

A-84-019
40-15

W. S. Parsons and Robert Cornog

23 May 1944

FINAL DETERMINATION
UNCLASSIFIED
L. M. Redman

7 June
W.S.P.

N. F. Ramsey

FEB 9 1981

Construction of Fat Man

CLASSIFICATION CANCELLED
PER DOC REVIEW JAN. 1973

1. In a phone conversation with Bifano on the construction of the fat man in Detroit, I was informed by Bifano that the first batch of cones was incorrectly manufactured. The largest diameter on the cone was about 2-1/2" greater than it should have been. Attempts were being made to reduce this maximum diameter by a process of cutting and bending. The results of this process were not very satisfactory. At my request, Bifano investigated the time required for completely new sets of fins to be manufactured. He found that a shipment of six units completely assembled would be possible on June 5 including a two day allowance for unexpected difficulties. The men who were modifying the incorrectly manufactured cones were the same ones who would be making new ones and consequently the delivery of satisfactory cones would be delayed by continued cutting up of the old ones which at best would not be satisfactory. I, therefore, instructed Bifano to stop work on attempts to adapt the old cones and push vigorously the procurement of new ones. He agreed to do so and is now scheduling the shipping date of June 5. If more than 3 assembled units are completely ready by June 5 they will be shipped even if all six are not then ready.

letter on
acc. w/
method of
correction
was approved
R. Cornog

2. Bifano stated that new lugs have been attached to three of the spheres and that these checked to be very accurately placed with the same fixture used in the manufacture of the hemisphere which successfully fit in Dayton. Bifano stated that some of the old lugs were incorrectly placed by as much as an inch. The strength of the lugs on two of the spheres has been satisfactorily checked.

3. Bifano asked that our request for 1/2 inch bolts in the attachment of the tail cones be reduced to 3/8 inch. He was sure that these bolts would be sufficiently strong. In the absence of Captain Parsons, who initially specified the 1/2 inch bolts, I authorized Bifano to use 3/8 inch bolts as he preferred for manufacturing reasons provided he calculated the strength of the bolts and the cone material and find that the bolts were as strong as the cone material. Bifano pointed out that the use of the 3/8 inch bolts cut the tapping time in attaching the tails by a factor of 2.

4. Bifano stated that the proper alignment of the tails when they were attached at Site M will require the use of the fixture designed for that purpose in Detroit. Only one of these fixtures has been built despite the fact that present schedules call for use of the fat man in California at the same time as new ones are being built in Detroit. In view of this, Bifano, at my request, agreed to check on the relative costs and relative delays of building such a new fixture and of building new crates that the units could be shipped with tails attached. If the new crates do not cost appreciably more and if the delays are no greater the units will be shipped completely assembled. If so, two small welding tacks will be placed between the cone and the sphere in order to insure the position of the cone not shifting. These welding tacks are to be such as to be easily removable in case we wish to remove the cone.

copies of
this
fixture
are where?
R. Cornog

Copies of prints
for use etc. to be made
7 June 44 - cc. to Hunt

PUBLICLY RELEASABLE
LANL Classification Group

VERIFIED UNCLASSIFIED

ADP 1/24/98

M. P. ... 1/24/98

UNCLASSIFIED

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5. Bifano agreed to use shock proof washers on all bolts attaching the cone to the sphere.

N. F. Ransey

EFR:de

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