

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON STATUS OF ACTION PLAN FOR FUEL CYCLE  
FACILITIES AND ALTERNATIVE REGULATORY APPROACHES

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**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

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**BRIEFING ON STATUS OF ACTION PLAN  
FOR FUEL CYCLE FACILITIES  
AND ALTERNATIVE REGULATORY APPROACHES**

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**PUBLIC MEETING**

**Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland**

**Monday, April 25, 1994**

The Commission met in open session,  
pursuant to notice, at 2:00 p.m., Ivan Selin,  
Chairman, presiding.

**COMMISSIONERS PRESENT:**

**IVAN SELIN, Chairman of the Commission  
KENNETH C. ROGERS, Commissioner  
FORREST J. REMICK, Commissioner  
E. GAIL de PLANQUE, Commissioner**

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STAFF SEATED AT THE COMMISSION TABLE:

MARTIN MALSCH, Office of the General Counsel

JOHN HOYLE, Assistant Secretary

JAMES TAYLOR, Executive Director for Operations

ROBERT BERNERO, Director, NMSS

ROBERT BURNETT, Director, Division of Fuel Cycle  
Safety and Safeguards, NMSS

ELIZABETH TEN EYCK, Deputy Director, Division of Fuel  
Cycle Safety and Safeguards, NMSS

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P-R-O-C-E-E-D-I-N-G-S

2:00 p.m.

CHAIRMAN SELIN: Good afternoon, ladies and gentlemen.

The Commission is here to receive a briefing from the staff on the status of the action plan. More precisely on the status of the improvements in our regulation of fuel cycle facilities. In the last couple years, the staff has recognized the need to make somewhat more consistent and to somewhat improve the licensing and inspection program for these facilities and has taken the initiative to review the current regulatory process and to identify weaknesses in the regulations as well as in the licensing and inspection program. They had developed a comprehensive action plan. They briefed us just almost a year ago on the status of this plan. As you know, I believe in managing by expectations. I hear that great things will happen this afternoon.

With that, I turn the floor over to you, Mr. Taylor.

MR. TAYLOR: Good afternoon. With me at the table are Bob Bernero, Bob burnett and Liz Ten Eyck from NMSS.

This is the status update of where we are

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1 in improving this program area and I'd like to note  
2 that of particular interest will be the fact that  
3 we're recommending an alternative approach by  
4 rewriting Part 70 rather than just amending the  
5 current rule.

6 With that opening thought, I'll turn the  
7 presentation over to Liz Ten Eyck.

8 MS. TEN EYCK: Thank you.

9 Today we will discuss the progress that  
10 has been made in implementing the action plan to  
11 correct weaknesses that have been identified in the  
12 fuel cycle facility safety program that we proposed to  
13 you at our meeting last May. If you recall, the  
14 program contained five major topics: strengthening the  
15 regulatory base; expediting the renewal of fuel cycle  
16 facility licensees; increasing focus on our  
17 inspections for nuclear criticality and chemical  
18 process safety; providing additional training for NRC  
19 staff; and initiating a licensee self-assessment  
20 program. We also discussed resources that would be  
21 needed to implement these programs.

22 (Slide) Next slide, please.

23 In the regulatory area, we are pursuing  
24 four major activities shown on the viewgraph  
25 concurrently. These efforts require close

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1 coordination between NRC staff and industry and  
2 between NRC staff and several different contractors.  
3 I will discuss these activities in greater detail in  
4 the next viewgraphs.

5 (Slide) Next viewgraph, please.

6 After developing modifications to correct  
7 the weaknesses that have been identified in the Fuel  
8 Cycle Facility Safety Program, we then reviewed Part  
9 70 to determine where would be the best place to  
10 incorporate these modifications. What we found after  
11 reviewing Part 70 was that the rule had been  
12 repeatedly patched and amended since the late 1960s in  
13 a very compartmentalized fashion to address each new  
14 need. It was very prescriptive in some areas and did  
15 not -- the requirements were really not rated  
16 according to risk.

17 (Slide) Next viewgraph, please.

18 Rather than trying to continue to work  
19 with a rule which was very onerous and arbitrary for  
20 regulatory purposes, we decided, as Mr. Taylor said,  
21 to completely rewrite Part 70. Major revisions to  
22 Part 70 have been made which will improve the rigor of  
23 the regulatory base by taking a performance-oriented  
24 systems approach. By incorporating the  
25 recommendations of the task force that you may recall

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1 reviewed fuel cycle and material licensees and  
2 documented their recommendations in NUREG-1324  
3 entitled "Proposed Method for Regulating Major  
4 Material Licensees," we had planned to allow licensees  
5 to make 50.59 type changes in selected activities  
6 without prior NRC approval. We are requiring an  
7 integrated safety analysis for licensees to identify  
8 the hazards that are unique to their facility and  
9 processes and we're having requirements that will be  
10 graded according to risk.

11 Now, what do we mean by the phrase "graded  
12 according to risk?" Well, since this is the  
13 foundation of our new rule, I would like to explain  
14 how we plan to implement this concept. You will find  
15 two backup slides that will address this on the table  
16 there.

17 (Slide) If we could have the first backup  
18 slide.

19 In the present rule, it's not easy to  
20 determine what requirements apply to the various types  
21 of Part 70 licensees.

22 COMMISSIONER REMICK: One could say that  
23 about Part 50 also.

24 MS. TEN EYCK: I think I've heard that.

25 In the new Part 70 rule, we have

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1 identified five different groups, show on the  
2 viewgraph as A through E, which is based on a natural  
3 division of our existing Part 70 licensees, which  
4 number approximately 400. The specific requirements  
5 imposed on each specific group will be graded  
6 according to the level of potential risk that each  
7 group poses. For example, if the total quantity of  
8 special nuclear material possessed was less than a  
9 critical mass, then programs such as a criticality  
10 safety program or an emergency response program would  
11 not be required.

12 Also recognizing the uniqueness of each  
13 licensee and each of these single groups, we plan to  
14 impose requirements on licensees that will also be  
15 graded according to risk.

16 (Slide) If you'd turn to the next backup  
17 viewgraph, please.

18 Each licensee or applicant will be  
19 required to analyze their nuclear activities to  
20 identify any potential risks. They will then identify  
21 what is relied on to address each of these risks.  
22 Now, programs such as maintenance for equipment or  
23 training for humans will then be required to assure  
24 that what is relied on to address each risk will be  
25 indeed there to function properly when required.

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1 These programs will also be graded according to risk.  
2 A category 1 licensee may have more stringent  
3 requirements, say, than a category 3 licensee. So, in  
4 effect, the regulatory requirements will be graded  
5 according to the licensee's or applicant's licensed  
6 possession of special nuclear material and their  
7 related activities.

8 Now, what is the impact of this  
9 alternative approach on our proposed schedule for  
10 completing our rulemaking package?

11 COMMISSIONER REMICK: Before you go there,  
12 could I ask a question? How about licensees that  
13 have -- I assume a plutonium beryllium source would be  
14 under category A.

15 MS. TEN EYCK: Yes.

16 COMMISSIONER REMICK: They have, let's  
17 say, a test reactor. I assume that won't be covered.  
18 It will be a Part 50. But they have other S&M and  
19 different forums maybe under a different S&M license  
20 or perhaps a couple different S&M materials under the  
21 same license. How do you handle this from what you've  
22 just said about looking at it from the risk view?

23 MS. TEN EYCK: Well, if they --

24 COMMISSIONER REMICK: How do you combine  
25 these different uses and so forth? Or maybe

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1 individually they fit in one category but in  
2 combination go into another.

3 MS. TEN EYCK: Well, if they have sealed  
4 sources, then they will be addressed under group A.  
5 But if they have other material -- if you'll look at  
6 the group of licensees that, say, are below  
7 criticality limits of less than 300 grams, then they  
8 would fall under a group B license which is normally  
9 licensed by an agreement state. If they have greater  
10 than 300 grams of material on site but are not  
11 considered having fuel cycle facility type operations,  
12 then they would fall under group C and have  
13 requirements that would be focused for those  
14 particular types of licensees.

15 COMMISSIONER REMICK: So, you look at each  
16 individual S&M source basically separately?

17 MR. BERNERO: Yes, in the licensee's  
18 possession. The licensee would qualify, if you will,  
19 for at least group A or at least group A and B or A,  
20 B and C. It's a graded set of requirements,  
21 escalating as you go down the list to the really major  
22 operations.

23 MS. TEN EYCK: And we also plan to include  
24 in the new rule a table which will assist applicants  
25 applying for a license to see which requirements were

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1 actually applied to them based on what group they fall  
2 under. So, we just found that it was very difficult  
3 if you looked at the current Part 70 and say were a  
4 new applicant or say a potential applicant, maybe one  
5 of the new DOE facilities and then trying to identify  
6 to them exactly what would apply we found very, very  
7 difficult.

8 COMMISSIONER REMICK: Let me try again to  
9 get at the point I'm trying to make. Let's say a  
10 licensee does have something like a plutonium  
11 beryllium source on the same license that they have  
12 some other S&M that's below critical, would they have  
13 to look at the plutonium beryllium source because it's  
14 in that same license with another category material,  
15 look at that in the same way that they would with the  
16 larger mass material? Would it still be subcritical  
17 or would the -- as Bob indicated, they would address  
18 one under A and the other under B. Is that -- or  
19 because they're both on the same license, would they  
20 have to address everything under B?

21 MS. TEN EYCK: I think what would happen  
22 is we would have this graded concept in that whatever  
23 would apply if they just had a source would apply to  
24 that source, whether it was any particular  
25 requirements. And then --

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1 COMMISSIONER REMICK: Not necessarily  
2 because it was under a license where there was more  
3 than one --

4 MS. TEN EYCK: No, but only because of the  
5 risk that that source would provide and the  
6 requirements would be based on that. Then if they had  
7 other material that would cause different risks, then  
8 the requirements would be specific to that material.

9 COMMISSIONER REMICK: To the material.

10 MS. TEN EYCK: We're really trying to come  
11 up with a concept that they're not required to meet  
12 specific prescriptive requirements just because it  
13 happens to be in the rule, but the philosophy is we  
14 look at their own program, their risk that they  
15 present and then have this graded approach to address  
16 and to assure that there are measures in place to  
17 respond to that risk.

18 COMMISSIONER REMICK: Let me give the  
19 basis of my question. There's an advantage of putting  
20 different materials on the same license, especially if  
21 you're paying fees on renewals and all those type of  
22 things. But if you're going to have to take a sealed  
23 source and handle it in a more complex manner because  
24 it's on the same license with a greater quantity,  
25 there might be advantage of separating the two, which

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1 you get into then increased fees presumably.

