UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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BRIEFING ON BPR PROJECT ON

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PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Wednesday, July 3, 1996

The Commission met in open session, pursuant to notice, at 10:00 a.m., Shirley A. Jackson, Chairman, presiding.

COMMISSIONERS PRESENT:

SHIRLEY A. JACKSON, Chairman of the Commission
KENNETH C. ROGERS, Commissioner
GRETA J. DICUS, Commissioner

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

ANDREW BATES, Acting Secretary

KAREN D. CYR, General Counsel

HUGH THOMPSON, Deputy ED, NMSS and Operations Support

CARL PAPERIELLO, Director, NMSS

DONALD COOL, Director, Division of Industrial and Medical Nuclear Safety, NMSS

PATRICIA RATHBUN, BPR Core Team Leader, NMSS

P R O C E E D I N G S

CHAIRMAN JACKSON: Good morning, ladies and gentlemen. Today the Commission will be briefed by the staff on the business process redesign of the materials licensing and inspection program.

It has been more than a year since the last Commission briefing on the subject, and of course the Commission has changed. In June of last year the Commission approved a staff proposal to proceed with phase 2 of the BPR project. At that time the Commission provided the staff with specific guidance on matters that it should consider and address in moving into phase 2 of the project.

We look forward to hearing from the staff today on how those issues have been addressed during the past year. The Commission believes that the Business Process Redesign project holds tremendous promise for increasing the efficiency and effectiveness of the NRC's materials licensing program as well as providing insights that could be used elsewhere at the NRC.

In today's environment of shrinking resources, we must continually search for methods that will increase and improve our productivity. We hope that the Business Process Redesign project will provide at least some of that increased improvement. So we look forward to hearing what you have to say.

Do any of my fellow Commissioners have any comments?

[No response.]

CHAIRMAN JACKSON: Mr. Thompson.

MR. THOMPSON: Thank you, Chairman Jackson, Commissioner Rogers and Commissioner Dicus. We look forward to today's briefing. Indeed, you are correct. This is an exciting part of the program and we have some interesting things to tell you today, some side benefits and some difficulties. Every road has a bump or two in it.

I think one of the reasons this is so important, as you said, is the decreasing resources that we all face. The ability and the commitment that Carl has put on this effort will show that to achieve the success and the benefits of this you have to have talented people, you have to have commitment by management to do it, and you have to have people who can think outside the box and be open to new and innovative ideas. I think we have been able to achieve this with the team that Dr. Paperiello has put together led by Pat Rathbun and others.

Carl, I will turn it over to you to get to the details.

DR. PAPERIELLO: Good morning, Chairman Jackson, Commissioner Rogers and Commissioner Dicus.

Can I have the first slide?

[Slide.]

DR. PAPERIELLO: Today I am going to report to you the status of our efforts to revise our byproducts material licensing process using business process redesign. I will discuss the progress to date, provide information requested in the Commission's staff requirement memorandum of June 16, 1995, and discuss some midcourse corrections.

Can I have the next slide?

[Slide.]

DR. PAPERIELLO: Let us recall why and how we initiated the process. In 1993, when I became director of the Division of Industrial and Medical Nuclear Safety, I found the NRC had 1,800 material licensing and about 500 sealed source and device certification actions pending. This was about a half a year's work.

If one looked at the resource expenditures, one found that 50 percent of the licensing FTE effort expended went into license renewal, 35 percent into amendments, and 15 percent into new applications.

From the earlier regulatory impact survey work that I had done at the Commission's direction, I found that practically all NRC licensing guides were out of date. Many had been issued in 1984 and 1985 as drafts and were never issued in final, and these as well as others were not revised as regulations were changed.

For example, due to the changes in 10 CFR 20, all references in the licensing guides to this regulation are wrong. Some references to radiation protection guides are in error because the reference material is based on the old Part 20, and particularly ICRP 2 dosimetry system and not the ICRP 2630 dosimetry system on which the current Part 20 is based.

Standard review plans that existed were issued as internal policy and guidance memoranda, informally revised, and not readily available to the public.

Finally, budget plans prepared in 1994 showed significant reduction in licensing resources in the fiscal year 1998-1999 budget year.

So this sets the stage of why we had to do what we did. We were in trouble and it wasn't going to get any better.

Next slide.

[Slide.]

DR. PAPERIELLO: This slide shows the relationship between licensing and other key areas in the materials program. The BPR process has concentrated on the licensing area because its problems appeared to be the greatest. The inspection program has almost never had a backlog since the late 1980s. However, it does consume the most resources.

I have revised the inspection procedures and

program as division director for routine inspections and upgraded the incident response activities.

As office director, I am in the process of upgrading the operational data evaluation area and the incident response activities outside of the BPR process.

NMSS has not addressed issues within the area of regulations for efficiency improvements, and we recognize that fundamental shifts may occur in that area as a result of ongoing strategic assessment efforts. In the regulation area, we all recognize that medical regulations are an outstanding issue. Yesterday afternoon I received a report from the NRC Agreement State operations group on general licensees. I have not had a chance to read that report. So there are additional areas where regulations may have to be changed.

We are concentrating our efforts to improve the current licensing process, and I believe that the tools we are developing and the lessons learned will help us quickly implement Commission decisions in the area of regulations as a result of strategic assessment.

Can I have the next slide?

[Slide.]

DR. PAPERIELLO: We extended on a one-time basis qualified licenses by five years. This became our first challenge when we found we had to do this by rulemaking.

This delayed this action by about eight months and took somewhat more resources than expected. However, it is essentially complete and 90 percent of the licenses have had their expiration dates extended by five years.

COMMISSIONER DICUS: Carl, could I ask a question at this point?

DR. PAPERIELLO: Yes.

COMMISSIONER DICUS: You said qualified materials licenses. Would you explain to me what qualified is?

DR. PAPERIELLO: Certain licensees we did not extend. If they required an emergency plan -- these are big licenses -- we did not extend them.

If there was a problem with financial assurance for decommissioning, they weren't extended.

If they were on the SDMP list, they weren't extended.

If their licensing involved an environmental assessment or an environmental impact statement; if they had enough SNM to trigger a criticality accident requirement; if there was an outstanding order, CAL or severity level 1, 2 or 3 violation at the last inspection, they weren't extended.

If they had never received an NRC inspection, they weren't extended.

If they were under timely renewal prior to July 1,

1995, they weren't extended.

So anything that could potentially be a problem, they were not extended.

COMMISSIONER DICUS: When this was coming down I was disinvolving myself a little bit in some of my state activities. The Agreement States could be encouraged to do the same things. Has this gone on to them together with what these criteria are for licenses that they might not want to extend, particularly for the states that have a backlog?

DR. PAPERIELLO: What we did was discussed at great length with the Agreement States. They commented on the rulemaking and the like. I frankly don't know whether we encouraged them to do the same thing or not.

Don.

MR. COOL: We have not formally sent out something strongly suggesting or urging or otherwise. We provided the information but have not in a sense gone in and made a formal suggestion that you do likewise. On the other hand, we haven't attempted to discourage it either. Frankly, it didn't receive a whole lot of discussion in the times at CRC, PD or OAS. Certainly the topic was on the table; everyone was interested in it; the criteria were out there; and, having gone through those sorts of discussions, we went on to some of the other topics.

MR. THOMPSON: But part of our basis for doing this was to free up resources to do the business process reevaluation. The states weren't required to do that, although we obviously at the Commission's suggestion included them in the process.

I think the longer term aspect is that as we go through and decide what is the proper length of licenses themselves, I think that would be the appropriate time for us to encourage states. If we extend the license period to, for example, ten years or some other time period rather than having renewals as frequently as we currently do, that would be a time that we would really want to encourage the states to follow up on that.

COMMISSIONER DICUS: I guess where I was coming from, at least in part on this, is for those states that have a licensing backlog, and some of them do, if they went on and did this and then at the time of the review of the state program that would be raised one way or the other as an issue.

MR. THOMPSON: We certainly do look at the issues of backlog and what programs are available within the Agreement States programs to do that. This is something we could identify to them as essentially a way to address their problem. Obviously we had to go through a rulemaking problem and it took a lot longer. In some state programs it

may not be quite as difficult to extend the licenses as maybe what we had to go through.

DR. PAPERIELLO: I would point out that actually the idea came from them. I had a discussion before we got into this with the Agreement States on how long they license for. What I found out is that a lot of states do it differently than we do. In fact, a lot of states use a variable licensing, which is what we expect to recommend to you within the month when we talk about how long a license ought to be. Different states told me different things, but some states license for seven and eight years.

I started exploring the background of our own five-year license. It has no history. It was made up by somebody at a relatively low level. It wasn't a big agency policy. I'm going to change that. We are going to have a policy that you will have seen and approved, but it just happened.

When I started talking to Agreement States and found out what they do, I had different things, and a lot of states did a variable. In other words, if it was a big license and it was new, you give them a short license, two or three years. When performance is shown to be okay, then they lengthen it out to a longer period of time. So it kind of went the other way around. This was discussed heavily with them.

I will talk about all our interactions with the Agreement States, but some of these ideas came from the Agreement States.

COMMISSIONER DICUS: Thank you.

CHAIRMAN JACKSON: I was going to ask you a question about that. I had asked, in fact, that you consult with the Agreement States on how this process could be made even more effective and efficient. Did you do that?

DR. PAPERIELLO: Yes.

CHAIRMAN JACKSON: And how the process itself might affect the Agreement States. Did you do that?

DR. PAPERIELLO: I think we have.

CHAIRMAN JACKSON: Third, that you discuss with them what role they might be called upon to play in the development of them? Did you do that?

DR. PAPERIELLO: Yes.

CHAIRMAN JACKSON: And you are going to be speaking to all of these?

DR. PAPERIELLO: Yes.

CHAIRMAN JACKSON: Fine.

DR. PAPERIELLO: Next slide.

[Slide.]

