UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
***
BRIEFING ON BPR PROJECT ON REDESIGNED
MATERIALS LICENSING PROCESS
***
PUBLIC MEETING
***

Nuclear Regulatory Commission
Commission Hearing Room
11555 Rockville Pike
Rockville, Maryland

Tuesday, February 18, 1997

The Commission met in open session, pursuant to notice, at 1:02 p.m., the Honorable SHIRLEY A. JACKSON, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

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

(SECY NOTE - SLIDES FOR THIS MEETING ARE IN POWERPOINT FORMAT IN FILE M970218A.VG).

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

JOHN C. HOYLE, Secretary of the Commission
KAREN D. CYR, General Counsel
HUGH THOMPSON, Deputy EDO
BRUCE MALLETT, Director DNMS, Region II
DAVID FOGLE, Chief, Industrial Licensing Project, State of Texas
CARL PAPERIELLO, Director, NMSS
DONALD COOL, Director, Division of Industrial & Medical Nuclear Safety, NMSS
PATRICIA RATHBUN, BPR Core Team Leader, NMSS

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P R O C E E D I N G S

[1:02 p.m.]

CHAIRMAN JACKSON: Good afternoon, ladies and gentlemen. Today the staff and a representative from the State of Texas, an agreement State, will brief the Commission on the Business Process Redesign Project. The staff last briefed the Commission on BPR in July of 1996, and as a result of that briefing, the Commission directed the staff through a staff requirements memorandum to take three actions.

First, to arrange for Commissioner visits to the BPR laboratory in 2 White Flint North. Second, to address the directives in a 1995 SRM. And third, to provide a briefing on the initial trial of the BPR pilot program to reform the materials licensing process.

The staff has acted on the first two items, and the purpose of today's briefing is to provide the Commission with the results of the BPR pilot program.

Today's presentation also provides the Commission with its first formal briefing since the staff addressed the 1995 SRM directives in a September Commission paper. In that regard, the commission may have questions for the staff regarding the overarching materials licensing BPR program in a broader context than just the pilot program and what the results are that have been realized through the BPR relative

to the amount of resources expended.

We appreciate the attendance of the agreement State representative and look forward to hearing your views on the BPR licenses pilot program. We also look forward to hearing from the staff both from headquarters and the region.

I understand that the staff's paper, SECY-97-034, describing the progress of the BPR pilot program, and the staff and the agreement States viewgraphs are available at the entrances to the meeting room.

If my fellow Commissioners have nothing to add, Mr. Thompson, please proceed.

MR. THOMPSON: Thank you, Chairman Jackson, Commissioners. Good afternoon. With me at the table, as you said, from my far left, is Dave Fogle, from the State of Texas; Bruce Mallett, the Region II Division of Nuclear Materials; Carl Paperiello, who is the Office Director from NMSS; Don Cool, who is the Division Director for the materials licensing activities; and Pat Rathbun, who is the head of the BPR activities and the team, I believe is, most of the team members are in the back. So we probably have people who really can answer any of the questions that may come up today.

As you know, the Material Licensing Business Process Redesign Project began about 2-1/2 years ago, and

the goal was to design a new licensing process that would maintain or improve the public safety, yet give us an order-of-magnitude improvement in the speed, and that's what we have been working on for all these years, and obviously part of the process was to insure that we understood the process before we went to automate it.

As you mentioned earlier, we -- the Commissioners, most of the Commissioners I think have viewed the test lab for the prototype, the BPR lab, and I think we have only one Commissioner that we are currently making the arrangements for final visits, but after that the team conducted a small focus pilot exercise in the BPR lab using the computer-assisted licensing prototype. The headquarters pilot exercise was followed by a second phase of the pilot test conducted in Region II using actual portable gauge license applications. In today's briefing we will describe the results from the pilot test and lay out our plans for the next steps in this project.

In addition, Dr. Bruce Mallett, from the Region II, will give you the regional perspective, as we'll hear from Dave Fogle from the State of Texas, as their desire to see how it would work for the agreement States.

The staff is very pleased with the progress to date, but we still have lots of things to do, and with that I'll turn it over to Dr. Paperiello for a few opening

remarks.