2 MS. TEN EYCK: I think that would be  
3 contrary to the intent that we're trying to do of  
4 simplifying it and only having them have measures that  
5 are required to address the risk for each particular  
6 type of material.

7 COMMISSIONER REMICK: Good. Thank you.

8 MS. TEN EYCK: Okay. If we then could  
9 move onto the viewgraph number 6 on integrated safety  
10 analysis.

11 CHAIRMAN SELIN: Don't go there yet.

12 MS. TEN EYCK: Okay.

13 CHAIRMAN SELIN: I'm a little concerned  
14 about the realism about the February '95 date, which  
15 you didn't mention but is on your chart. In  
16 particular, it doesn't look as if we're going to have  
17 a lot of spare resources left over from handling the  
18 comments on the enrichment plants or some other areas  
19 and we're going to be very busy in the various  
20 rulemakings that are going on. Is this a realistic --

21 MS. TEN EYCK: Well, it's what we're  
22 shooting for and we feel that we can make it. I agree  
23 with you though that we have a lot of competing  
24 requirements on our plate at this point between the  
25 Part 70 license and the licensing renewal efforts and

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1 this rule and all the guidance documents, but we are  
2 trying to meet this February date.

3 MR. BERNERO: I'd say it's realistic in  
4 that it has been redrafted. The working staff  
5 involved with it thinks that they have a comprehensive  
6 analysis to show that we haven't lost things through  
7 cracks in the floor.

8 CHAIRMAN SELIN: I'm comfortable with  
9 that.

10 MR. BERNERO: Yes.

11 CHAIRMAN SELIN: It's the competing  
12 resources I'm concerned about more than the ability to  
13 get tasks done in a sequence that would lead to that  
14 schedule.

15 MR. BURNETT: Well, the draft rule, which  
16 is pretty far along, has been forwarded to Research  
17 already, forwarded over about two weeks ago. We are  
18 starting to interact even as we speak. But it's a  
19 challenge, but we think we can make it.

20 CHAIRMAN SELIN: But a lot of the work is  
21 actually done already.

22 MR. BURNETT: The rule, strawman rule is  
23 written.

24 MR. BERNERO: Yes. The greatest threat  
25 would be if current analysis in the Office of Research

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1 or General Counsel would say, "Oh, you missed the  
2 boat. You've got to start over."

3 CHAIRMAN SELIN: We understand that.

4 MR. BERNERO: And I don't think that's the  
5 case.

6 MR. BURNETT: Some of the secondary items  
7 are not as far along as the rule, like the SRP or the  
8 information and format guide. They're coming along  
9 though.

10 MS. TEN EYCK: Okay. So, if we go back to  
11 the original viewgraph, I guess we've talked about the  
12 fact that our goal now is to publish the rule in  
13 February and it would be a six month delay from our  
14 original schedule.

15 (Slide) Moving on to viewgraph number 6,  
16 we'd like to discuss a little bit about three of the  
17 key guidance documents that will accompany the  
18 rulemaking package. Although the likelihood of a  
19 significant release from a Part 70 licensee has been  
20 characterized as low, we feel that an integrated  
21 safety analysis is necessary for reducing  
22 uncertainties, for establishing system and component  
23 safety margins and for identifying any outlier  
24 scenarios that could be precursors to unacceptable  
25 consequences. Through an ISA, licensees will identify

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1 in a systematic and integrated manner the various  
2 hazards that could arise from or affect control over  
3 nuclear materials. We are currently developing a  
4 guidance document for licensee use which would  
5 identify various methods for conducting an ISA that  
6 would be both quantitative and qualitative. We have  
7 been working closely with industry and have encouraged  
8 their input during this development process. The  
9 Facility Operations Committee has been particularly  
10 helpful in coordinating industry participation. An  
11 outline of the proposed document was discussed at a  
12 public workshop that was conducted last August and we  
13 plan another workshop in September to discuss our  
14 draft document with industry.

15 COMMISSIONER de PLANQUE: Liz, could you  
16 characterize that workshop to some extent? Were  
17 comments favorable? Was there a lot of --

18 MS. TEN EYCK: I think that they are  
19 concerned about what will be required through an ISA  
20 and I think that there's a lot of concern that we're  
21 going to be expecting a PRA approach, but that is not  
22 the case. In fact, we're working very hard to be able  
23 to identify a number of techniques that are used in  
24 the chemical industry to focus on doing qualitative  
25 methods. In fact, that's one of the concerns we have

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1 right now in our ISA document. We had planned to have  
2 a workshop in May to discuss the draft document with  
3 them, but we're not happy at this point with the  
4 qualitative examples that we have in the document and  
5 they need more work and we're working with the  
6 licensee -- I mean, I'm sorry, the contractor to  
7 develop this. So, as I say, I think that is the  
8 biggest concern and we are concerned with it too  
9 because we feel that other methods besides a PRA would  
10 be acceptable in this activity.

11 COMMISSIONER ROGERS: Well, just since  
12 you've raised the PRA question or topic, this risk  
13 grading, this is essentially a qualitative analysis?  
14 How are you grading risks? You're not doing PRAs to  
15 establish a quantitative basis for risk grading. So,  
16 is this done by consensus or expert opinion or what is  
17 the basis for establishing the grading?

18 MS. TEN EYCK: Well, in our proposed rule  
19 right now we are trying to have some type of a safety  
20 basis that will bound our analysis on what risks we  
21 should be addressing, that would bound both the staff  
22 and the licensee's work. We have some proposed  
23 numbers. We recognize right now that those numbers  
24 need some additional study and we understand that this  
25 question of numbers came up on our Part 70 rule for

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1 gaseous diffusion. Research, I understand, does have  
2 an effort right now focusing on getting a better basis  
3 for these numbers. At this point, we would propose  
4 some numbers that are subject to change. We're not  
5 holding our hat on it, but would be five rem at the  
6 site boundary or 10 milligrams of soluble uranium for  
7 some type of a release. Let's see. I'm trying to  
8 think. We had one other one for another exposure that  
9 is following the consensus of the Part 20 rulemaking.

10 So, we are trying to come up with  
11 something now. Whether these are actually being  
12 published as part of the rule or if they're in the  
13 statement of considerations or in guidance, but we  
14 have made an attempt to quantify something that would  
15 bound this effort.

16 MR. BERNERO: These are only measures of  
17 significance for consequence, they are not true risk  
18 in the quantitative sense or probability consequence.  
19 There isn't a very good database other than, of  
20 course, the experience itself in the industry, so that  
21 that side of it, the probability side of it, is much  
22 more qualitative based on experience. We're trying to  
23 have some rigor to the consequence side as thresholds  
24 of concern.

25 COMMISSIONER REMICK: What were the

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1 comments in general on the integrated safety analysis?  
2 Were any concerns expressed there?

3 MS. TEN EYCK: Well, I think that there's  
4 some concern because it's an unknown thing. We're  
5 having them look at it from a very systematic approach  
6 which in most cases they haven't done in the past.  
7 Some licensees have pursued it, but some haven't. So,  
8 I think that they're concerned with what we're going  
9 to require, but I think that they've been working with  
10 us closely and they know the direction that we're  
11 going. I think that most of them realize the  
12 advantages of having that type of a basis from a  
13 safety perspective. Also, it's going to allow them  
14 certain freedoms like making 50.59 type changes  
15 because if it isn't an unreviewed safety issue and  
16 they can demonstrate that it falls within their ISA,  
17 then they can make these changes without coming to NRC  
18 first.

19 So, it's really the foundation of our new  
20 program because by identifying these risks and then  
21 identifying protective measures to address these  
22 risks, we're not only going to be licensing to that  
23 but our inspection program will focus on inspecting  
24 these protective measures and to make sure that they  
25 are indeed in place and capable of providing the

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1 protection that's needed.

2 MR. BURNETT: Commissioner Remick, I think  
3 the workshops will be very important during this  
4 interchange. We've had them. Industry is interested,  
5 supportive, but with trepidation. They say it can get  
6 out of hand and I think we've just got to really  
7 listen to that and come up with a fair balance.

8 MS. TEN EYCK: Okay. And as we mentioned  
9 earlier, we propose to include this guidance document  
10 as part of our rulemaking package that would go  
11 forward in February.

12 Another guidance document would be a  
13 standard review plan or SRP which is being developed  
14 to provide a standardized approach for our staff to  
15 use when they're reviewing a license application. An  
16 SRP is particularly important as a companion document  
17 to a performance-oriented rule to assist licensees in  
18 understanding what exactly staff's approach is and  
19 what the basis will be for reviewing and approving  
20 their license applications.

21 We have also worked closely with industry  
22 in this endeavor through four workshops where we have  
23 interfaced with them to get their input on our  
24 proposed acceptance criteria. We are now working with  
25 the assistance of several contractors to refocus the

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1 document to comport with the new systems approach of  
2 the rule and that was what was mentioned. It is going  
3 to take some time because it is a different  
4 perspective than we had originally been working from  
5 a very prescriptive perspective. We also plan to  
6 forward this draft document with our proposed rule  
7 package in February.

8 (Slide) Next slide, please.

9 And going along with our standard review  
10 plan would be the need for a standard format and  
11 content guide. We are presently rewriting the one  
12 that exists to provide guidance to licensees and  
13 applicants on the type of information and the depth of  
14 that information to include in license submittals.  
15 This is a document that would also accompany the  
16 rulemaking package.

17 Now, moving on to some of our other  
18 initiatives, the schedule --

19 COMMISSIONER REMICK: Let me ask a  
20 question. You have the rule, you have the standard  
21 review plan, standard format and content guide. Are  
22 any of these being done by the same contractor so  
23 there's greater chance of integration of --

24 MS. TEN EYCK: Yes.

25 COMMISSIONER REMICK: So, it isn't really

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1 a systematic approach?

2 MS. TEN EYCK: Yes. The standard review  
3 plan and the standard format and content guide, the  
4 overall perspective of the effort is being done by the  
5 same contractor. We do have some different  
6 contractors providing support on specific elements.  
7 We have a separate contractor that is focusing -- the  
8 one that is focusing on our ISA guidance development  
9 document is also going to provide input for a chapter  
10 in our standard review plan. We have another  
11 contractor that is helping us on chemical safety  
12 inspection. So, they will be contributing information  
13 that we will use in our chemical safety chapter.

14 COMMISSIONER REMICK: How about the  
15 inspection modules that are the logical follow-on?

16 MS. TEN EYCK: The same contractor that  
17 will be providing input into our standard review plan  
18 is also assisting us in developing draft chemical  
19 safety inspection procedures. So, we are trying to  
20 integrate that with the -- between the rule and the  
21 various documents.

