

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BRIEFING ON

PROPOSED RESOLUTION TO A PETITION FOR
RULEMAKING RELATING TO USE OF POTASSIUM IODIDE (KI)
FOLLOWING SEVERE ACCIDENT AT A
NUCLEAR POWER PLANT

PUBLIC MEETING

Nuclear Regulatory Commission
Commission Hearing Room
11555 Rockville Pike
Rockville, Maryland
Wednesday, November 5, 1997

The Commission met in open session, pursuant to
notice, at 9:30 a.m., the Honorable SHIRLEY A. JACKSON,
Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

- SHIRLEY A. JACKSON, Chairman of the Commission
- GRETA J. DICUS, Member of the Commission
- EDWARD McGAFFIGAN, JR., Member of the Commission
- NILS J. DIAZ, Member of the Commission

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STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

- JOHN C. HOYLE, Secretary
- KAREN D. CYR, General Counsel
- PETER CRANE
- BILL McNUTT
- MEGS HEPLER
- IHOR HUSAR
- JOSEPH CALLAN
- MECHANICAL KNAPP
- FRANK MIRAGLIA
- THOMAS MARTIN
- FRANK CONGEL

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[9:35 a.m.]

CHAIRMAN JACKSON: Good morning, ladies and gentlemen. This morning we will be briefed by the Federal Emergency Management Agency, Mr. Peter Crane and the NRC Staff regarding the Staff's proposed resolution of Mr. Crane's petition for rulemaking relating to the use of potassium iodine following a severe accident at a nuclear power plant, as well as on the existing policy with respect to stockpiling of potassium iodine.

Before we begin, I would like to especially thank Mr. Hepler and Mr. McNutt, the representatives from FEMA for agreeing to make themselves available for this briefing on a very short notice. And so I understand that the representatives from FEMA will be making the first presentation. So I would ask them to please come forward.

COMMISSIONER MCGAFFIGAN: And, Chairman, I would like to have Mr. Frank Congel from our office of AEOD introduce the FEMA members. He has worked with them over the years.

CHAIRMAN JACKSON: Mr. Congel, would you step to the microphone and do that?

MR. CONGEL: Thank you, Chairman. And good morning, Commissioners.

I am very pleased to have our representatives from ANN RILEY & ASSOCIATES, LTD.

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FEMA this morning. Leading the group is, as you said earlier, Mr. Megs Hepler. Megs is the director of the Exercises Division and the Preparedness Training and Exercise Directorate of FEMA. He also serves as the Chair of the FRPCC, the Federal Radiological Preparedness Coordinating Committee and, in that capacity, has worked long and hard with us on the issue of KI policy and is uniquely qualified to give you the overview from FEMA perspective, so I am very delighted to have them here.

CHAIRMAN JACKSON: Thank you for coming.

Mr. Hepler, would you introduce your colleagues, please?

MR. HEPLER: Thank you, Frank.

Good morning, Chairman Jackson and Commissioners. I also want to thank you for inviting FEMA to appear here this morning at the meeting.

I would like to introduce the FEMA staff at the table with me. On my right is Mr. William McNutt. He is a senior policy advisor in FEMA's State and Local Preparedness Division. To my left is Mr. Ihor Husar, who is the chief of the State and Local Regulatory Evaluation and Assessment Branch in the Exercises Division.

Joining us also from FEMA are Ms. Elaine Chan from our Office of General Counsel, Ms. Nancy Goldstein from our exercises Division. And Mr. Marcus Weisch from our State ANN RILEY & ASSOCIATES, LTD.

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and Local Preparedness Division.

I am appearing before the Commission this morning

3 on behalf of Ms. Kay C. Goss, the Associate Director for the
4 Preparedness Training and Exercises Directorate. Ms. Goss
5 was called out of town on other business at the last minute
6 and is unable to be with us here this morning but Kay did
7 want me to express her appreciation to all of you for
8 inviting FEMA to appear to discuss the roles and
9 responsibilities of FEMA and the FRPCC in the development of
10 the draft revision of the potassium iodide policy.

11 I have been assigned as the FRPCC chairman since
12 January 1995 because the operational aspects of FEMA's
13 Radiological Emergency Preparedness Program or the REP
14 Program fall under the purview of my division, the Exercises
15 Division. And, as you know, the REP program is responsible
16 for overseeing the offsite radiological emergency planning
17 and preparedness activities of state and local governments
18 and Indian tribal nations around the commercial nuclear
19 power plants.

20 First, I would like to provide some background
21 information on the FRPCC. The FRPCC was established in 1982
22 under Title 44 CFR Part 351 to coordinate all federal
23 responsibilities for assisting state and local governments
24 in emergency preparedness activities for peacetime
25 radiological emergencies. The 351 rule also specifies the
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1 federal departments and agencies that are members of the
2 FRPCC and the responsibilities of these departments and
3 agencies. In fact, there are currently 15 departments and
4 agencies that are members of the FRPCC.

5 The regulation also authorizes the establishment
6 of subcommittees to support the FRPCC. These subcommittees
7 have been established to examine specific issues or areas of
8 concern in radiological emergency planning and preparedness.
9 At the present time, we have six standing subcommittees on
10 the FRPCC: Training, Off-Site Instrumentation,
11 Transportation Accidents, Federal Response Exercises and
12 Environment, Food and Health and there are two ad hoc
13 subcommittees one of which is the Potassium Iodide
14 Subcommittee.

15 The initial federal policy as formulated by the
16 FRPCC on the predistribution or stockpiling of potassium
17 iodide around nuclear power plant sites for use as a
18 thyroidal blocking agent by the general public was published
19 in the Federal Register in 1985. Now, the 1985 federal
20 policy stipulated that such a use of potassium iodide is the
21 prerogative of the states and its use should not be
22 federally required.

23 In 1989, the American Thyroid Association
24 requested the FRPCC to reexamine its 1985 policy. So in
25 response to that request, the FRPCC requested the Department
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1 of Health and Human Services, as the agency on the FRPCC
2 with major responsibility in this area, to review both the
3 medical and clinical status of the use of potassium iodide.

4 In 1990, the HHS recommended to the FRPCC that,
5 one, the FR -- that the FRPCC 1985 federal policy not be
6 changed since there was no compelling evidence to support a
7 change. HHS also recommended that existing stores of
8 potassium iodide be inventoried and that the FRPCC establish
9 a working group of appropriate FRPCC departments and
10 agencies to address the issue of stockpiling.

11 Now, the FRPCC Ad Hoc Subcommittee on Potassium
12 Iodide was formed in February 1991 in response to the HHS
13 recommendation and this ad hoc subcommittee was charged with
14 two responsibilities: Reexamining the 1985 federal policy
15 on the distribution of potassium iodide and, two,
16 considering the merits of the federal government's purchase
17 and stockpiling of potassium iodide for use by the general
18 public.

19 In carrying out the charge, the ad hoc
20 subcommittee examined scientific aspects of potassium iodide
21 as well as the relationship between the timely
22 administration of the drug and its effectiveness. The
23 subcommittee examined the NRC's cost/benefit analysis and
24 the subcommittee also conducted, through the Conference of
25 Radiation Control Program Directors, the CRCPD, a survey to
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1 ascertain the points of view of the states involved.

2 Now, as a result of the review and the data that
3 was collected, this ad hoc subcommittee recommended in
4 September 1994 that no change be made to the potassium
5 iodide policy and that the federal government not purchase
6 and stockpile potassium iodide for the general public.

7 On December 5, 1994, the full FRPCC adopted the
8 report and recommendations of this subcommittee and was in
9 the process of preparing to reaffirm the 1985 federal policy
10 when the September 1995 petition for rulemaking was filed
11 with the NRC and a copy provided to FEMA.

12 In reviewing the petition for rulemaking, FEMA, as
13 chair of the FRPCC, determined that a prudent course of
14 action would be to hold up on reaffirming the 1985 federal
15 policy pending consideration of the information that was
16 presented in the petition. This decision was made in case
17 there was any new information presented in the petition that
18 could potentially affect the policy.

19 During this same time frame, the NRC published a
20 synopsis of the petition and invited the public to review
21 and comment on the petition. The Ad Hoc Subcommittee on
22 Potassium Iodide was reconvened in December 1995 and the
23 full FRPCC was provided a copy of the petition for review at
24 that time.

25 The reconvened subcommittee was charged with
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1 reviewing the information that was provided to FEMA and
2 information that had been provided to other federal agencies
3 including the petition for rulemaking, reviewing the
4 comments received by the NRC on the petition and evaluating
5 any relevant new information pertaining to this issue.

6 Mr. William McNutt, who I introduced, was
7 designated as the chairman of the reconvened ad hoc
8 subcommittee and other members were assigned to the
9 subcommittee from the NRC, the Department of Veterans
10 Affairs, the Environmental Protection Agency, the Centers
11 for Disease Control and the Food and Drug Administration.

12 In order to ensure a full and balanced review of
13 this issue, the subcommittee conducted a public meeting in
14 June 1996 to which the commentators on the petition and other
15 interested members of the public were invited to attend and
16 make presentations. Representatives from state governments,
17 the CRCPD, the nuclear utilities, the Nuclear Utility Trade
18 Association and public interest groups as well as a
19 university professor and the Petitioner presented their
20 comments at this June 1996 public meeting.

21 Upon considering the information presented at the
22 meeting, the subcommittee concluded that there was no
23 compelling new information that seriously challenged the
24 basis for the 1985 federal policy. However, the
25 subcommittee did come up with three recommendations.

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1 One, without changing the federal policy and
2 without interfering in the states' prerogative to make its
3 own decision on using potassium iodide for the general
4 public, the federal government should purchase a stockpile
5 of KI for any state wishing to include it as a supplemental
6 protective action for the general public. The language in
7 the 1985 federal policy should be softened to be more
8 flexible and balanced. That was the second recommendation.
9 And the third recommendation was local jurisdictions wishing
10 to incorporate the use of potassium iodide in their
11 protective actions should consult with their state officials
12 and be aware that a choice to use potassium iodide would
13 entail the assumption of responsibility for developing plans
14 for its distribution.

15 In October 1996, the full FRPCC unanimously
16 approved the ad hoc subcommittee's recommendations. In
17 addition, in June 1997, as you know, you voted three to two
18 to support the FRPCC's recommendation. The June 1997
19 Commission vote also acknowledged the availability of
20 federal medicinal stockpiles that include potassium iodide
21 under the Nuclear, Biological and Chemical Terrorism
22 Preparedness Program that is being implemented throughout
23 the federal government. The terrorism preparedness program
24 was established pursuant to the June 1995 Presidential
25 Decision Directive PDD-39 and, as a result of,

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1 Nunn-Lugar-Domenici legislation directing federal agencies
2 to reduce vulnerabilities to nuclear, biological and
3 chemical terrorism threats.

4 The plans are to have medicinal stockpiles located
5 in 27 metropolitan areas throughout the nation and in three
6 national stockpiles in the eastern, central and western

7 portions of the United States. Medicinal stockpiles have
8 already been established in Washington, D.C.; Denver,
9 Colorado; Los Angeles, California and Durham, North
10 Carolina.

11 So where do we stand today with the FRPCC's draft
12 revised policy? A draft Federal Register notice which
13 embodies the FRPCC recommendations has been prepared. The
14 notice specifies that if a state chooses to select potassium
15 iodide as a supplemental protective action for the public,
16 it can notify FEMA and request NRC funding for its purchase.
17 For those states that do opt to include the use of potassium
18 iodide for the general public as a supplemental protective
19 measure, FEMA's evaluation will be limited to the
20 decisionmaking process only and we view this as an important
21 part of our responsibility in ensuring the public's health
22 and safety.