DR. PAPERIELLO: Donald Cool's going to present most of the, make most of the presentation today, but I'd

like to remind people of how we got started into this program. The problem we were out to solve with the licensing backlog in the regions was a half a year's work. The budget at FTE was shrinking, and it is shrinking, for this activity.

The licensing guides and the standard review plans that we had available for licensing had been last written in the mid-eighties, and there was no provision in the budget for revising or updating them, and they were out of date, and in fact we had changed regulations since they were written and never changed the licensing guides. And a substantial portion, almost 50 percent of the licensing of the FTE expended for licensing of the FTE expended for licensing was actually in the renewal area. So with the needs and to bring the program into line with the resources, we launched this effort. That's kind of how we got started.

I would note that since we started this effort a couple of years ago, the Commission a year ago initiated strategic assessment, and somewhere this year we're going to have to incorporate the direction from strategic assessment into BPR, because one of the lessons you learn when you do BPR is one way to save resources is to find things you don't

have to do.

For example, basically changing the frequency of renewal from 5 years to 10 years is essentially one way of saving resources by not doing something. We have an opportunity when we revise -- if we revise regulations based on Commission direction and strategic assessment -- to look for things, requirements that we just don't provide any added safety. And by altering our requirements, we may be able to save resources there, both on our part and on the part of licensees. So somewhere this year we're going to have to incorporate the strategic assessment directions into the direction we're going on BPR. I'd like to just take notice of that.

With that I will turn it over to Don Cool, who will discuss what we achieved in the pilot we ran.

DR. COOL: Thank you, Carl. Chairman Jackson, Commissioners.

Go ahead and put the first slide up. My daughters contributed their cold to me over the weekend, so I hope my voice holds up through this.

I wanted to start very briefly with a little bit of history, and we've touched on most of the points here in this slide. We have briefed the Commission on a couple of occasions, and you did indeed provide us several specific tasks to go off and do back last July. We're here today to

focus principally on that third task, which was to go do a pilot program of the licensing program.

Go ahead and go to the next slide.

The BPR project was actually started back in September of 1994, and the staff created a vision of the new licensing process which it presented to the Commission in 1995. Since that time we have been working on each of the three principal areas within that vision, and have in fact accomplished a number of things in each of those areas to date.

For example, in the area of working in teams, that area with the map of the United States, we have created the redesign center. We have created some systems for working in teams, a methodology for working in teams. Contrary to

what you might suspect, while this agency is very good at using a team in an emergency situation or a AIT or an IIT type of situation, it has not been common practice for the staff to use a team approach in approaching more routine problems. Rather we tend to be individualized experts, go off and attack something.

So in fact it was not the normal way of doing business for the staff to get together and just suddenly be able to work harmoniously in a team. We have had to develop methodologies, facilitation, and computer support systems to enable us to work efficiently in developing teams.

. 9

In the area of guidance consolidation we have looked at and developed a methodology for consolidating guidance. We have in fact done the first of the consolidations doing portable gauges, that being the largest single class of materials licensees which we have, and doing that in terms of a risk uniform performance-based approach, trying to simplify that and move it to a performance orientation. That was in fact part of what we were testing in this pilot project.

We've also developed things related to our technical assistance requests, making that electronic and available so that now both in my office and in the regions we can call up that data base of particular technical systems actions, be able to determine whether or not we've answered the question before, speed that particular process along, as well as look at and change the license duration with the Commission's approval just a few weeks ago to move to 10-year license terms.

The third area, dealing with the actual licensing process, was the focus of this particular pilot, and in particular, testing the computer-assisted reviews of the licensing applications.

CHAIRMAN JACKSON: How much have we actually expended resource-wise in terms of dollars and people to this point?

. 10

DR. COOL: 2.8 million in terms of dollars net total, and I'm not sure, I don't have an FTE number right in front of me. We can get that for you, if you'd like. For that we've bought actually a large number of things and developed a fair number of ideas, including the laboratory product center, a lot of the infrastructure and software systems, business practice facilitation support, a great deal of training in those activities, groupware. So a variety of things go into that. It's not all spent in one particular place or location.

COMMISSIONER McGAFFIGAN: On the FTE's, an order of magnitude, is it 10, 15, what number of FTE?