22 COMMISSIONER REMICK: How about the non-  
23 chemical inspection aspects? Will the same contractor  
24 be doing that or will that be a staff function?

25 MS. TEN EYCK: Okay. Now you're talking

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1 about our total inspection program of all the various  
2 modules and we haven't been able to focus yet on that  
3 to support the new rule.

4 COMMISSIONER REMICK: It will be important  
5 that whoever does that carry on the systematic  
6 approach.

7 MS. TEN EYCK: Exactly.

8 COMMISSIONER REMICK: Rather than an  
9 arbitrary decision that one should look at this or  
10 that.

11 MS. TEN EYCK: Exactly. No, and that will  
12 follow along, just as I mentioned earlier, on  
13 protective measures that will be identified by the  
14 licensee. Well then, our inspection program has to be  
15 tailored to start focusing on inspecting those  
16 measures. But unfortunately, that's not in this  
17 action plan. That will be in our next action plan.

18 Okay. Moving on to our license renewal  
19 program, the schedule for license renewals has been  
20 revised to complete the renewal of all seven major  
21 fuel cycle facilities to meet our current Part 70  
22 requirements by 1997 rather than the original proposed  
23 schedule of the year 2003. Now, following this  
24 revised schedule, we plan to renew one license in  
25 1994, four in 1995, and the remaining two in 1997.

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1       However, concurrent with the revision of Part 70  
2       could -- I'm sorry. However, concurrent revision of  
3       Part 70 with the renewal program could cause  
4       significant impact. There could be some licensees  
5       that will be in the process of responding to our new  
6       Part 70 at the same time that they will be in the  
7       renewal process under our current requirements.

8               Now, to address the situation in the most  
9       efficient manner, we have encouraged licensees to  
10      volunteer to use our draft SRP guidance when they plan  
11      to upgrade selective elements of their program.  
12      Although this is not an ideal situation, it is a way  
13      to save resources because -- both of NRC and of the  
14      licensees because we would hate to have the licensee  
15      and us work through their renewal program and then  
16      follow along with meeting the new Part 70 requirements  
17      would have to completely redo their license. So, this  
18      is a situation where we're trying to hope that we have  
19      a minimal of conflict, but I did want to mention the  
20      fact that there was a potential for that to happen.

21              COMMISSIONER de PLANQUE: These are still  
22      in a draft stage. What's the incentive for having  
23      them do this? What are some obvious downsides?

24              MR. BERNERO: Persuasion. Yes, it is  
25      difficult because the licensee is asked to edge out of

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1 the trench and react to a renewal based on forthcoming  
2 draft proposals and that makes us somewhat  
3 uncomfortable and I'm sure it makes them  
4 uncomfortable. They have made that quite clear. But  
5 at the same time, we've got this tension. We have  
6 many of these licenses on timely renewal already and  
7 so we're trying -- is it sensible to wait and do it  
8 all at once, do it right, or should we continue to  
9 renew licenses? If you recall if this action plan,  
10 NUREG-1324, that was one of the major items of  
11 contention is all these licenses piling up on timely  
12 renewal. So, we're trying to do it the right way, but  
13 the regulatory system, the new one, is not quite  
14 right.

15 COMMISSIONER de PLANQUE: Well, what is  
16 the receptivity to this volunteerism?

17 MS. TEN EYCK: We have some licensees that  
18 are willing to work with us in selected areas, but  
19 they're also concerned that they don't want to commit  
20 to something new that would put them in a situation of  
21 not being competitive with similar licensees that may  
22 not have similar requirements. So, there is some  
23 hesitation there. Then we have had some other  
24 licensees that have said that they'd prefer to wait  
25 until we have the new rule in place and to renew their

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1 license to that level. So, we have variations.

2 MR. BERNERO: Yes. These licensees are in  
3 the larger category. Those are the ones that are most  
4 significant, the more complex operations, fuel cycle  
5 facilities, and this is a hotly competitive industry.  
6 They work on a value added margin. They can't just  
7 pass things along. So, we do sense a lot of  
8 apprehension on their part about getting out of the  
9 trench.

10 COMMISSIONER de PLANQUE: But you haven't  
11 found any way to offer a carrot that would make this--

12 MS. TEN EYCK: The big carrot at this  
13 point is that they know the items that we're working  
14 on that they're coming and by working with us now as  
15 they go through their renewal process, they'll have a  
16 leg up on other ones when the rule does come through  
17 and everyone will have a certain time frame to  
18 implement the new requirements.

19 COMMISSIONER de PLANQUE: But it's all a  
20 gamble, right?

21 MR. BERNERO: Yes, it's a gamble for them.  
22 You know, you can go just so far with the "trust me,"  
23 you know. It's an open covenant openly arrived at.  
24 I can't guarantee that the requirements won't change  
25 between now and the final rule. So, to be candid and

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1 honest with any licensee that we try to persuade, we  
2 have to admit that.

3 COMMISSIONER ROGERS: And they haven't  
4 suggested anything?

5 MR. BERNERO: Oh, the typical suggestion  
6 is let's wait, wait until your rule is final.

7 COMMISSIONER ROGERS: In the way of an  
8 incentive.

9 MR. BERNERO: Yes. Yes.

10 COMMISSIONER de PLANQUE: Yes. Quid pro  
11 quo here that works for both.

12 MR. BERNERO: Yes. If the Commission is  
13 prepared and if we were to say, "Let's just freeze  
14 license renewal because this is such a fundamental  
15 change, let's focus all of our attention on the new  
16 regulatory system, the Part 70 standard format, et  
17 cetera, and then deal administratively with this kind  
18 of log jam or bow wave that would build up, that's the  
19 alternative and that's the thing that all these action  
20 plan briefings we've been trying to wrestle with.

21 CHAIRMAN SELIN: I would find that hard to  
22 accept because for purposes of administrative neatness  
23 and things like that, we would actually be slowing  
24 down the regulatory process in a situation like that.  
25 At least that's the way it would look to me. We have

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1 plants that haven't had a relicensing in a long time  
2 and to hold them off so that -- let me put it the  
3 other way. There's a lot to be said for cleaning up  
4 Part 70 and doing your rule, but if the cost of that  
5 is to slow down relicensing for several years, then  
6 you're trading off -- getting administrative neatness  
7 and trading off substantive timeliness and that's a  
8 touch tradeoff.

9 MR. BERNERO: The very reason we're trying  
10 to do that.

11 CHAIRMAN SELIN: I assume your remark was  
12 in order to get some initial non-binding response from  
13 the Commission or is it not really to cover yourself  
14 later?

15 MR. BERNERO: Yes.

16 MR. BURNETT: It appears to have worked.

17 COMMISSIONER REMICK: One possible carrot  
18 might be saying we absolutely will not place a  
19 condition and your renewed license is not based on the  
20 proposed rule. Certainly one of the complaints is a  
21 lot of conditions are put in and they're based on  
22 policy statements and current thinking.

23 MR. BERNERO: That one license was a very  
24 peculiar one, the NFS license. That did not set well  
25 with others, as an example, because of the complexity

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1 of it. That's a possibility.

2 CHAIRMAN SELIN: I think Commissioner  
3 Remick is onto something. If the agreement to be  
4 guided by the prospective rule leads to  
5 simplifications based on the prospective conditions,  
6 then there's a positive incentive to go ahead. If  
7 they just are going to be stuck by the union of both  
8 the existing and the new regulations, that's not very  
9 attractive.

10 COMMISSIONER ROGERS: I think we all kind  
11 of think there ought to be some incentives somehow.

12 MR. BURNETT: Like the 50.59 might be.

13 MS. TEN EYCK: But the only problem with  
14 that is the whole basis of our new rule is going to be  
15 based on an integrated safety analysis and it's very  
16 difficult to move ahead in some areas from a new rule  
17 perspective if they don't have their integrated safety  
18 analysis done.

19 CHAIRMAN SELIN: But the benefit of doing  
20 integrated analysis, be they probabilistic or  
21 otherwise, is to get rid of restrictions that sounded  
22 good when they were prescriptive but didn't have a  
23 contribution, as opposed to adding new restrictions  
24 that didn't come across. So, at least in principle  
25 there's the possibility that basic things on an ISA

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1 will, in fact, say instead of having 50 conditions we  
2 can get down to five, but we can't tell you exactly  
3 what the five are until the ISA is done. If people  
4 believe that ISAs will simplify life rather than  
5 complicating them, then you have incentive.

6 My real suggestion is instead of talking  
7 to us, none of whom is a licensee, or in addition to  
8 talking to us, excuse me, talk a little more to the  
9 people who are going to be coming in and seeing what  
10 resonates with them.

11 MR. BERNERO: Well, we are indeed and many  
12 of them are in the audience here today.

13 COMMISSIONER de PLANQUE: If the idea is  
14 to look for a win/win where by volunteering there's no  
15 unnecessary penalty, that doesn't make sense.

16 CHAIRMAN SELIN: The casual observer may  
17 have missed this, but the Commission is encouraging  
18 your efforts. We're saluting the attempts that you  
19 are trying to do.

20 MS. TEN EYCK: Okay. Well, in addition to  
21 the seven major licensees, we also are pursuing the  
22 renewal of other licenses. Since the reorganization  
23 in 1993, we have renewed the license of six other  
24 significant other source or special nuclear material  
25 licenses.

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1 (Slide) Next viewgraph, please.

2 To provide increased focus on our  
3 inspection activities, an inspection section was  
4 formed in our new Division of Fuel Cycle Safety and  
5 Safeguards. The section's mission includes focusing  
6 on criticality safety and chemical process safety  
7 inspections with the assistance of the region and  
8 continuing our efforts to do material control and  
9 accounting inspections with headquarters personnel.  
10 As soon as a nuclear criticality vacancy can be filled  
11 in our inspection section, we will place increased  
12 emphasis on rewriting existing nuclear criticality  
13 safety inspection procedures. However, to date, most  
14 of our efforts have been on trying to develop new  
15 chemical process safety inspection procedures which we  
16 didn't have any in the past with contractor  
17 assistance. By the end of this month, we will have  
18 draft inspection procedures which we will then start  
19 a pilot inspection program using the new inspection  
20 procedures which will take place through January of  
21 next year. By February, we hope to finalize these  
22 procedures and continue the inspections with NRC  
23 staff.

24 CHAIRMAN SELIN: I'm sorry. Commissioner  
25 de Planque?

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1 COMMISSIONER de PLANQUE: Before you go  
2 on, maybe I should remember this, but I don't. The  
3 chemical safety inspections, are these going to be  
4 mostly according to OSHA criteria?

