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

APR 16 1990

MEMORANDUM FOR: Chairman Carr
Commissioner Roberts
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: NRC POSITION ON POTASSIUM IODIDE: DIFFERING PROFESSIONAL OPINION

This memorandum provides the Commission with information on the status of the Differing Professional Opinion (DPO) regarding the stockpiling of potassium iodide as a protective measure for radiological emergency. The DPO addressed two basic points: 1) that the cost-benefit analysis contained flaws and omissions, and 2) that inaccurate information was provided to the public and the Commission on the significance of radiation-caused thyroid abnormalities. The DPO suggested prompt withdrawal of NUREG/CR-1433, "Examination of the Use of Potassium Iodide (KI) as an Emergency Protective Measure for Nuclear Reactor Accidents;" notification of States, localities, other federal agencies and the public of the flaws and omissions in the cost-benefit analysis; and affirmative steps be taken to ensure potassium iodide is stockpiled for possible emergencies.

After the DPO was filed on July 7, 1989, the DPO review panel met with the submittor, Mr. Peter Crane on June 24, 1989, to clarify points in the DPO. Subsequent to the meeting, the DPO review panel compiled additional information and prepared a simplified cost-benefit analysis incorporating the new information. The findings and recommendations of the DPO review panel were documented in a memorandum dated December 14, 1989. The results of the cost-benefit analysis differed from the results of the previous analysis in that the previous analysis overstated the ratio of costs to benefits of a potassium iodide program. However, the results still indicated stockpiling of potassium iodide is not cost beneficial. Additionally, the report indicated the panel's strong conviction that potassium iodide has a very limited efficacy as a public protective measure. The panel felt that this is not only due to the fact that it is useful for only one organ, one nuclide of interest and one exposure pathway, but also because its efficacy is dependent upon its being available either before or within a few hours after exposure. The DPO review panel recommended the current Federal guidance not be changed, and the information developed as a result of pursuing the DPO be transmitted to the States and other interested Federal agencies for their information.

By memorandum dated January 4, 1990, Mr. Crane responded to the DPO review panel report. Mr. Crane stated that although the panel performed a cost-benefit analysis, it was not the entire point of the DPO. The crux of the DPO was that the information on potassium iodide given to the Commission and the

public in 1983 (in part the basis for the Commission decision), was misleading and should be corrected by publishing the latest analysis. Additionally, Mr. Crane discussed other areas he felt were not addressed by the DPO review panel. Namely, that the 1983 report did not make clear that 4% of the accident-caused nodules would be fatal (as assumed in WASH-1400).

By memorandum of March 15, 1990, the responsible office director, Mr. Eric Beckjord, submitted his analysis of the DPO review panel report. As mentioned above, some aspects of the DPO were not resolved by the review panel. The staff is working on their resolution as suggested by Mr. Beckjord. In addition, Mr. Beckjord proposed to publish a supplement to NUREG/CR-1433 based on the new information complied by the DPO review panel.

We understand that the American Thyroid Association (ATA) asked the Federal Radiological Preparedness Coordinating Committee (FRPCC), of the Federal Emergency Management Agency (FEMA), to reexamine the issues in stockpiling KI. A Subcommittee of the FRPCC has been established to review the issue and is expected to begin review sometime this year. ATA made the same request to the Food and Drug Administration which conveyed the request to its Center for Disease Control (CDC) in Atlanta. CDC has agreed to evaluate the U.S. and foreign experience in KI stockpiling and distribution.

I have directed that NRR and AEOD, through their membership in the FRPCC, fully participate in this evaluation. I will keep the Commission informed. NRR will have the lead in reexamining whether it is warranted to stockpile KI in the vicinity of nuclear power plants. As part of the FRPCC Subcommittee, NRR will coordinate the NRC review with RES and AEOD on this issue.

Once all the above is completed, I will request that the Commission review the new analysis and decide whether the current policy should to be changed.

Original Signed By:
James M. Taylor
James M. Taylor
Executive Director
for Operations

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OCA

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