PLAINTIFF'S EXHIBIT
DUP-2314

[illegible] DU PONT DE NEMOURS & COMPANY
INCORPORATED

WILMINGTON, DELAWARE 19895

ENGINEERING DEPARTMENT

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Office File

February 26, 1968

J. C. BESPERKA
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HOUSTON PLANT

PROJECT 3815 - BEAUMONT - NEW METHANOL PLANT
POWER - INSULATION SPECIFICATIONS

The following summarizes the agreements reached at our meeting February 21, 1968 on the subject of thermal insulation for this project:

1. No aluminum jacketing will be permitted in proximity to the high nickel alloy catalyst tubes or outlet headers; nor where, in case of fire, melting aluminum could conceivably drip on or otherwise contact this material. Where jacketing is required in those restricted locations it shall be Type 304 stainless steel, 10 mil thickness. (Note: The only known application, to date, is on the outlet header transition piece to the TLX's.)

2. In all other areas of the Plant, including the reformers, jacketing will be 16 mil aluminum, applied with Type 304 s.s. bands. No screws or rivets are to be used. The purpose for restricting the banding material is to assure that, in the event of fire, the banding will not be destroyed, with consequent loss of jackets and insulation.

   A study was made to ascertain the differential cost between aluminum and stainless steel jacketing. Based on a total of 250,000 sq.ft., and assuming no difference in labor, the direct material cost would be $40,000 higher for stainless steel. Since the CCE was based on aluminum, it was decided to proceed with this material. There is insufficient justification to authorize the higher expenditure.

3. The inlet header and pigtails, located in the penthouse over the arch in each cell, will be insulated with "Wovenstone", or equal, laced on with stainless steel wire. This material consists of long fiber asbestos with an asbestor cloth jacket.

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Since the area is weather protected, no further surface treatment will be required.

This material offers the advantage of being highly flexible, which is a prerequisite in order to accommodate the extreme thermal movements of the pigtails and inlet headers.

W.H. Zane has made arrangements with Beaumont Construction to obtain some of this material for testing purposes.

4. The basic high temperature insulating material for use elsewhere will be Code 106, Unibestos, 16 lb/cu.ft. density. At pipe supports, the 25 lb/cu.ft. density material will be employed on larger lines because of its higher load carrying capability.

5. Insulation will be applied using stainless steel wire.

DESIGN DIVISION
W. L. Johns
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