DR. PAPERIELLO: In addition to reducing future renewal applications for the next five years, there was an immediate reduction in pending renewals of about 70 percent.

This slide shows the pending caseload is the smallest since 1988 and actually is the lowest since the program was regionalized in 1985. You can see we have about 200 renewals pending.

Anecdotal information would suggest to me this is the smallest number of pending. This is not just backlog; this is total number of licensing actions that we have in house for any time in the agency's history.

Besides doing what we are doing under BPR, I am doing other things that I can do to beat the backlog down. For example, we used contractor assistance and our own in-house. The things we do here in headquarters with sealed source and devices, we have gone from 500 actions down to 100 actions over the last two years.

I don't want the fact that we are doing BPR to distract us from what we are trying to do. A large number of pending actions isn't good. I just want to point that out.

COMMISSIONER ROGERS: Before you leave that graph, which is an interesting graph, what happened between 1989 and 1991? What was going on?

DR. PAPERIELLO: That was the fees. When the fee rule went through all kinds of licensees filed for amendments, some to give up a license. A number of people had a license not because they were doing anything, but just

in case they wanted to. And other people got amendments to put themselves in the lower fee categories.

COMMISSIONER ROGERS: In other words, swamped by a whole flood of them.

DR. PAPERIELLO: Yes. In fact, that is what happened in sealed source and devices. They had a jump up to 800 actions in one year, because people were paying for the certificate and decided "I'm not selling these things."

[Slide.]

DR. PAPERIELLO: The saved resources will help the rest of the BPR process and continue to reduce the backlog and pendings further.

One outcome of this effort in a sense to lower the water level was to reveal regulatory problems. We had each region inform us of their five oldest cases. We found backlog cases that had been pending for five to eight years due to decommissioning funding problems, continued use, in one case, of the WESF capsules, inability to meet Part 36 requirements for conductivity in the pool water for an irradiator, and disposition of incinerator ash, to name only a few problems.

I am not convinced I have my hands around all the problems. Actually, getting ready for this presentation and looking at what we had found, I have directed the staff to go out to the regions and identify all pending licensing

actions that have regulatory problems, not just time problems, but problems because licensees appear to be unable to meet regulations, which is some of these things that are sitting out there that we have to get our hands around and that haven't been brought to my attention.

Within about a month we will have a paper to the Commission on license duration. This is another area that was more complicated than we originally thought. In most parts of 10 CFR there is no license duration stated for materials licensing. It appears to have been set by policy at the division director level some years ago. However, Part 35 states medical licenses will be issued for five years. If you look at the words, it reads like all the other sections but it just says a license will be issued if the applicant can do the following, and Part 35 just says a license will be issued for five years if an applicant can do the following. So it's in there.

We will be proposing a policy of ten-year material licenses. I had thought that for some licenses we could go even longer, because there are things like gauges and the like which don't have a major technical change. What we looked at is the average life of a gauge licensee isn't ten years. Most companies and businesses don't stay in business that long. So we would not gain that much, and it made life a lot simpler to have one number.

Except we are going to provide for shorter licensing periods for special cases. What do I mean by that?

Right now there are no mobile irradiators in this country. I don't think anybody will build one, but I know we have consulted with DOE on one in China. If we ever license something like that, I think the first one I licensed I would want to license for a couple years and then take a look at performance rather than losing sight of it. We would like to make a provision that for something extraordinary like that we would go with a shorter licensing period to give us an advantage to think about the activity.

We propose to develop a standard license condition for broad scope materials licensees functionally equivalent to 10 CFR 50.59. Since we have decided, and this is interaction with the Commission, to revise 10 CFR 33, the broad scope licensing regulations, as one of the follow-up actions for the NIH and MIT events, we are planning to include this effort in the rulemaking process rather than doing what we proposed to do, offer people an amendment to do this. I think it would be in some ways better to do it within the rule process. The ANPR for the total revision of Part 33 is in concurrence, and this should be at the Commission in about a month also.

Can I have the next slide?

CHAIRMAN JACKSON: Before you get into the details of the process, I remember that in the previous briefing you mentioned a graded approach in the new license review process that would match the review level to the safety hazard and that more complex applications would be handled by individuals or teams with specialized expertise. I think at the time you indicated that a fuller explanation would be needed on how the safety significance of the license application or the activity is factored into how that application is processed.

DR. PAPERIELLO: Yes.

CHAIRMAN JACKSON: Will you speak to that today?

DR. PAPERIELLO: We will be, yes.

[Slide.]

DR. PAPERIELLO: As noted earlier, a major licensing problem has been the multiplicity of guidance documents supporting the licensing process. Many of these are out of date. Resources for maintaining them were the lowest priority in the budget, and responsibility for some were shared with the Office of Research, which had similar resource problems.

Furthermore, as part of the BPR effort we looked at ways of using modern information technology to consolidate the guidance for ease of maintenance and to use computer assistance to perform reviews and document the

review process, particularly intermediate steps in the process, which the IG in one of their reports stated was not well documented.

We have gathered all of the existing guidance documents and have begun to consolidate them into an electronic library accessible from the NRC World Wide Web home page. Since we like acronyms, the system is called MEL.

This has not been an easy task, and we are behind schedule. Producing products and teams has worked well when the team was in one location. One of the concepts that we had attempted to implement in developing MEL is writing in virtual teams so that, using group ware, individuals in headquarters and the regions at their normal work stations can work on the same document.

This has proven difficult. The problem is not group ware but the apparent need for face-to-face communications to coordinate products. We got a lot of good written material but not precisely coordinated and with varying levels of detail. We are looking at how to make such teams work better. In part, it may just be a matter of experience.

With the need to reduce supervisor-to-staff ratio, it is going to be necessary to make self-directed teams work. Additionally, if we wish to reduce travel costs and

include Agreement States, we are going to have to make virtual teams work.

One possible technique that was demonstrated to me last week is teleconferencing over the NRC network and the Internet using a computer and a relatively inexpensive camera. I don't know precisely how to solve the problem, but we are going to work on the problem.

CHAIRMAN JACKSON: Let me ask you this question. Are you doing this on a pilot basis, or are you trying to do the full scope implementation? Remember, in the previous SRM the Commission suggested that you do this on a trial basis.

DR. PAPERIELLO: We are trying to do it on a pilot basis. Essentially what we tried to do was create a modular licensing manual, which in some ways we bit off the whole thing. It turned out to have been extremely difficult to do. I am going to talk about the midcourse correction.

CHAIRMAN JACKSON: Is the midcourse correction going into the realm of a pilot?

DR. PAPERIELLO: Yes, piece by piece.

CHAIRMAN JACKSON: The point that was in the previous Commission SRM is that it costs money, it's a net investment to do these things, and because of just the kinds of issues that you have run into, that was the whole point in asking the staff to do it that way.

DR. PAPERIELLO: We were working on the pilot. I can't find a right analogy. Actually it was along the lines that you and I once discussed about a generic standard review plan. We will eventually get there, but we are going to have to do it piecemeal.

CHAIRMAN JACKSON: Let me let you go ahead.

DR. PAPERIELLO: This is one area in which a midcourse correction is underway. Instead of continuing to create a single modularized document, we are going to proceed in two steps.

First, all the existing information is being made available electronically. A lot of it is being scanned and put into our database.

For each area license, that is, portable gauges, small academic and research facilities, irradiators, radiography, and so forth, the information previously contained in the regulatory guides, standard format and content guides, standard review plans, and the relevant generic correspondence will be combined in a single document. This document will be published as a draft NUREG for comment and provided on the NRC network.

We completed the construction of the BPR laboratory just in May and within the past several weeks completed the first document using a team which included Agreement State representatives. This guide for portable

gauges is undergoing internal management review and will be issued in August.

At the same time, based on that guide, we are creating the automated review that will be used on the computer so that a reviewer can then take the application and using the computer can have computer assistance review. We are going to show you a videotape to see how that works.

I think it will solve a lot of the concerns that a computer is going to do the review. The computer is not going to do the review. The computer will be the check list that will walk the reviewer through the review, make available all the guidance immediately, and then the reviewer will essentially check yes, it's here, yes, it's here, here's a problem. It will document the review and will provide an opportunity for a manager or another reviewer to check the first reviewer's work. It is not a machine doing the review; it's a person doing the review with the computer assisting.

Similar documents for about 40 to 50 percent of all licensing actions will have been consolidated and updated by next February. However, it does not make sense at this time to spend resources to consolidate and update guidance in the medical areas or for broad scope licenses when major rule changes are likely to occur. For these areas, the guidance will be made available electronically

with the correct regulatory references and updates closely coordinated with the rule changes.

The second, ultimate step, not likely before 1998, will be to create the modular document. This will depend on resources.

I am looking over the long term to create either a generic standard review plan or a modular system that will allow a team to create a customized review plan in a short period of time. My intent is to go beyond just byproduct material issues and include criticality control, chemical safety, fire protection, and external hazards, and to make it encompass fuel facilities too.

We are making the NMSS newsletter available over the Internet, and that has been done with internal resources. In other words, our own people, not consultants, who have actually been able to produce the text and all that kind of good stuff.

The regions and headquarters staff have electronic access to all responses to regional technical assistance requests now.

Next slide.

CHAIRMAN JACKSON: The two midcourse corrections were what now?

DR. PAPERIELLO: Basically, the one midcourse correction at this point is to instead of trying to create

one modular document to cover all the licensing manual, to break it up into essentially strips.

In other words, we will create separate documents for each kind of thing we license, one for radiography, one for a portable gauge, one for a fixed gauge, one for teletherapy. Essentially just like we have our current licensing guides except there will be one document rather than a licensing guide, a standard review plan, three or four other guides that are relevant, and all the generic correspondence that has been issued to date that deals with that licensee. There will be one NUREG that will cover that area both for what you put in a licensing application and how we review it. It will be available both in paper and electronically.

It will go out for comment. So I will have the input of comment of Agreement States and the public and the licensees on "this doesn't make sense," which is what I am looking for. Then we will go out in final.