23 Since the full FRPCC membership vote in October
24 1996, FEMA has been working with the NRC staff to develop
25 the Federal Register notice announcing the revised policy.

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1 At the present time, we are waiting for the final NRC
2 concurrence on the wording of the notice. Once we receive
3 the NRC's concurrence, we intend to fulfill our commitment
4 to the rest of the FRPCC members by circulating the final
5 draft notice to the full FRPCC membership for their final
6 review and final concurrence. We have indicated to the
7 FRPCC members all along that this would be the process that
8 we would follow in completing the Federal Register notice.

9 And at this time, once we receive the concurrence,
10 we do not anticipate any major obstacles to finalizing the
11 notice.

12 Once this Federal Register notice is published,
13 there will still be some implementation steps that will need
14 to be taken. For example, we expect to have to consult with
15 the Department of Health and Human Services to help design a
16 public information program on using potassium iodide for
17 those states that might opt to incorporate it as a
18 supplemental protective measure. FEMA and NRC will need to
19 develop procedures for addressing state requests for
20 funding. For example, which states will be eligible for
21 receiving the potassium iodide. Will it be the 10-mile EPZ
22 population or the 50-mile EPZ population and what
23 administrative mechanisms might need to be established to
24 process these requests. Also, the development of any
25 additional guidance for evaluating the state decisionmaking

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1 process for using KI might need to be taken.

2 In closing, I would like to acknowledge the
3 contributions of those public groups and individuals who
4 provided very thoughtful and sincere comments and made
5 presentations at our June 1996 public meeting. I also want
6 to emphasize the importance that FEMA and the FRPCC placed
7 on maintaining the integrity and the credibility of our
8 deliberations and recommendations on this issue. I am very

9 proud of the way the FRPCC and FEMA have conducted this
10 review. I have only the highest regard and respect for the
11 professionalism and conscientiousness of the individuals who
12 have been involved and the seriousness with which they have
13 carried out their responsibilities.

14 And I can tell you it has been a privilege for me
15 to be associated with these individuals and I do want to
16 commend them for their dedication to this effort to ensure
17 public health and safety.

18 That concludes my remarks this morning and, again,
19 Chairman Jackson, I thank you for inviting FEMA to appear.

20 THE COURT: Thank you.

21 Will you be submitting your statement for the
22 record?

23 MR. HEPLER: Yes.

24 THE COURT: Thank you.

25 We will just go down the line.

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1 Commissioner Dicus?

2 COMMISSIONER DICUS: On the evaluation of the
3 decisionmaking process by a state that chooses to stockpile
4 KI for use by the public, two points. Are you -- are you
5 talking about evaluating -- that this would be something
6 they would need to put into their off-site plans and that
7 would be evaluated and how it stands in the plan, I suppose,
8 by the RAC and, number two, would it become an exercise
9 objective for score in an evaluated exercise?

10 MR. HEPLER: We do currently evaluate the
11 decisionmaking process on potassium iodide for emergency
12 workers and institutionalized persons. So we would just
13 expand that to include the decision for the use by the
14 public and it would probably become another small aspect of
15 the exercise.

16 COMMISSIONER DICUS: Okay, another question, then
17 are you -- for states that have chosen to stockpile but not
18 predistribute, are you looking at their plans for
19 distribution should it be necessary?

20 MR. HEPLER: We would expect them to incorporate
21 the program in their plans but we do not have any intention
22 to embark on a detailed evaluation on the distribution
23 effort.

24 COMMISSIONER DICUS: Okay. And then for those
25 states that choose not to stockpile for the use by the

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1 public but because of an instant, be it at a power plant or
2 a foreign incident that impacts the states, which has
3 happened before, or another kind of incident at a
4 radiopharmaceuticals supply house, for example, and then
5 chooses to have KI, what -- what planning process do you
6 have in place to get the KI from a central location to the
7 state and distributed? Where are you in your planning
8 process with that?

9 MR. HEPLER: I'm not aware -- I don't believe we

10 have a planning process for that eventuality.
11 CHAIRMAN JACKSON: So therefore, how are you
12 getting it from the stockpiles to where it might be desired?
13 You don't have that as part of your own plan?

14 MR. HEPLER: No.

15 CHAIRMAN JACKSON: Commissioner Diaz?

16 COMMISSIONER DIAZ: I was trying to get from your
17 presentation, I think it is policy and issues and history is
18 laid out but I haven't heard a specific opinion if RCCP had
19 evaluated the technical merits of itself. Is potassium
20 iodide an effective thyroid blocker that would actually
21 prevent the ingestion and potential damage to the thyroid of
22 radioisotopes that has been released into the air?

23 MR. HEPLER: In the Federal Register notice, we do
24 acknowledge the fact that it is an effective thyroid
25 blocking drug.

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1 Bill, did you want to expand on that?

2 MR. McNUTT: It is and it is considered safe and
3 effective.

4 COMMISSIONER DIAZ: Safe and effective.

5 MR. HEPLER: The actual notice does discuss that
6 point.

7 COMMISSIONER DIAZ: And so the key issue is
8 whether KI complements the issues of evacuation and
9 sheltering in a cost-effective manner? Is that on what your
10 decision is based?

11 MR. HEPLER: Yes, we believe it is a supplemental
12 measure to evacuation and sheltering.

13 COMMISSIONER DIAZ: Supplemental or --

14 MR. HEPLER: It could complement but it is
15 supplementary. We still view evacuation and sheltering as
16 the primary preferred protective measures.

17 COMMISSIONER DIAZ: Thank you.

18 CHAIRMAN JACKSON: Commissioner McGaffigan?

19 COMMISSIONER MCGAFFIGAN: I have several questions
20 so bear with me for a minute.

21 Following up on Commissioner Dicus, I was hoping
22 you were going to have a different answer to her last
23 question, namely the planning process for the three national
24 sites and the 27 local sites. Presumably, there is a
25 planning process in another part of FEMA, maybe with

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1 military uniforms on, that looks at what happens in a CPW
2 emergency in CPW and is going to be able to deliver whatever
3 is necessary in that event. Is that the case?

4 MR. HEPLER: Well, the entire terrorism
5 preparedness program is currently evolving. It is a fairly
6 new effort in the federal government and there are, like I
7 said, other federal agencies involved and other components
8 of FEMA that are involved in that effort and I just can't
9 answer that question at this point on detailed planning for
10 distribution of KI if there should be a terrorist incident.

11 COMMISSIONER MCGAFFIGAN: The policy states on

12 page 4 the stockpiles would be available on an ad hoc basis
13 in the event of an accident at a commercial nuclear power
14 plant and I am trying to figure out, I was recently involved
15 in an exercise. You know, we always push these exercises to
16 places where they are -- through artificial means where
17 there is a significant release and then you have to think
18 about whether KI is appropriate and in that case we, on an
19 ad hoc basis, we asked the state again, do you want it? And
20 they declined.

21 But if, god forbid, there were an accident in
22 North Carolina today and Durham is right there, we
23 have -- we would have to -- ad hoc really means ad hoc. We
24 do it on the spot, ask the state again, if the plant looks
25 bad enough, there's iodine in it, do you need it, is that

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1 the intention at the moment?

2 Does that mean that when we have these exercises
3 which we run and you participate in, we should start
4 building that into the ad hoc decisionmaking in the
5 exercise? You know, have a check point, you know, we think
6 we could get to you within X hours some potassium iodide
7 from one of these 31, 30 locations, do you want it?

8 MR. HEPLER: That might be an interesting aspect
9 to add into the exercises in the future.

10 COMMISSIONER MCGAFFIGAN: Is there a problem -- I
11 come out of the defense sector. Are these locations where
12 the antidotes are all located classified locations? Because
13 you don't want terrorists to be able target them?

14 MR. HEPLER: No, they are mainly going to be in
15 the larger metropolitan areas.

16 COMMISSIONER MCGAFFIGAN: But the exact location
17 is not classified?

18 MR. HEPLER: Exactly where the stockpile or the
19 drug cache is stored itself?

20 COMMISSIONER MCGAFFIGAN: Right.

21 MR. HEPLER: I can't answer that; I don't know.

22 COMMISSIONER MCGAFFIGAN: Okay. I suspect it will
23 be because of the obvious needs for security, from itself
24 being targeted.

25 I just suggest that you really do think through

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1 what I see as two parallel streams here. I suspect that
2 this -- because of the proliferation danger, that the
3 military is going to take very seriously -- the CIA just
4 doubled the size of its proliferation center according to
5 the newspaper yesterday. They are going to take very
6 seriously this CBW and NCBW threat and is going to put in
7 place plans. It will probably be the National Guard in each
8 state that will be the natural place for them to work with.
9 And it is a different set of officials from the officials
10 that you normally work with and getting those two parallel
11 tracks to intersect at appropriate points I think would be
12 very useful.

13 MR. HEPLER: In fact, that's already been
14 recognized as an issue that needs to be dealt with in this
15 whole preparedness program, getting the states and the
16 locals and the federal entities all dealing with each other
17 and singing from the same sheet of music.

18 COMMISSIONER MCGAFFIGAN: The issue of no new
19 information, I'm not going to beat that horse very hard but
20 did your subcommittee look at the decisions made by other
21 nations? I mean, we are fast becoming an outlier in not
22 building this in as a protective measure. Other nations in
23 Europe, as a general measure, have. And was there any
24 consideration given to the international decisionmaking that
25 has been made?

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1 I know that we've softened our policy and I
2 welcome that.

3 MR. HEPLER: Bill, do you want to address that as
4 subcommittee chair?

5 MR. McNUTT: Sure. We considered what other
6 nations were doing as well as the aftermath of Chernobyl.
7 But the differences are around our commercial power plants
8 we have quite comprehensive emergency planning and that, in
9 concert with the states' preferred and primary protective
10 action of evacuation, we -- you know, we took all of this
11 into account.

12 I would like to go back a little bit to the issue
13 of planning in general. During the deliberations of the
14 second subcommittee, the report was issued in September of
15 '94. The subcommittee determined that a stockpile would not
16 be in the best interests of the states. The states in an
17 overwhelming response to our survey stated that evacuation
18 was the best and the whole body of protective action.

19 However, the subcommittee did say, it did state
20 that in the event that a state would opt to use potassium
21 iodide for the general public, there would need to be a
22 stockpile at least close to the EPZ where the drug would be
23 distributed or, perhaps, even distributed into the homes.
24 So we recognize that planning is an essential part.

25 One of the problems that the states stated in

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1 opposition to the drug was the logistical problems in the
2 distribution.

3 COMMISSIONER MCGAFFIGAN: Let me just -- I was
4 listening very carefully to your statement and looking at
5 the Federal Register notice simultaneously and there were a
6 couple of edits that you made as you were going along.
7 There is the word supplemental, where you made a change from
8 the previous policy and decided to incorporate KI as a
9 supplemental protective measure. You said "supplemental,"
10 it's not in the page 3 of the draft and probably -- it is in
11 other places.

12 But I think anybody, Peter Crane has only
13 advocated this and the American Thyroid Association as a
14 supplement to evacuation and they believe a complement,

15 because you could put it at the centers and get people to
16 more willingly come to the centers.

