THE REFRACTORIES INSTITUTE

COMMITTEE REPORTS
TO THE
MEMBERSHIP

NOVEMBER 10, 1976

MR. A. M. CAITO - COORDINATOR
INTERNAL RELATED ACTIVITIES

MR. B. F. MEYER - COORDINATOR
GOVERNMENT RELATED ACTIVITIES

PLAINTIFF'S EXHIBIT WV-03024

PLAINTIFF'S EXHIBIT 7187.0

TECHNICAL ADVISORY COMMITTEE REPORT TO THE MEMBERSHIP

NOVEMBER 10, 1976

J. A. CROOKSTON, CHAIRMAN

The Technical Advisory Committee met at Bedford Springs, Pa. on October 5, 1976.

Two new members, R. F. Grady of Martin Marietta Chemicals and F. C. Steimke of C-E Refractories, joined the committee.

There were no new items concerning the International Standards Organization. The next meeting of ISO will likely occur this fall or winter and we expect to have a representative attend.

Reports on active fellowships were given by the respective liaison committee members, and all appeared to be progressing. New fellowship proposals were discussed, and it was decided to recommend to F.I.R.E. that the two available awards be given to the University of Missouri and the University of Illinois. It was further decided that, even though the number of fellowships available is now only two, we would continue to solicit proposals from all schools.

With regard to undergraduate scholarships, it was decided to recommend to F.I.R.E. that we continue to award twenty-two such scholarships of $500.00 each to the same schools as was done last year. As we receive more reports on the effectiveness and worth of the scholarships to the recipient schools, we can further consider whether to recommend an increase or decrease in their number.

The status report of RRC was received which indicated satisfactory performance by the Center.

The report of the Census Subcommittee with its various recommendations was reviewed. The several clarifications of definitions and instructions were accepted and will be presented to the Bureau of the Census through The Institute for inclusion in future reports. It was further decided to change the method of reporting units from equivalents to metric tons, with a few years of reporting both to establish historical data. This will be handled with the Bureau through The Institute office. The suggested addition of SIC code to the report on "Value of Products Shipped by Type of Consumer" was discussed. It was decided that the Census Subcommittee would work with B. S. Tuck and H. W. Fulton, Jr. to complete the SIC code listing and to verify that it is consistent with other SIC reporting by The Institute, and if satisfactory, to include the SIC codes in this report.

A suggestion made by Kaiser to assign SIC codes to the Product Directory was discussed. It was felt they may not fit the Directory and may be too general to include, but it was recommended this be determined by The Institute and decision made regarding this modification to the Product Directory.

The next meeting will be held at Champaign, Illinois on March 1, 1977.

Respectfully submitted,

J. A. Crookston, Chairman

PACKAGING AND SHIPPING COMMITTEE REPORT TO THE MEMBERSHIP
NOVEMBER 10, 1976
J. B. POLSON, CHAIRMAN

Our major effort continues to center around dealings with the Association of American Railroads in our efforts to reach with that organization a clear understanding with regard to packing and loading methods in the interest of damage prevention. To that end we have now completed and tabulated the results of the industry survey conducted last winter and are now in the very final stages of a complete revision of our packaging and shipping manual, all in preparation for submission to management of The Institute and subsequently sessions with AAR personnel.

In some more detail our activities are as follows:

1. Our survey of the rail shipping experience of our industry has been completed and summarized and submitted to The Institute and to members of this committee. The survey summary is available to members of The Institute through The Institute office. Twenty-seven member companies responded to the survey representing 66 plant locations. This survey revealed the rather surprising response that only 238 cars out of 18,815 shipped from 42 of our plants in 1975 showed actual record of damages. This was only .26% of the total cars shipped. As a result of this information, and this very fine experience, it is the conclusion of our committee that this is confirmation of the adequacy and excellence of the packaging and loading techniques employed in our industry and set forth in our packaging and shipping manual, and it is our recommendation that this be our approach to the Association of American Railroads in our efforts to convince them to accept the contents of our manual in preparation of their pamphlets.