DR. RATHBUN: Just kind of estimating roughly I would say it's about between 12 and 17.

CHAIRMAN JACKSON: And as you go along, I'd be interested in hearing to what extent the software you've developed is applicable beyond that relating to portable gauges. That's number 1. But more importantly and more broadly, to what extent is it compatible with either existing systems or systems the agency is developing, and in particular I'm thinking about ADAMS, and I'm interested in to what extent that is a bottleneck or not or to what extent what you've developed is compatible with that or not, and what is being done both within your organization and with the CIO to address this. These are very important issues,

. 11

particularly if you're telling us that you've already spent $3 million on a pilot, and 12 to 17 FTE have been involved.

DR. COOL: We will certainly do that.

If I can go ahead and have the next slide.

Those questions I particularly hope to get to when we get close to the end of the briefing and where we're going in next steps.

This is a slightly different way of looking at some of the things that we've done. Racked out in terms of the amount of automation that was necessary or desirable to do these. Some of the actions that we took didn't need any automation to accomplish them, such as the license extension changes to duration.

Some of the actions, such as consolidating guidance, making guidance available on the Internet of technical assistance data base, required some automation. You could do guidance consolidation and do a paper copy, and in fact we did that. That's a published NUREG. You can take it a step farther and make it more useful by having it available on-line on the Internet, which that document is, and by using the software systems that are now available today to facilitate group development processes.

On the other hand, considerable more computer assistance and expertise is needed if you go to a computer-assisted license review process, which is what we were

piloting.

CHAIRMAN JACKSON: What have we spent the $3 million on?

DR. COOL: I'm sorry?

CHAIRMAN JACKSON: You went through some things that really didn't involve much automation, and I guess I'm curious as to what we spent the 2.8, that is circa $3 million on.

DR. COOL: Okay. That breaks down into a couple of large categories. One is IT systems, the development of the BRP laboratory, the associated computers and systems which are in there, the purchase of the software systems, both Lotus Notes, which this is the software package we use to facilitate group interactions and development of products, and the various software packages that were necessary to develop the licensing application that we piloted down in Region II.

The other big category, the sort of a broad block, was contractor support services in terms of facilitation of my staff in developing the BPR ideas, facilitation of the process of developing what we sometimes refer to as the business diamond, the things of values and goals and jobs and skills and metrics that go along with these activities. The support systems for the servers, we have used contractors to support and maintain our Lotus Notes server,

our development server, some of the activities, in particular training, that went along with getting our staff to use these software packages, to learn how to put materials onto the Internet, do the HTML, the hypertext coding, which is associated with that.

So there are two blocks. One was hardware, if you will, and in that I'm going to include things like the software packages, and the other was the facilitation support and assistance and us working our way through the process, because when we embarked on this process, BPR was an idea you read about in the trade literature. We had no

way of just starting to walk down the path for ourselves.

So part of what we went out and purchased was someone to walk us down the path who has been down that path, done that for other both government organizations and private industry in terms of business process redesign philosophy, the kinds of approaches, the kinds of pitfalls. Now that doesn't mean that we managed to avoid all of the potholes. You have to sort of fall into some of them on your own. But a fair amount of that money actually went into the support to help us walk down that path and know what path we were generally trying to walk down.

CHAIRMAN JACKSON: How many people are involved in the kind of licensing actions that you hope the BPR ultimately will cover?

DR. COOL: I would say virtually all of my staff and in the regions.

CHAIRMAN JACKSON: So how many people are we talking about?

DR. COOL: The net budget for my materials program is slightly over 100 FTE's. Of that actual reviewers is in the regions probably something on the order of 25 to 30 reviewers in the four regions who are the actual reviewers. Then there are associated with that people like the administrative assistants, the licensing assistants, who receive the application, have to docket it, have to forward it to fees. You get a variety of people who end up having to touch that application at some point in the process.

CHAIRMAN JACKSON: I guess -- so the natural question becomes should I apply a linear or a multiplicative factor to figure out what it would take to expand a BPR to all these people in your organization. You say 100, and you've used 12 to 17 FTE's, so you're talking a factor of 6 to 8. And so is that what we have to look forward to, six to eight times the 3 million that's already been spent? I mean, and I'm not trying to give you a hard time, I'm really --

DR. COOL: I would say no, very frankly.

