



MINUTES
of the
GOVERNMENT TECHNICAL & RESEARCH COMMITTEE MEETING
Land Session
NATIONAL INSULATION MANUFACTURERS ASSOCIATION
Washington, D. C. May 21, 1963

The meeting was called to order by W. E. Miller, the Washington Chairman of the NIMA Committee, who appointed K. M. Ritchie as Chairman protem for this session with the following in attendance:

Shigeki Hiratsuka	Office, Chief of Engineers, Dept. of Army
A. L. Graul	Bureau of Yards & Docks
J. S. King	U. S. Veterans Administration
R. J. Felix	Eng. Div. H.Q., U. S. Air Force
L. H. Mills	Public Bldgs. Service - GSA
F. A. Govan	National Academy of Science - BRAB
W. E. Miller	Pittsburgh Corning Corp.
K. M. Ritchie	Baldwin-Ehret-Hill, Inc.
P. L. Losse	The Eagle-Picher Company
C. E. Ernst	Johns-Manville Sales Corp.
Walter Cubar	Gustin-Bacon Mfg. Company
J. F. Lynch	Johns-Manville Sales Corp.
R. L. Strickland	Gustin-Bacon Mfg. Company
V. L. Miller	Pittsburgh Corning Corp.
W. T. Irwin	Pittsburgh Plate Glass Co.

I. "Thermal Insulation for Mechanical Systems" Section 692 of Mechanical Specifications prepared by the Veterans Administration. Mr. J. S. King supplied copies of the latest revision of this for comment.

He noted that because of its importance in hospital construction, the Fire Resistance, and particularly Smoke Development Requirements of insulation was given a prominent place. Many of the details of application and finishing conformed to the Washington Contractors' Association "Specification for Non-Conducting Covering."

Comparison of the thickness specified for pipe insulation with those in the new BRAB Report #45 to the Federal Construction Council (see Subject III) showed some differences which can be eliminated if K-factor is taken into account.

Mr. King requested suggestions for improvement of the draft circulated.

II. Proposed Revision - Federal Specification HH-I-523A "Insulation Block, Pipe Insulation, Thermal Calcium Silicate (For temperatures up to 1200 F)." Points discussed.

1. Elimination of calcium silicate cement was agreed to, but raised the question of fitting insulation. It was pointed out that other cements are available for this purpose.
2. The government people expressed a preference for fabricated fitting covers and inquired as to availability. It was reported that such covers can usually be fabricated by contractors, although availability and economics may vary appreciably in different areas of the country. Manufacturers of calcium silicate pipe insulation do not offer fabricated covers as a standard item, although at least one offers pre-cut pieces for on-the-job assembly.
3. Inclusion of classes based on surface coverings, was favored in principle by the government representatives.

Discussion of the listing and specifying the various jackets, indicated a need for a separate "jacket" specification which might be referenced in the various material specifications for the specific jackets needed. This would include all pertinent properties and specifications.

3. For the proposed HH-I-523 revision in the meantime the list of jackets in the current draft needs review and some amplification.

A. L. Graul requested that Section 6 on intended use, be expanded with information on specific uses of jackets; e. g., for indoor and outdoor use, fire protection, vapor-barrier protection, etc.

4. Paragraph 3.1.2 on "Cement" is to be deleted.
5. Physical Requirements - Table I

F. Govan and A. L. Graul stated that the maximum values for density and thermal conductivity were unnecessarily high, in view of data recently assembled from manufacturers. It was pointed out that the values were limits, and not design or average performance values. These values are to be reviewed by NIMA. A similar question as to the maximum allowable linear shrinkage (2%) is also to be reviewed.

6. The minimum weight of canvas (1.8 oz.) for Class 2 was questioned. This should be reviewed by NIMA, along with Class I, since this weight of canvas serves little or no purpose after installation and is often covered with other material.

7. Paragraph 3.3.4 on Bands. It was requested that this be expanded to include aluminum and stainless steel bands, in addition to steel, and Section 6 should explain their choice.
8. Fire Hazard Classification Test. It was pointed out that available methods can be used only on flat specimens and not on jacketed pipe insulation sections, and that test results on components cannot be translated directly into results on assemblies.

It was requested that ASTM E-84 be referenced instead of UL 723, although there are differences in procedure which may affect results on specific materials.

This whole subject should be reviewed further by NIMA and a recommendation made.

III. Performance Characteristics of Thermal Insulating Materials. F.A. Goven was requested to report on this BRAB assignment from the Federal Construction Council. He stated that they had prepared and sent to interested Federal Agencies a sheet listing 26 materials with trade names and properties. Owing to legal complexities, this list will not be available to industry.

However, the BRAB Report #45 has been issued as "Thickness Charts and Material Characteristics for Pipe Insulations" and is available from the

Publishing Office, National Academy of Science
2101 Constitution Avenue, Washington 25, D. C.
Publication # 1084 - \$2.00 per copy

This contains thicknesses for various pipe temperatures based on "economic thickness" adapted to the specialized cost considerations existing in government installations. It also lists eight significant characteristics of materials selected from a list of 40 or more, as follows:

Thermal Conductivity	Thermal Shrinkage
Density	Temperature Range
Compressive Strength	Combustibility
Flexural Strength	Compatibility (with finishes etc.)

Mr. Govan requested NIMA comment on the choice of data and material in Report #45.

IV. Proposed Revision - Federal Specification HH-1-500a "Insulating Cements"

Due to lack of time, this was not discussed fully. It was stated the omission of physical property tables, instead of which ASTM material specifications were referenced, gave insufficient information for selecting a particular type. A further review and recommendation should be made by NIMA.

The meeting was adjourned for lunch to meet afterwards in joint session with the Marine group.

K. M. Ritchie