2. Our loading and shipping manual is in the process of undergoing a thorough review and revision. This has been an ongoing process for about one year and is under the supervision of Mr. E. H. Spencer of General Refractories Co. This revision is approaching an end point and we hope to have a modified version for submission and review by management of The Institute prior to the end of this year.

3. At the last meeting of our committee on September 9th, a sub-committee was appointed to review and recommend relative to revision of the ladle brick pallet count section of the manual, this project being supervised by Mr. John Settimo of Resco Products, Inc.

4. We are in contract with suppliers of inflatable dunnage and with the Association of American Railroads with regard to specifications applicable for both permanent and disposable dunnage.

Finally, the chairman has made a point of maintaining continuous but intermittant personal contact with personnel of the Association of American Railroads, acquainting them with our work and with our progress and soliciting their advice, all intended to maintain our good relationship, and hopefully, to benefit our case when we finally present it for acceptance.

Respectfully submitted,

J. B. Polson, Chairman

INDUSTRIAL RELATIONS COMMITTEE REPORT TO THE MEMBERSHIP
NOVEMBER 10, 1976
DAVID W. BATES - CHAIRMAN

The Industrial Relations Committee last met in Atlanta, Georgia on March 10th and March 11th of this year. The March 10, 1976 meeting was for the committee members only and the March 11, 1976 meeting was, as usual, open to all member companies of The Refractories Institute.

In the committee meeting on March 10, 1976, the following items were discussed:

(1) Refinement of the Wage and Benefit Survey
(2) Update of current information of Wage and Benefit Survey
(3) Current labor climate
(4) Discussion of E.E.O.C.
(5) Future programs and future projects of committee

The March 11, 1976 meeting was attended by thirty (30) representatives of member companies. An update of the committee's activities since the last meeting was discussed and suggestions were given from the floor as to what future activities the committee should become involved in. Some areas or suggestions for future programs were as follows:

(1) Quality of Working Life
(2) C.W.S. (Cooperative Wage Study)
(3) Productivity Study of Member Companies
(4) E.E.O.C. Compliance
(5) Job Enrichment

The speaker for the March 11, 1976 meeting was Mr. P. J. Marsh, Director of Organization Planning and Management Development for NL Industries, Inc. Mr. Marsh's topic - "Career Advancement and Today's Manager" - was very well received by those members present. A lengthy question and answer period after Mr. Marsh's talk evidenced the interest and attention given this program.

The next committee meeting and open meeting for member companies has been set for Tuesday, November 16, 1976 and Wednesday, November 17, 1976 in Pittsburgh, Pa. at the Holiday Inn-Airport. The agenda set for these meetings is as follows:

Tuesday, November 16, 1976 - 1:30 P.M.

(1) Report from Sub-Committee on Wage and Benefit Survey as to update of information - make certain only current Wage and Benefit data is in computer, so that member companies requesting information are receiving only the latest, most current information on labor contract items.

(2) Report of labor contract settlements made to date in 1976.

(3) Discussion of common problem areas in our industry as they relate to industrial relations.

(4) Discussion of future projects or future activities of the Industrial Relations Committee.

(5) Discussion of next meeting dates and site for the Spring 1977 Industrial Relations Committee Meeting.

Wednesday, November 17, 1976 - 9:00 A.M.
Open Meeting to All Member Companies

(1) Review of committee's previous day's discussions.

(2) Program on C.W.S. (Cooperative Wage Study) by Mr. J. M. Nicolella, Harbison-Walker Refractories.

(3) Luncheon

(4) 1:30 P.M. - Program by Mr. James R. Thomas, Representative of United Steelworkers of America - AFL-CIO-CLC.

Mr. Thomas will speak to our group on the subject of collective bargaining goals, past, present, and future of the United Steelworkers of America - their impact on and how they pertain to the refractories industry.

