



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MATERIAL COMMAND
WASHINGTON, D.C. 20315

AMCSF-P

16 August 1971

General Counsel
US Atomic Energy Commission
Washington, D. C. 20545

This Headquarters will appreciate receiving an official interpretation of 10 CFR 40 as requested in the attached letter from the US Army Electronics Command, dated 10 August 1971.

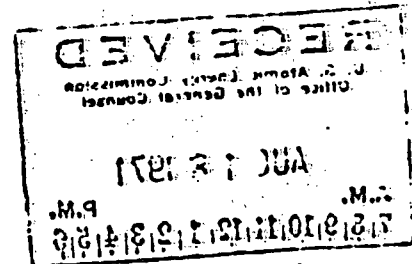
Your assistance in providing an early reply will be greatly appreciated as this matter has a bearing on current procurement.

Sincerely yours,

1 Incl
As stated

DARWIN N. TARAS
Chief, Health Physics
Safety Office

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AA/24



DEPARTMENT OF THE ARMY
UNITED STATES ARMY ELECTRONIC COMMAND
NIGHT VISION LABORATORY
FORT BELVOIR, VIRGINIA 22060

AMSEL-NV-D

10 August 1971

SUBJECT: Request for Clarification of AEC Regulation

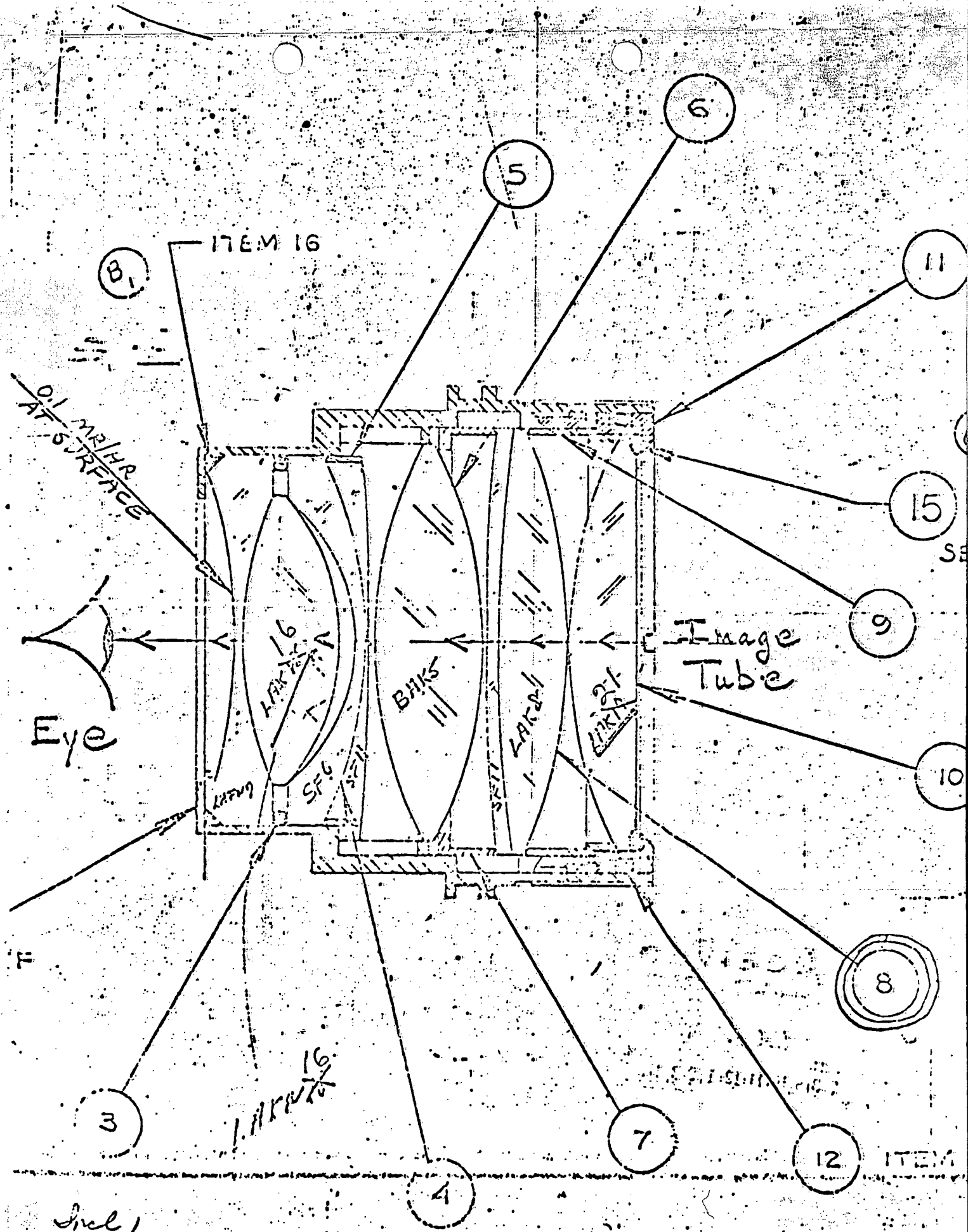
Commanding General
U.S. Army Materiel Command
ATTN: AMCSF-P, Mr. Taras
Washington, D.C. 20315

