TO [redacted] IS FOLLOWING

#5

TELECON

DATE: May 11 and 12, 1967

TO: [redacted] SC2441
[redacted] SC2441

FROM: [redacted] BKC 864

SUBJECT: T446

1. The possibility of having Sandia supply a P/N 209122 plate having a functional Ni 63 "patch" to BKC for use in calibrating our radiation detection equipment was discussed. [redacted] agreed to remove one of their plates from a precipitator and determine the following information from the plate.

   a. The microcuries of Ni 63.

   b. The counts per minute.

   c. The dates that (a) and (b) were obtained.

   d. The gamma radiation level at one inch behind the plate both in milliroentgens and counts per minute.

   The equipment that BKC would like to use for evaluating the beta and gamma radiation from the plate consists of a Nuclear-Chicago Model 186 scalar with a Nuclear-Chicago DS5 Probe, an XTB anthracene beta crystal, and an XT200 sodium iodide gallium activated gamma crystal. Hopefully Sandia can use the same or similar equipment in their tests, thereby getting better correlation between their data and ours.

2. It was agreed that Sandia would submit a request for quote to BKC for updating one of the T446's which was built by Sandia. In essence, Sandia will supply the T446 disassembled with some change of piece parts (castings) and BKC will install the wiring harness. If this modified T446 can be made operative at BKC, then it will serve as a prototype for the subsequent fabrication of the 20 T446's. However, this unit will belong to Sandia and will not constitute one of the 20 T446's now on order. Also, Sandia has updated another T446 which they are presently debugging. They are finding that this unit gives excessive noise and an unstable zero. When this unit is debugged, it will also be sent to BKC for a "comparison unit." Sandia requested that the

T446 at BKC (built by Victoreen) be sent to Evans Research and Development Company in about two weeks as a functional T446. Evans will use this unit to evaluate their chemical package for the T449.

[redacted] enumerated two conditions on the T446 to be updated which will make it different from the 20 T446's presently being built. These differences are on the resistor board, P/N 209184, and on the power distribution board, P/N 209186. The overall result of these differences will be that the wire harness for the two kinds of units will be different.

Sandia is shipping the piece parts for the T446 to be updated May 15, 1967 so that assembly can begin in parallel with paperwork routine.

3. The procurement of the motor and fan assembly, P/N 209859, from Brailsford, Co. was discussed. Brailsford has failed to accept BKC's order due to certain terms and conditions that are an integral part of governmental orders. The names of eight vendors (besides Brailsford) that had previously been approached with the specifications for this motor by Sandia and who could not supply a motor to this set of specifications were supplied to BKC. The unique feature of this motor is its very high efficiency, a feature obtained by transistor commutation. This high efficiency is a necessary design criteria for the T446 which is essentially battery powered in one mode of operation.

4. Sandia granted provisional approval of the irradiated polyolefin 600 v wire per 8224959 in lieu of the 1,000 v wire per 8224809 that had originally been approved. The provision will be that the updated T447 described in item 2 above using this wire will be a functional unit.

5. The following note was added to drawing 209196 "Item 25 may be staked in place at top and bottom with item 37 if required." Item 37 will be called out to be epoxy per 2180225.

Also the sealant used to assemble the blower housing to the DC blower motor to make P/N 209136 will be Dow Corning Aerospace Sealant 22-024. This sealant was chosen because of its very low ionization characteristics. Since this sealant would be along the walls of air flow circuit, it contributes materially to the background noises indicated by the T446.

[redacted]

Department 864

cc: [redacted] D/610
D/651
D/822
D/245
D/864
D/851