PRELIMINARY SURVEY REPORT

Didier Taylor Refractories Corporation Plant
Newtown, Ohio

SURVEY CONDUCTED BY:
Robert D. Mahon
Paul E. Caplan

REPORT WRITTEN BY:
Robert D. Mahon

DATE OF REPORT:
October 20, 1981

REPORT NO.:
ECTB 110-12a

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
Division of Physical Sciences and Engineering
Engineering Control Technology Branch
4676 Columbia Parkway
Cincinnati, Ohio 45226
On October 13, 1981 P. Caplan and R. Mahon visited:

Addison Maupin, Vice President and Technical Director
Taylor Refractories Division
Didier Taylor Refractories Corporation
8361 Broadwell Road
Anderson Township
Newtown, Ohio 45244
(513)474-3100

The manufacturing facility and warehouse area are in one building. The offices and technical development operations are in another building. Each building is approximately 15 years old. They are one story with no basement. There are approximately 110 employees (20 tech. development, 20 production and 60 plus salaried). The corporation sales headquarters are also domiciled at this location.

Mr. Maupin is a ceramics engineer and has been in the refractories industry for approximately 30 years. He was very cooperative and gave us a tour of the production and technical development facilities and operations.

The raw materials are received in bags and canisters. The bags are broken open in an area with "dual pull" exhaust ventilation from two sides. The empty bags are accumulated and then incinerated. It was noted that the exhaust ducts were equipped with "gates" readily accessible to the operator.

There are several St. Regis single spout packers with local exhaust systems. All exhaust ducts lead to a large Kirk and Blum dry bag collector located adjacent to the building. Mr. Maupin was not familiar with the PM schedule on same. The filled bags are palletized and taken to a shrink wrapping machine and wrapped. They are then either shipped by truck or warehoused.

Mr. Maupin was amenable to our doing sampling and taking pictures if it is decided that we should do some in-depth studies at their facilities. He also said he would arrange for us to visit their manufacturing operations at South Port, KY.

There is some molding and casting work being done at the plant. However, this is all applied research and no particularly significant health hazard controls were noted.

Plaster of paris and thermo setting plastics are used as mold materials. The "slip" mixes involve a wide range of chemical compounds.

The product line manufactured and developed involves the following refractory families: bricks, patches, ramming mixes, cements, castables, plastics, and miscellaneous. Special chemicals found in the products are: 
\( \text{Al}_2\text{O}_3, \text{Cr}_2\text{O}_3, \text{SiO}_2, \text{P}_2\text{O}_5, \text{ZrO}_2, \text{TiO}_2, \text{Fe}_2\text{O}_3, \text{B}_2\text{O}_3 \), and 
\( \text{Na}_2\text{O} + \text{K}_2\text{O} \). The health hazards and controls associated with the formulation, development, and manufacture of the products apparently have not been thoroughly evaluated and documented on an industry-wide basis. However, Mr. Maupin was not aware of any historically significant health hazards.
Conclusions and Recommendations

Plans have been made to do a walk-thru preliminary type survey of the Didier Taylor Refractories Corporation plant at South Port, KY. October 28, 1981.

If, as a result of this and other walk-thru's plus discussions with industry personnel, it is decided refractories are the facet of the ceramics (clay) industry to zero in on, an in-depth assessment of some of the facilities and operations noted at this location may be in order.