5 MS. TEN EYCK: Well, we, apparently as a  
6 result of the Sequoyah incident, have an interest from  
7 the Commission to look at chemical process activities  
8 that could affect or have control over nuclear  
9 materials. So, what our inspections are going to  
10 focus is on those types of chemical processes that  
11 could impact on nuclear materials where OSHA can  
12 participate with our inspections, but their focus will  
13 still remain on the other chemical hazards that may be  
14 on-site that would not have an impact on nuclear  
15 materials.

16 COMMISSIONER de PLANQUE: But what rules  
17 or regulations will these be based on? You're  
18 inspecting against what?

19 MS. TEN EYCK: We'll be inspecting the  
20 ensure that there are not chemical hazards that could  
21 cause, through some event, a nuclear problem, a  
22 nuclear hazard.

23 CHAIRMAN SELIN: Radiation.

24 MR. BURNETT: They're articulated in the  
25 ISA. That's where it will come out, there.

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1 MS. TEN EYCK: Okay.

2 CHAIRMAN SELIN: They're basically our  
3 standards.

4 MR. BERNERO: Yes.

5 CHAIRMAN SELIN: I mean if you go back to  
6 the Sequoyah, it was a non-criticality event, but it  
7 did lead to radioactive material.

8 MS. TEN EYCK: Right. It was a chemical  
9 problem that resulted in --

10 CHAIRMAN SELIN: We don't have the people  
11 standards to go --

12 MR. BERNERO: There's one thing that I'd  
13 like to alert the Commission to here. We are looking  
14 across the board in the Agency at various aspects of  
15 our mission that could be deferred or dual regulation  
16 where it need not be dual regulation. The chemical  
17 hazard regulation of material facilities is one where  
18 the Agency has swung over the last almost two decades  
19 in two different directions. Originally, we did not  
20 regulate chemical safety. The regulatory gap of 1986  
21 Sequoyah Fuels got us into regulating chemical safety.  
22 However, with the Energy Policy Act of '92 and the  
23 uranium enrichment plants, the gaseous diffusion  
24 plants, OSHA is much more specifically regulating.  
25 One of the missions that's at least worthy of

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1 consideration is this particular chemical safety  
2 mission.

3 Now, we have, since the 1986 incident at  
4 Sequoyah Fuels, we have a memorandum of understanding  
5 with OSHA on how to do it and we are basically  
6 carrying the water because they don't have the  
7 resources.

8 COMMISSIONER de PLANQUE: So, we would  
9 enforce against what are essentially their  
10 regulations. Is that what you're saying?

11 MR. BERNERO: I don't think we have ever  
12 had or would ever have a case where we would enforce  
13 against their regulations.

14 CHAIRMAN SELIN: I hope what you are  
15 saying is that we have a legitimate interest and in  
16 meeting our interest the licensees would also be  
17 meeting OSHA interests and therefore when we are  
18 inspecting against our interest if it turns out that  
19 they are also meeting OSHA interest, we would tell  
20 OSHA that so that they don't then have to necessarily  
21 get a subsequent OSHA inspection of the same processes  
22 from a different point of view as opposed to adding  
23 requirements to our inspections that don't meet our  
24 interest. Not that I'm trying to direct an answer  
25 from the witness, but I do believe that that's where

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1 we're going.

2 My basic question was not that different  
3 a question as Commissioner de Planque's. As we look  
4 at these chemical processes, where do we have overlaps  
5 and can we work in such a way that we reduce the  
6 burden on the licensees, not duplicate the burden?  
7 That's really more not so much a question as just an  
8 admonition in looking at the progress, that that's  
9 what we're trying to do.

10 MR. MALSCH: Mr. Chairman, it's  
11 interesting. OSHA actually has in its statute a kind  
12 of vision to avoid dual regulation. It says OSHA  
13 doesn't regulate the working conditions of employees  
14 with respect to which other agencies are exercising  
15 regulatory jurisdiction, other federal agencies.

16 CHAIRMAN SELIN: I see. That's good.

17 MR. MALSCH: So, what we regulate, they  
18 bow out. What we don't regulate, they would have the  
19 authority to move in.

20 CHAIRMAN SELIN: That's interesting.

21 COMMISSIONER REMICK: Let me try and  
22 understand where we might draw the line. Let's say  
23 sulfuric acid is needed in the process with nuclear  
24 material and the handling of the carboys, the storing  
25 where they might be ventilated, provision for eye

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1 protection and eye fountains and so forth. And then  
2 in the process, one uses sulfuric acid, but if this  
3 particular valve fails you could build up pressure  
4 which would explode and radioactive materials could be  
5 distributed as well as the sulfuric acid.

6 Now, one could say that since sulfuric  
7 acid is part of the process, we should be regulating  
8 all of that, which much of it should be OSHA. I think  
9 the first part would be OSHA. Or we could say, no,  
10 but basically until it gets into the process and  
11 that's where the potential interaction with nuclear  
12 material comes into it, that that's where we will  
13 focus and OSHA would focus on the normal occupational  
14 type thing. Which is it? I'm not quite clear.

15 MR. BERNERO: Let me us an example to  
16 address the thing and this is the last event at  
17 Sequoyah Fuels, the oxides of nitrogen, where the  
18 digester was run backwards. That is the powder was  
19 there and the acid poured in on it. OSHA, we would  
20 envision as carrying the responsibility for the worker  
21 safety, ordinary fumes, ordinary process safety, eye  
22 fountains in, whatever, associated with nitric acid  
23 and our inspection procedure is, the way I would  
24 describe it, alert to seeing or discerning some  
25 outstanding problem with that that we can report to

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1 OSHA. We wouldn't go out to enforce it, that it's 60  
2 parts per million vapor in the worker space and it  
3 really should be 30 or something like that.

4 However, the process safety where the  
5 process is run backward and generates this great  
6 accidental release or upset release, that's something,  
7 I think, and we would focus on it because we have that  
8 common interest. You know, that's radioactive  
9 material in there. Now, the fact that that comes out,  
10 the radioactive material falls in the first six feet  
11 and it's only the chemical that comes out as a cloud.  
12 That's an incidental outcome. But we have a strong  
13 regulatory interest in that. So, that's the  
14 distinction I make when I say I don't envision us ever  
15 inspecting and enforcing against the OSHA operational  
16 safety criteria or regulations.

17 COMMISSIONER REMICK: I think that helps.

18 MS. TEN EYCK: (Slide) Okay. Next slide,  
19 please.

20 To respond to the weakness that was  
21 identified in NUREG-1324 with regard to training, the  
22 NRC program for training has been reviewed to identify  
23 any areas where we could enhance the staff's  
24 understanding of technology related to fuel cycle  
25 facilities. Nine new courses have been identified

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1 which would address such diverse topics as management  
2 systems and structures, integrated safety analysis,  
3 nuclear criticality safety, sampling and measurement  
4 systems, mechanical and chemical process hazards and  
5 uranium enrichment. We are working with NRC's  
6 Technical Training Center to develop new courses in  
7 this area and this year we plan to revise two courses  
8 and to develop three new ones. We hope to have three  
9 of these courses ready for presentation in 1994 and  
10 the remaining two in 1995. That then leaves four  
11 courses. One we are planning to develop in-house  
12 within our division with contractor assistance that  
13 would be addressing modern concepts of management and  
14 the remaining three we are pursuing with the Technical  
15 Training Center when resources become available in  
16 1995.z

17 COMMISSIONER ROGERS: What courses would  
18 inspectors have taken up to now before any of them are  
19 put in place?

20 MS. TEN EYCK: Okay. Well, we currently  
21 have what we call an overview of fuel cycle facilities  
22 course that has been taught a couple of times, but  
23 weaknesses have been identified in that course and  
24 that's one of the ones that we are working to revise  
25 this year.

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1                   There also is a nuclear criticality course  
2                   for journeymen that has been taught, although in that  
3                   particular course it was identified that we need more  
4                   of a baseline introduction to nuclear criticality  
5                   safety for the attendees to take before they take the  
6                   journeyman course, and that is a new course that we  
7                   will be developing in 1994.

8                   So, those are the primary courses that we  
9                   have right now and we have identified weaknesses in  
10                  both of them that we're going to try to upgrade and  
11                  then develop these other new courses from scratch.

12                 COMMISSIONER    ROGERS:           That's    a  
13                 considerable expansion, then, of the course offerings.

14                 MR. BERNERO:   Yes.   I would just add it's  
15                 also a specialization element. What Elizabeth did not  
16                 mention are the long-standing traditional courses in  
17                 fundamentals of inspection, health physics. Our  
18                 inspection program has for many years had a very  
19                 strong bias toward health physics as against process  
20                 safety or chemical process safety.

21                 COMMISSIONER ROGERS: I'd be interested in  
22                 seeing a comparison, in a sense, of what the training  
23                 program was that inspectors for fuel cycle facilities  
24                 would have gone through in entirety, and hours, the  
25                 hours.

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1 MS. TEN EYCK: Versus the new?

2 COMMISSIONER ROGERS: These are courses,  
3 but --

4 MR. BERNERO: We'd be happy to provide  
5 that.

6 COMMISSIONER ROGERS: -- is it a one day  
7 course, one hour course, one month course, whatever?  
8 How does that compare now with this new system in  
9 place, with everything in place? What would be the  
10 training inspectors would have compared to what they  
11 have right now? I'd be interested in seeing that.

12 MS. TEN EYCK: We can provide that.

13 Okay. Next --

14 COMMISSIONER REMICK: Excuse me. In the  
15 proposed rule, what will be said about training of  
16 personnel compared to what is said in Part 70 now?

17 MS. TEN EYCK: Okay. What we're proposing  
18 to do now is that, if the licensee identifies a human  
19 that is relied on to address one of their specific  
20 risks, then they need to show us that that human is  
21 going to have the training that is required to ensure  
22 that he can perform that particular function. It's  
23 going to be a systems approach to training similar to  
24 what has been done by some other organizations.

25 COMMISSIONER REMICK: Good. We're not

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1 going to tell them "you need ten hours of this, two  
2 hours of this, five hours of that"?

3 MS. TEN EYCK: No, but we do want to have  
4 a program that ensures that he is trained and that  
5 he's tested to ensure that he knows that training.  
6 And then if there are weaknesses that are identified  
7 in the training, they're fed back to the training  
8 program so that their training program can be  
9 improved.

10 COMMISSIONER REMICK: Thank you.

11 MS. TEN EYCK: You're welcome.

12 Any additional comments?

13 (Slide) Next slide, please.