CHAIRMAN JACKSON: Okay.

DR. COOL: Because a lot of it has to go in on the

front end, looking at the idea, generating the idea, testing whether the idea will in fact work, developing the underlying system. We're now to the point where we can start to implement things, build on it, expand it, as you mentioned. And we believe that it is expandable, both up in terms of more complex licenses and to the potentials for registration, as we discussed with the general license program.

And once you have the underlying system, then you can create another set of screens. It doesn't come free, but it doesn't, I believe, scale linearly.

CHAIRMAN JACKSON: If I look on viewgraph 5, the one that has the BPR recommendations, where are we exactly with respect to the three areas that are on that slide?

DR. COOL: Area 1, no automation. License extension is done. The duration is done. The move to performance-based licensing and implementation of strategic assessment obviously ongoing.

In terms of the consolidate and revising guidance, the first document was portable gauges. The draft is done, public comment completed. We anticipate to move very quickly to make that a final document.

From there the additional subject areas, such as

fixed gauge, self-shielded irradiators, radiography, well logging, the whole suite of those and right now we have
. 16
about 19 or so topical areas laid out, have been made part of my division operating plan over the next three years. It will be an ongoing operation over that period of time.

The fully automation portion, as you mentioned, that we'll have to pace with the development of the agency's infrastructure.

Our anticipation is that we will move to create the automation screens that can be associated with each of the licensee types as we develop the consolidated guidance document that goes along with that particular licensee type.

CHAIRMAN JACKSON: Dr. Paperiello, you were going to make a comment?

DR. PAPERIELLO: Yes. I would point out that the tools, all the automation tools to do the guidance revision, we have. Nothing other than actually writing the things -- we don't have to do any -- you know, we actually have the right text but we do not have to add any more in terms of computer hardware or software.

I would point out we talked about writing software. In fact, we used all off-the-shelf software. We did not, you know, write programs ourselves, so there was nothing like that.

Most of the money was spent on contractors.

CHAIRMAN JACKSON: That's my impression. Okay.

COMMISSIONER McGAFFIGAN: Could I just follow up?
. 17
The contractor-facilitator part of the $2.8 million, could you tell me what percentage of that was?

DR. RATHBUN: Let me try this with a little more accurate numbers. I've never broken it this way specifically, but the first part of BPR, just getting us through to the vision and laying out -- you know, the interviews, the vision, that was $350,000, so if you want to just sit down and conceptualize something and actually take it to a vision of the future, that is what it cost us to do this, and we conducted about 75 interviews in all regions.

Now it becomes more complex after that because normally you would go on in the BPR and then automate what you visioned. Because we had a number of tasks we had to accomplish -- the 10-year license, the one-time license extension, and the guidance consolidation -- that moves us out into this other part, and I am going to say that we probably spent close to a million dollars in both buying the Lotus Notes, getting the Staff accustomed to that, setting up the templates, and, frankly, having one false start, which we told you about last time.

Now that you would not have to account for in future projects. Presumably we learned our lesson on that, because now that we are down to it, it only took us six weeks to do that portable gauge.

Then you have the development of the -- well, wait
. 18
a minute. In doing these tasks, we had to -- we used the contractors. They went with us on the interviews. They designed templates. They wrote reports and they also facilitated every team session and team met daily for a period of a year and contractors were with us during that entire process.

The IT development, then, is probably at least another $1.2 million just in building that system, and I

would have to go to CSC and ask them to --

CHAIRMAN JACKSON: This is not a budget hearing.

DR. RATHBUN: I understand. It's just -- so you have got, those are your big chunks and then we have training.

CHAIRMAN JACKSON: Well, I'll just say that, and I don't want to preempt whatever you are planning to discuss as we go along, you know, my concern is less a detailed, specific breakdown, because this is not a budget hearing, but rather how to have a better sense of exactly where you are, did you accomplish everything that was in the previous SRM, where you are going from here and how quickly, and how this ties into -- and back to the compatibility issues with other ongoing efforts in terms of information technology and automation in the agency.