Mr. Thomas, in June of 1976, was appointed Coordinator for the refractories industry by Mr. I. W. Abel.

Both programs, C.W.S. and Mr. Thomas' program, promise to be very enlightening and interesting. We urge that all member companies attend this open meeting on Wednesday, November 17, 1976.

1976 has indeed been a busy year to date industrial relations wise. By the end of 1976 some twenty eight (28) locations will have negotiated new labor agreements. 1977 will bring about another forty (40) locations negotiating new labor agreements. Day to day problems with E.E.O.C., Unemployment Compensation, Workers Compensation, etc. make it mandatory that we as an industry keep abreast of these continuing problems, and cooperate to find solutions to these problems. Your Industrial Relations Committee is set up to handle these problems as they exist in today's ever changing business climate. We, as a committee, accept this challenge and urge all member companies to use the facilities of this committee to become a more professional industry in industrial relations.

Respectfully submitted,

David W. Bates, Chairman

FACTORY OPERATORS COMMITTEE REPORT TO THE MEMBERSHIP
NOVEMBER 10, 1975
HUGH GARVIN, JR., CHAIRMAN

The Factory Operators Committee met on August 30, 1976 with seven committee members present including:

H. W. Fulton, Jr., T.R.I. Counsel
B. S. Tucker, T.R.I. Executive Secretary

The 1977 meeting will be held in Columbus, Ohio, April 12, 13 and 14. There will be a tour and program presented by the Refractories Research Center of The Ohio State University Ceramic Department. The tour will give The Ohio State University an opportunity to show the Factory Operators their laboratories and testing facilities available to the industry.

The meeting will be held at the Marriott Inn in Columbus, Ohio. Registration will begin on the afternoon of April 12 from 4:00 to 7:00 P.M. and on Wednesday a buffet breakfast will be served from 7:00 to 8:00 A.M. The plant tour to The Ohio State University will take place during the morning with luncheon at an appropriate place. After lunch we will continue the meeting with a discussion of the tour and a panel consisting of the authors of Prize Winning Papers. They will give a short synopsis of their papers and answer questions. The committee agreed that the time spent discussing the Award Contest winners was worthwhile, both to the recipients as well as to the entire membership. It is suggested that the papers submitted follow the theme of the program. The winning papers will be printed and distributed prior to the meeting.

There will be a reception at 6:00 P.M. and banquet with speaker with the meeting adjourning at approximately 9:00 P.M.

On Thursday, a buffet breakfast again with the meeting beginning at 8:30 A.M.

The theme of the meeting will be Energy Conservation in the Refractories Industry and Cost Reduction Programs related to Kiln Firing and Plant Operations. We plan to seek experienced speakers in areas of energy conservation and the effects of cost reduction programs on plant operations. These meetings will be held on Thursday morning and Thursday afternoon, with adjournment at 3:30 P.M.

We are looking forward to an excellent meeting.

ENVIRONMENTAL PROTECTION COMMITTEE REPORT TO THE MEMBERSHIP

NOVEMBER 10, 1976

GEORGE J. FINK - CHAIRMAN

Since our last report to the membership on May 12, 1976, Effluent Guidelines and Standards; Interim Rules and Notice of Proposed Rule Making for Mineral Mining and Processing Point Source Category was published in the Federal Register in Vol. 41 - No. 113 - Part II on June 10, 1976.

We have referred to these proposed rules and regulations in past reports, and it probably sounds like a repeat. It is confusing, but the EPA at first chose to write regulations for water effluents in two parts:

1. Mining
2. Ore Processing

The first issue of the development document for proposed regulations was two individual sets of proposed regulations, and it became difficult to determine from the regulations where mining stopped and processing started. After literally thousands of comments from the affected industries including our refractories industry, a revised development document for proposed regulations was issued for comment in October 1975. This revised set of proposed regulations combined the mining and processing into one set of proposed regulations.