14 CHAIRMAN SELIN: Never ask that question.

15 MS. TEN EYCK: I'm sorry.

16 COMMISSIONER ROGERS: It will take care of  
17 itself.

18 MS. TEN EYCK: Okay. As you may recall  
19 from our last Commission briefing on the subject,  
20 industry is taking the lead to develop a licensee  
21 self-assessment program. And the Facility Operations  
22 Committee has been coordinating the industry effort in  
23 this endeavor and has informed staff that they plan to  
24 develop a licensee self-assessment program that uses  
25 techniques similar to those used by INPO.

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1                   To date, industry has been focusing with  
2                   us on commenting and providing input on our regulatory  
3                   guidance activities, and so they do not have a firm  
4                   schedule at this time on when they propose to provide  
5                   us a licensee self-assessment program for  
6                   consideration.

7                   COMMISSIONER REMICK:       What are the  
8                   prospects when they will have a schedule?

9                   MS. TEN EYCK:   Well, we haven't gotten  
10                  anything firm from them. We do know that they have  
11                  talked about it and they're working on it, but they  
12                  haven't come up with anything. And of course, we've  
13                  been pressuring them with probably, you know, all of  
14                  these meetings and workshops that we've been having  
15                  and they've been very responsive providing input to  
16                  us, particularly on the chapters in the SRP and the  
17                  ISA guidance outline. So, we expect that they  
18                  realize, as we do, that that is something that they  
19                  will be focusing on now as we go on and refine the SRP  
20                  and standard format guidance documents.

21                  CHAIRMAN SELIN:   Let me just tell you a  
22                  couple sort of general guidelines.

23                  Number one, the positive one, is that, if  
24                  we get to know a self-assessment program that the  
25                  industry develops, then if there's no real loss we

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1       should model ours to look as closely as we can to  
2       theirs so they don't have to answer the question two  
3       different ways for two different purposes. In other  
4       words, all else being more or less equal, try to use  
5       the same syntax and the same terms, et cetera.

6               On the other hand, if we need a program,  
7       we can't rely on their program. We must have a  
8       program. So, this is voluntary and should the next  
9       day they close it down, we have to have in place what  
10      we need to go forward. It's very much the same  
11      argument we had with the training and the INPO reactor  
12      site and it turned out okay. We tried to make the two  
13      as congruent as possible, but didn't remove regulatory  
14      requirements on the grounds that we're doing it  
15      voluntarily elsewhere, but we allowed them to kill two  
16      birds with one stone, to meet their needs and ours  
17      with the same document and the same program.

18             COMMISSIONER ROGERS: Just on this, when  
19      we first talked about this idea of an INPO-like  
20      program, there were some concerns expressed about  
21      whether proprietary questions would get in the way of  
22      this because this is a very competitive industry and  
23      possibly some special processes might be something  
24      that a licensee may not want to share with other  
25      licensees or something. Have you found that to be a

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1 problem here?

2 MS. TEN EYCK: To tell you the truth,  
3 we've been so focused on our guidance documents that  
4 we haven't received very much input from them on  
5 exactly what techniques or concerns they've been  
6 having. We do know that they have met on the topic  
7 and some of those issues have been raised and we're  
8 really looking for industry to come up with a  
9 technique that would address those concerns, but still  
10 allow them to have an effective self-assessment  
11 program.

12 MR. BERNERO: We have an intention, in  
13 fact it had to be rescheduled, to meet with the  
14 industry group. You know, they're involved in the  
15 Nuclear Energy Institute in that major reorganization  
16 that's just gone into effect. Originally we were  
17 going to meet last week and that didn't work out. So,  
18 we'll be meeting with them soon and this is a major  
19 subject for us. This is, is the industry able to come  
20 up with something to kill the two birds with one  
21 stone, or will we have to go out and develop something  
22 ourselves?

23 MS. TEN EYCK: (Slide) Okay. Next slide,  
24 please.

25 When the action plan was originally

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1 developed we identified 12 positions that we needed to  
2 ensure timely implementation of the new program.  
3 These positions included everything from a branch  
4 chief to technical and administrative staff. To date,  
5 we have been successful in filling 10 of these 12  
6 positions. The nuclear criticality safety positions  
7 remain the most difficult one to fill. We have been  
8 successful in filling one of those positions and we  
9 have another candidate under active consideration. At  
10 this point we're planning to continue to work with the  
11 Office of Personnel to identify any potential  
12 candidates to fill those remaining two nuclear  
13 criticality vacancies.

14 (Slide) Next slide, please.

15 COMMISSIONER REMICK: Are we waiting to  
16 fill those positions to answer the question I think I  
17 asked at the last meeting about criticality monitors?

18 MS. TEN EYCK: No, we've been working on  
19 that.

20 MR. BURNETT: We've been working on both  
21 of them, reactors and the non-reactor world.

22 MS. TEN EYCK: Okay. On the summary slide  
23 here, I guess in summary I would like to assure you  
24 that the action plan to correct weaknesses in the Fuel  
25 Cycle Facility Safety Program has received high

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1 priority attention. We have a very ambitious schedule  
2 and developing in parallel a new rule and three key  
3 guidance documents that address a magnitude of complex  
4 policy issues. However, by completing rewriting Part  
5 70 from a performance oriented systems approach, we  
6 feel that both NRC and industry will have an improved  
7 framework for addressing licensing, inspection and  
8 enforcement activities. After a six month delay, we  
9 will have a proposed rulemaking package for your  
10 consideration in February of next year.

11 That concludes my comments.

12 CHAIRMAN SELIN: Commissioner Rogers?

13 COMMISSIONER ROGERS: Well, I think this  
14 is excellent progress and I must say that I've very  
15 pleased to see that you are taking this revised  
16 approach because I think the original way of meeting  
17 the Commission's concerns in this particular area I  
18 think had a lot of problems with it and I think that  
19 going back and looking at that and deciding to really  
20 rewrite the rule was really the right way to go. I  
21 want to compliment you for making that decision and  
22 proceeding ahead on it. So, I think that this looks  
23 to me very promising and I'm very pleased with it.

24 I may be asking a question that one of the  
25 other Commissioners may want to ask, but I didn't hear

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1 you mention anything about the possibility or any  
2 thoughts that you may have had on a backfit provision.  
3 Was that a topic of any discussion?

4 MS. TEN EYCK: Well, we do have a section  
5 in the proposed rule that we provided for research  
6 that did address backfit and indeed it is under  
7 consideration.

8 COMMISSIONER ROGERS: But you haven't  
9 wrapped that up yet?

10 MS. TEN EYCK: A final decision has not  
11 been made one way or the other at this time.

12 COMMISSIONER ROGERS: Thank you very much.

13 CHAIRMAN SELIN: Commissioner Remick?

14 COMMISSIONER REMICK: I also feel that  
15 you're headed in the right direction. I like the  
16 integrated approach and systematic approach. I think  
17 it's going to be a little painful for the large  
18 licensees initially, but if it works out as I hope it  
19 does, that therefore they're in command of knowing  
20 what the greatest risks are and what is necessary to  
21 protect themselves from those risks and if we manage  
22 to back in through inspections and the placing of  
23 conditions in renewal licenses that are not  
24 necessarily tied to our regulations, I think in the  
25 long run they're going to benefit. They're going to

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1 have a much more predictable process.

2 So, I'm very hopeful and optimistic that  
3 it will be lead in the long-term to a much improved  
4 regulatory process in this particular area. So, I  
5 also applaud your efforts and encourage you to keep  
6 going on it.

7 CHAIRMAN SELIN: Commissioner de Planque?

8 COMMISSIONER de PLANQUE: Well, I too like  
9 the approach and I'm especially happy to see the plan  
10 and have the guidance documents available at the same  
11 time, at least in draft form, because I think that's  
12 extremely helpful in terms of being able to evaluate,  
13 "Well, how is this really going to work?" So, I think  
14 that's excellent.

15 I have one sort of general question. How  
16 or are you, and if so how, are you interweaving the  
17 comments on Part 76 in with this because there are  
18 certainly some elements in common? How are you taking  
19 advantage of that experience?

20 MS. TEN EYCK: Well, I think the fact that  
21 you have it in the same division with the same staff  
22 focusing on -- or same management focusing on the  
23 things, there will be definitely a lessons learned  
24 from the Part 76 comments. But as you realize,  
25 they've just come in and we've just started focusing

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1 on them. But there are some issues that have been  
2 raised through the comments that the answers may be an  
3 approach that we are now proposing in the new Part 70.  
4 So, you may see some lessons learned there.

5 MR. BURNETT: If I could add to that, we  
6 even have personnel that are working on both 70 and 76  
7 and I don't think a day goes by that I don't hear  
8 somebody say, "Well, that's applicable to 76," or vice  
9 versa.

10 COMMISSIONER de PLANQUE: Good. Thank  
11 you.

12 CHAIRMAN SELIN: Well, I'd also like to  
13 join in the generally positive reaction. This is  
14 certainly a big step up compared to the place we stood  
15 a year ago. If we didn't meet for another year, you'd  
16 then have your rule out for comment before we got  
17 together again. There are some not real worries, but  
18 not clear how it's going to work about the incentives  
19 for the timely renewal, just how quantitative the ISAs  
20 are going to be, et cetera. So, I would suggest that  
21 you get back to us after you've had some of the  
22 workshops but before you actually issue the proposed  
23 rule for comment when we'd be in a position to speak  
24 to some of the same questions that came up today more  
25 definitively. I'm not asking you to try to go off and

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1 answer these questions now, but before you're ready to  
2 go out for comment, after you've had a chance to not  
3 only do whatever further work you do yourself, but --

4 MR. BURNETT: Like the November time  
5 frame.

6 CHAIRMAN SELIN: Yes, something like that.  
7 It will be driven early enough so that it can affect  
8 the rule, late enough so you have input from your  
9 workshops and your public meetings I personally think  
10 would be a good time. Of course, Commissioners will  
11 have a chance to think about that before we send you  
12 the SRM, but something like that makes some sense.

13 MS. TEN EYCK: Actually, we'll be  
14 proposing -- I mean providing the rule to you in  
15 January and that will be a time similar to the effort  
16 that you redid on Part 76 to discuss the effect --

17 MR. BERNERO: Yes. But this will give us  
18 a window of opportunity with the Commission on the  
19 general trend.

20 CHAIRMAN SELIN: Yes. The issues on Part  
21 76 were more procedural issues, how much to take from  
22 DOE and how much to rewrite. Here you have some  
23 substantive issues and I think we'd appreciate having  
24 the chance not to get a briefing and say, "You've got  
25 three days to answer this. Otherwise we can't make

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1 our schedule." Not that it ever happens on other NMSS  
2 presentations, but we'd like to avoid that.