17 Again, following up on Commissioner Dicus' first
18 couple questions, when you read your statement you said that
19 this would not be subject to FEMA evaluation and the notice
20 says federal evaluation and I think Commissioner Dicus has
21 already gotten to the point that this would be evaluated in
22 exercise as a small matter but it would be evaluated in
23 exercises.

24 There is also a rule that we have, Part 50, that
25 says a nuclear power reactor licensee may make changes to
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1 their plans without Commission approval only if the changes
2 do not decrease effectiveness of the plans and the plans as
3 changed continue to meet the standards of 5047(b).

4 There is a question there. I mean, one of the
5 arguments on the logistical side that have been used against
6 this that Mr. Crane may address and has addressed previously
7 is that this complicates other aspects of the evacuation
8 plan. He doesn't believe that and I guess you all now don't
9 believe that or else you wouldn't be able to state that this
10 is a -- you know, sort of blanket that there won't be any
11 federal evaluation of the change because if there -- if it
12 could be, if the evacuation could get complicated or other
13 aspects could get complicated, then this would kick in and
14 then there would be an NRC evaluation if the licensees
15 change.

16 So I am just trying to probe on this. When you
17 spoke, you said FEMA. Did you mean federal? And if you
18 meant federal, is it a blanket judgment that we are making
19 that this is now a supplemental measure that can only be
20 constructive?

21 MR. HEPLER: When I say FEMA evaluation, I mean
22 FEMA's evaluation as being in charge of the FRPCC and the
23 regional assistance committee members so, in essence, I'm
24 saying federal evaluation.

25 COMMISSIONER McGAFFIGAN: What about -- are you
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1 making a blanket judgment that, as a supplemental measure
2 this can only be constructive so that this 50.54(q) doesn't
3 kick in which I just read to you that nuclear power licensee
4 may make changes to these plans only with Commission
5 approval -- without Commission approval only if the changes
6 do not decrease the effectiveness? So we are making a
7 blanket judgment that the incorporation of KI does not
8 decrease effectiveness?

9 COMMISSIONER DICUS: But doesn't that apply to the
10 licensees and not to the off-site authority?

11 COMMISSIONER McGAFFIGAN: Right, but will our
12 licensees if it's in the plan have to incorporate? I mean,
13 it's a change. Do they have to incorporate it into their
14 overall plans?

15 CHAIRMAN JACKSON: Why don't we --

16 COMMISSIONER MCGAFFIGAN: We can wait for the
17 staff. That may be an unfair question to ask you. We'll
18 ask it of the third panel, perhaps.

19 CHAIRMAN JACKSON: Okay. Are there any other
20 questions?

21 COMMISSIONER MCGAFFIGAN: I think that was the
22 heart of it.

23 CHAIRMAN JACKSON: Okay. Thank you very much,
24 Mr. Hepler, and thank you again for coming out. And I hope
25 that your intention is to remain through the balance of the
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1 meetings?

2 MR. HEPLER: It is. Thank you.

3 CHAIRMAN JACKSON: Thank you very much.

4 Next, the commission will hear from Mr. Peter
5 Crane who is appearing before us as a private citizen and as
6 the Petitioner for a rulemaking.

7 Mr. Crane, please.

8 MR. CRANE: Good morning. I'm Peter Crane. I
9 very much appreciate the opportunity to address the
10 Commission. I am here as a private citizen. The statement
11 made is one I prepared at home in my spare time with my own
12 materials and so forth. And I am just like any other member
13 of the public for this purpose and that means not -- that
14 means working off information that is publicly available,
15 not stuff that has come to me in my capacity as an NRC
16 employee.

17 I apologize for the lateness of the written
18 statement. It only occurred to me at about 4:30 this
19 morning that I really ought to have a written statement. So
20 if you see glitches in it, I hope you will be forgiving.

21 CHAIRMAN JACKSON: You are submitting it for the
22 record?

23 MR. CRANE: Yes, I am.

24 I apologize. I went running into Staples at five
25 of 9:00 saying, there is a 9:30 meeting, please give me
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1 copies. And I don't have -- I had 20 copies. It is not
2 enough for everybody and I apologize. I think SECY has
3 already one so -- this is the first Commission -- the first
4 Commission meeting on KI in 14 years and I do think it is
5 overdue.

6 Potassium iodide is -- oh, excuse me. Let me back
7 up a second. I just want to say something in praise of
8 FEMA. I have been tremendously impressed by FEMA's handling
9 of this issue. It has been a real privilege getting to know
10 Bill McNutt who has been chairman of the ad hoc
11 subcommittee. The openness, the open-mindedness with which
12 FEMA has approached this, the seriousness and
13 responsibility, they are really coming to grips with the
14 issues has been, I think, admirable. I think the public
15 meeting they had in '96, June of '96 under Mr. McNutt's
16 leadership is really a great example of what
17 Commission -- what government decisionmaking ought to be

18 like and isn't always like. And that included letting
19 people get up and speak from the floor who had things to
20 say, which I'm afraid I'm going to come back to in a less
21 positive context. Because one of the people they heard from
22 was Dr. Jacob Robbins of NIH who is one of the world's
23 foremost specialists in radiation-caused thyroid cancer on
24 several continents. And the American Thyroid Association
25 asked to have 15 minutes for Dr. Robbins to speak on behalf
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1 of the ATA and not on behalf of the government and that was
2 turned down and I think that's -- I think the Commission's
3 decisionmaking is impoverished by that decision and I think
4 it's quite regrettable and a little sad.

5 Well, what potassium iodide is all about. It is
6 thyroid cancer. It is preventing thyroid cancer especially
7 in children and we know that it is aggressive, we know that
8 it has a way of spreading to the lymph nodes. The NRC on
9 July 1 issued a press release that announced the
10 availability of KI to the public but it never used the word
11 "cancer" and, to me, that's like announcing Sabin vaccine
12 without mentioning polio. It's not the way to get the word
13 out.

14 The draft Federal Register notice that went to the
15 Commission in June, that mentions the word cancer once and
16 it's buried. It's page 8 of a 13-page draft. Moreover, the
17 notice never says this is a reasonable and prudent measure
18 and states would be well advised to adopt it. Well, if it
19 isn't reasonable and prudent, why are you buying it? And if
20 it is reasonable and prudent, why not say so and say so out
21 loud so the states understand what the issues are, because
22 far too many states don't.

23 At the FEMA meeting, as Mr. McNutt will remember,
24 there was a state official who came in and gave us one of
25 the reasons -- two state officials, one of the reasons not
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1 to stockpile, that it wasn't life -- that loss of the
2 thyroid is not life threatening. Well, the loss of a breast
3 isn't life threatening either but the cancer that causes you
4 to lose your thyroid or breast can kill you and, thank
5 goodness it is only rarely fatal but it can be. Senator
6 Harkin of Iowa lost a brother to thyroid cancer last year
7 and speaking as someone who has had thyroid cancer, it can
8 be a very nasty illness even when you don't die of it.

9 Well, I've got to watch my time.

10 The states are beginning to catch on. They've had
11 public meetings. There was one in Maine last December and
12 they decided, their Radiation Advisory Commission decided
13 the same day unanimously to adopt stockpiling and the
14 governor accepted that recommendation. Ohio had a meeting
15 last week. New York State is going to have one in Albany on
16 the 21st. I spoke at the first two. I have asked to speak
17 at the third. Obviously, this is annual leave. I am on
18 annual leave today, by the way.

19 At the meeting in Ohio, I made the point that what
20 do you -- what happens when you don't have KI. Well, the
21 picture -- in Beloruss, Russia and Ukraine, you've got a
22 huge upsurge of childhood thyroid cancer and it is
23 aggressive in children. More aggressive in children than in
24 adults. You see the pictures. What the locals refer to
25 bitterly as the "Beloruss necklace" is a scar that goes from
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1 ear to ear. Well, the NRC representative at the Ohio
2 meeting pointed out that that was because of the inadequacy
3 of medical care in the former Soviet Union.

4 So we can take some comfort that if American kids
5 ever get thyroid cancer because there was no KI for them,
6 they will have smaller scars. I would prefer to have no
7 scars.

8 CHAIRMAN JACKSON: Do you want to ask a question?

9 COMMISSIONER McGAFFIGAN: On this point.

10 CHAIRMAN JACKSON: Sure.

11 COMMISSIONER McGAFFIGAN: I have heard it argued
12 that in the Ukraine and Beloruss, it was not the respiratory
13 pathway, it was an ingestion pathway that the children that
14 got the children, the cancer, and that that wouldn't happen
15 in this country. You know, the evacuation will take care of
16 the respiration and that ingestion is what, indeed is
17 killing or forcing people to lose thyroids in the Ukraine
18 and Beloruss. But we, you know, would presumably not allow
19 anybody to ingest any of the food that was contaminated by
20 an iodine release. So do you have a response to that
21 argument?

22 MR. CRANE: It is certainly true and, again,
23 Dr. Robbins can speak to this better than I, that the major
24 problem seems to be the milk pathway. Radioiodine deposit
25 on the grass, the cows eat the grass, people eat the milk
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1 and there's also agricultural problems. But I don't think
2 you can discount the inhalation pathway either and there is
3 an EPA document from '92 and I could -- it would take me a
4 moment to give you the citation.

5 CHAIRMAN JACKSON: You can provide it for the
6 record.

7 MR. CRANE: Okay. That talks a lot about the
8 inhalation pathway and the danger that people will be
9 exposed during evacuation because according to this
10 automobiles give you only about 10 percent protection. And
11 that document says that the iodine dose to the thyroid may
12 be the driving decision point on whether you have to
13 evacuate or not and there may be circumstances in which
14 sheltering with -- sheltering would be preferable but you
15 can't because the iodine, the dose to the thyroid, would
16 drive the decision.

17 In that case, having KI on hand could make a
18 significant difference and the greatest danger of all as
19 this -- as this EPA report goes into is to the -- to the
20 foetus of the pregnant woman. And the EPA report says that,

21 and again they are not advocating this, but they report it
22 as being in the literature that if you have a dose above 10
23 rads to a pregnant woman, especially I think it is between
24 the tenth and fifteenth weeks of pregnancy, that in Sweden
25 they recommend therapeutic abortion just as a prophylactic

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1 measure.

2 Now, the -- I have emphasized all along that I saw
3 KI as a complement. I have compared it to the lifeboats on
4 a ferry. We start from the proposition that ferry boats
5 don't have accidents very often and that if you do have an
6 accident that it's better to be evacuated in a lifeboat.
7 But just in case things go wrong, and things do go wrong,
8 it's better to be safe than sorry and life jackets are --
9 and KI are a very, very cheap insurance policy. How cheap?
10 So cheap that the NRC staff has estimated that for a typical
11 plant, \$1,100 would cover everybody within a five-mile
12 radius of the plant. They've estimated 100,000 to several
13 hundred thousand for the entire country. They've also
14 estimated that it would be -- and this was in '94 -- it
15 would be cheaper to buy a national stockpile of KI than to
16 go on studying whether to do so, which I think is the
17 definition of a no-brainer.

18 You know, I feel very strongly that we have
19 not -- we, the government, and forgive the we's because I've
20 worked here for 22 years and it's easy to slip into that,
21 that the government has not met its responsibility to the
22 states. We are now in a situation where there is KI on hand
23 to protect the sharks at Sea World but not the children who
24 come to see them. This sounds unbelievable but it's true.

