

UNITED STATES GOVERNMENT

Memorandum

TO : Robert Lowenstein, Acting Director ^{ORC}
Division of Licensing and Regulation, HQ.

DATE: OCT 4 1961

FROM : Robert W. Kirkman, Director
New York Compliance Area ^{RW} *Rick*

SUBJECT: TRANSMITTAL OF LICENSE COMPLIANCE INSPECTION REPORT -
10 CFR 40

CO-NY:EE

Transmitted herewith is an inspection report involving noncompliance:

WAH CHANG SMELTING AND REFINING COMPANY
63 Herbill Road
Glen Cove, New York

License SMB-135 40-943

The following items of noncompliance were noted during the course of the inspection:

40.3 "License Requirements"

- in that the licensee transferred quantities of thoriated tungsten powder to a separate Wah Chang facility at Fairlawn, New Jersey for processing without authorization. (See items 10 and 11E of report details.)

20.201 "Surveys"

(b) - in that the licensee did not make any physical survey or any evaluation of the hazards associated with the processing of thorium nitrate. (See item 13B of report details.)

(b) - in that the licensee made no evaluation as to the need for personnel monitoring devices by persons involved in the processing of thorium nitrate. (See item 19 of report details.)

✓ Also per 40.110. SMB-135

SMB
135

20.203 "Caution signs, labels and signals"

(b) "Radiation Areas"

- in that a radiation area which exists continuously within a storage shed was not posted with a sign reading, "Caution - Radiation Area" (with symbol). (See item 18 of report details.)

(e) "Additional Requirements"

(2)- in that neither the storage shed containing 1520 pounds of thorium oxide and 312.5 pounds of thorium nitrate nor the storage room in the induction building containing 900 pounds of thorium oxide were posted in accordance with the regulations. (See item 18 of report details.)

(f) "Containers"

(2)(4) - in that a metal container within the storage shed containing 600 pounds of waste thorium oxide and three crucibles within a storage room in the induction building each containing 300 pounds thorium oxide did not have any label reading, "Caution - Radioactive Materials" with symbol or which indicated the kind, quantity and date of assay. (See item 18 of report details.)

20.401 "Records of surveys, radiation monitoring and disposal"

(b) - in that the licensee did not maintain records of air surveys performed of the thorium oxide process in the units used in the appendices to 10 CFR Part 20. (See item 13B of report details.)

The items of noncompliance were discussed with Mr. Fong H. Lee, RSO, Mr. Charles Gow, Plant Manager and with Mr. Allen Lau, Treasurer of the Wah Chang Corporation. It was pointed out to the above that some items of noncompliance were recurrent and existed at our initial inspection of May 28, 1957. It was pointed out that an item of noncompliance 20.201(b) failure to make surveys or evaluate the hazards associated with the fabrication of thoriated tungsten wire had been noted at our initial inspection of 5/22/57.

Gow and Lee stated that the process of producing the thoriated wire using thorium nitrate was a batch process. They soon became involved in a continuous process producing Columbium using thorium oxide and performed surveys to evaluate this hazard, but they didn't think a batch process using thorium nitrate would be hazardous and therefore did not make surveys.

It was pointed out that items of noncompliance of 10 CFR 20.203 (b) and (f)(2) were also recurrent. The licensee stated that in a letter dated 11/4/57 to Division of Civilian Application that they had provided signs and labels as required by 20.203(b) and 20.203 (f)(2). Lau stated that they had posted the required signs but that they had fallen off through use and weathering. Lau indicated his willingness to comply with the regulations.

It was also pointed out to Lau that the new Wah Chang Plant at Fairlawn, New Jersey has received and processed thoriated tungsten powder without authorization in a specific license. Lau said they would try to remedy this through licensing action.

It is our feeling that no present hazard exists from the processing of thorium nitrate but that the licensee be required to make a physical survey including the taking of air samples. No follow-up inspection will be made.

We recommend that a letter be sent to the licensee advising of the items of noncompliance and requiring corrective action to the satisfaction of the Commission.

As noted in the report details processing of ThO_2 has been transferred to the Wah Chang facility at Albany, Oregon (License SPC-139). According to our information, this license authorized possession of ThO_2 for storage only. The Hanford Compliance Area has been made cognizant of this information.

Enclosure:
1 cy of Rpt.

cc: Div of Cmp, HQ.
w/orig of Rpt.