3 MR. BERNERO: I'd just like to add one  
4 thing that is not very visible in Part 76, but is a  
5 fundamental policy issue in Part 70. That is the  
6 longstanding tradition in the regulatory framework is  
7 that 30, 40 and 70 are possession licenses. Persons  
8 are authorized to possess and presumably use material.  
9 They're not facility licenses that focus on  
10 operational risk, operational safety. The gaseous  
11 diffusion plants regulation is really more in that  
12 operational frame, but it's so unique and all of the  
13 issues are unique to the gaseous diffusion plant that  
14 you might not see that.

15 What we're doing here in Part 70 is  
16 focusing more on these licensees as facilities with  
17 operational safety risk --

18 CHAIRMAN SELIN: You're changing the  
19 tradition.

20 MR. BERNERO: Yes, changing that  
21 tradition.

22 CHAIRMAN SELIN: Right.

23 MR. BERNERO: And if I could straighten  
24 all the pictures on the wall to my own satisfaction,  
25 I would even throw in the production facilities that

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1 are licensed under Part 50. But the statute would  
2 have to be changed, as I understand it.

3 CHAIRMAN SELIN: What production  
4 facilities?

5 MR. BERNERO: Well, reprocessing for  
6 instance. Not that we're going to license a  
7 reprocessing plant, but it is Category F.

8 CHAIRMAN SELIN: Well, let's take care of  
9 facilities that exist or have a reasonable probability  
10 of existing before we turn to other facilities.

11 MR. BERNERO: That's why I described it as  
12 straightening all the pictures on the wall.

13 CHAIRMAN SELIN: Yes, but you're saying if  
14 we had a fifth wall, which we don't have, and if we  
15 had a picture, which we don't have, what would it look  
16 like?

17 COMMISSIONER de PLANQUE: You were doing  
18 good. Quite while you're ahead.

19 COMMISSIONER REMICK: Bob, I hope you're  
20 not going to handle group A as facilities. Those are  
21 definitely possession.

22 MR. BERNERO: Well, they are truly, but  
23 the focus of the regulation is to escalate to the  
24 level of risk appropriate, to the nature of the  
25 licensed operation appropriate and to be able to see

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1 clearly so that the regulated parties can see clearly,  
2 what are we expected to do, what are we required to do  
3 in some lucid fashion. If you into Part 70 now, you  
4 have to study it and go into the folklore of it.

5 CHAIRMAN SELIN: But let me follow up on  
6 something that Commissioner Remick was getting at.  
7 What we don't want is a medical rule for uses of  
8 sources. You know, is this industrially a right  
9 place? Should we be using radiography, not x-rays and  
10 stuff like that? We do want to concentrate on  
11 radiological safety, beyond that, as appropriate,  
12 whether it's operations or possession. I think that's  
13 true.

14 MR. BERNERO: Yes.

15 CHAIRMAN SELIN: Okay. Fine. Thank you  
16 very much. Excellent presentation.

17 (Whereupon, at 3:03 p.m., the above-  
18 entitled matter was concluded.)  
19  
20  
21  
22  
23  
24  
25

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This is to certify that the attached events of a meeting  
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TITLE OF MEETING: BRIEFING ON STATUS OF ACTION PLAN FOR FUEL CYCLE  
FACILITIES AND ALTERNATIVE REGULATORY APPROACHES

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: APRIL 25, 1994

were transcribed by me. I further certify that said transcription  
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# **STATUS OF ACTION PLAN FOR REGULATING FUEL CYCLE FACILITIES**



**DIVISION OF FUEL CYCLE SAFETY AND SAFEGUARDS  
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS**



# **BACKGROUND**

- **COMMISSION BRIEFED IN MAY 1993 ON  
SECY 93-128--ACTION PLAN TO CORRECT WEAKNESSES  
IN FUEL CYCLE FACILITIES SAFETY PROGRAM**
- **ACTION PLAN IDENTIFIED FIVE MAJOR PROGRAMS**
  - **REGULATORY DEVELOPMENT**
  - **LICENSE RENEWAL**
  - **INSPECTION**
  - **TRAINING**
  - **LICENSEE SELF-ASSESSMENT**
- **RESOURCES NEEDED TO CARRY OUT ACTION PLAN**

# **REGULATORY DEVELOPMENT**

- **PRINCIPAL PROJECTS UNDER DEVELOPMENT:**
  - **10 CFR PART 70, "DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL" REWRITE**
  - **GUIDANCE DOCUMENT ON PERFORMING AN INTEGRATED SAFETY ANALYSIS (ISA)**
  - **STANDARD REVIEW PLAN (SRP)**
  - **STANDARD FORMAT AND CONTENT GUIDE (SF&CG) REWRITE**

# **PART 70 WEAKNESSES**

- **AMENDED AND PATCHED SINCE 1960'S**
- **COMPARTMENTALIZED APPROACH**
- **VERY PRESCRIPTIVE IN SOME AREAS**
- **REQUIREMENTS GENERALLY NOT GRADED ACCORDING TO RISK**

## **10 CFR PART 70**

- **PROPOSED REVISED APPROACH HAS:**
  - **COMPLETELY REWRITTEN PART 70**
  - **DEVELOPED A PERFORMANCE ORIENTED, SYSTEMS APPROACH**
  - **INCORPORATED RECOMMENDATIONS FROM NUREG-1324**
  - **ALLOWED "50.59-TYPE" CHANGES**
  - **REQUIRED INTEGRATED SAFETY ANALYSIS**
  - **DEVELOPED REQUIREMENTS GRADED ACCORDING TO RISK**
- **GOAL TO PUBLISH PROPOSED RULE IN FEBRUARY 1995**

# **INTEGRATED SAFETY ANALYSIS (ISA)**

- **ISA WILL IDENTIFY AND EVALUATE VARIOUS HAZARDS THAT COULD ARISE FROM, OR AFFECT CONTROL OVER, NUCLEAR MATERIALS**
- **GUIDANCE DOCUMENT BEING DEVELOPED ON ALTERNATIVE METHODS FOR PERFORMING ISAs**
- **OUTLINE PRESENTED AT LICENSEE WORKSHOP IN AUGUST 1993**
- **GOAL TO PUBLISH DRAFT DOCUMENT IN FEBRUARY 1995**

# **STANDARD REVIEW PLAN (SRP)**

- **DOCUMENTED STANDARDIZED APPROACH FOR LICENSING STAFF**
- **WORKSHOPS HELD TO OBTAIN PUBLIC INPUT**
- **DRAFT TO BE INCLUDED WITH RULEMAKING PACKAGE**

# **STANDARD FORMAT & CONTENT GUIDE (SF&CG)**

- **GUIDANCE TO APPLICANTS AND LICENSEES  
REGARDING TYPE AND DEPTH OF INFORMATION**
- **DRAFT TO BE INCLUDED IN RULEMAKING  
PACKAGE**

# **LICENSE RENEWAL PROGRAM**

- **SCHEDULE DEVELOPED FOR COMPLETING LICENSE RENEWALS OF THE SEVEN MAJOR FUEL CYCLE LICENSES TO CURRENTLY EFFECTIVE PART 70 REQUIREMENTS**
- **EVOLVING PART 70 REQUIREMENTS COULD IMPACT LICENSE RENEWAL ACTIVITY**
- **STAFF ENCOURAGING LICENSEES TO VOLUNTEER TO USE DRAFT SRP AND PROPOSED RULE**
- **COMPLETED RENEWALS FOR SIX OTHER FACILITIES (NON-FUEL CYCLE FACILITIES)**



# **INSPECTION PROGRAM**

- **REWRITE NUCLEAR CRITICALITY SAFETY INSPECTION PROCEDURES**
- **DEVELOP CHEMICAL PROCESS SAFETY INSPECTION PROCEDURES**
  - **GOAL TO COMPLETE DRAFT PROCEDURES IN APRIL 1994**
  - **PILOT TEST OF DRAFT INSPECTION PROCEDURES WILL BE CONDUCTED (JULY 1994 – JANUARY 1995)**
  - **GOAL TO FINALIZE PROCEDURES IN FEBRUARY 1995**

# **TRAINING PROGRAM**

- **NINE NEW COURSES IDENTIFIED FOR LICENSING AND INSPECTION STAFFS**
- **SUBJECT AREAS ADDRESSED:**
  - **MANAGEMENT SYSTEMS AND STRUCTURES**
  - **ISAs**
  - **CRITICALITY SAFETY**
  - **SAMPLING AND MEASUREMENT**
  - **MECHANICAL AND CHEMICAL PROCESS HAZARDS**
  - **URANIUM ENRICHMENT**
- **GOAL TO PRESENT MAJORITY OF COURSES BY FY 95**

# **LICENSEE SELF-ASSESSMENT PROGRAM**

- **INDUSTRY ENCOURAGED TO DEVELOP AND PROPOSE TO NRC A SELF-ASSESSMENT PROGRAM**
- **INDUSTRY IS DEVELOPING PERFORMANCE INDICATORS AND SELF-ASSESSMENT TECHNIQUES SIMILAR TO THOSE USED BY THE INSTITUTE FOR NUCLEAR POWER OPERATIONS**

# **RESOURCE IMPLICATIONS**

- **INITIAL RECRUITMENT FOR TWELVE VACANCIES**
- **TEN OF TWELVE VACANCIES FILLED TO DATE**
- **STAFF WORKING WITH OFFICE OF PERSONNEL TO FILL REMAINING VACANCIES**

# **SUMMARY**


- **ACTION PLAN IN SECY-93-128 HAS RECEIVED HIGH-PRIORITY ATTENTION**
- **AMBITIOUS SCHEDULE FOR PUBLISHING REWRITTEN 10 CFR PART 70 AND SUPPORTING REGULATORY GUIDANCE**
- **GOAL TO PUBLISH RULEMAKING PACKAGE IN FEBRUARY 1995**

# **GROUPS OF LICENSES**

## **GROUP**

- A        SEALED OR CALIBRATION SOURCES**
- B        BELOW CRITICALITY**
- C        ABOVE CRITICALITY**
- D        FUEL FACILITIES, TRANSPORT, ETC.**
- E        REACTOR FUEL**

# **LICENSEE/APPLICANT**

- **ANALYZES ACTIVITIES TO IDENTIFY POTENTIAL RISKS**
  - **IDENTIFIES WHAT IS RELIED ON TO ADDRESS RISKS**
  - **HAS PROGRAMS FOR ENSURING THAT WHAT IS RELIED ON TO ADDRESS RISKS WILL PERFORM ITS FUNCTION**
  - **HAS PROGRAMS GRADED ACCORDING TO RISK**
  - **REGULATORY REQUIREMENTS ACCORDING TO LICENSED SNM POSSESSION AND ACTIVITIES**
- 



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## **POLICY ISSUE** **(Information)**

March 9, 1994

SECY-94-057

**FOR:** The Commissioners

**FROM:** James M. Taylor  
Executive Director for Operations

**SUBJECT:** STATUS OF ACTION PLAN FOR REGULATING FUEL CYCLE  
FACILITIES

### **PURPOSE:**

To inform the Commission of the status of the action plan for correcting weaknesses in the fuel cycle facilities safety program and the progress in acquiring additional staff to carry out the program set forth in SECY-93-128, "Status of Action Plan for Regulating Fuel Cycle Facilities," as requested by the Staff Requirements Memorandum (SRM) of June 7, 1993.