25 We have stockpiling in only three states. One of

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1 them in Tennessee. And the eight-year-old daughter of the
2 director of Tennessee's program found out that sharks need
3 KI for their health and she persuaded her father that when
4 the KI is out of date, and it's a five-year shelf life, it
5 should be given to Sea World where it goes into the shark
6 tank, which I think is great. It was all written up in
7 National Geographic World. If any of you have small
8 children, ask them for their back issues of National
9 Geographic World.

10 Now, my petition had two major basics. One was
11 that new information, especially the Chernobyl information,
12 makes it very clear that this is something that we ought to
13 do. But I had another basis, which was just as important,
14 which was that the existing policy on KI was flawed from the
15 start. And it was flawed by misinformation that was given
16 to the Commission and to the public and that was at that
17 last Commission meeting of 14 years ago.

18 The transcript of that is a public document and
19 you can see the then commissioners, especially Chairman
20 Palladino, wrestling with the fact that they've been told
21 for years that this is a cheap, sensible measure and

22 Chairman Palladino says, you know, it's only 20 cents. If I
23 survive an accident because of this, I'm going to think
24 that's 20 cents well spent. And the briefer says, surviving
25 is not the issue, it is averting an illness. It is a

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1 relatively minor operation, it involves a few days off.

2 I once quoted that "few days off" to a doctor at
3 NIH who was himself a thyroid cancer patient and he turned
4 purple and he said, they should have one, and then
5 immediately went back to being a very professional doctor.

6 In fact, it turned out only later that they were
7 talking about benign nodules. They were talking
8 about -- they used -- they never talked about cancer.

9 Now, last year at the FEMA meeting, I said is
10 there anyone in this room, a two-hour meeting, a two-hour
11 briefing back in '83. I said, is there anyone in this room
12 who thinks you can have an honest discussion of the merits
13 of potassium iodide without talking about cancer. Well, the
14 room was silent.

15 Now, I must say, it disappointed me no end when
16 the commission put out its press release -- maybe I
17 mentioned that already. I got up too early this morning.
18 That the press release of July 1 never mentioned cancer,
19 that the draft Federal Register notice in the June paper
20 mentions cancer only once at page 8 of the 13-page draft.

21 Well, I filed a different professional opinion in
22 1989 and I talked about that misinformation issue. And it
23 was given to a DPO committee and the DPO committee simply
24 refused to touch it. And the director of Research said,
25 yes, when I pointed that out to him. Yes. And he bumped
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1 the DPO report for not having dealt with the issue. It
2 never did get dealt with.

3 So I thought when I filed the rulemaking petition
4 in '95 that the staff, as you know, dealt with my DPO for
5 five years before coming up with an answer that basically
6 endorsed it. But that died on a two-to-two vote of the
7 commissioners. So I thought, well, when I file a rulemaking
8 petition they are going to have to confront this issue of
9 misinformation because if any -- if for no other reason the
10 lawyers aren't going to let them get away with leaving it
11 untouched.

12 Well, you don't see a word about that in the paper
13 that purports to be an analysis of the petition and of the
14 comments and I got that paper, I waited, I insisted on
15 getting it only through channels. I got it Friday. I
16 thought I was going to spend my weekend having to analyze
17 it. I look at the paper and I think, this is the best?
18 This is 26 months of study? This, you know?

19 CHAIRMAN JACKSON: Mr. Crane, we have your
20 petition. But I would like you to do two things for us.
21 One is to state for the record what you believe the
22 misinformation is. And then, secondly, to reiterate for the
23 record exactly what you are asking of the Commission in the

24 petition.

25 MR. CRANE: Okay. Okay.

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1 First, for the record, the misinformation
2 consisted of presenting the consequences of radiation caused
3 thyroid disease in a way that made it seem trivial. Their
4 contention was that it was more cost effective to let the
5 disease happen, to take the chance of an accident, let it
6 happen and cure it after the fact than to spend even a small
7 amount, pennies, on prevention that took the adage about an
8 ounce of prevention being worth a pound of cure and turned
9 it on its head.

10 Now, that might be a reasonable approach if the
11 illness were trivial. So it was represented as trivial.
12 They talked about nodules but they didn't say benign
13 nodules. And 40 percent of those nodules can be estimated
14 to be cancerous. And of those cancers, between 5 and 10
15 percent are likely to be fatal. Well, that's a very high
16 cure rate.

17 We have 1,200 deaths from thyroid cancer every
18 year out of about 16,000 new cases. But those 1,200 --

19 MR. CRANE: The record was later corrected as to
20 the Commission, but it was not corrected to the public, and
21 when the Commission went out with a policy statement in 1985
22 that said not worthwhile, I think it was doing a terrible
23 disservice, and I think it was a product of that
24 misinformation.

25 Now, what would I like the Commission to do?

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1 I would like the Commission, first of all, to
2 state loud and clear that stockpiling potassium iodide is a
3 reasonable and prudent measure, that it is a back-up
4 provision that can give additional protection and that can
5 help prevent children, especially children, from developing
6 thyroid cancer or other thyroid diseases, including
7 hypothyroidism, in the event of a major nuclear accident.

8 I don't want to alarm people about major nuclear
9 accidents, because they are very unlikely. Our plants are
10 basically safe. Accidents are highly unlikely. Our plants
11 are well-built; our plants are well-run.

12 Nobody should take me as, for some, you know, mole
13 anti-nuke who is trying to exaggerate the dangers of nuclear
14 energy. I'm not.

15 So, first of all, I would like to have a clear
16 statement, because I think, if you say to the states you
17 would be foolish not to have this, instead of sending them
18 15 years of messages that say you would be foolish to have
19 this, the states will fall into line quickly.

20 You should have seen how quickly Maine -- Maine
21 did their homework, the Maine Radiation Advisory Commission.
22 They read the literature.

23 They read Norman & Wolf's paper on the Polish
24 experience, because the Poles gave out 18 million doses.

25 They had two people hospitalized briefly for side-effects,
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1 both of whom had known iodine allergies and took it in spite
2 of being warned not to. That's the best data we have on
3 side-effects.

4 Has anybody -- does any of the staff papers you've
5 gotten in the last few months talk about Norman & Wolf and
6 the Polish data? I don't think so.

7 And you know, the Maine people, they got on the
8 phone to a Dr. Bigas at Maine Medical who's a
9 thyroidologist, and I think if you asked them, they would
10 have expressed a lot of disappointment about the fact that
11 -- that they had to get this information from sources other
12 than the Federal Government.

13 So, I have asked that the Commission clarify by
14 rule change the provision in its rules that says a range of
15 protective actions must be developed.

16 Now, where did I get this language about including
17 evacuation, sheltering, and use of stable iodine? Why
18 didn't I say potassium iodide?

19 Because I was taking the language verbatim from
20 FEMA's Federal Radiological Emergency Response Plan, and
21 that plan, which was issued in proposed form in '94 and in
22 final form in '96, has great procedures for making the
23 decision on when to give out potassium iodide.

24 You're going to have an inter-agency group that's
25 formed. They're going to make recommendations to the lead
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1 agency. The lead agency is going to make recommendations to
2 the states.

3 And as I pointed out to FEMA, the only problem
4 with this wonderful procedural setup is that there's not
5 going to be any KI to give out, at least there wasn't when I
6 wrote to them.

7 So, I thought that this was a formal way of
8 getting recognition.

9 Now, none of that suggests that KI is the equal of
10 evacuation.

11 I think I've tried to stress in everything I've
12 said, everything I've written, that the preferred method in
13 an emergency is to evacuate people, get them away, because
14 potassium iodide is not a panacea, it only protects one
15 organ, an important organ, to be sure, but it's just one,
16 whereas evacuation, if you can do it, protects everything,
17 but we all know that evacuation is not always feasible, and
18 you know, what I'm saying is hardly radical.

19 It's recommended by the World Health Organization.
20 The World Health Organization said stockpile in schools,
21 firehouses, hospitals.

22 There are international basic safety standards to
23 which we are a signatory that call for evacuation,
24 sheltering, and potassium iodide as part of evacuation
25 plans.

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1 Has the staff ever told you about the
2 international basic safety standards, what they have to say
3 about KI? I'm not aware that they have.

4 CHAIRMAN JACKSON: What would change as a
5 consequence of your petition from the existing, slightly
6 changed policy that is being discussed in the Federal
7 Register notice?

8 What is that is fundamentally different in what
9 you're asking from the policy that the Commission voted
10 earlier this year?

11 MR. CRANE: That it would require that
12 consideration of potassium iodide be given in the
13 formulation of emergency plans.

14 Now, this may sound like a major concession on my
15 part, but I would not ram potassium iodide down the throat
16 of a state that emphatically rejected it. I did say
17 consideration should be given.

18 If that meant that a state said we have looked at
19 potassium iodide, and for the following reasons, we think it
20 is inappropriate to the situation in our state, I would live
21 with that, because I appreciate the role of the states in
22 emergency planning, and I don't really want to see that
23 usurped unnecessarily.

24 CHAIRMAN JACKSON: Is that consistent with your
25 petition?

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1 MR. CRANE: Yes, it is. This point may be
2 ambiguous as you read my petition, but this is consistent
3 with my petition.

4 But the petition is definitely coupled with issue
5 a policy statement that makes clear that this is, in the
6 opinion of the NRC, a reasonable and prudent measure, and I
7 think if you do that and especially if it's free, you're not
8 going to have states fighting it, you're going to have
9 states wanting to do it.

10 CHAIRMAN JACKSON: Okay. So, let me make sure I
11 understand.

12 So that the two pieces that I hear you saying are
13 that you want a statement by the Commission along the lines
14 that you elaborated, and the second is that you want the
15 Commission to require consideration -- consideration of KI
16 be given in emergency plans that the state develops.

17 MR. CRANE: That's right. I want more than a
18 statement. I want more than a press release. I want a
19 statement of policy --

20 CHAIRMAN JACKSON: I understood that, that you
21 want a statement of policy from the Nuclear Regulatory
22 Commission. We're not the United States Government. We're
23 an agency of the United States Government.

24 MR. CRANE: Fair enough. Although the FRPCC's
25 role in this is such that policy has been coming from the

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1 Federal Government generally.

2 CHAIRMAN JACKSON: Are you ready to address some
3 questions from the commissioners?

4 MR. CRANE: I certainly am.

5 CHAIRMAN JACKSON: I should say other questions.

6 MR. CRANE: Let me do one thing first.

7 I said earlier that -- you know, how much I think
8 it would have been good to hear from Dr. Robbins, and I am
9 going to give you the opportunity to hear from Dr. Robbins
10 after all, because he wrote an excellent letter to FEMA,
11 very short, very pithy, in 1996, and I have to say it didn't
12 take him 26 months to prepare it.

13 Number one, the Chernobyl experience has shown us
14 that thyroid cancer is, indeed, a major result of a large
15 reactor accident even when evacuation is carried out.

16 Number two, the Polish experience has shown us
17 that large-scale deployment of KI is safe.

18 Three, the Three Mile Island experience has shown
19 us that it is not easy to obtain a good supply of KI in an
20 emergency.

21 Four, the shelf life of properly packaged KI is
22 extremely long.

23 Five, the advantage of having a supply on-hand for
24 immediate use far outweighs its moderate cost.

25 Six, the problems attendant on pre-distribution

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1 are immaterial for the matter of creating a stockpile.

2 Seven, no one questions the ability of KI to
3 protect the thyroid from radioiodine.

4 Eight, even though KI administration before any
5 exposure is ideal, the Chernobyl experience also has shown
6 us that the exposure can continue for days. Institution of
7 KI blockage at any time in this period is beneficial.

