

August 13, 1979

NOTE TO: Document Control
Room 016

FROM: James J. Henry, TPSB:ES:SD

Please place the attached document in the PDR using the following file and file points:

PDR File
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Federal Register Notice _____
SD Task No. N/A _____
NUREG Report _____
Contract No. _____

Subject: RADIOACTIVE MATERIALS
IN GLASSES

The enclosure to this letter (NUREG/P-0001) was placed in the PDR in connection with a notice of availability 43 FR 55020, Nov. 24, 1978.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AUG 13 1979

Mr. Lee Evans
238 Senisa Drive
San Antonio, Texas 78228

Dear Mr. Evans:

Subject: Radioactive Materials in Glasses

This responds to your letter of July 30, 1979, to the Chairman, Nuclear Regulatory Commission, requesting answers to eight questions on uranium, thorium, or other radioactive materials in eyeglasses, sunglasses, and brand name glasses.

The source document for answering your first six questions is the enclosed book, "Radioactivity in Consumer Products", published by the Nuclear Regulatory Commission in August 1978.

In the article, "Naturally Occurring Radioactivity in Ophthalmic Glass," the authors state on page 227:

"Because thorium and uranium are distributed widely in the earth's crust and are present at very low levels in practically all sands and other raw materials used in ophthalmic glass manufacture, some background activity can be expected in all samples."

In the article, "Radiation Control Regulations of the States," the author states on page 69:

"The petrochemical industry sometimes uses radioactive tracers to measure flow and reaction rates, and this may result in slightly contaminated petrochemicals and plastics."

Thus, there is a finite probability of uranium, thorium, or other radionuclides appearing in ophthalmic glass and plastics in eyeglasses and sunglasses.

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Mr. Lee Evans

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With regard to your seventh and eighth questions on brand name glasses, the authors of the ophthalmic glass article note on page 232 that glass samples obtained from four U.S. manufacturers (American Optical Corp., Bausch and Lomb Co., Corning Glass Works, and Shott Optical Glass, Inc.) were examined in their survey. I am not aware of any study or report that lists what brand name glasses do not contain radioactive materials.

Jim Henry, a senior health physicist on my staff, tried to call you but could not learn your telephone number. If this letter is not fully responsive, please feel free to call him on 301/443-5946 for additional information.

Sincerely,



Robert B. Minogue, Director
Office of Standards Development

Enclosure:
NUREG/CP-0001

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