### **SUMMARY:**

Meeting the schedule for the action plan, as provided in SECY-93-128, has received high-priority attention and a commitment of staff resources and technical assistance contracts. Publication of an upgraded 10 CFR Part 70 and other related regulatory development activities in this action plan are currently on schedule.

### **BACKGROUND:**

In May 1993, the Commission was briefed on SECY 93-128, "Status of Action Plan for Regulating Fuel Cycle Facilities," which outlined five major programs and the resource implications for upgrading the fuel cycle facility safety

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**NOTE:** TO BE MADE PUBLICLY AVAILABLE  
AT COMMISSION BRIEFING ON  
MARCH 18, 1994



program. In a June 7, 1993 SRM, the Commission supported the staff's integrated approach to regulatory development and licensing and requested "...status reports on its progress in staffing up to carry out the program set forth in SECY-93-128."

DISCUSSION:

REGULATORY DEVELOPMENT PROGRAM

The staff is moving forward expeditiously to meet the Commission's directive to establish a firm regulatory base for fuel cycle facility licensing and inspection activities and for determining the adequacy of licensee performance. Four principal projects in this program are concurrently under development in the Division of Fuel Cycle Safety and Safeguards (FCSS). These projects involve major revisions to 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material;" publication of a guidance document on performing an integrated safety analysis (ISA); development of a standard review plan (SRP) for use by U. S. Nuclear Regulatory Commission licensing staff; and a replacement of the existing standard format and content guide (SF&CG), Regulatory Guide 3.52, dated November 1986.

The current status and schedule of these four projects are shown in Enclosure 1 and are discussed below.

Revisions to 10 CFR Part 70

In October 1993, the Office of Nuclear Material Safety and Safeguards (NMSS) provided the Office of Nuclear Regulatory Research with a user-need request for rulemaking and a preliminary draft of major revisions to the safety regulations in Part 70. The purpose of these revisions is to improve the rigorousness of the regulatory base, to clarify and refine existing requirements, to incorporate many of the recommendations of NUREG-1324, "Proposed Method for Regulating Major Materials Licensees," dated February 1992, to utilize, where possible, performance rather than prescriptive regulations, and to reduce unnecessary burdensome regulatory requirements.

Publication of the proposed rule is currently on schedule for August 31, 1994. The rulemaking package is expected to be forwarded to the Commission by July 15, 1994. The final rule is scheduled for publication by August 31, 1995. After publication of the proposed amendments to Part 70, staff expects to begin similar changes to Part 40, dealing with licensing of facilities that convert uranium mill product to uranium hexafluoride and other uranium products.

### ISA

One of the major planned revisions to Part 70 is a requirement that applicants prepare an ISA. Although the likelihood of a significant release by a Part 70 licensee has been characterized as small (see NUREG 1140, Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees) an ISA is necessary for establishing system and component level safety margins, reducing uncertainty, and for identifying outlier scenarios that are precursors to unacceptable consequences. The ISA will identify and evaluate the various hazards that could arise from, or affect control over, nuclear materials. This analysis would provide a basis for identifying the features of process areas that are important to safety and that would be subject to NRC regulation. The applicant would include the results of its ISA in any application for a license, a license renewal, or a license amendment.

A guidance document is being developed that will include a description of alternate methods and methodologies for performing comprehensive ISAs that would be acceptable to the NRC for fuel cycle licensees or license applicants to use in performing their ISAs. In May 1993, a contract was awarded through the U. S. Department of Energy (DOE) Interagency Agreement to Savannah River Technology Center (SRTC) for technical assistance in developing this document. This effort is currently on schedule for publishing in August 1994, concurrently with publishing the proposed Part 70 rule for public comment.

Staff has been working closely with industry during the rule and guidance development process. An outline of the proposed ISA document was presented to representatives of the fuel cycle industry at an ISA public workshop on August 27, 1993. The workshop provided a forum for licensees to provide NRC and SRTC representatives with information on the safety analysis methods they currently are using or plan to use and their current capabilities to perform such analyses. The draft document will be discussed at an upcoming workshop scheduled for May 4, 1994. Copies will be publicly available for review before the workshop.

### SRP and SF&CG

The remaining two high-priority projects under development are an SRP and an SF&CG. The SRP will provide a standardized approach for staff in reviewing license applications for authorization to possess and use special nuclear material. The SRP will also assist licensees in understanding staff's approach and bases for reviewing license applications. Following the public comment period, this document will be further refined; if necessary, to accommodate subsequent changes to the proposed rule. The SF&CG will provide guidance to applicants and licensees regarding the type and depth of information in license applications that are necessary for regulatory decisions.

In May 1993, a task force of Headquarters and regional staff developed the initial draft of the SRP. NMSS staff made further revisions, and in November 1993, held four public workshops to obtain information relevant to the

development of the acceptance criteria sections for the various areas of review within the SRP. After the workshops, the draft SRP was revised; an outline is shown in Enclosure 2. Information presented at these workshops and written comments received through the Facility Operations Committee (FOC) of the U.S. Council for Energy Awareness will assist the NMSS staff in improving the regulatory base.

In December 1993, after a competitive evaluation, a contract was awarded through the DOE Interagency Agreement to Oak Ridge National Laboratory for technical assistance in further development of the SRP and the SF&CG. Both the SRP and SF&CG, in preliminary draft form, are currently on schedule for inclusion with the rulemaking package; this package will be forwarded to the Commission by July 15, 1994. Completed draft versions of the SRP and SF&CG will be available, through the NRC's Public Document Room, early in the 75-day public comment period for the proposed rule. Since the rule and companion documents are being developed on parallel tracks, some lead time is required to incorporate changes to these documents as the Part 70 rule is developed.

Science Applications International Corporation (SAIC) and SRTC are also providing technical assistance in developing recommendations for the chemical safety and ISA portions of these documents. It is anticipated that their input will be completed in time to consider their recommendations in the July 1994 version of the SRP.

#### LICENSE RENEWALS

During this past year, staff has developed and implemented aggressive schedules for completing license renewals (see Enclosure 3). The proposed schedule for renewals was accelerated so that seven major fuel cycle licenses will be renewed by the end of 1997, instead of 2003, which was the previous projected date. The renewal for one major facility is scheduled for completion in 1994, renewals for four facilities are scheduled in 1995, and renewals for the two remaining facilities are scheduled in 1997. This activity is proceeding on this revised schedule.

Since the NMSS reorganization in February 1993, renewals for six other facilities have been completed. These facilities are Department of the Army, Eastman Kodak, General Electric Vallecitos, Pennsylvania State University, Purdue University, and Seattle University.

Although the license renewal activity is occurring concurrently with revisions to Part 70 that will ultimately affect the license-renewal process, license renewals will be approved under existing regulations. However, if licensees volunteer to follow draft SRP guidance it will be used by staff during the renewal process. The intent is that when the final revised Part 70 is issued, the NRC will require licensees to modify their then-current license (possibly quite recently renewed) to conform to the new rule. This approach should minimize the impact on licensees and NRC staff resources after the revised rule becomes effective.

Some licensees have agreed with this approach, whereas other licensees have indicated that they are not interested in pursuing a renewal until the new rule is issued. The staff recognizes that some licensees may prefer to wait for the issuance of the revised rule. However, in the near term, this could adversely affect our objective of improving the rigorousness of the fuel cycle safety program in a timely manner.

#### INSPECTION PROGRAM

As part of the NMSS reorganization in February 1993, an Inspection Section was formed in FCSS. This section's mission includes performing enhanced chemical and criticality safety inspections with regional support and to continue the material control & accounting (MC&A) inspections.

Emphasis has been placed on refining the inspection procedures for nuclear criticality safety (NCS) inspections and developing procedures for chemical process safety. FCSS will begin refinement of the existing NCS inspection procedures after recruitment of a senior nuclear criticality safety inspector. The revised criticality safety inspection procedures will identify those areas of criticality safety that will be verified by Headquarters and/or regional staff.

Work has begun in developing appropriate chemical process safety inspection procedures. Technical assistance for developing these procedures is being provided by SAIC, which has experience in chemical safety and Occupational Safety and Health Administration's process safety management. For the development stage of this work, SAIC staff is scheduled to visit five sites. The date for completing both the procedures and these site visits is April 1994. This activity is currently on schedule.

After development of these procedures, an NRC inspection team, with contractor assistance, will perform an initial round of chemical process safety inspections at licensed facilities to ensure appropriate application. These inspections are scheduled between July 1994 and January 1995. It is anticipated that beginning in February 1995, chemical safety inspections will be conducted solely by NRC staff.

#### TRAINING PROGRAM

Staff has been reviewing and evaluating the safety requirements currently under development for fuel cycle facilities and the causes of problems that led to safety events. To enhance the licensing and inspection staffs understanding of the technology associated with these matters, nine courses have been identified that would require mandatory attendance. These courses

deal with such diverse subjects as management systems and structures, ISAs, criticality safety, sampling and measurement, mechanical and chemical process hazards, and uranium enrichment.

Staff is working with NRC's Technical Training Center (TTC) to develop five of these courses. To date, a statement of work has been prepared to initiate revisions of two existing courses and development of three new courses. It is anticipated that three courses will be ready for presentation in Fiscal Year 1994 and two courses for presentation in Fiscal Year 1995.

Concurrently, staff is planning to issue a contract that will provide technical assistance to the staff in developing a course on management systems and structures. Since the breakdown of management systems is a principal cause of problems at these facilities, more focus is needed on the license review and inspection of these systems. Arrangements for the development of the remaining three courses are under discussion.

In parallel with the above activities, efforts are underway to revise the inspection manual chapter that specifies the training requirements for fuel cycle inspectors. These revisions are necessary to ensure that sufficient time is allotted for employees to qualify as inspectors.