8 I know you're going to want questions, but if I
9 could just sort of sum up kind of briefly that one of the
10 Maine people was quoted in the paper, one of the Maine
11 commission members.

12 He said, knowing what we know, I would rather, 10
13 years from now, explain why we erred on the side of caution.
14 I'm sorry. Ten years from now, if we have a release, I
15 would rather say that we erred on the side of conservatism,
16 knowing what we know.

17 And I think that's the crux of the issue, knowing
18 what we know.

19 Twenty years ago, at the time of Three Mile
20 Island, we were only beginning to know. The president's
21 commission wanted us to stockpile then; we said we would.
22 We reneged on that promise.

23 But if there's another accident, God forbid, not
24 that it's likely, I can hardly imagine what people will say,
25 and this mess that we are in -- and it is a mess -- was so

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1 avoidable, because I think the NRC staff had it absolutely
2 right three years ago.

3 They advised the Commission in 1994 -- and I quote
4 -- "It appears prudent to stockpile KI for limited
5 populations located close to the operating nuclear power
6 plants. This option represents an inter-office consensus
7 and is recommended by the NRC staff. While NRC encourages
8 the stockpiling of KI, the decision to stockpile,
9 distribute, and use KI would be the responsibility of the
10 individual states." And I think that was an excellent
11 statement.

12 Unfortunately, the Commission deadlocked two to
13 two, and that policy died, and now the staff is taking a
14 different position.

15 So, I'd like to end by quoting Leo Tolstoy. In
16 1896, he described his proposal, which he said had never
17 been tried but was absolutely sure to work, for solving the
18 problems of government.

19 He said to be honest, not to lie, to act and speak
20 so that your motives for action are understandable to your
21 loving seven-year-old son, to act so that your son doesn't
22 say, Papa, why did you say that then but now say and do
23 something quite different?

24 Thank you.

25 CHAIRMAN JACKSON: Thank you.

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1 Commissioner Dicus.

2 COMMISSIONER DICUS: No questions.

3 CHAIRMAN JACKSON: Commissioner Diaz.

4 COMMISSIONER DIAZ: So, let me go back to the
5 bottom line.

6 You are really proposing that the Commission
7 considers putting out its public statement or a rule that
8 establishes that, on our belief of the Commission, if we do
9 that, that that is a prudent measure to take in the case of
10 an accident to help to compensate for the potential health
11 effects of an accident, and that's just as far as you go as
12 far -- you know, what the position of the Commission is as
13 far as policy, and second, that, you know, the Commission
14 would support stockpiling so that the states will make the
15 decision of whether to use it or not. Is that correct?

16 MR. CRANE: That is correct.

17 COMMISSIONER DIAZ: Okay. Thank you.

18 CHAIRMAN JACKSON: That's slightly different than
19 what your second point was a minute ago.

20 MR. CRANE: Well, in addition -- I mean I don't
21 think I was changing my tune.

22 In addition, I would see a rule change that would
23 provide that, when we say in the 16 planning standards --
24 and one of those planning standards is a range of protective
25 actions have been developed that a specific rule change be

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1 incorporated using the language taken out of FEMA's Federal
 2 Radiological Emergency Response Plan to indicate that that
 3 range of protective actions refers to three things --
 4 evacuation, sheltering, and potassium iodide, and I would
 5 like to see clarification which could readily be done in the
 6 statement of considerations for such a rule that what we are
 7 talking about is that states give consideration to each of
 8 these and make a reasoned decision based on the advice that
 9 they've got from the NRC.

10 COMMISSIONER DIAZ: So, in a certain sense, it's
 11 just adding some definition to what the Commission just
 12 voted on as far as what potassium iodide is as a protective
 13 --

14 CHAIRMAN JACKSON: It's actually a rulemaking that
 15 you're asking for, which would be a requirement that the
 16 consideration of evacuation, sheltering, and KI be
 17 explicitly considered as part of states' emergency plan. I
 18 mean that's what you indicated to me a few minutes ago.

19 MR. CRANE: Yes.

20 CHAIRMAN JACKSON: Okay.

21 COMMISSIONER DIAZ: I'm trying to understand that
 22 the rulemaking is not significantly different from what the
 23 Commission already voted on except that it adds for the
 24 definition to it.

25 You know, it defines that it is a prudent measure
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1 and it defines that it should be considered in the range of
 2 actions and it defines that still the state should be the
 3 ones to decide.

4 MR. CRANE: The Commission decision that was
 5 reached on June 30th is ambiguous. The Commission wisely
 6 said in its staff requirements memorandum that the decision
 7 it was making on June 30th was not a decision on the
 8 petition for rulemaking.

9 So, you could have that Commission decision and go
 10 either way on the petition for rulemaking. It's not
 11 inconsistent with it. It's not a necessary follow-on from
 12 it.

13 COMMISSIONER DIAZ: But I was trying to say that a
 14 rulemaking is not inconsistent with the previous position of
 15 the Commission but it just adds definition to it.

16 MR. CRANE: It is not inconsistent.

17 I have to say that it is inconsistent with the
 18 tone of the Federal Register notice that was proposed to the
 19 Commission in that paper, but that Federal Register notice
 20 has not yet gone out, and that Federal Register notice would
 21 have made clear that there would be no rule change.

22 So, the fact that the Commission, in its staff
 23 requirements memo, said we are not making a judgement on
 24 whether there was a rule change was a sign that they had not
 25 bought, lock, stock, and barrel, the Federal Register

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1 notice.

2 So, I think there is time for the Commission to
3 message that Federal Register notice if it so chooses.

4 COMMISSIONER DIAZ: Okay. Thank you.

5 CHAIRMAN JACKSON: Commissioner McGaffigan.

6 COMMISSIONER MCGAFFIGAN: Let me explore a couple
7 of things with you.

8 In terms of massaging the Federal Register notice,
9 it strikes me that, on page three of the notice -- I don't
10 know whether you've gotten it -- they say that they have
11 decided to soften the Federal position and then they say
12 that they're going to reword a certain part of the previous
13 policy to state it is not required but may be selected as a
14 protective measure at the option of the state.

15 What you're proposing, essentially, is the words
16 "reasonable and prudent" be inserted before "protective" at
17 that point. You're proposing more than that, but that's one
18 thing you're proposing.

19 MR. CRANE: That's one thing.

20 COMMISSIONER MCGAFFIGAN: Do you take any comfort
21 in -- I know from having read some of your previous stuff --
22 the question I asked earlier of FEMA and I'll ask of the
23 staff in a few minutes -- the sort of blanket judgement that
24 this -- that it's implicit or explicit in this notice that
25 there will not be Federal review of any state decision to

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1 add this as essentially one of the arguments I know you've
2 been arguing against for years, is that KI poses logistical
3 problems and therefore could detract from evacuation and
4 therefore we shouldn't do it, there's an implicit or
5 explicit recognition in here that that argument is bogus.
6 Do you take any comfort in that?

7 MR. CRANE: Well, I certainly took comfort from
8 what you said. I'm not sure that that was necessary fully
9 in the minds of the authors who put that in, but I think
10 it's a sound logical inference from what's there.

11 COMMISSIONER MCGAFFIGAN: It's a sound logical
12 inference from what's there.

13 MR. CRANE: Yes.

14 COMMISSIONER MCGAFFIGAN: In terms of the 27 plus
15 3 or 4 sites around the country -- I get my arithmetic wrong
16 -- given your advocacy for KI, do you have any
17 recommendations for us with regard to, if these sites are
18 going to be available, any better planning we need to do to
19 take advantage of them on the ad hoc basis?

20 The policy says, on an ad hoc basis, in the event
21 of an accident, these stockpiles would be available.

22 From your experience, what should we be thinking
23 about in terms of planning for the use of these stockpiles?

24 MR. CRANE: Well, I must say I'm troubled about
25 this, because you know, yes, some KI is better than no KI,

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1 so the recognition of stockpiles in 27 cities is a good
2 thing. We're better off than we were a year ago.

3 It seems to me, however, that if you want to
4 acknowledge that it's a good thing for a radiological
5 emergency caused by terrorism that it's a good thing for a
6 radiological emergency caused by nuclear power plant
7 accident, as well.

8 The problem is we're talking about a medicine that
9 is time-critical and that's dirt-cheap, we're talking \$1,100
10 a reactor, and I mean this is a medicine that is better if
11 you take it before the accident than after, it's better if
12 you take it one hour after than two hours, two hours than
13 three hours, and so on, and with every moment counting and
14 the cost peanuts, why would you want to have to bring the
15 stuff from Columbus, Ohio, to Cleveland to the Perry plant
16 when you could have it in the Paynesville, Ohio, fire
17 station?

18 COMMISSIONER MCGAFFIGAN: I'm afraid we have to
19 take our progresses step by step in this area.

20 Could you just clarify the 1994 staff
21 recommendation that you site in your statement? Was there a
22 rule change that was going to accompany that?

23 MR. CRANE: No. No.

24 COMMISSIONER MCGAFFIGAN: That's why I asked you
25 the original question. I mean sticking the words

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1 "reasonable" and "prudent" into this policy statement -- and
2 maybe there would be some conforming changes that would have
3 to be made -- without having a rule change that would
4 require a formal process in each state to consider this,
5 would that, in and of itself, make significant progress, or
6 in 1994, if the staff was just talking about a policy
7 statement that said it appears prudent to stockpile KI for
8 limited populations located close to operating nuclear power
9 plants and there was no rule change, why was that going to
10 give you comfort if the Commission had not deadlocked then?

11 MR. CRANE: Because I thought that that really
12 would have done the job, it would have made stockpiling a
13 reality. I've said all along -- and people around here have
14 heard me -- that I was more interested in achieving the
15 result than the particular means.

16 The reason I chose a rulemaking option -- I'll be
17 quite candid with you -- is that I wanted to make sure that,
18 if the Commission did not do what I considered to be the
19 right thing, that it would come down in a form that would
20 give rise to judicial review, but I would have been happy
21 with the 1994 outcome, I would have considered that that had
22 done the job.

23 COMMISSIONER MCGAFFIGAN: You have the Federal
24 Register notice --

25 MR. CRANE: Yes.

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1 COMMISSIONER MCGAFFIGAN: -- of the draft that
2 FEMA has.

3 I'd be interested in, for the record, any changes
4 -- I think you have to be careful -- changes that you

5 consider might be within the confines of the policy that was
6 voted to by a three-two vote, but I personally -- an
7 adjective before "protective" strikes me as something that's
8 in the art of arguing about here, because I also thought
9 that the policy decision was a little bit ambiguous.

10 So, we have to decide how much of an endorsement
11 that we want to give to the states, but if you have any
12 other thoughts as to what could go into the Federal Register
13 notice that would make progress, maybe not as much as you'd
14 like, I'd be interested.

15 MR. CRANE: Well, I could give you a very quick
16 rundown, because there are so many arguments, so many
17 frivolous --

18 CHAIRMAN JACKSON: Could you provide it in
19 writing?

20 MR. CRANE: Oh, sure. Okay.

21 CHAIRMAN JACKSON: And it should not just go to
22 Commissioner McGaffigan.

23 MR. CRANE: Oh, absolutely.

24 CHAIRMAN JACKSON: It should go to the Commission.

25 MR. CRANE: I know that.

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1 I think we have to correct the record. I think,
2 when people say there's no new data challenging existing
3 policy, that's nonsense. We've got lots of new data. We've
4 got lots of new data on health effects, we've got data on
5 the safety of KI.

