

040-07102

OCT 23 1979

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(08352)

Shieldalloy Corporation  
ATTN: John D. Longaker  
Assistant to the Vice President  
West Boulevard  
New Field, NJ 08344

Gentlemen:

This refers to your letter dated June 28, 1979, concerning the renewal of License No. SMB-743 (Docket No. 040-07102). Additional information is needed in support of your application.

In Item 3 of your letter dated June 28, 1979, you specify that a maximum of three million pounds of pyrochlore, containing approximately 15,782 kilograms of thorium and 1,043 kilograms of uranium will be possessed at any one time. We are not certain that you have included in this total the amounts of thorium and uranium contained in the slag and other wastes which you store in your slag dump. We need to know the total quantities of thorium and uranium which you now have in your possession in the form of (1) unprocessed ore being held in storage, and (2) slag, dust, and other waste materials which you have in storage. You should separately specify the total quantities of thorium and uranium which you have on hand. Since your license will be issued to authorize your possession of the above quantities of thorium and uranium, you should carefully evaluate the quantities of unprocessed ore and waste materials you have on hand to assure that you do not exceed your authorized possession limits.

In Item 2 of your letter dated June 28, 1979, you specify that your analysis results show that practically all of the thorium and uranium ends up in slag. We have noted that in Chapters II and III of the attachment to your application dated December 23, 1977, you state that slag and the dusts, collected in your process dust collectors, are stored in an area at your plant referred to as... "The restricted slag area..." which is an open area at your plant site. Although you specify that tests have shown that the slag is relatively insoluble, you do not describe how you prevent physical migration of the waste due to run-off or in windblown dusts. Please provide information showing how you assure that the waste containing thorium and uranium are confined to your slag storage area.

Based on our review of the applications and documents referenced in your current license, it appears that you have stored slag and other wastes containing natural thorium and uranium in the manner described above for more than 15 years. In view of this, we do not believe it is in the public interest to continue this authorization. Therefore, we request that you submit a plan for disposal of the wastes you now have in your storage area and those you will generate in the future. Included with your plan should be your estimate of the amount of time required to remove the accumulated wastes from your premises. Also, you should describe your radiation survey, air sampling and bioassay requirements during your activities to remove the wastes for disposal. For your guidance, please refer to Items 11, 12(c) and 13 in the enclosed Guide 10.4, to the enclosed Guide 8.11, APPLICATIONS OF BIOASSAY FOR URANIUM and to the enclosed Guide 8.15, ACCEPTABLE PROGRAMS FOR RESPIRATORY PROTECTION.

In our letter to you dated May 7, 1979, we inadvertently omitted a question concerning the calibration of your radiation survey instruments. Item 1 in Chapter IV of the attachment to your application dated December 23, 1977, specifies that your survey meter is calibrated every seven months, but provides no additional information concerning your calibration procedures. Please refer to Item 11.f.(2) in the enclosed Guide 10.4, and provide information showing that your radiation survey meters will be calibrated in accordance with NRC guidelines.

Our review of your application will continue upon receipt of the above information. Please provide two copies of your reply and reference your assigned Mail Control No. 08352.

Sincerely,

Paul R. Guinn  
Material Licensing Branch  
Division of Fuel Cycle and  
Material Safety

Enclosures:

1. Guide 10.4 GUIDE FOR THE  
PREPARATION OF APPLICATIONS  
FOR LICENSES TO PROCESS  
SOURCE MATERIAL
2. Guides 8.11 and 8.15

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