Every three years we are going to revise these things and make sure they are current. Since they will be in electronic format, if you change a reference to a rule, you will be able to make a global fix.

MR. COOL: If I can elaborate just a little bit on that. It's a focus sort of from our perspective of what all do we have in the pot to a perspective of either my

individual reviewers or the licensee in terms of what do they actually need to either apply for the license or review the license.

It also has a benefit in terms of what you mentioned a minute ago about the pilot, because now that I have generated the first licensee-specific piece which has all of it in, I can put that into a prototype information technology system, and while it is out for comment the reviewers can be testing the system to see where all the glitches are. If we do that with some of the simpler pieces early on in the process, it lets me be able to develop that system before we get into the bigger things, the radiographies, the large irradiators, the broad scope licenses and otherwise. So that in fact is a change made not only to get the proper focus back into it, but in order to be able to properly prototype and test the IT systems that need to go along with it.

[Slide.]

DR. PAPERIELLO: The system being developed to automate the licensing process we call the licensing inspection on-line system, or LIONS.

Currently we are working on the first two components, the application entry and the review component.

The third component, the licensing tracking system, already exists, but it exists as a very old and by

today's standard inadequate mainframe system. My staff tells me the proper term is a legacy system. It's running on a combination of a mainframe and a minicomputer both here and at NIH. If we never did do a BPR, we would be forced to move it to a network-based system before the current system dies. It's hard to find anybody who can tell you how it works, and I haven't been able to find out how much it costs even to maintain. Nobody quite knows because there are other systems that work this way too. If we never did this, we would have to move this to our network.

We plan to test prototypes of the first three systems later this month and pilot test the first integrated set of applications by February 1997.

CHAIRMAN JACKSON: This is going on here?

DR. PAPERIELLO: Yes.

MS. RATHBUN: Yes.

CHAIRMAN JACKSON: Maybe we will arrange a little visit for the Commission.

DR. PAPERIELLO: I couldn't bring the equipment here, but I would invite you over there.

CHAIRMAN JACKSON: Why don't we set that up so you can educate us directly.

MS. RATHBUN: We would be very excited to have you come there.

CHAIRMAN JACKSON: I don't know how I should take

that.

[Laughter.]

MS. RATHBUN: What is your favorite kind of cookies.

[Laughter.]

DR. PAPERIELLO: Can I have the next slide, please?

[Slide.]

DR. PAPERIELLO: Since we can't bring the BPR here, we would like you to see a video on how the automated review process would work. I think it will answer some of the questions raised in the Commission SRM on automated reviews.

I would also like to point out this was made by the NRC staff with NRC resources and video equipment, and I would like to thank Gary Armstrong in admin who is going to run this tape for us, who gave us advice, did the taping, and did the editing. I think it was a very professionally done piece.

[Videotape shown.]

NARRATOR: Some of us can remember the good old days of materials licensing, and we all know what the present day licensing system is like now.

The BPR team has prototyped a virtually electronic process. At the head of the new process is the materials

electronic library, or MEL, and the licensing and inspection on-line information system, or LIONS, the successor to LTS and other aging systems.

MEL and LIONS are the primary information resources regarding materials licensing. This information is available to licensees and license reviewers as well as NRC managers, state personnel, and members of the public. The LIONS application preparation and review system offers custom tailored features for applicants, license reviewers, and NRC staff who are performing license QA reviews.

The system offers license applicants a tool that provides a structured approach for preparing an application using customized screen features and comprehensive on-line help.

This application is modeled after popular tax software that guides the user through a series of easily answered questions particular to their program. That information includes name and address, a description of the places that radioactive materials will be used and stored, a description of licensed material and devices to be used, including the manufacturer name and model number.

A feature on this screen allows the applicant to select the sources and devices they wish to use from a list derived from the sealed source and device catalog of NRC and Agreement State approved devices. This tool will

automatically calculate the requested quantities of radioactive materials as the applicants make their selections; the details of the applicant's radiation safety program, including, for example, radiation dosimetry.

Immediate on-line help is available to answer the applicant's questions as they come up. The information supplied by this help feature comes directly from the MEL guidance database.

After completing and reviewing the application, the applicant then submits either a paper or electronic version of the completed application to the NRC for review. Once at the NRC, the submission is available for technical safety and QA review using another part of the LIONS system designed for use by the license reviewer.

License reviewers have several tools to assist them in their review of the applicant's submission, including a split screen review feature that displays the application data side by side with the pertinent evaluation guidance for the subject being reviewed. This allows deficiencies in the application to be noted for resolution with the applicant.

Like the applicant, the reviewer has immediate access to the same detailed information in the MEL to help evaluate and resolve issues as they come up in the review.

The reviewer system automatically creates a record

of decision documenting the resolution of issues and the basis for that resolution. This feature allows license reviewers to record comments for consideration by inspectors, QA reviewers and managers.

Completion of the review automatically triggers either an inquiry to the applicant for additional information or a draft license ready for QA review.

LIONS provides QA reviewers with a customized set of tools to review the application, the record of decision created during the technical review as well as the same MEL-based guidance relating to each portion of the application.

Comments from the QA review are recorded and forwarded to the reviewer and managers for resolution. Any outstanding issues or needed changes are then recorded and forwarded to the Regulatory Product Development Center so that applications can be created or modified to meet the needs of the staff, licensees, or the public.

This QA review along with the automatic creation of the record of decision are two of the means used to ensure consistency among individual reviewers as well as teams of license reviewers. Consistency is further enhanced by the use of a single source of information by licensees, reviewers and NRC managers.

The BPR core team along with the steering and

executive oversight committees are continuing work on this prototype with a goal to begin field testing in regional offices in the near future.

CHAIRMAN JACKSON: Let the record show I like your music.

[Laughter.]

DR. PAPERIELLO: It shows you how the system we are planning works. The initial uses are going to be simple applications. They are going to be things like gauges and the like. Actually, it turns out we do a lot of them. The reality is we issue very few brand new, broad scope licenses, but we issue a whole lot of the smaller licenses. So we can gain a lot of help and experience at a relatively simple level.

CHAIRMAN JACKSON: Let me ask you a question about that. Would it be fair to say that in a sense your initial application of the methodology to, as you would call it, simple applications, can we call that your pilot?

DR. PAPERIELLO: Yes, that's my pilot.

MR. THOMPSON: That's exactly correct.

DR. PAPERIELLO: We are not creating this thing right now for doing a broad scope application or something complicated.

CHAIRMAN JACKSON: Have you laid out metrics for yourself in terms of what you hope to achieve? Remember,

there was an issue in terms of cutting down the processing time, and again the SRM said that you should try to lay out some goals for yourself to measure whether in fact you are going the way you want to go. In doing these initial applications have you laid out metrics?

DR. PAPERIELLO: Not yet. I haven't.

MS. RATHBUN: Let me speak to this. We have begun working on that. Because of the immense resource considerations of MEL, which was beyond your wildest dreams and way more than we thought, and because of the necessity to work so hard on the IT development, because that is where we were spending the bulk of the contractor money, we had to defer the traditional BPR, the working, the values, the beliefs, the measurements, the metrics. We simply didn't have the resources.

We have re-begun to do that and convened a group of managers from the regions -- I guess it was last week -- to begin to work all the different metrics. So we are doing that, but it did have to lag behind.

CHAIRMAN JACKSON: How much has this cost you?

MS. RATHBUN: The total to date, including contractors and equipment, about $2 million over the two-year period.

CHAIRMAN JACKSON: When do you expect to start this prototype application?

MS. RATHBUN: The prototype is actually up and running in the lab.

CHAIRMAN JACKSON: When do you actually expect to start initially processing?

MS. RATHBUN: Piloting?

CHAIRMAN JACKSON: Yes, piloting.

MS. RATHBUN: We hope to be piloting in regions in February. We are doing portable gauge, fixed gauge, gas chromatograph. As each module emerges from MEL it goes to the IT team and then to the region.

CHAIRMAN JACKSON: When you tell me a time here, that gets incorporated as a milestone.

MS. RATHBUN: Did I say '97?

[Laughter.]

DR. PAPERIELLO: You did, and I offered that up earlier. The IT aspects of this thing have been considerably harder than we anticipated. I am going to address some of the lessons learned on that later.

Next slide.

[Slide.]

DR. PAPERIELLO: Fees were shown to have hampered timeliness of processing licensing actions. So actions have been taken to streamline fees. Actually, some of these streamlining efforts have helped the fee staff.

You can see, as laid out on this slide, as of the

fiscal year 1996 fee rule fees for inspection and license renewal have been incorporated into one annual fee, and the fee is due on the anniversary date of the license. So we space out the collection of fees.

The fee staff is looking at, I think mostly legal, the ability to collect fees concurrently with amendment application. What I am envisioning is many of the small amendments are a couple hundred dollars. Our problem was you would get a simple amendment in and you couldn't really work on it until the agency assured that it had the money. If the sum was wrong, then there would be correspondence. Therefore, that would hold the whole thing up. My belief, putting aside the legal aspects of what we have to do, is licensees who want their license and request and amendment will pay the bill. The fee staff is still working on that aspect of the issue.

COMMISSIONER ROGERS: On the streamlining of fees question, in the background of this whole business of course is the possibility that the number of Agreement States will increase and the number of non-Agreement States will decrease and the fee-based problem starts to come up. Dealing with that issue in some way, is that in your thinking here at all, or is that just totally separate?

DR. PAPERIELLO: It is mostly totally separate. It is in my thinking when I make references to the Agreement

States. In the comments that I submitted on strategic assessment I addressed one potential way where the more we could get Agreement States into assisting in the development of rules and any of the other things that we do that are in common, that might help pay some of the cost.

As long as the NRC has the ultimate responsibility -- I'm probably using the wrong legal words -- under 274 of the Atomic Energy Act and we are the ones who are, you might say, holding the standard of rules and the like, we have a tremendous overhead, and the overhead stays no matter how many licenses we have. To me that is the problem.