1. The eyepiece assemblies used in Army night vision devices are complex lenses which are comprised of from 4 to 8 individual glass elements. In many cases, in order to obtain the desired optical performance, it is necessary to incorporate thoriated glass in at least one of these elements. In most cases, this element is shielded from the eye by one or more intervening glass elements which are free of thorium. In such cases, although the thorium bearing element contains more than the acceptable limit of .05% by weight, the intervening glass provides enough attenuation so that the eyepiece assembly poses no health hazard to the eye and would seem to satisfy the intent of the Federal Regulation.
2. Such a lens assembly is shown in the attached sketch where element #8 contains .279% of thorium by weight. Although the thorium content is above the acceptable .05%, the radiation level which is measured at the surface of the lens nearest the eye is 0.1 mr/hr Beta and Gamma and indicates no health hazard in that the exposure to the eye would not exceed that established for the general public. Consequently, we believe that a complex lens assembly, such as described, in which the glass element closest to the eye is free of thorium, does not constitute an "eyepiece" in the sense that the word is used in the Federal Regulation. Your interpretation of this matter is respectfully requested.

MYRON W. KLEIN
Assoc Dir for R&D
Night Vision Laboratory

1 Incl
as

CF:
AMSEL-SI-CB, Mr. Rutman
AMSEL-RD, Dr. McAfee
Mr. Looft, SDTA
Mr. Carter, SDTA



Barlow

SEP 17 1971

Mr. Darwin N. Taras
Chief, Health Physics Safety Office
Department of the Army
Headquarters United States Army
Materiel Command
Washington, D. C. 20315

Dear Mr. Taras:

The following is in response to your letter of August 16, 1971, regarding the application of the provisions of 10 CFR Part 40 to optical lenses containing thorium. The enclosure to your letter refers to the exemption from licensing for materials in which the source material (thorium) content is less than .05 percent by weight as provided in 10 CFR 40.13(a).

We would call your attention to 10 CFR 40.13(c)(7), which provides the following:

840.13

(c) Any person is exempt from the regulation in this part and from the requirements for a license set forth in section 62 of the Act to the extent that such person receives, possesses, uses, transfers, or imports into the United States:

(7) Thorium contained in finished optical lenses, provided that each lens does not contain more than 30 percent by weight of thorium; and that the exemption contained in this subparagraph shall not be deemed to authorize either:

(1) The shaping, grinding or polishing of such lens or manufacturing processes other than the assembly of such lens into optical systems and devices without any alteration of the lens; or

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- (ii) The receipt, possession, use, transfer, or import into the United States of thorium contained in contact lenses, or in spectacles, or in eyepieces in binoculars or other optical instruments.

Thus, the possession or mere assembly of finished optical lenses (other than eyepieces) containing not more than 30 percent by weight of thorium is exempt from licensing under the provisions of 10 CFR Part 40.

We would not construe an "eyepiece" as used in 10 CFR 40.13(c)(7)(ii) as including the thoriated glass element described in the enclosure to your letter and shown in the accompanying sketch of the eyepiece assembly. The assembly, which is made up of several glass elements, provides separation of the thoriated element from the eye by substantial intervening material which is free of thorium.

Sincerely,

J.B. Krotts
 for
 Howard K. Shapar
 Assistant General Counsel
 Licensing and Regulation

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Retyped in OGC per request of RBarker, REP, to clarify last sentence.

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DATE >					