6 When states are under the impression that loss of
7 the thyroid is not life-threatening, we've got to correct
8 them.

9 When we say that it's not cost-effective, well,
10 that cost-effective -- cost-effectiveness is a fine
11 approach, cost-effective analysis, cost-benefit analysis a
12 fine approach, but you've got to use it with reason when
13 you're talking about health measures.

14 You probably know that the way it was used by the
15 staff in the '80s was to say, well, if we balance the cost
16 of the pills against the cost of treating the disease, we
17 find that it's cheaper to treat the disease, so let's let
18 the disease happen and cure it.

19 That makes no sense, and I think we have got to
20 clear the board of this notion about cost-benefit analysis.

21 Even so, you note, probably, that when the staff
22 re-did its cost-benefit analysis several years ago, they
23 said that, for the population within five miles, it was down
24 to a ratio of two to one and with an error band of two
25 orders of magnitude.

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1 So, for all we know, it is cost-effective, by
2 their calculations, by as much as 50 to 1.

3 I think we ought to put to rest the notion that it
4 could complicate evacuation.

5 We ought to put to rest the notion that there is a

6 high risk of serious side-effects. I mean has the staff
7 ever told you about their analysis in this NUREG where they
8 talk about 38 million doses without an adverse reaction, or
9 is that news to you all?

10 COMMISSIONER DICUS: That's not news to me.

11 MR. CRANE: Okay.

12 The logistics of distribution need study. They
13 certainly do.

14 There are problems of logistics, but I think the
15 answer to that is the one that Dr. Robbins gave from the
16 floor at FEMA, which is you can make the decision in
17 principle that this makes sense, that it's a reasonable and
18 prudent measure, and then you work out the logistics. We've
19 got enough smarts in this Government to come up with the
20 logistics of how best to get it to people.

21 COMMISSIONER MCGAFFIGAN: I had a recent
22 discussion with a state official, and for the first time the
23 argument was thrown out to me that it wasn't the iodine that
24 might have a health effect, it was the potassium that might
25 have a health effect, and I said to this particular person,
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1 gosh, maybe we need to make sure people don't eat bananas
2 either.

3 If a person has been told by their doctor not to
4 eat a banana, then they shouldn't take the potassium iodide,
5 but have you ever heard previously or in any of these
6 meetings that you've been involved in for 15 years that the
7 potassium is a health problem, because a state official
8 threw that out at me, and that was news to me.

9 MR. CRANE: Certainly news to me. I don't want to
10 hog the floor more than I already have, but on the issue of
11 allergies -- you know, people who are allergic to iodine, in
12 general, know it, because they're allergic to seafood.

13 On the back of this statement, I stuck the label
14 from our iodized salt, which lists potassium iodide as the
15 agent that's used to iodize it. So, a lot of us may have
16 taken it within the last 24 hours, whether we knew it or
17 not.

18 And as this document also makes clear -- this
19 comes out of the World Health Organization recommendations
20 -- allergic reactions are much less likely in children,
21 infants and children, it's more likely in adults, and that
22 that weighs in favor of giving it to children even when you
23 have -- in an emergency situation -- even when you haven't
24 done a screening, because after all, there are risks that
25 you're going to get hives, you can get pimples, you can get

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1 -- in absolutely extreme cases, serious allergic reactions
2 are possible, but we see from Poland and from this data
3 about the 38 million -- and that comes out of cough
4 medicine, because they put KI in cough medicine -- that the
5 risks of thyroid cancer are just so much greater.

6 That was what the Food and Drug Administration
7 said in '78, that the risks of thyroid cancer and all that

8 goes with it just outweigh the risks on the other side.

9 CHAIRMAN JACKSON: Commission Diaz?

10 COMMISSIONER DIAZ: The only thing that I can
11 think of that some people might be taking potassium-sparing
12 diuretics, and as you elevate the amount of potassium, they
13 could get a reaction. There's not a permanent effect. The
14 level of potassium goes down very rapidly.

15 MR. CRANE: Can I have one tiny final word?

16 Everything we know about emergencies says plan,
17 don't do it ad hoc.

18 CHAIRMAN JACKSON: I think we will now hear from
19 the NRC staff.

20 Thank you, Mr. Crane, and if you would submit the
21 information that the commissioners asked for.

22 MR. CALLAN: Good morning, Chairman and
23 Commissioners. The staff will be briefing the Commission on
24 the staff options for resolving the petition relating to
25 potassium iodide.

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1 I join this morning with Frank Miraglia, Deputy
2 Director of the Office of NRR, and Mel Knapp, who is going
3 to be the principle presenter, who is the Acting Director of
4 the Office of Research; Tim Martin, who is the Director of
5 the Office of AEOB; and Frank Congel, who is a Division
6 Director under Tim.

7 Mel?

8 MR. KNAPP: Thank you.

9 What I propose is to very, very briefly review the
10 paper, and then we will be available for your questions. In
11 fact, we can proceed directly to the second slide. Many of
12 the things I'm going to say I think have already been
13 visited in this meeting.

14 The first would be to summarize the petition.

15 It is asked that we alter 50.47(b)(10) to be
16 consistent with the material that is provided here in
17 italics.

18 You would add the words, "including sheltering,
19 evacuation, and prophylactic use of iodine have been
20 developed for the plume pathway EPZ for emergency workers
21 and the public," and as he said just a few moments ago, he
22 would have the Commission issue a policy statement saying
23 essentially that KI stockpiling is a sensible and prudent
24 measure necessary to assure that the drug will be available
25 in the event of a major accident.

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1 We received that petition in September of '95. In
2 November of '95, we put it out in the Federal Register for
3 public comment.

4 We received 63 comments, 28 were in favor, and
5 that includes environmental groups, members of the public,
6 the American Thyroid Association, as has been mentioned this
7 morning, and there were 35 opposed from utilities, utility
8 organizations, nine states, two state universities, a member

9 of the public, and a letter signed by a number of health
10 physicists.

11 These comments are, to a degree, captured in the
12 six comments that characterize the favorable views and the
13 six that characterize opposing views in enclosure one to the
14 SECY paper.

15 In the paper, as you know, the staff has provided
16 three options for the Commission's consideration: to grant
17 the petition as requested, to include rulemaking; to deny
18 the petition but to develop guidance to address planning for
19 KI distribution for states that include KI for the general
20 public in their planning basis; and to deny the petition but
21 pursue modification of regulations to require licensees to
22 address planning for KI distribution for states that include
23 KI for the general public in their planning basis.

24 With respect to the options, there are some pros
25 and cons which the staff identified.

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1 In granting the petition as requested, a few of
2 the pros would be that this would establish a uniform
3 Federal policy on KI -- this was identified by Peter as a --
4 or let's put it this way, when you look at his petition and
5 his views that the policy at the time of the petition were
6 not uniform, this would have provided uniformity, and it
7 would ensure that emergency plans addressed prophylactic use
8 of KI.

9 Among the cons that the staff identified are that
10 this would not, in the staff's view, be consistent with the
11 June '97 SRM and proposed FRPCC recommendations that states
12 should have the option of using KI, and I would note at this
13 point that some of the comments we have here reflects our
14 understanding of the petition as received, and we obviously
15 learned from the discussion this morning a bit more perhaps,
16 and we would also note that, as the rule change, as we would
17 understand it, that licensees and states would be required
18 to incorporate all three protective actions into emergency
19 plans.

20 CHAIRMAN JACKSON: If the Commission granted the
21 petition as requested, what impact would that have on
22 operating reactor licensees?

23 MR. KNAPP: I'd be more comfortable if the folks
24 from AOED were to comment on that.

25 MR. MIRAGLIA: In terms of making it a requirement

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1 that would require revisions of the plan, I think more
2 importantly we'd be saying that the licensees would have to
3 prepare without having the state involved, taking the option
4 away from the state.

5 The proposed rule that we talk about in option
6 three would be saying licensees would have to plan if a
7 state chose to use the option.

8 The proposal in the rule would be to make the rule
9 that it's necessary, those three things are necessary in the
10 plan, and so, in terms of how the petition is worded, it

11 would require that KI be considered in emergency plans
12 absent a decision from the state.

13 MR. CALLAN: Chairman, I would like Tim Martin to
14 provide his perspective.

15 MR. MARTIN: Commissioner, there is another issue
16 there.

17 As worded, I would read the proposed rule change
18 to require that -- not only that the three protective
19 actions be considered but that they be required to be
20 developed.

21 I know that at least one site there is a portion
22 where sheltering is not deemed feasible. That could lead to
23 litigation saying that it does not meet the rule and would
24 require possibly an exemption for that particular site.

25 The verbiage we heard from the petitioner today
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1 --he was really seeking that it be considered. That's a
2 milder language, and if the language was "considered," I
3 think we can demonstrate in each case that the sheltering
4 and evacuation have been considered, and I think the states
5 would definitely have the ability to consider.

6 I think the second part asking on the policy
7 statement -- we've heard today and we've heard from the
8 Federal Radiological Coordinating Committee that simply
9 stockpiling -- if your decision is to make it available to
10 the general public, stockpiling by itself is not sufficient.

11 You must plan and have a system to distribute in a
12 very timely manner to make it effective, and with those
13 kinds of modifications, then some of the problems with the
14 proposal might be resolved.

15 CHAIRMAN JACKSON: Okay. Thank you.

16 MR. CALLAN: Chairman, I'd like to reinforce that
17 point just briefly, because we had some side-bar discussions
18 during the presentation this morning about this.

19 What we heard this morning was emphasis on
20 consideration of the three mechanisms.

21 The petition, as Mel read it this morning, just
22 now, says that the range of protective actions will be
23 developed, and the distinction between developing them and
24 considering them is, I think, pivotal to the staff's
25 perspective.

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1 CHAIRMAN JACKSON: Okay. Thank you.

2 COMMISSIONER McGAFFIGAN: The logical question
3 that that leads to is, if the petition had read, a range of
4 protection actions including consideration of sheltering,
5 evacuation, and prophylactic use of iodine, maybe put in "as
6 appropriate," have been developed for the plume, would the
7 staff's view have been different?

8 CHAIRMAN JACKSON: Should have been considered.

9 COMMISSIONER McGAFFIGAN: Well --

10 CHAIRMAN JACKSON: I'm just going on what the
11 petitioner said this morning.

12 COMMISSIONER MCGAFFIGAN: Right. Picking up on
13 what he said, which I agree is different from the words
14 here, you're making the point that that is different.
15 I'm asking the question, if it had been stated in
16 this other way, including consideration of sheltering,
17 evacuation, and prophylactic use of iodine, as appropriate,
18 would the staff's position possibly have changed?

19 MR. MARTIN: It would certainly have muted one of
20 the cons that we saw there. I still think this is very much
21 a state issue.

22 As we examine the pros and cons, we don't feel
23 strongly either way, and it almost -- it's a policy decision
24 at that point, because I don't think that we have found
25 anything that says you must have KI pre-positioned and

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1 distributed.

2 We want the people out, we want them evacuated so
3 they don't get exposed to it, we want people to avoid
4 ingesting food that was contaminated, so it's the plume
5 passage that is of concern to us.

6 We recognize that there are difficulties in
7 distribution, not insurmountable. We are smart people, I
8 agree with Peter. If a decision is made by the states to do
9 it, there are smart people there, they could figure out a
10 way to do it.

11 So, we don't see a strong motivation in either
12 direction, and if it's the Commission's decision that, yes,
13 we ought to make it available, the staff will march off and
14 support you.

