EDO Principal Correspondence Control

FROM: Peter Crane

DUE: 05/16/06

EDO CONTROL: G20060438
DOC DT: 04/25/06
FINAL REPLY:

TO:

Chairman Diaz

FOR SIGNATURE OF : Reyes, EDO

** GRN **

CRC NO: 06-0204

DESC:

Potassium Iodide (KI)

ROUTING:

Reyes
Virgilio
Kane
Silber
Dean
Cyr/Burns

DATE: 04/26/06

ASSIGNED TO: RES

CONTACT: Paperiello

SPECIAL INSTRUCTIONS OR REMARKS:

Commission to review response prior to dispatch.
Add OCM on for concurrence.

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

Date Printed: Apr 26, 2006 11:00

PAPER NUMBER:	LTR-06-0204	**LOGGING DATE:**	04/26/2006
ACTION OFFICE:	EDO		
AUTHOR:	Peter Crane		
AFFILIATION:	WA		
ADDRESSEE:	Nils Diaz		
SUBJECT:	NRC lette to HHS on potassium iodide		
ACTION:	Signature of EDO		
DISTRIBUTION:	RF, SECY to Ack		
LETTER DATE:	04/25/2006		
ACKNOWLEDGED	No		
SPECIAL HANDLING:	Made publiclyavailable in ADAMS via EDO/DPC		
NOTES:	Commission to review response prior to dispatch		
FILE LOCATION:	ADAMS		
DATE DUE:	05/18/2006	**DATE SIGNED:**	

From: "Peter Crane" <cranepbko@comcast.net>
To: "Nils Diaz" <NJD@nrc.gov>, "Edward McGaffigan" <EXM@nrc.gov>, "Greg Jaczko" <gbj@nrc.gov>, <jmer@nrc.gov>, <pbl@nrc.gov>
Date: 4/25/06 12:54AM
Subject: NRC letter to HHS on Potassium Iodide

Dear Chairman Diaz and Commissioners:

I regret to inform you that the NRC staff has yet again provided misinformation to another Government agency on the subject of potassium iodide (KI). It is therefore incumbent on the NRC yet again to issue a public apology for the misrepresentation and correct the record.

The present case involves a November 1, 2005, letter from William F. Kane, Deputy Executive Director for Reactor and Preparedness Programs, to Dr. Robert Claypool of the Department of Health and Human Services. It seriously distorts the findings of the report on KI issued in 2004 by the National Research Council of the National Academies of Science (NAS).

The gist of the NRC letter to HHS is that in the event of a radiological emergency that releases radioiodines, the only pathway of concern beyond the 10-mile radius is the ingestion pathway, that this can be addressed by testing and interdiction of milk and other foods, and that distribution of KI beyond the 10-mile radius is therefore unnecessary. The NRC letter claims to base its conclusions on the NAS report, and even declares that "the Academy raised questions about the usefulness of expanded distribution of KI."

The artfulness with which the NRC letter was crafted is well illustrated by its quotation from p. 159 of the NAS report. The NRC letter quoted with approval one sentence, while omitting the four preceding sentences, which were essential if the meaning of the quoted sentence was to be understood correctly. Here is the sentence that was quoted in the NRC letter:

"KI is also effective for protection against the harmful thyroid effects of radioiodine ingested in contaminated milk and other food, but food testing and interdiction programs in place throughout the United States are more effective preventive strategies for ingestion pathways."

The four preceding sentences are as follows:

"In the event of nuclear accidents or as a result of nuclear terrorism, radioiodine could be released to the environment. Because iodine concentrates in the thyroid gland, exposure to radioiodine by inhalation of contaminated air or ingestion of contaminated milk and other foods can lead to radiation injury to the thyroid, including risk of thyroid cancer and other thyroid diseases. Thyroid radiation exposure from radioiodine can be limited by taking stable iodine. KI is a chemical compound that contains iodine and can be used to protect the thyroid gland from possible radiation injury by reducing the amount of radioiodine concentrated by the thyroid after inhalation of radioiodine."

Far from having "raised questions regarding the usefulness of of expanded distribution of KI," as the NRC letter claims, the NAS report made clear that depending on site-specific factors, KI might be desirable beyond the 10-mile EPZ, since the 10-mile radius does not necessarily correspond to the actual risk presented. On this point, see Recommendation 2, from p. 160, of the section on "Benefits of and Risks Posed by Potassium Iodide Distribution":

"KI distribution should be included in the planning for comprehensive radiological incident response programs for nuclear power plants. KI distribution programs should consider predistribution, local stockpiling outside the emergency planning zone (EPZ), and national stockpiles and distribution capacity." [Boldface in the original.]

And here, in full, from p. 161 of the report, is its conclusion on "Implementation Issues Related to Potassium Iodide Distribution and Stockpile Programs":

"Conclusion

A strategy is needed whereby local planning agencies could develop geographic boundaries for a KI distribution plan based on site-specific considerations because conditions and states vary so much that no single best solution exists. [Boldface in the original.]