However, mine wastewater and process wastewater remain two separate classifications. Mine wastewater including storm runoff are treated separately from process wastewater. Cooling water that comes in contact with process wastewater is treated as process wastewater. Otherwise it is included with mine discharge water. At first, the EPA included plant run-off water that came in contact with stockpiles as process wastewater. After a lot of criticism, particularly The Refractories Institute, the EPA has now included plant run-off water that comes into contact with stockpiles as mine discharge wastewater unless it commingles with process wastewater which then is treated as process wastewater.

Regulations for mine discharge wastewater are not the same as process discharge wastewater. The primary difference is the amount of permissible total suspended solids in the effluent. In the case of mine discharge wastewater, the proposed level of TSS is 35 mg/liter. Originally, it was 20 and again it was The Refractories Institute's work that helped in raising these limits. The proposed limits for process wastewater is "0" or no discharge of pollutants. The EPA contends that process wastewater should be treated and recycled.

At least one refractory company is required to maintain settling ponds for clarification of their mine discharge wastewater. This company also has wet scrubbers installed with the scrubber discharge entering the same settling ponds. The EPA classes scrubber discharge water as process wastewater since it is contact water. Therefore, the effluent from the settling pond in this case must have no discharge of pollutants since mine discharge wastewater commingled and all is treated as process wastewater.

We are still arguing this one with the EPA. Unless we can get some relief, this ruling will result in plants having this type of problem building separate effluent discharge points.

In June of this year, a new revised development document was issued for comment and on June 10, 1976 final proposed regulations were entered into the Federal Register. The final development document and the proposed rules and regulations in the Federal Register of June 10, 1976 were distributed to the Environmental Committee for review and comment. Even though a couple companies replied directly to the EPA, this committee recommended that The Refractories Institute would not comment at this time.

The interim final proposed rules and regulations in the June 10 Federal Register, regulations for clay operations and seawater and brine magnesia operations have been omitted. In discussions with the Federal EPA about this omission, it is our understanding there will be additional changes in the regulations resulting from the A. D. Little Economic Impact Study. We attribute this to The Institute's work with both A. D. Little and EPA. We are hopeful that we will see some relief when final interim regulations for our industry appear in the Federal Register. At that time, this committee will review these regulations and make the necessary comments.

In the foregoing, note that I have continually referred to "proposed" regulations. The reason for this is that it will be up to each state to promulgate its own regulations using the Federal EPA guidelines.

In the event that the final regulations differ from the interim final regulations set forth in the Federal Register, the EPA will consider petitions for reconsideration of any permits issued in accordance with these interim final regulations.

A notice appeared in the August 31, 1976 issue of the Federal Register stating that the document entitled "Economic Impact for Interim Final and Proposed Effluent Guidelines for the Mineral Mining and Processing Industry", which contains information on the analysis undertaken in support of the regulations, is now available for review and comment. Brad Tucker has sent for copies, and this committee will review and prepare comments for The Institute.

In April the Environmental Protection and Safety & Health Committees held a joint meeting in Allentown before the Factory Operators Meeting. At this meeting, it was proposed that the best way to get the results of the committee's work to the membership was to have a two-day "open" meeting for the entire membership and their representatives. It was felt that a meeting with an open discussion would give all those with questions or problems an opportunity to discuss them with others.

We have prepared a notice and solicited your thoughts on the subject matter that would be of most interest to you. We hope the turnout will be large and that everyone can return home with the solutions they seek.

This Safety & Health/Environmental Protection Committee Meeting will be held in January 1977 in Louisville, Kentucky. I expect to see all of you there.

Respectfully submitted,

George J. Fink, Chairman

REFRACTORIES RESEARCH CENTER REPORT TO THE MEMBERSHIP

NOVEMBER 10, 1976

DR. CHAS. E. SEMLER

Testing Operations

The total income for R.R.C. Testing activities in fiscal 1175-76 totalled $123,196.46 with operating expenses of $126,279.91. This results in a deficit of $3,083.45 for the year. A comparison of the last three years performance is shown below:

	1975-76	1974-75	1973-74
Income	$123,196.46	$104,120.24	$109,943.71
Expenses	126,279.91	110,873.02	110,571.18
Deficit	$3,083.45	$6,752.78	$627.47
Avg. Monthly Income	$10,266.37	$8,676.69	$9,161.96

The income for testing activities during the first quarter of 1976-77 is somewhat below the comparable period for last year. (See below).

