. Several closure extensions were given to the facility during closure. Closure activities included soil sampling, excavation and removal of treated material from the surface impoundments and the waste pile. Approximately 141 cubic yards of contaminated material were removed from the four locations within the waste pile in May of 1997. Additional sampling and excavation was conducted between March 2000 and January 2001. Soil confirmation sampling of the waste pile was conducted in November 2001. A ground water monitoring program was also implemented. The results of sampling conducted between 1989 and 1997 had just one sample for lead above detection limits but below the action level for lead.

A closure certification was submitted on August 1, 2002, and a certification inspection was conducted on August 28, 2002. The closure performance standards as specified in Ohio Administrative Code Rule 3745-66-11 were met. A final closure letter was issued on November 8, 2002.

Over the years, Pete Keplinger who is the owner of SSI (now known as Kepcor, Inc.) has operated a small scale tile manufacturing business in the front portion of the facility near Bridge Street. The operation manufactures mostly decorative tile and does not generate any hazardous waste from this process. Mr. Keplinger started to rent out the back portion of the facility and leased the back buildings to Minerva Aluminum. This company covered three of the closed impoundments with concrete so they could store scrap aluminum and use the area for a driveway.

During the summer of 2003, Commercial Alloys (now known as M & M Drying, Ltd., dba Aluminum One) bought Minerva Aluminum assets from receivership. They bought the property from Pete Keplinger but only to the back edge of the back building. They did not buy the portion of the property that included impoundment #4 or the waste pile. Their operating address is 217 Roosevelt Avenue, Minerva.

In February of 2005, M & M Drying approached Ohio EPA with the proposal of buying the remaining portion of the Structural Stoneware property which includes the waste pile with the idea of expanding their business. M & M Drying submitted the Corrective Action Measures Work Plan to Ohio EPA on June 8, 2005.

## **SUMMARY OF FACILITY RISKS**

The remaining waste pile is approximately one acre in size and contains broken clay tiles both fired and unfired. It also contains some glazing material and miscellaneous solid waste that was placed in it over the years. Although the four locations containing hazardous levels of lead and cadmium were removed, the remaining soil and solid waste including the tiles may contain elevated levels of cadmium and/or lead.

During construction of a new building and during grading and paving of the pile, workers and/or trespassers may be exposed to these materials. In addition, workers and adjacent residents may be exposed to dust generated during the construction process. Although groundwater monitoring during closure did not indicate a problem, there is the potential of lead and cadmium reaching the groundwater. There is also the potential for run-off during rain events.

## **REMEDY SUMMARIES**

**Security** - A fence will be installed to prohibit access to M & M Drying's property. This will be installed between the waste pile and the apartment complex. The waste pile and the back portion of their property will be surrounded by the new building, the railroad tracks and the fence. These barriers should help prevent people from coming in contact with the waste during construction activities.

**Construction of Concrete Parking Lot and Building Expansion** - The remaining clay and tile material will be graded and covered with 8 inches of concrete to create a paved surface to be used for storage, parking and vehicular traffic. The existing building will be removed and replaced with a new building to be used for storage and processing of aluminum scrap. The new building will extend over a portion of the graded waste material. Two mounds will be constructed using excess clay and topsoil along the north and south sides of the waste pile. Grass and trees will be planted to act as a noise barrier.

**Soil and Waste Management** - During construction and grading activities, the site will be cleared of material not consistent with the tile making process (wood, metal, plastic, etc.). Unknown materials will be properly containerized, evaluated in accordance with OAC Rule 3745-52-11 and disposed.

**Additional Controls and Activities** - A storm water permit will be applied for and secured before site grading commences. Provisions will be made to contain run-off during construction. The facility's NPDES permit for storm water discharge will be revised to include the new parcel. Fugitive dust emissions will be minimized during construction by utilizing water spray and preventing grading during windy days. The existing groundwater wells will be abandoned following the procedures found in ODNR's Technical Guidance for Sealing Unused Wells (1996).

**Environmental Covenant** - Use of appropriate portions of the site will be restricted to industrial purposes only through an enforceable, written agreement with Ohio EPA pursuant to Ohio Revised Code (ORC) Chapters 5301.80 to 5301.92. This restriction will run with the land and will be binding upon a future property owner should the property be sold. The Environmental Covenant will include a legal description of the subject property, identify the contaminated areas and describe acceptable and unacceptable land uses. Ohio EPA will monitor the property owner's adherence to the Environmental Covenant to ensure continued protection of human health and the environment. The types of limitations for this property include:

- A. **Industrial land use limitations.** The Property shall not be used for residential, commercial (other than those associated with and incidental to industrial operations) or agricultural activities, but may be used for certain industrial activities. The term "residential activities" shall include, but not be limited to, the following:
- I. Single and multi-family dwelling and rental units;
  - ii. Day care centers and preschools;
  - iii. Hotels and motels;
  - iv. Educational (except as a part of industrial activities within the Property) and religious facilities;
  - v. Restaurants and other food and beverage services (except as a part of industrial activities within the Property);
  - vi. Entertainment and recreational facilities (except as a part of industrial activities within the Property);
  - vii. Hospitals and other extended care medical facilities (except as a part of industrial activities within the Property); and
  - viii. Transient or other residential facilities.