KI distribution planning in the United States has focused on the Nuclear Regulatory Commission's early-phase Emergency Planning Zone (EPZ) of a 10-mile radius. However, the EPZ provides only a basis for planning. A specific incident might call for protective actions to be restricted to a small part of the EPZ or require that they be implemented beyond the EPZ as well. See Chapters 5 and 7 for details."

By "no single best solution exists," the NAS report is stating, in unmistakable terms, that applying the standard 10-mile radius to all situations is inappropriate. But the NRC letter strives to give exactly the opposite impression.

Similar artfulness is shown in the use of the quotation from page 81 of the NAS report. (This is the passage in the letter beginning with "Exposure to radioactive iodine is possible through the ingestion pathway..." and ending with "... "That also eliminates the need for the use of KI by the general public as a protective action.") The last sentence of the quoted passage sounds dispositive indeed, but what the NRC letter neglects to mention is that this is from a section of the report, beginning on p. 79, that is entitled "Intermediate Phase Planning," and refers only to the period after the plume has passed, when inhalation is no longer an issue.

This sort of game-playing with words, on an issue affecting the health and safety of American children, is beneath the NRC, or at least should be. Unfortunately, however, it seems to be all too common where the NRC staff and potassium iodide are concerned. Those with long memories will recall, for instance, the public meeting of November 5, 1997, at which a senior NRC staff official apologized to FEMA officials for having "misrepresented" FEMA's position on KI.

It will likewise be recalled that the NRC Commissioners, after authorizing publication of "NUREG-1633," a staff analysis of KI, in the summer of 1998, ordered it withdrawn from circulation after withering comments from state health officials alerted the Commissioners to its numerous misstatements and distortions. This singular document, 40 pages long, managed not to mention the FDA's finding that KI was "safe and effective." The staff twice attempted to secure Commission approval of a revised version of the document, and twice failed, after which the Commissioners ordered work on the document to stop.

No doubt those Commissioners who were around at the time also recall that the Commission was forced to apologize to a Member of Congress for having supplied him with an inflated number for the cost of a nationwide KI program. Supposedly it was an honest mistake of multiplication, though it is baffling that anyone who succeeded in completing elementary school could have multiplied 70 (the number of nuclear sites) by 80,000 (the average number of residents in the EPZ) by $.50 (the estimated cost of two KI pills) and come up with a figure of $3,250,000.

The foregoing is not a complete list by any means. I could add to it if the Commission so wishes.

I realize that NRC procedures require you to forward this to the Inspector General. Unfortunately, the NRC's Inspector General has long served as the staff's enabler on KI. (Among other things, his office has steadfastly refused to look at whether there is any pattern in the staff's supposed "mistakes" on KI.) By all means, follow procedures and send the matter to the IG; just do not expect anything useful to result.

At this point, I believe that the Commission is obliged to apologize both to Dr. Claypool at the Department of Health and Human Services, for misinforming him, and to the National Research Council of the National Academies of Science, for misrepresenting its findings. It should revise its letter to HHS and post it on the NRC website with an explanation that the previous letter was found to be inaccurate.

I am aware that the Commission was opposed to the enactment of Section 127, and I gather that it is not eager to see HHS call for any distribution of KI beyond the existing 10-mile radius. But I ask the Commissioners to ponder this: if the NRC staff needs to resort to spurious arguments to make the case against broader KI distribution under Section 127, it follows that the case for broader use of the drug must be stronger than the staff cares to admit. Perhaps, therefore, the Commission should rethink the issue. Indeed, one has to wonder whether the Commissioners got accurate information from the NRC staff about the contents of the NAS report.

Consider further: If the NAS report is correct, there is no assurance that KI will be unnecessary beyond the 10-mile EPZ. If ever an emergency occurs in which KI is needed beyond 10 miles, how would the Commission answer the question, "Why didn't you heed the advice of the NAS report, commissioned by Congress, when it warned you that a 10-mile limit for distribution of KI might not be sufficient, and said that local agencies should consider stockpiling beyond the EPZ?"

Sincerely,
Peter Crane
Counsel for Special Projects, USNRC (retired)
Seattle

CC: "Roger Davis" <RKD@nrc.gov>, "St. Cyr, Zeno (HHS/OS)" <Zeno.St.Cyr@hhs.gov>

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Subject:	NRC letter to HHS on Potassium Iodide
Creation Date:	4/25/06 12:54AM
From:	"Peter Crane" <cranepbko@comcast.net>
Created By:	cranepbko@comcast.net

Recipients

nrc.gov
owf5_po.OWFN_DO
NJD (Nils Diaz)
EXM (Edward McGaffigan)
JMER (Jeffrey Merrifield)
RKD CC (Roger Davis)

nrc.gov
OWGWPO02.HQGWDO01
GBJ (Gregory Jaczko)

nrc.gov
TWGWPO01.HQGWDO01
PBL (Peter Lyons)

hhs.gov
Zeno.St.Cyr CC (Zeno (HHS/OS) St. Cyr)

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Mime.822	22937	

Options

Expiration Date:	None
Priority:	Standard
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Return Notification:	None
Concealed Subject:	No

Security: Standard