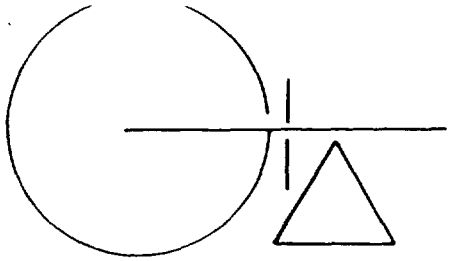


JOSEPH A. GUIMOND & ASSOCIATES, INC.
Consultants
1108 Route 113, Souderton, PA 18964 • (215) 721-4500

PLAINTIFF'S EXHIBIT
TPI-12

March 15, 1985

Occupational Safety and Health Administration
United States Department of Labor
1425 West Pioneer Dr., Suite 230
Irving, Texas 75061

Attention: Mr. James T. Knorpp
Area Director

Re: Petition for Modification of Abatement Date
Tyler Pipe Industries
Tyler, Texas 75710
Your CSHO No. M8099-123

Gentlemen:

We request an extension of our abatement date for the Other Citation No. 1 issued to The Tyler Pipe Industries on June 3, 1981. We require an additional period of two years to complete our program to correct the problems outlined in this citation under Item 1 (A and B). This would extend our abatement date to April 1, 1987.

We have included a Revised Compliance Time Schedule and Description which fully outlines the various phases of our program as well as those steps which we have already taken in our program for this area.. Based upon our past experience, we believe that the time periods shown are the shortest possible to complete the experimental programs described for this plant. Since there are no established engineering approaches for this type of operation, all of our work, as was the work done in the area to date, will be original and untried. Our past program has been successful in reducing the dust levels in the area under certain conditions, but we must now determine whether or not it is feasible to maintain the consistency of results through additional efforts in this area.

We will, of course, maintain our respirator program in the area until our program has been successfully completed. At that time, we will submit to your office the results of our testing and evaluation program.

If you should have any questions pertaining to this petition, please do not hesitate to contact us.

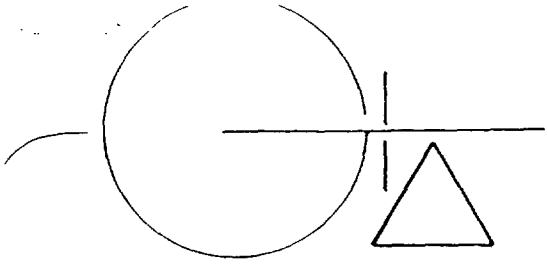
Respectfully yours,

JOSEPH A. GUIMOND & ASSOCIATES, INC.

J. A. Guimond, Jr.

TYLER PIPE INDUSTRIES, INC.

Charles Kuenemann
Safety and Security Manager



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REVISED COMPLIANCE TIME SCHEDULE

TYLER PIPE

Subsidiary of the Tyler Corporation

Tyler, Texas

Our program for this facility concerned the exposure of employees to respirable dust containing silica in the sand slinger operations on the 234 and 456 pipe mold lines. In this area, an extensive study program found that there were, in fact, no other foundry facilities with similar applications and problems which had been solved and which could be used as a model for the abatement program. As a result, all work done for the area was environmental in nature, and as might be expected, there resulted some success and more than expected problems in the approaches attempted.

It was first determined that there were background dust sources which were contributing to the respirable dust airborne in the area. Comparison of the conditions with other foundries using slinger operations indicated that this could be a major contribution to the potential overexposures of employees in the area to dust containing quartz. It was therefore determined that these sources would have to be controlled and eliminated as far as possible before the program could be successful.

This program centered on the removal of the silica containing parting spray commonly used in this type of pipe manufacturing facility. The search to find a nonsilica parting spray to substitute for the existing spray was determined to be the most effective way to eliminate fully the potential contribution of this source. The task of finding a spray which did not contain silica was not an easy one. Several sprays were used which were not acceptable in the manufacturing process. Other sprays, reported to be free of silica by the manufacturer, turned out to have a significant percentage of silica in their composition when analyzed by an independent laboratory.

An acceptable substitute which does not contain silica was finally found after extensive trial and testing. This product is now used exclusively in the operation and the potential emission of fugitive dust containing silica from this source has now been removed.

This initial retesting program in the area indicated that the operators were exposed to respirable dust levels below the permissible exposure limit, but follow up testing indicated that these exposure levels rose from time to time and again might present an exposure problem. Since a study of the test results indicated the changes might depend upon weather conditions, evaluations were made to determine if the facility was a typical foundry problem of a "wintertime-summertime" plant. This is a plant in which the use of mancooling fans, changes in the use of exhaust fans, and closing of doors and windows all affect the operation of the dust control system and the general atmosphere of plant. This in fact created very different environments dependent on outside conditions.

