



NIMA - T & R COMMITTEE

Mineral Fiber Section

March 6, 1970

The scheduled meeting of the T & R Committee, Mineral Fiber Section, convened at 9:00 in New York City at the Summit Hotel with the following persons in attendance:

C. E. Ernst - JM  
W. Gubar - CSG  
A. Kevlin - CCF  
L. J. Lash - JM  
L. H. Mills - CSG  
R. Peterson - OCF

The agenda items were acted upon as follows:

1. Temperature Limits - W. Gubar

Action: Mr. Gubar discussed the work conducted on the All American Vibrator on various samples conducted at 400, 500, and 600° F. temperature. The vibrator cycle used was that described in Coast Guard Specification 32MA3C. The only conclusion that was made from these is that when the binder is completely removed from the insulation in contact with the hot surface and the product vibrated, the thickness of the insulation is reduced due to the felting action of the vibration on the unbonded glass fiber. Mr. C. E. Ernst thought that more research should be done to determine the proper vibration cycle. Therefore, the committee concluded that the criteria established at the April 15, 1969 meeting was sufficient to demonstrate the temperature limits of the product. However, a warning should be incorporated in product literature similar to that shown in the Johns-Manville Flame-Safe Fiber Glass Pipe Insulation brochure as follows:

Note: At temperatures above 400F a limited amount of binder migration may occur in the insulation near the hot surface of the pipe. This does not impair the thermal effectiveness of Flame-Safe in any way. Vibration in lines covered by short-fibered insulations could cause the fibers to settle, eventually reducing the wall thickness with a resulting loss of thermal protection.

It was suggested that the committee continue to study what type of vibration cycle is needed to show the effect on the insulated equipment subject to vibration.

2. Revisions to HHI-558 - Lou Mills

Action: Mr. Mills is to revise specification per committee recommendations and submit a revised copy for approval. Mr. Gubar is to supply Mr. Mills with the K factor plus 10% to the specification.

3. Revisions to MIL-122023 - W. Gubar

Action: Mr. Gubar suggested the revisions to this specification with the deletion of fiber diameter, shot content, binder content, alkalinity and PH (substitute corrosion test) fire resistance (substitute flame spread) and add NIKK K values. In the 10/9/69 meeting in New York, the committee was to consider the idea of combining this specification with HHI-558 for type 2 product and HHI-545 for type 2 products. Mr. Larry Lash made the investigation and was requested in this session to combine the following specifications: MIL-I-2818, MIL-I-15475, MIL-I-16411, MIL-I-22023, MIL-I-22344, MIL-I-23128, using Federal Specification HHI-558 as a guide. The combined specification should also include vibration, fire tests, and quality assurance programs. The draft should be made prior to the meeting in the Fall, preferably by September 1, 1970. Any comments should be sent to Mr. Larry Lash or Lou Mills.

4. U.L. Listings for Fire Hazard Classification - W. Gubar

Action: Mr. Gubar reported that U.L. has received favorable comments and Mr. Castino advised that two manufacturers are changing their labels to use the FHC 15, Class 50 designation. The 50 represents both fuel and smoke rating. Some members felt that they should also show the actual results on the labels. This would defeat the purpose of the project. However, some members felt that laminators who are not multiple listees may have their products tested and this may present a problem to the glass fiber industry if they report actual data.

5. Potential Health Hazards of Thermal Insulation - Jack Barnhart

Action: ASTM Adhoc Committee met December 22, 1969 at the Philadelphia Electric Company. John Mochel, Chairman and Paul S. Maco, Secretary, Messrs. Barnhart, Gubar, Ed Davis, and other members of ASTM were present. It was concluded from the discussion and data presented by Mr. Cliff Scheckler of Johns-Manville that ASTM involvement to evaluate health hazards would lead to considerable expenditures over a period of years for medical research. Without such evaluation participation in recommendations on the establishment of standards would lead to considerable litigation.

Mr. Barnhart discussed health legislation restricting use of duct liners in hospitals, aged homes, etc. The bill in Kansas, Massachusetts, and California was killed. However, there is pending legislation in Ohio, Kentucky and Indiana. There is also a concurrent resolution in Kansas and California authorizing the legislative committee to vote on the provisions to make a study of this problem. The resolution in Kansas was killed. The resolution in California is still pending.

Jack Barnhart also discussed the pending bill before the New York Environmental Board concerning the health hazards of duct liners. There will be a hearing this summer on this subject. Mr. Barnhart also advised that the Asbestos Workers Union will campaign against glass fibers by associating it to air pollution.

