

114

RECORD #114

TITLE: Certain License Conditions for Natural Uranium Processing
Mills

FICHE: 68579-244

UNITED STATES
NUCLEAR REGULATORY COMMISSION

10 CFR 40
Issue date: 10/1/79

INSPECTION AND ENFORCEMENT MANUAL

SSINS: FFMSI 9320
9123
6200

INTERPRETIVE GUIDE

SUBJECT: CERTAIN LICENSE CONDITIONS FOR NATURAL URANIUM PROCESSING MILLS

A. PURPOSE AND BACKGROUND

To provide guidance for inspecting against certain license conditions, some of which may not yet have been included in the 5-year renewals even though the new conditions were first used in 1971.

B. APPLICABILITY

The guidance applies to all uranium mills under NRC jurisdiction for which the license conditions may or may not be included in the licenses.

C. EXPLANATION

1. Due to some maintenance and other operational activities at uranium mills which have resulted in extensive radioactive contamination on employees, NMSS began using in January 1971, the following license condition which requires monitoring of personnel for contamination:

"The licensee shall determine that employees leaving work are not contaminated with radioactive materials. When an employee has showered and changed clothing prior to leaving work, he may be assumed to be free of contamination."

- a. If the licensee determines that any group of employees (secretaries, administrative personnel, etc.) work only in areas which are not contaminated with radioactive materials, this may be construed to be a determination that such employees were not contaminated. The IE Procedure (Attachment 1 of 83895B) entitled Acceptable Surface Contamination Limits may be used in defining uncontaminated areas. Areas having contamination levels at or below these limits may be considered to be clean; and, therefore, employees who frequent only these areas would not be subject to this license condition. Note that if all areas of the mill are maintained at contamination levels below those specified in the M.C. Procedure then no routine monitoring for personnel contamination is necessary.

- b. If no contamination is found on employees who work in areas having very low levels of radioactive contamination (crusher, leach, or any other area), periodic monitoring of these employees should suffice and routine monitoring would not be necessary. Direct readings up to 150 dpm/100 cm² alpha is acceptable on the skin, if there is no removable contamination.
- c. It is the intent of this licensee condition that employees who work in areas or with equipment which may result in personnel contamination (e.g., yellow-cake area or equipment utilized therein) should be checked routinely.

Determinations of the presence or absence of radioactive contamination on employees who have worked in contaminated areas can be made by the conventional method of using alpha survey meters or hand-and-foot counters. In lieu of applying these conventional personnel monitoring techniques, the licensee may assume that an employee has no radioactive contamination on his person "when an employee has showered and changed clothing prior to leaving work."

- 2. In order to ensure that proper procedures are formulated and implemented for adequate health and safety controls, NMSS began using in about January, 1971, the following condition in licenses for uranium mills:

"Changes in the mill circuit or equipment, including maintenance activities, shall be approved in writing by the Manager or Assistant Manager. During such changes and activities, radiation safety shall be conducted to determine employee exposure to radioactive materials."

It is the intent of this condition of the license to have the health physics requirements and safety considerations reviewed by management for process equipment changes and maintenance activities where radioactive materials may be encountered. Such a review for good health physics practices should not be necessary for uncontaminated systems. Health physics practices and procedures should be reviewed and established by management for the initial operation of a repetitive task; and, even though not routine, "blanket" approval may be given for future similar operations where the same procedures are employed. Management should periodically evaluate the

controls, and a reevaluation should be made when conditions or techniques are changed. Responsibility for the review of procedures for equipment changes and maintenance activities may be delegated only to members of management who have jurisdiction over all groups involved in such operations and these may include production, maintenance and health physics, among others.

D. COORDINATION

This guidance has the concurrences of NMSS (J. Linehan)

E. REFERENCE

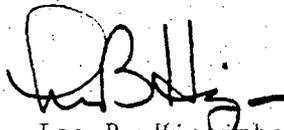
None

F. SUPERSESION

None

G. CONTACT

FFMSI contacts: J. R. Metzger, D. K. Sly



Leo B. Higginbotham
Assistant Director
Division of Fuel Facility
and Materials Safety Inspection
Office of Inspection and Enforcement

Date:

10/1/79