1st Quarter Comparison

1976-77	1975-76	1974-75
$25,950.72 (est.)	$28,429.39	$15,368.05

However, with the changed labor situation this year (2 full-time technicians vs. 3 last year), the 20% increase in test costs, and continuation of the high test volume, it is anticipated that the fiscal performance for 1976-77 should be better than in 1975-76. Test requests continue to be received from new clients, along with further work from our regular customers. Specifically, there has been a significant increase in the work performed for engineering firms and contractors, with several contract-type jobs in-hand for the current year. A lot of the requests involve foreign products in which uniform quality is a continuing concern that has to be monitored. Further contacts will be made to stimulate additional business from this general business segment. These contacts and any other will be facilitated with the availability of new R.R.C. publications (Bulletin TS-4 and a descriptive pamphlet) describing the facilities and services. These items were prepared in August 1976 at a cost of roughly $1100.00.

R.R.C. has recently obtained the creep testing apparatus from Battelle Columbus Laboratories which was built and used previously on an American Iron and Steel Institute (AISI) project. However, it will be necessary to purchase some accessory electronic equipment before the setup can be calibrated and readied for routine operation. It is estimated that 3 to 6 months will be necessary to make the apparatus fully operational. Requests for creep tests on multiple samples have already been made by three companies. The renovation of the thermal expansion furnace is in progress at Harrop and delivery has been promised in October 1976; this instrument will be a definite asset to our research and testing activities.

Research on Test Methods

A. Thermal Conductivity

Efforts to increase the maximum hot face temperature capability of the standard ASTM thermal conductivity tester have continued. A new furnace unit incorperating Super Kanthal 33 heating elements has been designed and the construction is completed. Tests are underway to characterize the existing furnace setup, after which the new furnace will soon be installed and shakedown runs conducted. The new furnace is slightly smaller than the present furnace and its total cost is very modest, therefore, successful operation of the model will yield a unit which can be easily added by anyone having the basic ASTM setup.

B. Thermal Shock

Research has continued toward the goal of defining a useful test for comparing the relative thermal shock resistance of non-fireclay refractories. A summary of recent progress will be given in our presentation scheduled for the A.C.S. Fall Meeting, Bedford, Pa., October 9, 1976. The most recent efforts have centered upon completion of the round robin tests of thermal shock evaluation of 70% alumina refractories by both the prism spalling and the Taylor tests. Details of the test results will be presented in the upcoming progress report. New equipment for measuring modulus of elasticity was purchased and setup, including construction of a soundproof chamber; the total cost for all components was roughly $1,000.00. Samples of various classes of high alumina refractories have been requested and obtained from TAC. These samples will be used in upcoming tests to further clarify the potential of the Taylor thermal shock test as a comparative tool.

C. Miscellaneous

Based on my recent visits to Didier Research Institute (Wiesbaden, Germany), Forschungs Institut der Feuerfest Industrie (Bonn, Germany), and the British Ceramic Research Association (Stoke-on-Trent, England), I anticipate that several series of round robin tests will be implemented in the near future with R.R.C. and possibly several other interested U. S. labs. Two areas of likely initial work are thermal conductivity and castable consistency, with the possibility of other projects in the future. Any activities in this general area will be properly transmitted and cleared through the International Standards Committee of ASTM.

THE REFRACTORIES INSTITUTE

SAFETY AND HEALTH COMMITTEE REPORT TO THE MEMBERSHIP

NOVEMBER 10, 1976

JOHN V. SKENDALL, COMMITTEE CHAIRMAN

This report covers the activities of your committee since our annual report to the membership on June 16, 1976.