15 CHAIRMAN JACKSON: Okay.
16 Go ahead.

17 MR. MIRAGLIA: May I make an observation?

18 CHAIRMAN JACKSON: Please.

19 MR. MIRAGLIA: I think the key that we need to
20 focus on is planning. If KI is selected by a state, there
21 has to be appropriate planning to make sure it's there and
22 available for distribution and use.

23 So, it's a key, it's a supplement, and if it's
24 chosen to be used, the key is the plan, and I think the
25 policy statement that we've talked to in the past, that FEMA

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1 has alluded to, indicates that that's an important part of
2 the process.

3 If it's used and you have an infrastructure
4 developed, it needs to be considered in the plan, and the
5 decision-making process needs to be understood. So, I think
6 the key is the planning aspect.

7 CHAIRMAN JACKSON: Okay.

8 COMMISSIONER MCGAFFIGAN: That is exactly why I
9 asked that series of questions earlier, and I'll give you
10 the chance to talk about it.

11 The statement now and the statement several months
12 ago included in it the draft FEMA statement, these
13 stockpiles, the 30 sites, would be available on an ad hoc

14 basis in the event of an accident at a commercial nuclear
15 power plant.

16 We heard that there is no planning currently
17 underway for how that ad hoc decision -- I mean I think it
18 has to be a pre-planned decision. You give the state -- you
19 know, one of the arguments used is that we don't need to do
20 this because it's remote.

21 But we now have a plume with iodine in it headed
22 towards a population.

23 Do you give the state, which has previously
24 decided not to stockpile KI, knowing it's second-best,
25 knowing it would have been better to have it there at the

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1 site -- do you give them a second chance at that point to
2 try to get KI there from one of these 30 locations, and do
3 we have to exercise that, do we have to plan it, do we have
4 to tell everybody that there will be an ad hoc exercise
5 that, in some ways, intrudes on the plans as they exist at
6 the moment and possibly, you could argue, might make those
7 plans less effective?

8 But suddenly, we have a real situation, we have a
9 plume, which, God forbid, none of us want, and there's
10 iodine in the plume. What do we do then?

11 MR. MIRAGLIA: As I understand the policy
12 statement that was adopted, there is stockpiling of KI being
13 done for other purposes, and as I heard from FEMA, it needs
14 to be a rationalization of the policy that we're talking
15 about here with respect to the commercial nuclear power
16 plants and those aspects and those stockpiles, and there
17 needs to be that kind of activity.

18 But as I understood the policy statement that's
19 being adopted, if a state chooses to use KI, then they would
20 have to do the planning such that you would void those kinds
21 of issues, so you avoid the ad hoc kinds of circumstance,
22 and that it's a decision up front that's planned for and the
23 states and the locals know what to do, when to do, and how
24 the decision process is made.

25 That's not to say that ad hoc kinds of measures

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1 for the terrorist -- anti-terrorism kind of thing -- it has
2 a different kind of environment to it that there is not room
3 for that, and it was just recognizing a source and a cache
4 of stockpiled KI that could be used and made available to
5 states who choose to use it in their planning processes, is
6 how I understood it.

7 COMMISSIONER MCGAFFIGAN: I agree entirely it's
8 better to plan in advance, but the policy, as I understand,
9 that the Federal Government is going to put out is these
10 stockpiles would be available on an ad hoc basis in the
11 event of an accident at a commercial nuclear power plant,
12 and I think that that ad hoc can't be quite as ad hoc as it
13 appears to be at the moment.

14 I think it has to be -- that it is a rational

15 decision that would have to be made in the event of a real
16 accident, and therefore, it may be ad hoc, namely
17 non-planned in advance and in the emergency plan, but I
18 would think that we have to exercise how we would make the
19 ad hoc decision in each case and know where the nearest
20 stockpile is and what the number of hours it would be to get
21 there and what the logistics of that might be, it's a
22 logical aspect of the policy, but it sounds like that's
23 details to be worked out later at the moment.

24 CHAIRMAN JACKSON: Information that presumably
25 should be provided.

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1 Dr. Knapp, please continue.

2 MR. KNAPP: All right.

3 Returning to option two, among the other pros of
4 this particular option was that we felt that this option
5 would identify at least some of the concerns that the
6 petitioner raised and that no NRC or FEMA review of a
7 state's decision would be required.

8 On the other hand, we recognize that this would
9 not resolve the petition in the specific manner requested.

10 COMMISSIONER MCGAFFIGAN: Can I ask the question I
11 asked earlier? Our regulations, 50.54(q) -- are we making a
12 blanket judgement at this point that this can only be
13 constructive and, therefore, the review under 50.54(q) is
14 not required?

15 MR. CALLAN: First of all, I want to thank you for
16 telegraphing the question. We had a half-an-hour to prepare
17 an answer. But since you gave it to us, I want to ask Frank
18 Congel to provide an answer.

19 MR. CONGEL: The way it is right now, off-site
20 plans aren't directly accountable under 50.54(q).

21 The on-site plans that are the licensee's
22 responsibility refer to having an acceptable off-site plan,
23 and as a result of FEMA's review with, of course, other
24 Federal assistance, including the NRC, the exercises are
25 reviewed every other year and a determination is made that

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1 there is reasonable assurance that the public health and
2 safety is protected.

3 Within the context of making that determination,
4 there are many variables, and those variables are not
5 subject to the 50.54(q) type of determination.

6 I can make as an example the basic evacuation
7 scheme that we like to see is at least what we call the
8 keyhole, two miles out, 360 degrees, and downwind out to
9 five miles, and the way individual states carry it out range
10 from that to 360 degrees at five miles and some are 360
11 degrees at 10 miles.

12 There are no determinations made if a state then
13 changes from 10 back to 5. It all is done in the context of
14 the overall evaluation.

15 Only if there was a direct effect on the licensee
16 plan that impacted them directly would that determination

17 have to be made.
18 COMMISSIONER MCGAFFIGAN: The heart of this -- and
19 I'm not going to spend a lot of time on it -- seems to be
20 the definition of the word "plan," licensees shall maintain
21 in effect emergency plans which meet the standards of
22 50.47(b), and you're telling me the plan does not encompass
23 this sort of thing, the licensee's plan does not encompass
24 this sort of thing.

25 MR. CONGEL: In that level of detail, yes, sir.
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1 COMMISSIONER MCGAFFIGAN: Okay.

2 CHAIRMAN JACKSON: Please go on.

3 MR. KNAPP: All right.

4 To move on to option three, in this option we
5 would deny the petition but pursue modification of
6 regulations to require that licensees address planning for
7 KI distribution, again for states that include KI for the
8 general public in their planning basis, and this is similar
9 to option two except that it does incorporate this concept
10 in rulemaking.

11 Principle advantages would be it is consistent
12 with the current and proposed Federal policy, retains the
13 state's prerogative as to whether they choose to use KI, but
14 we do think it's possible that, to have a rulemaking like
15 this, there will be interest from a variety of parties and
16 the rulemaking could be protracted.

17 In consideration of the three options, the staff
18 has provided a position, and that is that we would favor
19 option two for the reasons that it's consistent with the
20 policy as endorsed by the Commission in June, that it
21 reflects the willingness of the Federal Government to
22 provide a stockpile of KI and guidance for its distribution
23 but that it is directed to only those states that include KI
24 for members of the public in their planning basis.

25 CHAIRMAN JACKSON: Further questions? Commission
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1 Dicus?

2 COMMISSIONER DICUS: If we were to go with option
3 three, do we have the resources in the budget to do the
4 rulemaking?

5 MR. KNAPP: No, ma'am. I believe the staff paper
6 indicates that that was not within the context and would
7 require reexamination of resources.

8 COMMISSIONER DICUS: Second question or request,
9 maybe, for the record.

10 As you know, in response to the activities that
11 occurred in 1994, a NUREG document was to be put together
12 for states and local governments to use describing KI and
13 the process and decision-making if they chose to use it, and
14 as staff recognized, as you let us know recently, that had
15 never occurred, which we are aware of, the NUREG document
16 was never written, and you suggested it wasn't necessary
17 anymore, and I think you also know I came back and said yes,

18 it is.

19 It is very important that state and local
20 governments have a concise document put together with many
21 of the things we have been talking about, the information
22 that's available to them, and I just would like to know
23 where we are with doing that.

24 Does anyone have an answer?

25 CHAIRMAN JACKSON: Nobody has an answer?

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1 MR. CONGEL: I'm very familiar with the
2 interactions that took place regarding the NUREG document.
3 There are two components that we're doing.

4 First of all, as a result of the June 30th SRM, we
5 are providing various forums whereby we're discussing, for
6 example, the all agreement statement meeting, the reg info
7 conference in April, we plan to discuss the KI policy and
8 where we are.

9 In terms of putting together a package where
10 everything is together and hopefully in a coherent sense, as
11 a result of our conversations, I will consult up the line,
12 and I presume we intend to do it.

13 I would like to do it, of course, after we've
14 reached a final resolution on this issue.

15 CHAIRMAN JACKSON: Was there any explicit
16 instruction to the staff in the SRM based on the summer
17 decision of the Commission to develop those guidance
18 documents?

19 MR. CONGEL: No, ma'am.

20 CHAIRMAN JACKSON: Okay.

21 Commissioner Diaz.

22 COMMISSIONER DIAZ: Since the question has been
23 asked, will it be possible, when the Commission receives the
24 information from the staff on this, to consider what will be
25 the particular effects of the changes proposed by the

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1 petitioner to the original rulemaking?

2 I don't know whether it is legal or not, but if it
3 were possible to provide an option in which the word
4 "consider" would be in the petition --

5 MR. CALLAN: Let me clarify something, because
6 there's some ambiguity here.

7 What I understand, Commissioner Diaz, that you're
8 asking -- and I'll just read it the way I think you're
9 proposing -- a range of protective actions, including
10 sheltering, evacuation, and use of iodine have been
11 considered for emergency workers.

12 I think Commissioner McGaffigan had words more to
13 the effect of have been -- consideration --

14 COMMISSIONER MCGAFFIGAN: Including consideration
15 of sheltering, evacuation, and prophylactic use of potassium
16 iodide, as appropriate, have been developed, a range of
17 protective actions have been developed which can include any
18 or all of the above, as appropriate.

19 MR. CALLAN: Without the "development" in there, I

20 think if we just considered -- which is what the petitioner
21 had focused on this morning -- I think that's probably --
22 COMMISSIONER MCGAFFIGAN: The "developed" is in
23 the current reg, as I understand it, and what he's adding is
24 the words "including sheltering, evacuation, and
25 prophylactic use."

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1 So, what he is trying to do is take the existing
2 regulation in 10 CFR 50.47(b)(10) and the underlying words
3 -- and I'm looking at page two of the SECY -- are the
4 addition that he was proposing, and in order not to change a
5 whole lot of words, I suggested working only within the
6 language -- because you want the actions developed. I mean
7 that's what the current reg is.

8 So, including consideration of sheltering,
9 evacuation, and prophylactic use of iodine, as appropriate,
10 then continue with the reg as it exists at the moment -- I
11 don't know whether that would do what Peter Crane wants.

12 CHAIRMAN JACKSON: I think that I want to make an
13 over-arching comment.

14 I think that, before we can try to sit here and
15 individually try to suggest strongly or instruct the staff
16 to do anything, the Commission has to decide how it wants to
17 resolve the questions relative -- the options relative to
18 the existing petition, whether it wants to consider some
19 slight revision in that, as suggested by the petitioner this
20 morning, or whether it wants to feel that it can address or
21 come to some concurrence relative to some amplification of
22 what's in the existing policy.