I mean I think you can separately provide detailed breakdowns --

. 19

DR. RATHBUN: Okay.

CHAIRMAN JACKSON: I am not interested in hearing about $350,000.

DR. RATHBUN: Okay.

CHAIRMAN JACKSON: But rather what are we accomplishing and where do we expect to go and how quickly for the dollars expended. Okay?

DR. COOL: Okay, and our anticipation was to get to that in just a little while, after we had walked through the pilot.

We can jump to that if you would like immediately --

CHAIRMAN JACKSON: No, let's just work our way through it.

DR. COOL: Okay.

CHAIRMAN JACKSON: I mean I guess I am looking at the full automation and you are saying that we haven't gotten there, even relative to portable gauges?

DR. PAPERIELLO: No. We have.

CHAIRMAN JACKSON: Oh, you have. Okay.

MR. THOMPSON: Let me just say, we are automated but we are not fully-automated in our infrastructure and we have tested out in the pilot and we'll discuss that, but it is not in the system where we can just dial up right now and I think that is what we are really talking about.

. 20

Either you would have to have I think a stand-alone machine to be able to do it like we set up the pilot down in Region II, and it was automated. It was fully automated in the region but it is not integrated, fully integrated -- maybe it is fully automated but not fully integrated.

CHAIRMAN JACKSON: That sounds good.

DR. PAPERIELLO: Fundamentally the agency's information management system is still paper.

CHAIRMAN JACKSON: No, I understand that and I'm sure the CIO is listening very carefully.

[Laughter.]

CHAIRMAN JACKSON: And if he is not, he should be listening very carefully.

MR. THOMPSON: I'm sure he is. Okay, Don, I want you to move forward on it.

DR. COOL: Okay. Let's go ahead and then quickly walk through the pilot.

Our objective was to see whether or not the system could in fact work.

We picked portable gauges because they are relatively simple devices. There are two spaced reviews so there is an inherent degree of safety built into them, and at 19 percent of the licensees they were by far the biggest single chunk, so we could take a big chunk out with this particular challenge.

21

We were looking at the test in terms of the technical review and QA review. We boxed off other things like exactly how you do all of the incoming receipt of electronic applications, how you might fire back out electronically a finished license, and a variety of those sorts of activities so we constrain the system, and that introduces some artificialities when you get to how long did it take and how confident you are about how long it took.

We did use the consolidated guidance documents that had been developed.

We can go ahead and go to the next slide, very quickly.

The development process --

CHAIRMAN JACKSON: Let me just take you back.

DR. COOL: I'm sorry.

CHAIRMAN JACKSON: You mentioned new portable gauge license applications only, but in the opening remarks you mentioned that the bulk of what you have to deal with are license renewals.

How close are you to being able to handle renewals and/or amendments for the portable gauges?

DR. COOL: Renewals will be very quick to be able to take in because they look exactly like the new application so you can roll the renewals right in.

22

The amendments should also come very easily as you have an electronic system, calling up the file, seeing which change, and authorizing that also then comes much more quickly because you with the system can click on the screen as opposed to having to go off and find the text file, pull it out of the docket file, flip it open, flip through the --

CHAIRMAN JACKSON: What is your target date for that, for having that piece of it relative to portable gauges tied up?

DR. COOL: I don't have a date for you at the moment, ma'am.

CHAIRMAN JACKSON: Okay. You should think about doing this. See, this is the classic kind of thing where somebody calls up -- "Chairman Jackson, please come downtown and see Senator So-and-So --"

You know, he has the licensees who are upset because of how long it takes to renew a license or amend a license.

"Ah, but Senator, you know, we have a redesign materials process." "Right. How long is it going to take then to review my constituent's license amendment? "

That is the kind of thing from a practical point of view, you know, that is really helpful to us. Okay? Thanks.

DR. COOL: When we come back to the "where do we go from here" at the end, I would like to talk a little bit more about why I gave you the answer I did.

23

CHAIRMAN JACKSON: Okay, fine. I think I know part of the reason.

DR. COOL: The iterative development process,

working through the development of the application screens in Headquarters and our regions; go ahead and go to the next slide.