Insofar as we can get the Agreement States to help us maintain the overhead, pay for it, that will help. That's why I make the allusion to virtual teams. It's hard for Agreement States to travel here. Somebody has to pay the cost, but if I can have Agreement States assist us in working on documents that we can use together, that would in fact help spread the overhead out.

That's my long-term goal as long as we are in our current mode of operating. Obviously if we made changes that changed the fundamentals of what we would do, that would be one way to get around it. I understand where the problem is. I just don't have all the answers.

COMMISSIONER ROGERS: To follow on, you should be mindful that you are not locked in by whatever software you

have designed to deal with this, that if somehow our policies with respect to how fees are assigned changes in some dramatic way, that that doesn't give us a big problem because we have already selected the software and it is very hard to change.

DR. PAPERIELLO: I was just trying to tell within the area right now of a certain amount of discretion how I am trying to solve it.

CHAIRMAN JACKSON: You talked about your interactions with Agreement States. Do you intend to have them be able, perhaps for a fee or some other mechanism, to make use of this system to help ensure consistency?

DR. PAPERIELLO: Yes. I certainly expect what we develop and put on line to be available for the Agreement States on what they wish to use. If I could run the world the way I wanted to run it, we would have common rules and common procedures. I'm not sure I can make that happen.

CHAIRMAN JACKSON: It's not a question of that. It's more their having access.

DR. PAPERIELLO: It is my intent that they would have access to it. Definitely.

Next slide, please.

[Slide.]

DR. PAPERIELLO: We completed our BPR laboratory in May of this year. That is behind schedule. We expected

to have it done in January.

In some of our documents it's called the Regulatory Products Development Center. It's the same facility. I would invite you over to Building 2, on the 8th floor to see it.

We built the facility to develop and prototype the automated parts of our systems and as a place for teams to work to develop documents such as standard review plans and licensing guides in a short period of time.

We have conference space, work stations and two team rooms. The computers in the facility allow teams to work on the same document simultaneously and have on-line access to existing guidance.

The team is supported by a facilitator and a coordinator, currently contractors.

I want to emphasize that it is intended to be used for more than BPR. It will be a facility to create standard review plans, rules and guidance for all the program areas that I have in my office.

NRR is visiting it today?

MS. RATHBUN: No. NRR visited it yesterday. So they are probably going to want one too now.

[Laughter.]

DR. PAPERIELLO: Somebody came up to me today and told me in another area that a rulemaking plan was going to

take five months to develop. I hit the ceiling. You get a group of people together and you make it happen in two weeks. We know how to do that. That is my goal, to be able to have a facility where I can get a document created, a licensing guide or a standard review plan or a NUREG, in two to three weeks. Then it's on a system that I can immediately spread it out in the agency to anybody else to have everybody review it and compress the times down.

I expect this will be a major tool for any rulemaking needed to implement Commission strategic assessment decisions.

[Slide.]

DR. PAPERIELLO: We have had numerous interactions with Agreement States in accordance with the SRM. We made presentations at all Agreement State meetings. In fact, I know we had one here -- I can't remember when -- where almost the whole meeting was devoted to this process.

We have made visits to several Agreement States. We held extensive interactions with the Agreement States on the five-year extension.

We held one public meeting here in Washington with licensees and the public on BPR. North Carolina and Illinois have participated on various teams, North Carolina most recently on the portable gauge guide.

We issued two NUREGs, 1539 to describe the BPR and

what we did, and 1541 for comment on how we were going to make information available on the Internet.

The State of Washington will be involved in the review of the portable gauge guide that we just developed, and perhaps New Hampshire. We are not sure about their availability.

The State of Illinois, you should be aware, is a major contributor to the proposed revision of Part 33, because they had already been in the process of revising their equivalent regulation for broad scope licensees, and we made use of a lot of the work they had done. This process has been discussed in the NMSS newsletter.

We feel we have had a lot of interactions with the public, affected licensees, and the Agreement States in what we are about to do.

CHAIRMAN JACKSON: If you could lay out one to three major kinds of concerns that have come out of these interactions, or comments or suggestions, what would they be?

DR. PAPERIELLO: Can you address that, Don? You've held most of the meetings.

MR. COOL: There have been a number of concerns raised although not nearly as many as I would have expected actually. Fundamentally, the comments we have been getting back are, this is a very interesting process; we'd like to

see how it plays out; we would like to be more involved with it.

That is part of the reason we have been able to get what I think has been some very good participation of individuals. There have been concerns about costs; there have been concerns about their access to it.

Commissioner Rogers, you mentioned a minute ago whether we are tied to particular software or not and trying to move to an Internet base with its relatively standardized kinds of file formats to allow other systems. There are in the development process where you are using a particular kind of group ware certain circumstances like that.

There were some concerns raised about consistency of approach, particularly as we start to consolidate these and look once again at the measure of performance orientation versus prescriptiveness: exactly what are you going to ask for? How many things are you going to ask for? Which things are you going to tie down?

There is a wide variation of views. Certainly that variation of views also exists in our staff but becomes yet more apparent when you are within the state program. Some measures of tracking the traditional comment about what becomes a matter of compatibility or adequacy within this particular program. In other words, how far would they be forced to play down this if they only had a very small

program. Certainly some of the Agreement States are small and it perhaps doesn't make sense to take all of the bits and pieces.

That is some flavor of some of the variety of things coming from both the meetings themselves and from the individual interactions we have had with individual state folks who have participated on some of the teams.

COMMISSIONER DICUS: What about comments from the public?

MR. COOL: The public in general has been very favorably inclined at this point. We have received a lot of good feedback from the public meeting which we had here in the auditorium. Again, it was a measure of having access to the materials, when those materials would come on line. A lot of the comments were in the form of suggestions: Have you thought about this kind of input being received? What about faxes? What about the Internet? What about various and sundry things?

My recollection is there were very few of the "you're headed in entirely the wrong direction." Generally very, very positive. A little more receptivity than in fact I would have initially guessed in terms of people being ready to move forward to use more electronic application type modes and move in that direction.

DR. PAPERIELLO: Next slide.

[Slide.]

DR. PAPERIELLO: We have reviewed past recommendations from the GAO, internal reviews and congressional interactions. I find currently there has been no deviation from those policies and practices explicitly resulting from these reports. In fact, most of what has occurred in the past three years has been to improve NMSS adherence to the various recommendations.

It's fascinating. One of the things I got to read is a 1976 GAO report, which I think has had a major influence on the program before my time. I looked at the recommendations:

Require license applicants to describe detailed radiation safety programs. That's what we do now and we have been doing it for quite sometime. Apparently back in 1976 we didn't do that; we relied primarily on the qualifications of the applicant and not any detailed review of the program.

Improving communications between the separate licensing and inspection staffs. When we regionalized the licensing process in 1985 we took a major step toward putting the inspectors and the license reviewers in the same place.

Improving management reviews of licensing actions for uniformity and completeness. I think we made a major

step when we instituted the IMPEP program.

The Commission should encourage the 25 Agreement States to effect similar improvements in their programs. Well, in a sense IMPEP is now applied; we have uniform evaluations in the regions and the Agreement States. So I think there are a lot of the things we have done.

However, I would say that in implementing the current program we have adopted the same intensive review process for all license applications. Everybody gets the same very, very hard, in-depth look. We review radiation protection procedures, training programs, material security programs, and the like to the same depths for all applicants regardless of risk. Although the programs are not required to be the same, we still apply them, we still dot the i's and cross the t's on what is submitted.

As we in time move to a more graded approach based on the intrinsic risk of what is being regulated, NMSS may deviate from the existing practices. We will proceed cautiously and I will be watching the inspection results and the event reports closely as we make changes to detect adverse outcomes. We are not going to rush into this. We are going to be proceeding extremely slow and look for events and inspection findings to tell us whether or not we made a misstep.

One issue as we get into the electronic age with

electronic information transfer is accuracy of information: How do you know what you received is truly from the person you think sent it to you?

The BPR team has done very little in this area. However, there is an agency effect that is currently underway to validate electronic submittals with valid electronic signatures since other offices within the agency in addition to NMSS are interested in doing this. We are going to basically tie our work to their work, because it is an agency-wide effort.

Next slide.

[Slide.]

DR. PAPERIELLO: NMSS began this effort before strategic assessment began. Many of the issues raised in the strategic assessment papers are similar to issues that BPR has been addressing.

I like to reflect that in 1998 there is greater professionalism and infrastructure in the radiation protection area and medical physics areas than in 1976 when the GAO report was written. I think we need to ask the question how we can make use of it.

We have an extensive risk history for many of the common uses of nuclear material. This is based not on PRA but on empirical data. I gave to Mr. Thompson earlier today data for the last three and a half years by program code and

events where there was enforcement action taken based on misadministrations, lost material, overexposure, spills and releases. So we have a lot of good data that will identify where the risks are in different programs.

I don't have an answer to this right now, but I need to map this information onto our licensing activities: How can I give licensees flexibility, reduce the burden on the licensee and on myself in order to save us both resources and yet protect health and safety?

I think that is a challenge we have. I don't have the answers, but I do believe that we have adequate data out there that identifies where risk is, the probability of occurrence, roughly, and the consequences in particular of the occurrence, and some of these similar questions that I know have been raised within the context of strategic assessment.

CHAIRMAN JACKSON: You say the data is there, but have you worked out some coherent methodology or plan for making use of that data in a systematic way?

DR. PAPERIELLO: Not yet. But will I? The answer is yes.

MR. COOL: To be very frank with you, part of the problem we face is that while we are confident that the data is all available, it is not in one place, it is not easily searchable, and it is not something that it is relatively

easy to go in and start doing those manipulations. A large part of the effort to date has been to try to get to the point where we thought we actually had our hands on a data set that we could then proceed to attempt to do those manipulations and applications.