23 Then, on that basis, if there is some additional
24 follow-on work that the staff needs to do in terms of
25 development of guidance or anything else, then it is

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1 appropriate based on that base to ask them to do it, and so,
2 I think --

3 CHAIRMAN JACKSON: We can't send them off down
4 several parallel paths before the Commission itself has made
5 its fundamental policy decisions on where it wants to go in
6 this, and so I think we can't wordsmith here at the table.
7 We can't have them develop guidance on policy that we
8 haven't decided yet.

9 I think what we wanted was to have a complete
10 airing, which we are obviously in the process of doing, of
11 all the thoughts of all the members of the Commission as
12 well as the various interested parties.

13 Commissioner Dicus, you had a comment.

14 COMMISSIONER DIAZ: I, of course, agree. This is
15 why I was putting it as a question. Would the Staff answer
16 the question whether changes to the actual petition would
17 result in a different position from the Staff and in that
18 respect -- that's the question -- not going and doing what
19 the Chairman did, period.

20 CHAIRMAN JACKSON: Commissioner Dicus.

21 COMMISSIONER DICUS: This is a theoretical
22 question but if down the road for whatever reason the
23 language would change to this very what I call permissive
24 language, consideration of -- et cetera, would that not also
25 in putting shelter and evacuation and the use of iodine,
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1 would that also not open up the door for a state to go back
2 and reconsider all their planning and perhaps decide not to
3 do evacuations, for example, because then is it permissive,
4 very permissive on what they are going to do.

5 Does anyone want to --

6 MR. MARTIN: I think the issue there is the
7 requirement would still be to develop a range of protective
8 actions.

9 That would still be a requirement, but the
10 consideration would be --

11 COMMISSIONER DICUS: They would still have to
12 develop a range of protective actions but they certainly
13 could go back and rewrite plans on what they are currently
14 doing.

15 MR. MIRAGLIA: An observation would be that
16 whether that language is in the rule versus a policy
17 statement. If it was put in a rule, there may be other
18 implications that need to really be fully evaluated.

19 COMMISSIONER DICUS: I think that is probably
20 true.

21 CHAIRMAN JACKSON: I think perhaps we can get some
22 concurrence from the Commission since we are all here as to
23 whether we at least want the Commission -- I mean want the
24 Staff to consider what its position would be if we can get
25 from the petitioner a distinct, succinct statement in terms
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1 of his somewhat revised statement, to have the Staff
2 consider what the effect would be in terms of their pros and
3 cons -- if he wants to submit a revision to his petition, as
4 stated today.

5 MR. CALLAN: Be happy to do so.

6 CHAIRMAN JACKSON: Okay, and you can do this
7 within the week?

8 MR. CALLAN: Yes.

9 CHAIRMAN JACKSON: Okay, and therefore the Staff
10 can give its additional feedback to the Commission. Is it
11 appropriate within a week of that or two weeks of that, so
12 that by the end of the month we can have this revisited --
13 just to add it to what you have already done.

14 MR. CALLAN: Mel, you'll be the action officer, so
15 why don't you answer that?

16 CHAIRMAN JACKSON: Can you do that within two
17 weeks of the time, so within three weeks of now?

18 MR. KNAPP: We will do our best. Candidly,
19 because there are many offices involved and a number of
20 views --

21 CHAIRMAN JACKSON: So we can get you to come
22 back --

23 MR. KNAPP: About three weeks, yes.
24 CHAIRMAN JACKSON: -- but we can agree that --
25 MR. KNAPP: You certainly can in the near term.

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1 CHAIRMAN JACKSON: -- that we will have that
2 occur, that process.
3 COMMISSIONER DICUS: And we will not --
4 CHAIRMAN JACKSON: And we will not take action on
5 the existing petition until that occurs, okay?
6 MR. CALLAN: Very good.
7 CHAIRMAN JACKSON: All right. We all understand
8 then.
9 All right. I think it is time to end this
10 meeting.
11 COMMISSIONER MCGAFFIGAN: I have several
12 questions. I haven't had my chance.
13 CHAIRMAN JACKSON: Oh, you didn't have? I thought
14 that is what you were doing. Okay. Fine.
15 COMMISSIONER MCGAFFIGAN: Just one comment on the
16 issue that Commissioner Dicus raised, the potential for a
17 rule change having unforeseen consequences.
18 As I read the rule -- I know our practice has been
19 to require evacuation, but as I read the rule at the moment
20 it says "A range of protective actions have been developed
21 for the plume exposure pathway for emergency workers and the
22 public."
23 That is all that is required in the rule. I
24 suspect there is a Reg Guide out there or something,
25 somewhere that says in every instance in this country you

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1 will have an evacuation plan, so I am not sure --
2 CHAIRMAN JACKSON: Your Staff member is saying no.
3 COMMISSIONER MCGAFFIGAN: Is that no? Well, maybe
4 we don't. Maybe it just de facto turned out that everybody
5 has required evacuation, but let me ask a couple questions.
6 Can the Staff explain --
7 MR. CONGEL: Excuse me. Just let me address that,
8 please, because we have NUREG 0654 that has the planning
9 standards listed and the essential elements in each of those
10 planning standards that are reviewed as part of the offsite
11 evaluation and clearly evacuation is up there as one of the
12 principal things.
13 In addition, we have Supplement 3 to NUREG 0654,
14 which is a compilation of about 20 years' worth of severe
15 accident studies that indicate that the overwhelming
16 protective action that is the most effective in protecting
17 people from doses at all is early effective evacuation, so
18 it is certainly well defined what the fundamental
19 requirement is here, and that is why we are dealing with
20 this other aspect in terms of supplement.
21 COMMISSIONER MCGAFFIGAN: Okay. Let me ask the
22 question -- a suggestion that I am making for Peter Crane
23 listening to the testimony this morning, would the Staff

24 object to the words "reasonable and prudent" being put in
25 the sentence --

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1 CHAIRMAN JACKSON: I think what I am trying to get
2 them to do is to in fact consider that. I think we can
3 decide and pass to them questions.

4 I don't think it is fair to them to ask them to
5 sit here today and to answer that question, and so I have no
6 objection, and I don't think any of the colleagues do, of
7 our putting the question to them --

8 COMMISSIONER MCGAFFIGAN: Okay.

9 CHAIRMAN JACKSON: -- but I don't believe that --

10 COMMISSIONER MCGAFFIGAN: The question will be
11 "Should the words 'reasonable' and 'prudent' be put in the
12 statement."

13 Listening to Peter earlier, there were two bases
14 for his petition.

15 One was that there were changes, as he described
16 it. I haven't read the full petition. I am taking it at
17 his word that one was there had been changes since the
18 policy was adopted, and we have discussed that.

19 The other was that the Commission acted on bad
20 information in its initial policy and obviously the claim is
21 that there's been bad information since.

22 Do you have any response to that bases for -- I
23 think it is fair to say that if that was a basis highlighted
24 in his petition that that isn't addressed in the SECY paper
25 at the moment.

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1 You are a whole new team practically, but do you
2 have any discussion of this matter? The only person at the
3 table with that kind of corporate memory is Tim and Frank.

4 MR. MARTIN: I became aware of -- as a result of a
5 Peter Crane letter to the FEMA that in the SECY paper we
6 provided you in June of this year where we attempted to
7 describe the background of the KI policy we misrepresented
8 one of the bases upon which the ad hoc subcommittee for KI
9 based their recommendation not to change the policy and not
10 to stockpile.

11 That particular was one of five and it was the
12 fifth one that said that there is a lack of support by the
13 primary Federal regulatory agency, and then in parentheses
14 said FEMA. Clearly FEMA is not the primary Federal
15 regulatory agency, and it could be read to imply that FEMA
16 did not support it.

17 I will let FEMA speak for themselves. It was NRC,
18 if you go back and read the actual report of that
19 subcommittee, although they don't label it as NRC, the clear
20 context and what my staff tells me, it was NRC that was what
21 was their fifth basis for their conclusions.

22 Now that one I am aware of, and let the record so
23 state that we made an error there, but Frank --

24 MR. CONGEL: Well, I was not involved in the early
25 determination of the KI policy, so at least you can say

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1 everybody sitting here is a fresh group.

2 I became involved with it probably at about the
3 time of the filing of the DPV in 1988-89 timeframe and have
4 been involved since.

5 In any case, some of the considerations that Peter
6 brought up, historical ones, I just simply don't have an
7 answer for.

8 What I do have though is the fact that the
9 considerations that he brought up have been subject to
10 discussion in many different forums and as we all know,
11 sitting around the table, this is not an easy issue to find
12 a resolution to, and if it was we wouldn't be. We would
13 have had an answer already.

14 But the many things ranging from the experience at
15 Chernobyl to the American Thyroid Association's statements
16 to all of the other history you heard, they have resulted in
17 much dialogue, both within the Staff and outside of the
18 Staff and I would just like to point out that what we have
19 in papers presented from the June Commission paper to the
20 petition response does reflect that, and if it turned out
21 that there was a clear determination of one way or the
22 other, we would have presented that, but there are
23 equivocations and some of the information --

24 Just as one example, there are no new data to
25 change the dose factors that we use for thyroid right now.

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1 The same dose per microcurie inhaled or ingested that we use
2 today is virtually identical to what we used in the early
3 '80s.

4 The situation with Chernobyl and Eastern Europe is
5 the subject of intense study right now and the bases for the
6 observed thyroid cancers are being studied. There is not a
7 determination yet that indicates that something happened
8 there that undermines the data basis we have right now. We
9 have heard that and that is just one example.

10 I only want to point out that the Staff here has
11 spent a substantial amount of time in trying to be fair,
12 objective and open in all cases, and this is where we are.

13 CHAIRMAN JACKSON: One last question.

14 COMMISSIONER McGAFFIGAN: One last question. The
15 change from the Staff position in 1994 to the Staff position
16 at present, is that simply the change in Staff that has
17 occurred, in a sense, or I guess is that a fair -- this
18 group has a different view from whomever was in your set of
19 positions in 1994 when the different recommendation that
20 Peter cited was made to the Commission?

21 Let me ask Frank again. He's the only continuity.

22 MR. CONGEL: I would say that that is a very good
23 representation. The group of managers sitting here now with
24 of course the additional information of the NBC data
25 resulted in the proposal that we put forth. The NBC info,

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1 of course, wasn't available and it, of course, predated the
2 tragedy in Oklahoma City.

3 CHAIRMAN JACKSON: That's enough because --

4 MR. MIRAGLIA: -- participated in '94 but as read
5 versus the statement or policy that the Commission adopted
6 in June of this year, I didn't see substantive differences.

7 CHAIRMAN JACKSON: Right. Okay. I think we are
8 going to close this meeting and so I wish to thank Mr. Crane
9 and Mr. Hepler and his colleagues from FEMA and the NRC
10 Staff for their presentations.

11 You know, it is important whatever the decision or
12 any revision of decision that may occur to have a full and
13 robust and open discussion on these issues and it is also
14 important to clear the air and I think we have had some
15 opportunity to do that.

16 The information gained today and that has been
17 asked for will be helpful to the entire Commission as we
18 make the decision on the Staff's proposed options for
19 resolving Mr. Crane's petition or any potential amendment of
20 it as suggested today.

21 So, with that, I am adjourning the meeting.

22 [Whereupon, at 11:34 a.m., the meeting was
23 concluded.]

24
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