On April 20, 1976, our committee met jointly with the Environmental Protection Committee in Allentown, Pennsylvania. Recent activities of the Safety and Health Committee were reviewed as follows:

1. TRI member companies were polled regarding National Institute of Safety and Health (NIOSH) Criteria Document on Crystalline Silica. Draft of official TRI letter was approved by TRI Executive Committee for submittal to OSHA. (See Dec. 9, 1975 letter to Patricia Maugh, OSHA).

2. Proposed rules regarding sulfur dioxide were discussed (current threshold limit value (TLV) of 5 parts per million (PPM) to be reduced to 2 PPM). Insufficient data was available to your committee for timely response.

3. Chrome VI (Hexavalent Chrome) was investigated as to potential health hazard for member companies, but insufficient data was available to properly evaluate proposed rules and regulations.

4. Toxic Substances Control Act (Senate Bill 3149) was discussed.

5. Current hearings in Washington, D.C. to reduce asbestos fibre levels from 2 per cubic centimeter (effective July 1, 1976) to .5 fibres per cubic centimeter were discussed.

6. Advantages of TRI membership in Industrial Health Foundation (IHF - a non-profit organization which can be of assistance to TRI member companies, were reviewed.

NOTE: The above activities occurred before, but were not available in our annual report of June 16, 1976 to the TRI membership.

On June 14, 1976, the Safety and Health Committee met in Atlanta, Georgia.

1. It was recommended that TRI apply for association membership in the Industrial Health Foundation (IHF).

2. Specific services to be requested from IHF through our TRI membership were discussed. These included:

    a. Assistance from IHF to TRI member companies in development of a standard technique for sulfur dioxide (SO_2) sampling.

b. Summary by IRF of SO_2 samples from member companies on an anonymous basis (individual member company samples to be confidential and not identified as to company) to be provided.

c. Review of current literature to be provided TRI member companies on:

Silica
Coal Tar Pitch Volatiles
Magnesite
Asbestos
Chrome VI and III

3. Joint TRI Environmental Protection Committee and Safety and Health Committee meeting in January 1977 to be investigated and member companies to be polled as to choice of subject matter to be discussed.

On September 14, 1976, our committee met in Louisville, Kentucky. It was reported that the TRI Executive Committee had approved membership of TRI in the Industril Health Foundation.

Our committee recommended to the TRI Executive Committee that member companies undertake a voluntary sampling program to determine the extent of sulfur dioxide exposure, if any, at TRI member locations. This is desirable to determine the extent to which SO_2 is present in our industry.

Details of sampling technique will be finalized with the Industrial Health Foundation and will be furnished to participating companies.

Further discussion was held with the TRI Environmental Protection Committee regarding a joint meeting to review OSHA, MESA and EPA problems.

In the event a need for such a meeting exists, it was tentatively agreed to meet in Louisville, Kentucky on January 18 and 19, 1977.

All member companies were polled in September. Twenty-three companies indicated they would send representatives to a joint meeting of the Environmental Protection and Safety and Health Committees. Interest was expressed in the following subjects, in order of preference:

1. Review of current regulations - EPA, OSHA and MESA.
2. Future trends and proposed regulations - EPA.
3. Crystalline Silica Criteria Document - proposed regulations.
4. OSHA Safety Standards Revision - Walking, Working Surfaces and Fire Protection.
5. Toxic Substances Control Act.
6. Sulfur Dioxide - NIOSH Criteria Document.
7. Noise Regulations.

Subsequent to our latest meeting, arrangements were made to have the joint meeting of the TRI Environmental Protection and Safety and Health Committee meeting held in Louisville, Kentucky on January 18 and 19, 1977.

Tentative committments were made to have James F. Van Namee (former OSHA Review Commissioner) and Dr. Daniel Braun of Industrial Health Foundation as outside speakers at the January meeting.

Respectfully submitted,

John V. Skendall
Committee Chairman