Most of what we have got, in fact the things that Carl provided to Mr. Thompson today, were in fact done by hand as we tried to pull together the pieces. In order to be able to apply that systematically and then work it back into the system we need to actually have that in the system where we can do something besides one to one to one to one down the sheet of paper.

DR. PAPERIELLO: For example, I will go back to portable gauges, because that is the one that we have just written a draft NUREG on. We looked at the events. Gauges don't leak. People don't get overexposures to gauges. What happens is gauges get lost, gauges get stolen, and accidents occur at construction sites. So we focused the document we just wrote on what does the applicant do to address these problems.

If I had a very flat procedure, I would put as much emphasis on whether or not the workers were trained in the effects of gamma radiation as I would on what do I do if my device is run over at the site. What happens is exposures are almost unmeasurable in routine uses. Having

the device getting run over at the site is the kind of thing that actually happens, and that is what the data shows, and the data shows when it happens the sources don't leak. So the major problem is making sure that somebody who knows what they are doing goes out and retrieves the source. So focus the review and what you want on what the problems are and what the empirical data shows.

Could I have the next slide?

[Slide.]

DR. PAPERIELLO: Future activities. Where are we going?

One, we have to be cognizant and we are cognizant of strategic assessment. This effort began before a strategic assessment began. I recognize that many issues raised are similar to what we have been struggling with. You are going to be making decisions concurrent with this effort, and I need to be sensitive to your decisions and to be flexible, which I certainly will be, and I think I have the tools to do that.

We will be making a midcourse correction, as previously noted. I find that I need to become more cognizant of efforts by IRM and NRR which in the information technology area may offer the potential for consolidation and savings. Some of the things I'm trying to do I've only become aware of in the past month that both IRM and NRR are

doing things where there is overlap, and we are coordinating with them so where the information technology overlaps we don't have two systems; we only have one.

I want to continue automation or computer assisted review, not only because of speedup benefits, but because of the collateral advantages of ensuring consistency among reviewers in different regions, QA checks, and the documentation of decision basis. I also think it has advantages in other program areas that I have where these collateral advantages are useful.

I kind of think I've been a nag in the system in the area of training. Whenever anybody talks about building a new system, I keep raising, where is the training coming from? There are things we are learning here. Hardware is easy to buy and relatively cheap because most computers and associated equipment are similar. Software is much harder to select because there is a greater diversity.

We have made extensive use of contractors for advice in this area. However, the staff has to be able to use the systems. Even more important, we, and I mean managers like myself, need to understand how these systems can help us do our job better. This involves training.

The computers and the software in the BPR center cost roughly $400,000. That's a lot of money. I did this calculation last night. It struck me that at $100,000 an

FTE, that's equivalent to four FTE. If I give half my staff one week of computer training, I've expended four FTE. My experience is if I spend a week in training on a new software package, that barely gets me started. But if you don't train people, they can't use it.

I have two major areas. Besides information technology I have the advanced computer system for technical, and I've done work there to have people's training upgraded, but it is a long, painful process. Personally, myself, I just spend a lot of my own time at home working with software packages to learn how to use them.

I don't have an answer to that question, but in my performance reviews and my SCS staff and our first-line supervisors I'm putting much more emphasis on looking at staff training and particularly in the computer area for both technical and information technology. I'm not convinced I really know how to use all this stuff. I don't mean just to make the commands, but how I can do my job using information technology. So I see that as a major challenge that I have learned out of all this. I am going to do everything I can to keep myself more informed.

One last area. Somehow I lost a slide in the package and you got a handout: Where Are We? We are behind. I don't want to hide the fact. I am about six months from

where I thought I wanted to be.

I don't know all the reasons. Some things became harder to do than we expected. We took some wrong turns, I think, but I think we are back on track. I think we are going in the right direction. We are doing things that have to be done. As long as we have our current program, we have got to have a sound licensing basis for what we do. We need consistency. We need to know why licensees are doing what they are doing.

CHAIRMAN JACKSON: Mr. Thompson, did you have a comment?

MR. THOMPSON: I was going to say the observation and the lessons learned concerning management and their ability to be aware of the computer infrastructure and how to understand and effectively utilize that is a clear focus that we are putting on the staff, and in fact I know the CIO will be further enhancing that area for attention.

In fact, kind of like the business process evaluation, the business payoff, you heard we spent some considerable sums of staff money and resources to do this. Understanding the payoff, those are the types of things. There is a more comprehensive way to do that, and obviously we will be doing those types of reviews in the future.

The intuitive aspect that I think NMSS started out on this was clearly recognizing at the end there were going

to be significantly less resources to do almost the same amount of work. The payoff is going to be there, we believe, but we haven't done that kind of systematic analysis that would show that. Getting back on track and back on schedule is important to be able to achieve the end results in an appropriate period of time. It doesn't apply just to NMSS; it's all of the staff, quite frankly, to be able to effectively utilize the information technology resources that we have available to us.

CHAIRMAN JACKSON: Carl, what I always like about you is you are always straightforward.

My comment, and then I will give my colleagues a chance to have any questions or comments they would like.

I think a real lesson learned is the following. Many organizations set out along a line having to do with using information technology to streamline whatever or to help capture and use data. So there is a focus on what hardware is available, what software is available, whether it is off the shelf or customized.

But the real thing you have to understand is what your information needs are and how information flows and is used in an organization or in a process and what streamlining or improvements in your processes, in this case licensing, you want to accomplish. Then those two have to be married and understood, and it is really then and only

then that you actually have a basis on which to begin to talk about technology choices, be they hardware or software.

This is not a criticism per se, because it is a lessons learned. I've seen it in other organizations. They start off on a path that is very hardware and software driven. The hard part, and perhaps where one needs help, is really in evaluating what improvement do I really want to make in how I do things in a certain area. What are the appropriate metrics to use in evaluating whether one is making an improvement? How does information flow and how is it handled and used by people? And then, how does hardware and software help me accomplish that?

I agree with Mr. Thompson that that is what the new law, the ITRMA, is oriented to, and the CIO, because I think more broadly that will help you as you move along this path. You mentioned, for instance, you are just now becoming cognizant of activities in IRM and NRR in the information technology area. You are looking at one piece of your particular area of responsibility, but we have lots of opportunities more broadly, and as you say, we may be missing opportunities for efficiency, if nothing else.

Those are my general comments, but I did have one question.

You mentioned training, and training is tied into all of this. It's at a much more sophisticated level in a

certain sense. I noted in your paper you talked about that. The one thing I didn't see much, maybe because there is no need or you don't perceive the need, is whether there is anything in the technical area in terms of issues such as criticality and understanding sensitivities in that area particularly as you talk about going to a more risk graded approach at an appropriate point down the line. I am saying your discussion in your paper of training does not reference the integration.

DR. PAPERIELLO: With risk.

CHAIRMAN JACKSON: Well, just the technical and safety considerations in this.

DR. PAPERIELLO: It didn't.

CHAIRMAN JACKSON: What are your plans in that regard?

DR. PAPERIELLO: I can't say I have any right now. I know it needs to be done, but my thinking hasn't gone that far yet.

MR. THOMPSON: You are talking about the training of the staff. We obviously have our training advisory group where we look at the training needed for the reviewers and licensing and we work with AEOD on the training programs associated with that. I think that was somewhat separate from the training of how to utilize and implement the system.

CHAIRMAN JACKSON: I'm talking more in terms of getting to this risk graded approach to looking at licensing, et cetera.

MS. RATHBUN: The only thing that we did was we got the Merit people, Conger and Elsie, and they came in in kind of a workshop setting and they began to look at how we would walk down that path. The problem is that is a reactor-based PRA type analysis tool. So we have to do modification of that. When we did the training we didn't focus on that yet except for them. That's all we did in that area.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: I thought this was an excellent briefing and very interesting. I think some of the points that the Chairman has raised during the course of the meeting in her comments bear emphasis. The caution that the Commission sort of gave you on doing this as a pilot program I think sort of came from our own past experience in other context where you can get eaten up by the system if you try to take too big a bite out of it and it bites back.

It is so easy to be too ambitious, to have a grand approach that would just be absolutely wonderful, and then you just can't quite ever bring it off. A pilot project which produces some small but useful results as a start to get a feeling about where the problems are is so vitally

important that you just can't plan one of these big things on the drawing board and then have it fly. It's just not going to. It will crash. It's guaranteed.

So pilots are very important, and I think you have learned that to some extent here. But to some extent it gets out of your control. When you choose to start on something and you start pulling on the thread, a lot of yarn starts coming, and how do you cut that off before you become engulfed in it? I think you have sort of touched on that problem that you ran into here to some extent.

I think you are going through a classical learning experience in this. It's not brand new.

DR. PAPERIELLO: It's somewhat even bigger than that, and it has been touched on in one of the strategic assessment papers that deals with self-directed teams. There are a number of team members here, and this is something I've been very sensitive to. We got into this because the self-directed team took off. I don't want to criticize the team, because they work very hard, but they were allowed to go down a path and they did, and that's how we got to MEL. They showed me the concept. I kind of bought on to it.

You're right about the pilot. In other words, it was just too big of a bite, but I think it's a lesson. I believe the self-directed teams is something we need to work

on and practice on how you get the control.

COMMISSIONER ROGERS: I was going to ask about that.

DR. PAPERIELLO: It is kind of a lessons learned, and I don't want to criticize the team. I know they are here. They are very well motivated and all of that, but what we got is what we got.

MS. RATHBUN: One of the really major, major issues was that we could not do this traditional BPR. Had we been able to develop the management systems, the organization structure, implement the values, implement the change, there wouldn't have been a problem. But you have to make choices. So we had to put the people on writing the guidance.

What we found out the hard way is that if you don't have these systems in place, I don't care how smart your team, and they were, and how well motivated and they work hour after hour, if you don't have an infrastructure and, if you will, a sociology of work in place, it will not work. It's just as simple as that.