The term "industrial activities" shall include manufacturing, processing operations and office and warehouse use, including but not limited to production, storage and sales of durable goods and other non-food chain products and parking/driveway use.

- B. **Construction and disturbance limitations.** Appropriate measures shall be taken to minimize worker exposure to the waste material beneath the new building and concrete parking lot. Appropriate measures shall also be taken to prevent mixing of subsurface soils with "clean" soil and limit dust formation during construction activities. The facility shall contact the Ohio EPA, Division of Hazardous Waste Management, Northeast District Office before any activity that may disturb the waste including but not limited to cap maintenance, new building construction and underground utility installation and maintenance.

## **CORRECTIVE MEASURES EVALUATION CRITERIA**

### **Description of the Criteria**

As part of the facility investigation/corrective measures/remedy study process, criteria for evaluating proposed remedies were developed by U.S. EPA under the corrective action program of the Resource Conservation and Recovery Act (RCRA). The evaluation criteria are found in U.S. EPA guidance documents. The criteria are used by Ohio EPA to evaluate the remedies proposed by a facility when the facility's investigation of environmental conditions on its property determines that some type of action is necessary to reduce the potential risk to human health and the environment, posed by the presence of environmental contaminants, to acceptable levels. The nine evaluation criteria are listed and described as follows:

**Protect human health and the environment.** Remedies shall be evaluated to determine if they can adequately protect human health and the environment, in both the short and long term, from unacceptable risks posed by environmental contaminants present at the facility.

**Attain media cleanup standards set by the implementing agency.** Remedies shall be evaluated to determine if the final numerical standards for the subject environmental media will be achieved. The evaluation will include the method of verification, and its supporting quality assurance and quality control procedures, used to make the determination.

**Control source of the release(s) to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health and the environment.** Remedies shall be evaluated to determine if it is practicable to physically remove the source of environmental contamination as part or all of remedy.

**Comply with applicable standards for management of waste.** Remedies shall be evaluated to determine if they meet all of the applicable requirements of state, federal and local environmental laws for waste management.

**Long term reliability and effectiveness.** Remedies shall be evaluated to determine their ability to maintain reliable protection of human health and the environment over time once the measure is fully implemented. This includes assessment of the residual risks remaining from untreated wastes and the adequacy and reliability of controls such as containment systems and enforceable land use restrictions.

**Reduction in the toxicity, mobility or volume of wastes.** Remedies shall be evaluated to determine the degree to which recycling or treatment are utilized to reduce the toxicity, mobility or volume of wastes present at the facility.

**Short term effectiveness.** Remedies shall be evaluated to determine the following: 1) short term risks that might be posed to the community during implementation of the remedy, 2) potential impacts on workers during implementation of the remedy and the effectiveness and reliability of worker protection measures, 3) potential environmental impacts of the remedy and the effectiveness and reliability of mitigative measures employed during implementation, and 4) time until protection is achieved.

**Implementability.** Remedies shall be evaluated to determine the ease or difficulty of implementation and shall include, as appropriate, the following: 1) technical difficulties and unknowns associated with the construction and operation of a technology, the reliability of a technology, ease of undertaking additional remedies, and the ability to monitor the effectiveness of the remedy, 2) administrative feasibility, including activities needed to coordinate with other offices and agencies and the ability and time required to obtain any necessary approvals and permits, and 3) the availability of any services and materials needed to support and complete the remedy.

**Cost.** Remedies shall evaluate capital costs, annual operation and maintenance costs and the net present value of those costs. The cost estimates include only the direct costs of implementing the corrective measure.

The first four evaluation criteria are threshold criteria required for acceptance of a remedy. All four of these criteria, as they are applicable, must be met in order for the remedy to be acceptable. The other five evaluation criteria are the balancing criteria used to help select the best remedy. Ohio EPA's evaluation of the remedies proposed by M & M Drying in the Work Plan is as follows:

### **EVALUATION OF THE PROPOSED REMEDIES**

The Ohio EPA believes that the final remedies would be protective of human health and the environment. The remedies would control the sources of releases so as to reduce or eliminate to the maximum extent practicable, further releases and comply with applicable standards for management of waste. Also, the final remedies are cost-effective and will allow for the utilization of a landlocked piece of property that otherwise would probably not be developed or addressed anytime in the near future. This section explains how the proposed remedies meet the performance objectives.

**Concrete Parking Lot and Building Expansion** - The building expansion and parking lot/driveway will cover the waste pile with 8 inches of concrete. This will reduce and/or eliminate human exposure to the waste material and reduce the possibility of dust

formation and surface water leaching through the waste and reaching the groundwater. The concrete and the NPDES storm water discharge permit will also reduce the potential for contaminated run off.

Security - The fence and access control measures help to prevent public access of unauthorized personnel in waste areas both during and after construction.

Environmental Covenant - The Environmental Covenant will be implemented to restrict land use to industrial use only in contaminated portions of the facility. The Environmental Covenant will prohibit residential development or use, thereby limiting direct contact with contaminated soil.

Soil and Waste Management - The soil/waste management in this plan will protect facility on-site workers during construction in impacted areas and also will ensure proper handling and disposal of unwanted waste and/or unknown materials.