

May 16, 2000

MEMORANDUM TO: David L. Meyer, Chief
Rules and Directives Branch
Division of Administrative Services
Office of Administration

FROM: Francis M. Costello, Deputy Director */RA/*
Division of Nuclear Materials Safety, RI

SUBJECT: NOTICE OF ENVIRONMENTAL ASSESSMENT AND
FINDING OF NO SIGNIFICANT IMPACT

Attached please find one signed original of the subject *Federal Register* Notice for your transmittal to the Office of the Federal Register for publication. Also attached are five copies of the signed Notice and a 3.5" diskette with the Notice in WordPerfect.

Docket No. 040-08868
License No. STA-1455

Attachments: As stated

cc w/attachments:
L. Camper, NMSS

CONTACT: Betsy Ullrich, RI
(610) 337-5040

DOCUMENT NAME: C:\STA-1455.FR.wpd

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NUCLEAR REGULATORY COMMISSION

[Docket No. 040-08868]

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT AND NOTICE OF OPPORTUNITY FOR A HEARING

ACTION: Environmental Assessment and Finding of No Significant Impact and Notice of Opportunity for a Hearing for disposal pursuant to 10 CFR 20.2002.

The U. S. Nuclear Regulatory Commission is considering the license amendment request for disposal pursuant to 10 CFR 20.2002 of solid residual material containing up to 25 picocuries of thorium-232 and progeny per gram of filtercake from II-VI, Incorporated, to an industrial landfill. II-VI, Incorporated, is authorized to perform activities with source material pursuant to License STA-1455. The licensee and the NRC performed dose assessments of the disposal of this material in this manner, and determined that such disposal, with the restriction that not more than two effective containers per month be disposed of in this manner, would result in doses of less than 25 millirem per year.

Introduction

II-VI, Incorporated (II-VI), is a specialty manufacturer whose products include optical components for the laser industry, some of which contain thorium. They are authorized to perform manufacturing activities with source material pursuant to License STA-1455. Filtration of liquid effluents to remove metals prior to release to the sanitary sewerage system results in collection of small quantities of thorium in the solid residual material (filtercake). The licensee generates 10 or fewer containers of filtercake each year. Each container holds approximately 23.9 cubic meters of material having a mass of approximately 36,000 kilograms, which is defined as an "effective container" for the purpose of dose assessment. The material typically contains less than 25 picocuries of thorium-232 and progeny per gram of filtercake (25 pCi/g Th-232). The licensee requested disposal of this material pursuant to 10 CFR 20.2002 to an industrial landfill, and provided a dose analysis to justify their proposed limit of 25 pCi/g. The licensee and the NRC performed dose assessments of the disposal of this material in this manner, and determined that such disposal would result in doses of less than 25 millirem per year to members of the public so long as not more than two effective containers per month would be disposed of in this manner.

Proposed Action

The U. S. Nuclear Regulatory Commission is considering the request for disposal pursuant to 10 CFR 20.2002 to an industrial landfill, of not more than two effective containers per month of solid residual material (filtercake) containing up to 25 picocuries of thorium-232 and progeny per gram of filtercake from II-VI, Incorporated.

The Need for the Proposed Action

Filtration of liquid effluents is required by other regulatory agencies to remove metals from the liquid effluent prior to release to a public sanitary sewerage system, and small amounts of thorium are retained in the filtercake. The licensee needs this amendment to the license in order to have a cost-effective method of disposal of the filtercake containing metals. Prior to filtering of the liquid effluents, thorium in this waste stream was released to a public sanitary sewerage system in accordance with 10 CFR 20.2003 regulatory limits. A restriction is required, that not more than two effective containers be disposed of each month, in order to ensure that such disposals do not exceed the criterion of 25 millirem per year (25 mrem/y) to a member of the public.

Alternatives to the Proposed Action

The staff considered results of analyses using a generic model for unrestricted release of the material. The staff concluded that disposal pursuant to 10 CFR 20.2002 of this material without restrictions would meet the 25 mrem/y criterion only if the filtercake did not exceed 4.1 pCi/g Th-232.

The staff considered results of analyses to determine if site-specific data, such as regional meteorological and subsurface information, would be likely to change the dose assessment results significantly. The staff concluded that annual doses would be less than those resulting from assessments using the generic model, but the annual doses still would be in excess of the 25 mrem/y criterion if the filtercake contained up to 25 pCi/g Th-232.

The staff considered results of analyses using a model that assumed the landfill would not be used for any future activities, as could occur if deed restrictions were in place that prevented exhumation of the landfill. The staff concluded that doses would meet the 25 mrem/y criterion but that such deed restrictions are unlikely at this time.

Environmental Impacts of the Proposed Action

The activities that NRC staff will authorize, pursuant to 10 CFR 20.2002, through the issuance of an amendment to License No. STA-1455 is expected to have an insignificant impact on the environment. The disposal of the filtercake containing up to 25 pCi/g Th-232, restricted so that no more than two effective containers of filtercake are disposed of per month to an industrial landfill, would not exceed the criterion of 25 mrem/y to a member of the public.

Conclusion

The environmental impacts from the proposed action are insignificant.

Finding of No Significant Impact

The Commission has prepared an Environmental Assessment related to the proposed disposal pursuant to 10 CFR 20.2002 of filtercake containing up to 25 pCi/g thorium-232 and progeny from II-VI. On the basis of the Environmental Assessment, the Commission has concluded that this licensing action would not significantly affect the environment and does not warrant the

preparation of an environmental impact statement. Accordingly, it has determined that a Finding of No Significant Impact is appropriate.

The above documents related to this proposed action are available for public inspection and copying at the Commission's Public Document Room at the Gelman Building, 2120 L Street N.W., Washington, D.C.

OPPORTUNITY FOR A HEARING

The NRC hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of Subpart L, Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings, of NRC's rules and practice for domestic licensing proceedings in 10 CFR Part 2. Pursuant to 10 CFR 2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with 10 CFR 2.1205(c). A request for a hearing must be filed within thirty (30) days of the date of publication of the *Federal Register* Notice.

The request for a hearing must be filed with the Office of the Secretary either:

1. By delivery to the Docketing and Service Branch of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738; or
2. By mail or telegram addressed to the Secretary, U. S. Nuclear Regulatory Commission, Washington, DC, 20555. Attention: Docketing and Service Branch.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the NRC's regulations, a request for a hearing filed by a person other than the applicant must describe in detail:

1. The interest of the requestor in the proceeding;
2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in 10 CFR 2.1205(g);
3. The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and
4. The circumstances establishing that the request for a hearing is timely in accordance with 10 CFR 2.1205(c).

In accordance with 10 CFR 2.1205(e), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, II-VI Incorporated, 375 Saxonburg Boulevard, Saxonburg, PA, 16056, Attention: Mr. John Lebreque, and
2. The NRC staff, by delivery to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD, 20852, or by mail, addressed to the Executive Director for Operations, U. S. Nuclear Regulatory Commission, Washington, DC, 20555.

For further details with respect to this action, the application for amendment request is available for inspection at the Commission's Public Document Room, 2120 L Street N. W., Washington, Dc 20555.

Dated at King of Prussia, Pennsylvania, this 16 day of May, 2000.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Francis M. Costello, Deputy Director */RA/*
Division of Nuclear Materials Safety
Region I