We have begun. We brought in all the regional division directors and, working with our contractors, who are BPR experts, we are now in a detailed fashion working each and every one of those problems. I believe that we will be able to then analyze exactly where the problems are

and propose the type of management structure for the regulatory product development center so that in fact we will be able to function as self-managed teams in the future. I think that is what happened.

COMMISSIONER ROGERS: It's a pitfall that is there when you begin.

Have you tried to look for any efforts outside of NRC that would provide you with some benchmarks to compare your own experience with?

DR. PAPERIELLO: When we went outside of the NRC many of the concepts that we were trying to implement, self-directed teams, virtual teams, the regulatory products, were all things that we found outside. I think we are going to have to go back to take a harder look at management.

I take responsibility for the fact that this thing sort of took off and blew up on me. I want to be careful in the words. The people wrote and produced a whole lot of material. It was too much material in a sense and was not focused on what we were trying to do.

MR. COOL: If I can elaborate just a little bit more on that. As Pat Rathbun mentioned a minute ago, we spent two days last week, myself, my regional division directors who were directly involved in this project, working as a group ourselves to look at the management of how you would develop these products. We were assisted by

the contractor and were able to use some of their knowledge background of working in other reorganization, reengineering type efforts, and particularly the experiences they have gained in the operation of teams.

That experience base is mostly in the public sector of developing proposals and those types of documents rather than perhaps a development of a guidance type of document for use by others. We have not at this point had any significant formal effort to go try to look for what often gets referred to as best practices of other groups that may be trying to develop this particular type of document.

So the answer is a little bit yes in the sense of how teams have worked, what kind of metrics have proven effective for teams, what kind of management buy-in and goal setting and ownership of the process is needed from myself and from all the regions in order to carry this out, an opportunity to lessons learn that particular issue.

MS. RATHBUN: I would like to add one more thing to what Don said. There is a literature, and in the sort of dark and lonely nights in the BPR center frequently we begin to look at them. What we found is that the things that we have experienced in BPR, the energized team, the depressed team, racing to do an IT module, is it the right one, these types of things beset all BPRs. What we talked about is it

is okay to fall down in the road, but you can't just lay there. You have to get up and keep moving.

I think what we have experienced is fairly common in BPRs, but again, we have another dimension that needs to come out here. We are a health and safety agency. When this team is writing guidance and doing things, this is because people live or die by what we do. We are not reengineering giving of dog licenses. We are reengineering a health and safety situation. So that puts an enormous burden on every word they say. So it's very complex.

CHAIRMAN JACKSON: Commissioner Dicus.

COMMISSIONER DICUS: Nothing further, thank you.

CHAIRMAN JACKSON: Again, the Commission would like to thank the staff for an excellent and straightforward briefing. You should continue your efforts to bring into effect this business process redesign as soon as it's practicable.

I still believe, as I stated in my opening remarks, that it holds the potential for increasing the effectiveness and at the same time the efficiency of the materials program beginning in this area.

I think you have already stepped back and you are reviewing your lessons learned, but it strikes me that, interestingly enough, a lot of the areas where you do have the lessons learned relate to areas where the Commission in

the previous SRM issued caveats. What I would suggest that you do is that minimally you go back and look at that previous SRM in terms of what it asks you to do, and that you fold it into how you incorporate your lessons learned and what you plan to do. Because I think that in addressing what was in there in a systematic way you will be going a long way to addressing some of the kinds of issues that you have talked about.

I think you also need to come back, because in your current paper you didn't really talk a lot about schedule other than what you mentioned to me about having this pilot go into effect in February. You need to come back within a short time, by the end of the summer with a revised schedule that includes milestones, what your goals are, what you intend to get out of training and all of the different types of training, and what this pilot itself is meant to accomplish, what your envisioned scope of it is, the metrics and what it will tell you about the appropriateness of the information technology choices.

I think you need to go back, and that is also in the previous SRM, to the issue of interaction with Agreement States, but beyond just meeting with them, to talk about how this gets used or integrated into your interactions with them, whether you are talking technology transfer in some sense or their being able to use what you develop, how it is

going to impact, but basically systematically addressing what is in the previous SRM.

I think I am going to have you come back and brief the Commission on the program status and progress certainly within the year, but perhaps before then, probably within six months, to understand how the initial trial of the pilot is going. I am going to be interacting with you directly. I think we have to move this along, because we have to be sure that with the advent of the CIO that all of these things get appropriately tied together.

Unless there are further comments or questions, we are adjourned.

[Whereupon, at 11:30 a.m., the briefing was adjourned.]

CERTIFICATE

This is to certify that the attached description of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING ON BPR PROJECT ON REDESIGNED MATERIAL LICENSING PROCESS - PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Wednesday, July 3, 1996

was held as herein appears, is a true and accurate record of the meeting, and that this is the original transcript thereof taken stenographically by me, thereafter reduced to typewriting by me or under the direction of the court reporting company

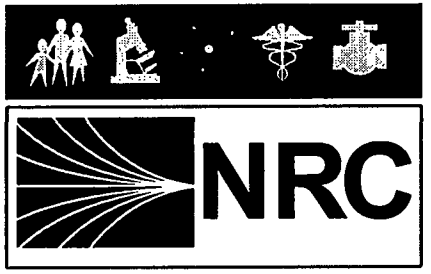
Transcriber: Michael Paulus

Reporter: Michael Paulus

Coordination with NRR Reactor Project System (RPS)

- NMSS & NRR systems share:
  - Guiding Principles
  - Development Environment
  - Standards
- Next Steps
  - Additional NMSS/NRR Coordination Meeting planned
  - Detailed Examination of Module Interface

NMSS Materials Licensing Business Process Redesign Project



Commission Briefing by

Carl J. Paperiello

July 3, 1996

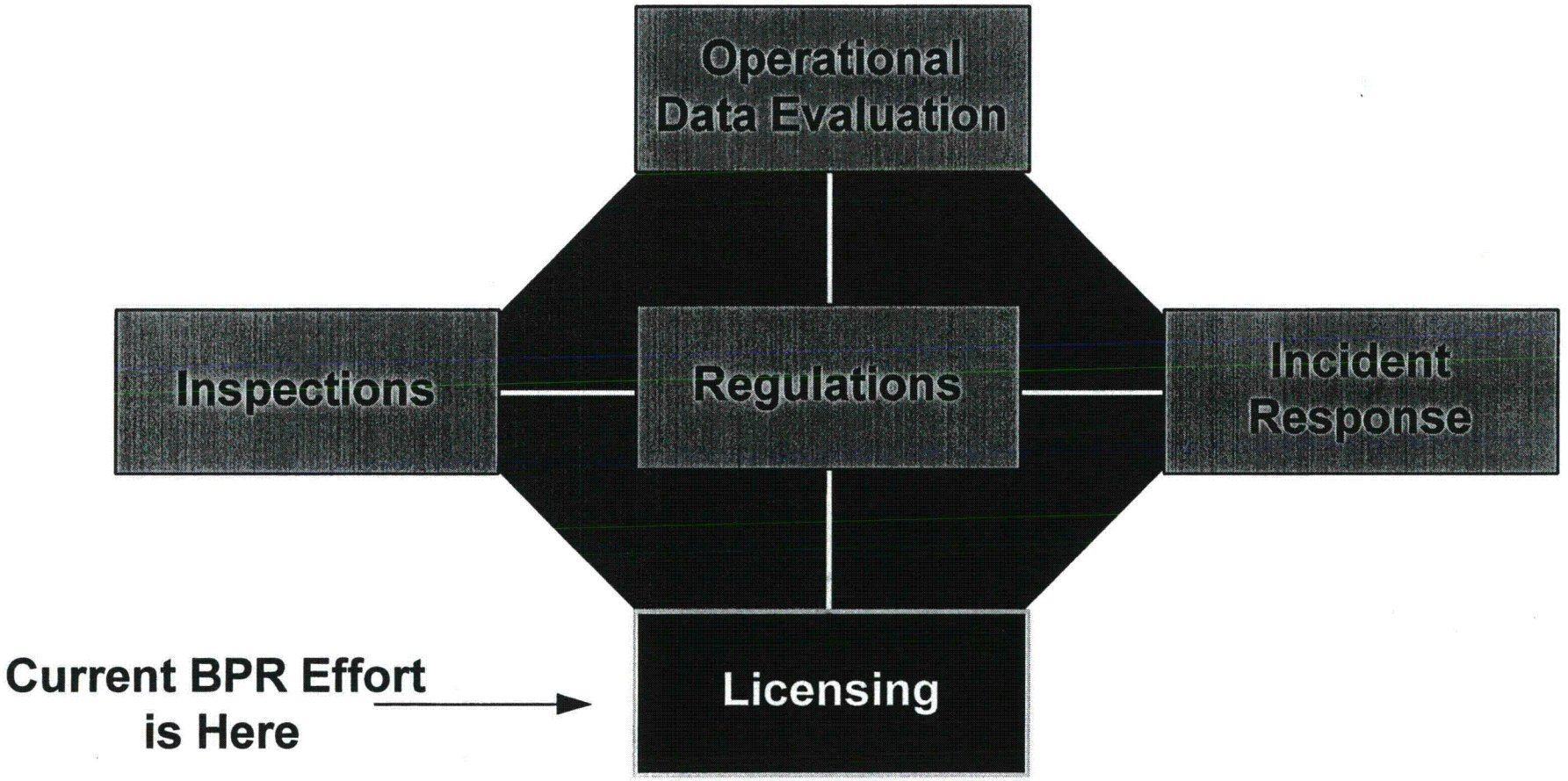
Presentation Outline

- Overview
- License Extension and Other Licensing Initiatives
- Implementing the New Process
- Streamlining
- The BPR Lab
- External Involvement and Communications
- Remaining Issues
- Where we are on the journey
- Strategic Assessment and the BPR Context
- Future Activities

Overview - Reasons for BPR

- Large Licensing Backlog
- License Renewal Resources
- Inadequate Licensing Guidance
- Need to Reduce Resources