#### LICENSEE SELF-ASSESSMENT PROGRAM

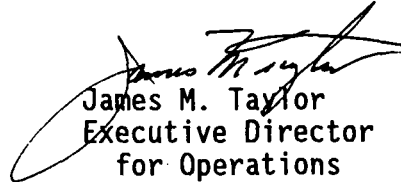
The staff previously noted in SECY-93-128 that the FOC is taking a role in developing performance indicators and in exploring various self-assessment techniques. FOC verbally stated that they are developing a straw man self-assessment program, similar to the key factors used by the Institute for Nuclear Power Operations. To date, FOC does not have a schedule to complete this effort. The staff continues to encourage industry to take the lead in this initiative and to propose a program to the NRC for consideration. FOC has stated that it expects to continue with these same activities under the newly created Nuclear Energy Institute, effective in the second quarter of 1994.

#### RESOURCE IMPLICATIONS:

In the Commission memorandum, "Status Report on Filling Vacancies in the Division of Fuel Cycle Safety and Safeguards (FCSS)," dated August 6, 1993, it was noted that progress had been made in either filling or identifying individuals to fill nine of the twelve vacancies. Subsequently, FCSS was successful in filling eight of those original nine vacancies. Since then, FCSS has been successful in hiring a criticality specialist. Staff continues to work closely with the Office of Personnel to identify potential candidates to fill the remaining three vacancies--two in the nuclear criticality area and one in the chemical safety area. At this time, two potential candidates for those positions are under review.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.

  
James M. Taylor  
Executive Director  
for Operations

Enclosures:

1. Action Plan for Fuel Cycle Safety  
Regulatory Development
2. Proposed Outline of the SRP
3. License Renewal Schedule

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## ACTION PLAN FOR FUEL CYCLE SAFETY REGULATORY DEVELOPMENT

Project	Completion Date
<b>Revisions to Part 70, "Domestic Licensing of Special Nuclear Material"</b> <ul style="list-style-type: none"> <li>• Forward user-need request to Office of Nuclear Regulatory Research</li> </ul>	10/5/93 (Completed)
<ul style="list-style-type: none"> <li>• Forward rulemaking package to Commission</li> </ul>	7/15/94
<ul style="list-style-type: none"> <li>• Publish proposed rule</li> </ul>	8/31/94
<ul style="list-style-type: none"> <li>• Public comment period</li> </ul>	9/1-12/20/94
<ul style="list-style-type: none"> <li>• Publish final rule</li> </ul>	8/31/95
<b>Integrated Safety Analysis Guidance Document</b> <ul style="list-style-type: none"> <li>• Award inter-agency agreement to Savannah River Technology Center</li> </ul>	5/5/93 (Completed)
<ul style="list-style-type: none"> <li>• Complete guidance document outline</li> </ul>	8/3/93 (Completed)
<ul style="list-style-type: none"> <li>• Hold public workshop to review draft guidance document outline</li> </ul>	8/27/93 (Completed)
<ul style="list-style-type: none"> <li>• Hold public workshop to review final guidance document</li> </ul>	5/4/94
<ul style="list-style-type: none"> <li>• Include ISA guidance document in rulemaking package</li> </ul>	8/31/94

## ACTION PLAN FOR FUEL CYCLE SAFETY REGULATORY DEVELOPMENT (cont'd)

Project	Completion Date
<p>Chemical Safety Recommendations for SRP and SF&amp;CG</p> <ul style="list-style-type: none"> <li>• Award technical assistance contract to Science Applications International Corporation</li> </ul>	<p>9/1/93 (Completed)</p>
<ul style="list-style-type: none"> <li>• Discuss chemical safety recommendations for SRP and SF&amp;CG at May workshop</li> </ul>	<p>5/4/94</p>
<ul style="list-style-type: none"> <li>• Incorporate chemical safety recommendations into preliminary draft SRP and SF&amp;CG</li> </ul>	<p>7/15/94</p>
<p>Standard Review Plan (SRP) and Standard Format and Content Guide (SF&amp;CG)</p> <ul style="list-style-type: none"> <li>• Develop initial SRP</li> </ul>	<p>5/20/93 (Completed)</p>
<ul style="list-style-type: none"> <li>• Hold public workshops on acceptance criteria sections of the SRP</li> </ul>	<p>11/93 (Completed)</p>
<ul style="list-style-type: none"> <li>• Award inter-agency agreement to Oak Ridge National Laboratory</li> </ul>	<p>12/1/93 (Completed)</p>
<ul style="list-style-type: none"> <li>• Discuss ISA chapters for SRP and SF&amp;CG at workshop</li> </ul>	<p>5/4/94</p>
<ul style="list-style-type: none"> <li>• Include preliminary draft SRP and SF&amp;CG in rulemaking package</li> </ul>	<p>7/15/94</p>



**STANDARD REVIEW PLAN  
FOR THE REVIEW OF THE HEALTH AND SAFETY SECTIONS OF  
FUEL PROCESSING FACILITY LICENSE APPLICATIONS**

**TABLE OF CONTENTS**

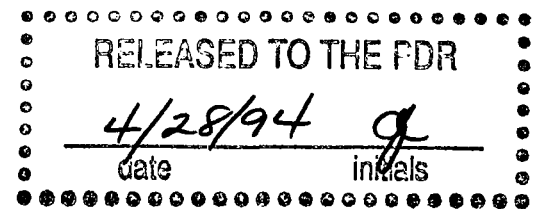
*[INDIVIDUAL CHAPTERS EACH DESCRIBE THE INFORMATION THE  
REVIEWER EXPECTS TO FIND RESPECTIVELY IN THE SAFETY PLAN AND  
IN THE SAFETY ANALYSIS REPORT]*

**Introduction**

- 1.0 - General Information**
  - 1.1 Facility and Process Description**
  - 1.2 Institutional Information**
- 2.0 - Organization/Management Control and Oversight**
  - 2.1 Organizational Responsibilities and Authorities**
  - 2.2 Safety Committees**
  - 2.3 Audits and Self-Assessments**
  - 2.4 Reviews of Design Changes**
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- 3.0 - Integrated Safety Analysis**
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  - Radiological Contingency Plan**
- 10.0 - Environmental Protection**
  - Environmental Report**
- 11.0 - Decommissioning**
  - Decommissioning Funding Plan**

**LICENSE RENEWAL SCHEDULE**

<b>Major Fuel Cycle Licenses in Renewal</b>	<b>Renewal Date</b>
1. Combustion Engineering (Hematite)	9/94
2. Babcock & Wilcox (Naval Nuclear Fuel Division)	5/95
3. Westinghouse Electric	6/95
4. Allied-Signal	8/95
5. Siemens Power Corporation	12/95
6. General Electric (Wilmington)	2/97
7. General Atomics	7/97
<b>Renewals Completed</b>	<b>Date</b>
1. Department of the Army	12/93
2. General Electric (Vallecitos Nuclear Center)	12/93
3. Purdue University	12/93
4. Seattle University	11/93
5. Pennsylvania State University	6/93
6. Eastman Kodak	4/93



## **POLICY ISSUE** **(Information)**

April 13, 1994

SECY-94-057A

**FOR:** The Commissioners

**FROM:** James M. Taylor  
Executive Director for Operations

**SUBJECT:** REVISED APPROACH FOR FUEL CYCLE FACILITY REGULATORY  
DEVELOPMENT ACTIVITIES

### **PURPOSE:**

To inform the Commission that, in addition to the information contained in SECY-94-057, "Status of Action Plan for Regulating Fuel Cycle Facilities," dated March 9, 1994, a revised approach has been developed for modifying 10 CFR Part 70, its associated Standard Format and Content Guide and the Standard Review Plan for fuel cycle facilities.

### **SUMMARY:**

10 CFR Part 70 has been modified so many times since its initial issuance in the 1960s, that it is no longer utilitarian. Rather than exacerbate this situation by adding yet another patch to these regulations, staff has proposed to revise and reorder Part 70 as a whole. Although this approach will clarify the contents of the regulations for both licensees and regulators, it will require an extension of the schedule for rule development.

### **BACKGROUND:**

SECY 94-057 detailed the status of implementing the action plan for regulating fuel cycle facilities. One of the major elements of the action plan is to establish a firm regulatory base by upgrading the existing Part 70 to address fuel cycle facility regulatory program weaknesses identified in NUREG-1324, "Proposed Method for Regulating Major Materials Licensees," dated February 1992.

**NOTE:** TO BE MADE PUBLICLY AVAILABLE  
AT COMMISSION MEETING ON  
APRIL 25, 1994

**Contact:**  
W. Brown, NMSS  
504-2654

Concurrent with the time that SECY 94-057 was being forwarded to the Commission, the Division of Fuel Cycle Safety and Safeguards was reviewing the latest version of a proposed modification package for Part 70. When reviewing existing Part 70 requirements to determine how to appropriately integrate the new modifications, the overall inconsistency in existing requirements, the lack of coherency throughout the part, the dated content of certain sections, and the lack of viability in the approach being proposed (i.e., placing one more patch on an incoherent, clearly outdated regulation), became obvious and merited correction.

#### DISCUSSION:

Part 70 has evolved over the years by prescribing a set of narrow requirements to address each new need or problem as it arose. It has been repeatedly amended and patched since the late 1960s. As a result, its present form contains redundant, sometimes inconsistent, requirements presented in an illogical and disjointed format, which is onerous and ineffective for regulatory purposes. Existing Part 70 requirements are not comprehensive in coverage and lack consistency in content and level of detail throughout the part. In particular, the current regulations are very prescriptive in some areas, generally are not graded according to resultant safety risk, and are very compartmentalized.

The approach initially taken by the staff, in response to the Commission's direction to strengthen the regulatory base, would have patched Part 70 one more time. However, after due reflection, staff, instead, is recommending that Part 70 be completely rewritten. Given favorable consideration, and unless otherwise directed by the Commission, formal rulemaking will proceed in the form of a proposed new Part 70. The effort, already underway, would develop a new Part 70 that takes a performance-oriented, systems approach to regulation, with requirements graded according to risk, rather than the narrowly prescriptive, compartmentalized approach that comprises the current requirements.

#### IMPACT ON SCHEDULE:

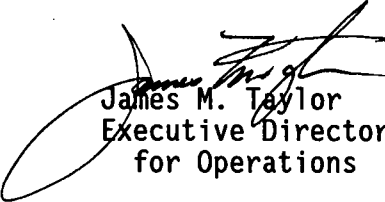
The complete rewrite of Part 70, together with the parallel development of the Standard Review Plan and the revision to the Standard Format and Content Guide, are interdependent and must be closely coordinated within the Office of Nuclear Material Safety and Safeguards, with other offices and the regions, and with several contractors. This action will require an additional six months to that scheduled for the "patched" revision to Part 70 proposed by the staff in SECY 94-057. The new schedule would have the proposed rule to the Commission in January 1995.

The Commissioners

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COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.



James M. Taylor  
Executive Director  
for Operations

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