A more complex problem was also present since again there were no established methods available to control the dust from the slinger operations itself and the general ventilation system would have to be designed to take into consideration the changes in the seasons and the demands of the workers for the use of the mancooling fans.

We are presently beginning the design phase of this second program to resolve the problems in this area. This program will go beyond the standard engineering control programs in that a prototype installation will be developed to install new, innovative enclosures and hoods for the pipe machines at the slingers and the reamer/brush/blowoff areas. Again, we have determined that addressing the slinger operation only will not resolve the problem fully. Each of the areas listed above will have to be exhausted to the dust control system in order to reduce the dust levels to permissible limits, if this goal may be achieved.

Because these exhaust systems will be almost totally experimental in design, a prototype will need to be installed on one machine and then altered for improvement

of operation as necessary. After the design has been perfected as far as feasible to meet the needs of the operation, all similar machines will be equipped with the system, including those not named in the citation.

In order to improve the general ventilation in the area and eliminate as far as feasible the cross contamination of one area by another and the buildup of background dust levels, several additional steps will be included in our program.

A large new "barrier wall" has been installed in the area of the cited machines. This wall was designed to carefully affect the airflow and make maximum use of the ventilation system in confining the potential fugitive dust to the area of origin. We expect to expand the "barrier wall" concept after the completion of the prototypes. We also expect to utilize several large power roof ventilators to provide additional exhaust of air and potential dust from the general atmosphere.

In addition, the use of makeup air and control of mancoolers will be studied to further improve the ventilation system. Of course, this portion of the program will depend greatly on the results of the prototype installation and its effectiveness in controlling the dust at its point of origin.

Based upon our extensive past experience in the design of experimental control systems for heavy industry in general and foundries in particular, we feel that the time requested is the shortest feasible to complete this project. In addition, we would repeat that the past program completed by the plant has been successful in controlling the levels of respirable dust in the cited operations for many of the tests taken. The problem of consistency remains to be targeted, and most of the success of our program will be dependent on the design of a new type of control system and the modification of the work habits of the men in the area. These are both difficult goals which we are confident will result in the best possible installation for the area.

ENVIRONMENTAL SCHEDULE
BREAKDOWN

Process Experimentation

This area is a continuation of our program to eliminate or reduce the concentration of silica in the mold spray. It will also include other "process" or manufacturing modifications including possible elimination of the blow-out of the mold just prior to pouring.

Experimental Engineering

In this phase we will develop and install experimental and/or prototype systems to evaluate their effectiveness and compatability with the manufacturing process. New concepts or approaches will be "proven" on an experimental basis prior to actual implementation.

Design Engineering

After the testing and acceptance of various systems they will be detailed and designed into the foundry process.

Equipment Specifications & Bid Request Preparation

Once engineering studies and recommendations have been approved, we will prepare specifications for the request of bids from the suppliers of the necessary equipment as well as erection quotations with time limitations, guarantees, etc., as required for our client. These specifications will also contain a clause whereby we will encourage all bidders to suggest or recommend any improvements in our specification of equipment which in their belief would assist us in further eliminating our dust problem.

Bid Evaluation

Upon the receipt of the various quotations from the manufacturers who have been invited to bid on these jobs, we will then proceed to evaluate and investigate, where possible, the ability of each of these manufacturers to supply equipment as designed and also to eventually perform as intended.

Purchasing

Purchase orders will be issued to the successful bidders after a meeting with the successful potential supplier in order to be sure that all statements, specifications, etc., are clearly understood and will be lived up to.

Vendor Drawing Approval & Equipment Delivery

As soon as purchase orders have been issued with the successful bidders, we will start requesting and receiving approved certified drawings for final installation. After which suppliers can proceed with the actual manufacturer and delivery of equipment. This is important as it is the final check that we have on the engineering, design, and equipment which we are to receive and place into use prior to its actual manufacture and shipment to the jobsite.

Equipment Installation & Start-Up

After receiving the necessary machinery and equipment, actual installation will begin through the use of outside contractors or customer facilities to coordinate all phases of this operation toward a successful start-up of the new system. This type and size of installation is very difficult to coordinate and execute since most of this work will have to be done while the plant is still in operation. This, of course, is necessary in order to maintain a continued flow of produce through the plant as well as continue to offer full-time employment to the operators.

Final Testing & Evaluations

After installation has been completed, a final testing and evaluation program will be put into motion to ascertain that this equipment is functioning as designed and as specified and is meeting all requirements and operating at full potential.