Overview - Relationship of Materials Licensing BPR to Other Key NRC Areas

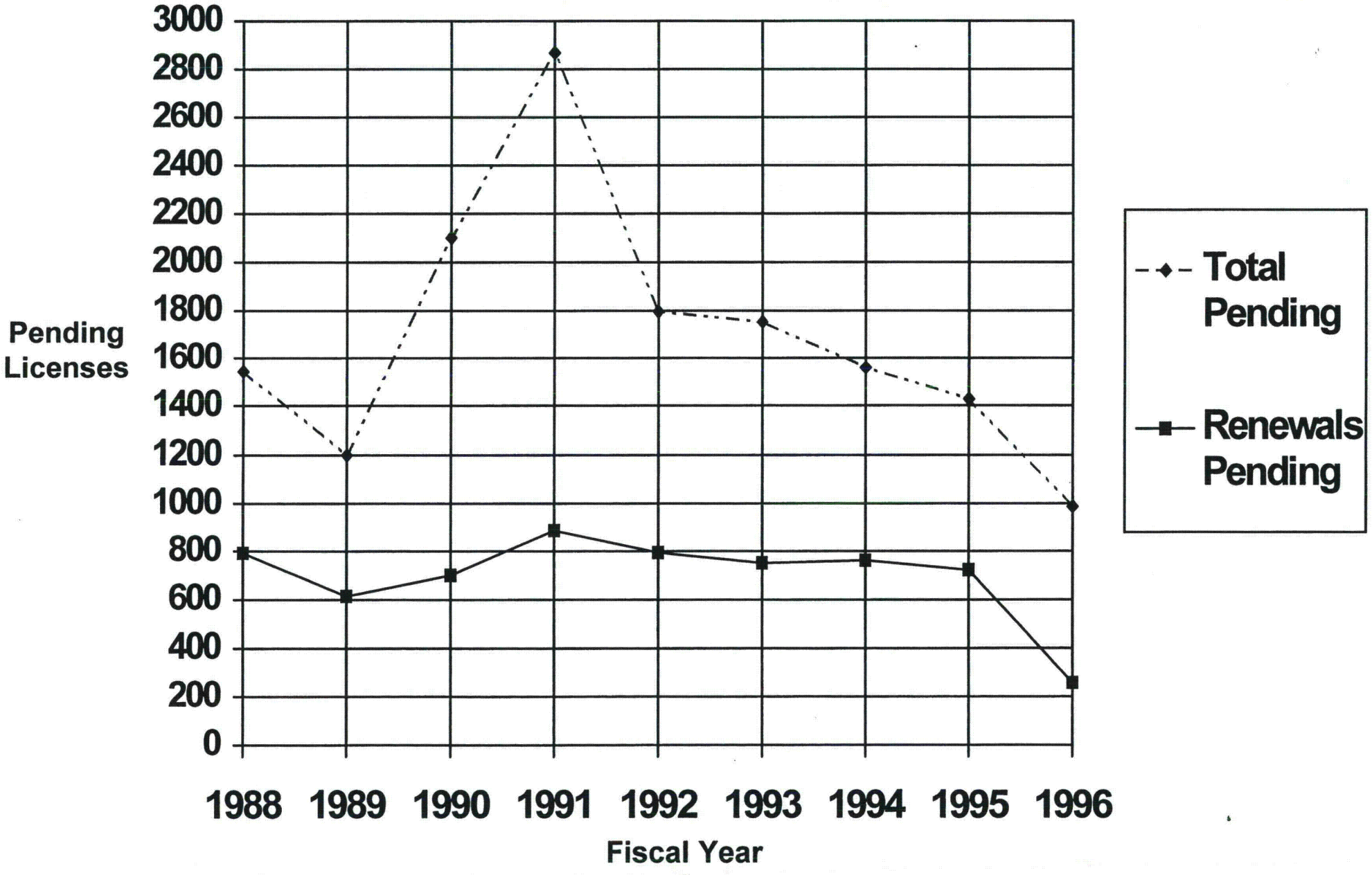


License Extension and Other Licensing Initiatives

On one-time basis, extend qualified materials licenses by 5 years

- **Proposed rule published for comment: September 8, 1995 (60 FR 46784)**
- **Final rule published: January 19, 1996 (61 FR 1109)**
- **Effective date: February 15, 1996**
- **5,655 of NRC's 6300 eligible materials licenses extended**

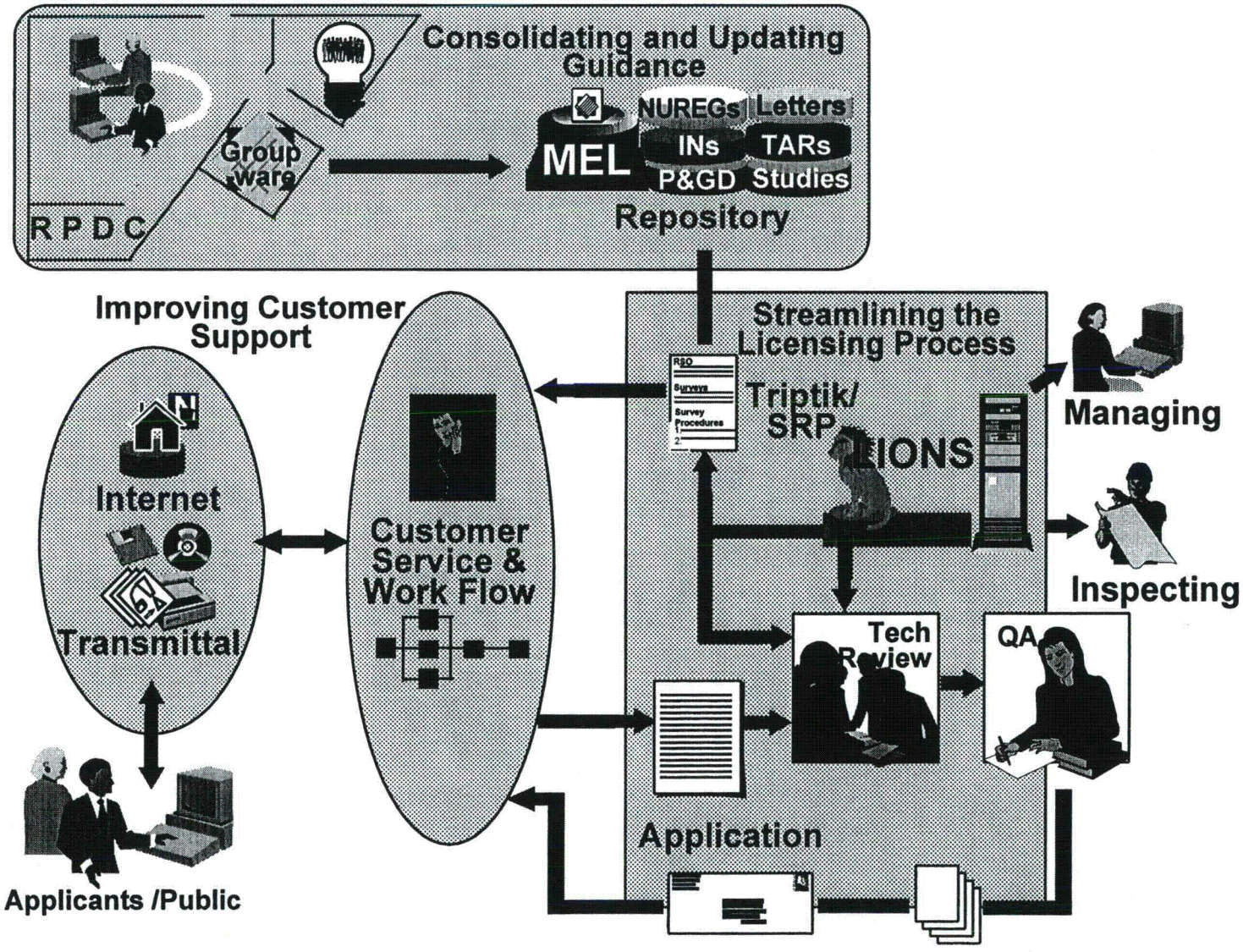
License Extension and Other Licensing Initiatives



License Extension and Other Licensing Initiatives

- Effects on Backlog/Pending
  - 70% reduction in number of pending licensing renewal actions
- Efforts to Reduce Backlog
  - Regions focusing on 5 oldest cases
- Other Initiatives
  - License Duration Policy: Commission Paper in preparation to propose new policy
  - 10 CFR 50.59 Equivalent: Subsumed into 10 CFR Part 33 rulemaking