6. Revision to MIL-I-742 - Al Kevlin

Action: Mr. Kevlin is to incorporate all the comments and draft the new specification.

The meeting adjourned at 3:00.

Respectfully submitted,

Walter Gubar, Chairman  
Mineral Fiber Section

MINUTES OF THE  
TECHNICAL AND RESEARCH COMMITTEE

MOLDED SECTION

NATIONAL INSULATION MANUFACTURERS ASSOCIATION  
March 6, 1973 New York, N. Y.

The meeting was called to order at 9:00 a.m. with the following in attendance:

|               |       |
|---------------|-------|
| W. Schwingen  | GAF   |
| B. Tower      | J-M   |
| P. Saverstrom | OCF   |
| W. Lovett     | P-C   |
| W. Sinclair   | P-C   |
| J. Wilson     | P-C   |
| J. McAllister | Keene |

Agenda items were acted on as follows:

1. ASTM Specifications

- a. ASTM C533, Calcium Silicate Pipe and Block Thermal Insulation, Proposed revisions. The negatives received by ASTM C16 on ballot of this proposed revision were discussed in detail and accepted. These changes will be incorporated in the next draft.

- 1.) Workmanship section will be restated to read:  
"Since several requirements for this material are not easily defined by a numerical value, the insulation shall not have visual defects that will adversely affect the service quality."
- 2.) Corrections will be made in punctuation and metric equivalents where indicated or necessary.
- 3.) Thermal conductivity values for Type I shall revert to those originally published, i.e.;

| <u>Mean Temp</u> | <u>K</u> |
|------------------|----------|
| 200 F            | 0.45     |
| 300 F            | 0.50     |
| 400 F            | 0.55     |
| 500 F            | 0.60     |
| 600 F            | 0.655    |
| 700 F            | 0.71     |

- b. Proposed inside diameters of Rigid High Temperature Insulation. W. C. Turner, of Union Carbide, has proposed changes in recommended inside diameter dimensions of rigid molded pipe insulation to accommodate thermal expansion that occurs on iron pipe at 1200F and to prevent opening up of longitudinal and butt joints in the insulation at these temperatures. It was the committee consensus that, in view of the wide variances in iron pipe dimension (from full plus to full minus tolerance within a length of pipe), and the relatively few applications which involve 1200F operating temperatures, there should be no major revision to recommended dimensions.

Under severe operating conditions such as these, use of an expansion joint construction for longitudinal and butt joints was considered a possibility.

- c. Special Committee on Potential Health Hazards of Thermal Insulation.

J. Barnhart summarized activities in this area relating to the ASTM Ad Hoc Committee on Potential Health Hazards of Thermal Insulations and the legislative bills pending in California, Kansas and Massachusetts which would prohibit use of any potentially airborne materials on the airstream side of ventilating, heating and cooling systems.

2. Standard Packaging - GSA Recommendations.

The Technical Services Branch of GSA, Fort Worth, Texas has requested industry-co-operation in standardizing on quantities per carton on pipe insulation furnished under MIL-I-2781.

Review of NIMA status versus recommended packaging indicates that for most members about 34% of the sizes vs. quantity per carton do not conform with GSA's recommendation. It was pointed out that NIMA member action to standardize on a joint basis would violate anti-trust laws.

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It was agreed that each member company would submit to J. Barnhart, by May 1st, a list of those sizes of pipe insulation which did conform to GSA recommendations and that Mr. Barnhart would collate these individual lists for use in replying to GSA's inquiry from a positive aspect.

3. Other Business

a. MIL STD 769 C

Naval Ship Engineering Center has requested NIMA's comments on proposed changes to the above application specification for machinery and piping. The changes proposed would eliminate the use of asbestos fiber finishing cements, asbestos felts and asbestos fiber pipe insulations on the basis of environmental hazard studies. The Molded Section of the T&R Committee does not feel qualified to comment to NAVSEC on this subject and suggests that such comment is more properly a matter for consideration by the Health and Safety Committee.

b. MARAD Section 75

It was reported that Maritime Administration is reviewing Section 75. Any individual company comments on this publication should be submitted to J. Barnhart with a copy to L. Mills, Government T&R for action by May 1, 1970.

c. MARAD

It was reported that all MARAD Publications are being reviewed with the idea of consolidating and reducing publications. The NIMA Government T&R Committee should be made aware of this and offer assistance where possible and also assure practicality in the application and materials specifications which result from this consolidation.

There being no further business, the meeting was adjourned.

Respectfully submitted.

/s/

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J.D. Mc Allister  
Chairman, Molded Section

JDM/rp