Implementing The New Process

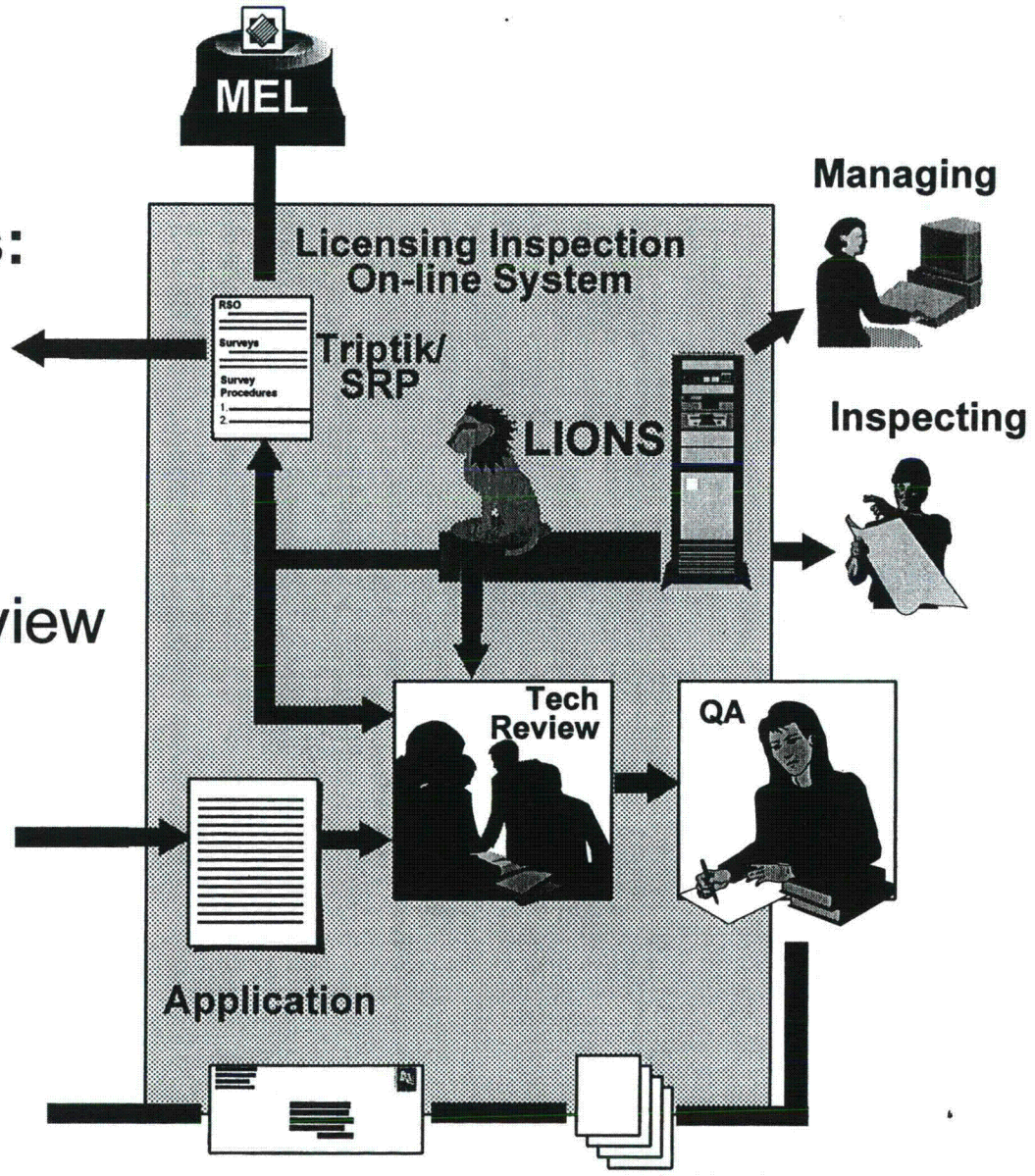


Streamlining the Licensing Process

LIONS - Licensing Inspection On-line System

The five LIONS Programs:

- Application Entry
- Application Review
- LTS Reporting
- Computer Assisted Review
- Inspections



Streamlining - Software Demonstration Video

- Demonstrates what would be seen by users of a prototype software tool for the preparation & review of license applications.

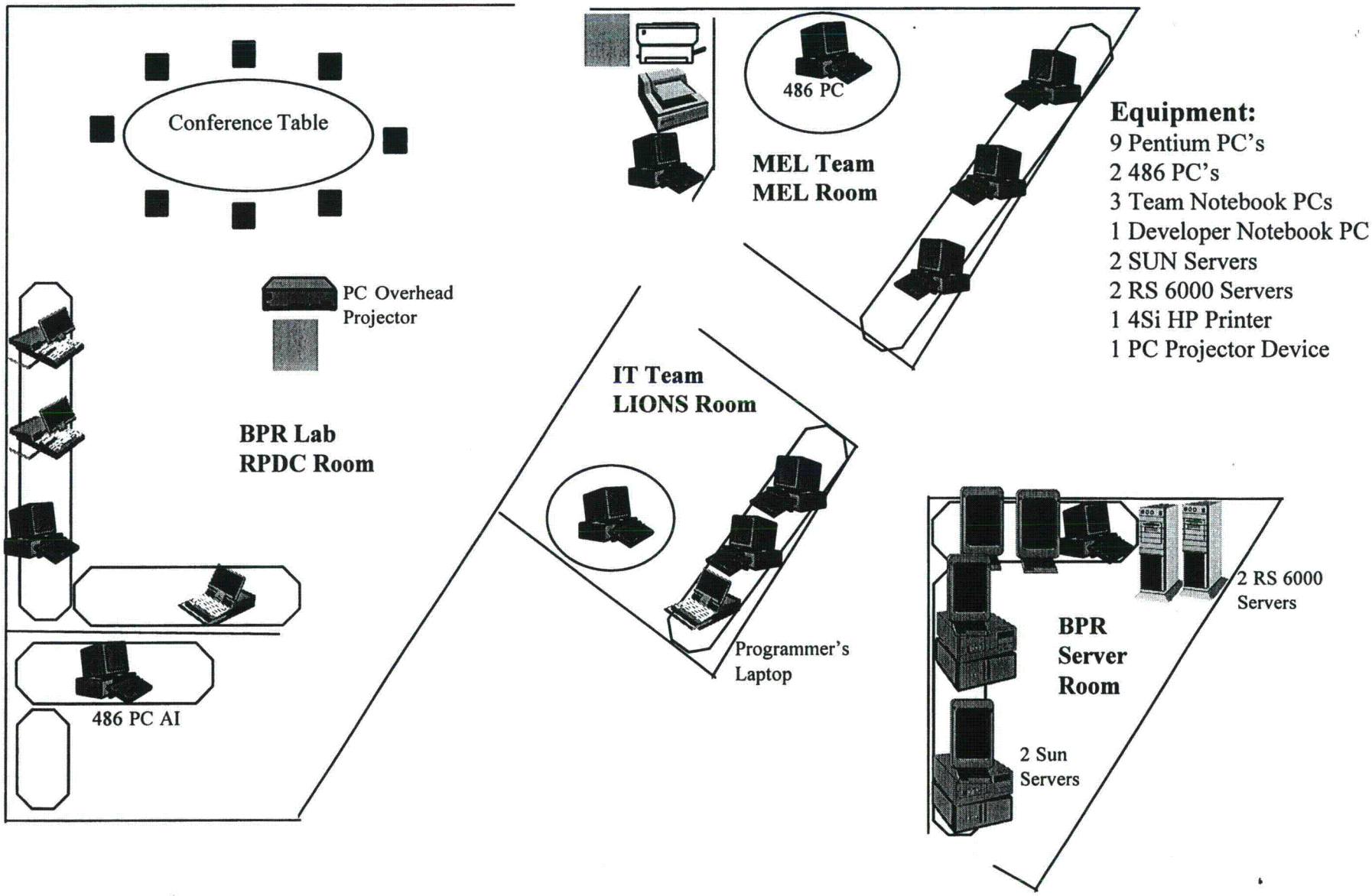
- The specific functions and features are still under development and testing. The content of the license application is for demonstration purposes only.

Streamlining Fees

Separate payment of fees from the process of issuing a license and continue to streamline the fee structure for materials licensees:

- **FY 1995, annual fees for materials licensees include inspection costs.**
- **FY 1996, annual fees for materials licensees include renewal costs; annual fee due on anniversary date of license.**
- **The staff is continuing to explore ways to streamline fees and to ensure that fee payment is not a critical path item in the new licensing process.**

The BPR Lab



Equipment:

9 Pentium PC's
2 486 PC's
3 Team Notebook PCs
1 Developer Notebook PC
2 SUN Servers
2 RS 6000 Servers
1 4Si HP Printer
1 PC Projector Device

External Involvement and Communications

- Agreement States
  - NRC visits to UT, TX, IL
  - NC, IL participation in BPR teams
  - MD participation in public workshop
  - IL comments on proposed license extension rule
  - Input via meetings, NUREGs

- Licensees and Public
  - Comments on proposed license extension rule
  - April 1996 public workshop, NUREGs
  - NMSS Licensee Newsletter

Remaining Issues

- GAO, Congressional, internal reviews
- Graded approach to licensing, safety implications - risk informed; performance based
- Accuracy of information

Strategic Assessment and the BPR Context

- Science of Radiation Protection Changing - Greater Professionalism and Infrastructure
- Shift in NRC approach to allow greater regulatory flexibility
- Emphasis on risk significance in the regulatory approach

Future Activities

- Strategic Assessment
- Midcourse Adjustment
- Continue Automation
- Greater Emphasis on Information Technology Training

Program Coordination

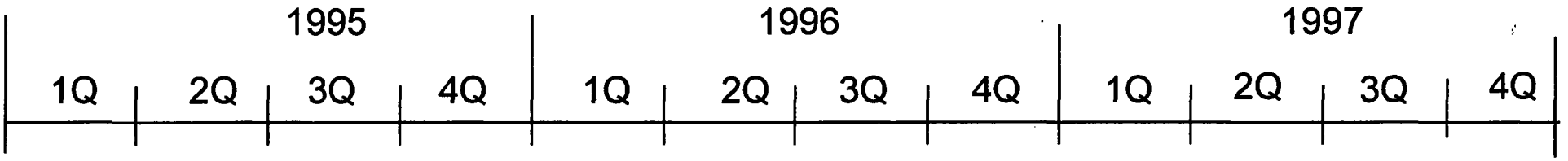
- Steering and Executive Committee Oversight
- Coordination with NMSS and NRC wide labor - management partnership
- Regional Participation in all team activities

One Time and Recurring Costs

Costs	One Time, $K	Recurring, Annual, $K
Technical Infrastructure	460	200
Application Development	1834	140
Transition	435	75
Capital Infrastructure	100	50
Total	2829*	465

*Inception of the Project (September 1994) to date 2000K

Combined Timelines



BPR Phase II Activities

Develop Interim Licensing Manual

Develop Single Licensing Manual

10 Year Licensing

One-time License Extension

Complete TAR Database Prototype

BPR Inspection and SSD

BU

Where We Are on the Journey