The Information Technology Management Reform Act a couple years ago, one of the things that directed the Federal Government to do was to develop and build IT systems in a modular fashion. That is exactly what we tried to do in this particular case, building a structure and a module with the technical staff sitting side by side with the people who were actually doing the screen development, so you build a little, test a little, build a little, test a little -- refine the process -- say, no, that doesn't quite get us where we need to go -- in a very efficient process actually over a relatively small number of weeks last Fall.

In a matter of months they had the working model that could be tested within the laboratory and headquarters.

CHAIRMAN JACKSON: What is rapid application development?

DR. COOL: Build and test, build and test, build and test with the people sitting side by side.

. 24

CHAIRMAN JACKSON: Okay. Go ahead and go to the next slide, the Headquarters testing.

We used as the feed material for that some licenses that have already been issued, pulled that information out of the docket files to test it, tested the system, looked at in terms of going out and grabbing the guidance process flow, kinds of screens, what works, what didn't work -- a variety of things, and as you might suspect, found a number of things that needed to be refined, needed to be debugged.

Developed no fatal flaws from that -- the thing did what we wanted it to do, identified a number of areas to be improved.

It also validated to the extent we could the kinds of jobs reviewer, quality assurance person, and some of those activities. That proved out very nicely also.

So we refined the system and moved on to the region.

COMMISSIONER DICUS: What were some of the things that you found that you needed to fix, to redo?

DR. COOL: Well --

COMMISSIONER DICUS: I think in the paper noted some major issues and some minor issues.

DR. COOL: There were a number of work flow issues that came out of this.

. 25

How does the license reviewer hand it off and how does the QA person know to pick it up? Some of those things, which caused us to go back and look at what we refer to as business rules.

The old system that we are all very used to -- it takes it, carries it over, puts it on the desk. The next person has it sitting in his pile, does things.

Well, it's a little bit different with the electronic system in terms of, oh, I now have it, it's now in my queue, for example.

Some of the things about how to go and pick up and correlate activities in the IT space, depending on the level of complexity some of them are minor debuggings. It's calling the wrong place on the code. Some of them, more major in terms of the logic train of the relational database.

CHAIRMAN JACKSON: How much did you interact with

IRM on this can how helpful were they to you?

DR. COOL: We had a person from IRM on our core team interacting with us on an almost daily basis and they were quite useful to us.

We had those folks participating with us, although most of the rapid development activity was the contractor developing the screens with my reviewers from the region sitting there talking about this particular application.

. 26

CHAIRMAN JACKSON: Who helped you with the work flow issues?

DR. COOL: The contractor. My reviewers. My licensing assistants from the regions.

We tried to go out and to pick the people who do this job on a routine basis in the old process and say, okay, now it does this -- where would it next go logically under the old system? How do I make sure that I manage to get all the steps done, all the buttons touched -- so we have used a variety of people within the regions and headquarters.

COMMISSIONER DICUS: Do you think all the problems are resolved or do you still have some with regard to what you have identified to date?

DR. COOL: I would venture to say that no computer system ever has all of the problems resolved. I think all of the major ones we're certainly there.

We are down to things like it calls the data up in the wrong format. It doesn't quite print it on the standard license page at the moment. There's formatting issues and some of those sorts of things --

CHAIRMAN JACKSON: I would like to put the question this way. Relative to portable gauges, do you have a product that you are using today, so that if someone sends in a new license application relative to a portable gauge

. 27

that you will use this system as opposed to your paper-intensive system?

DR. COOL: We have a system which is ready to do that when I make the guidance final and make that the way that we license portable gauges, then based out of Region II we will be using this system for at least some of those applications because I do not have underlying infrastructure in other systems ready to make that a network application for all of my reviewers, but we will be issuing -- I expect us to be using it to review and issue licenses.

CHAIRMAN JACKSON: Do you want to give us a target date? That is the date you can't give us yet? All right.

DR. COOL: Stand-alone, we'll be doing that before the end of the fiscal year.

COMMISSIONER DICUS: For portable gauge.

DR. COOL: For portable gauges -- and I think that is the issue we are going to discuss later on, integrating this in ADAMS and the platforms that are going to be compatible is the key element.

DR. PAPERIELLO: I'd like to go back to a question, a question of IRM involvement.

We in NMSS are not experts on information technology and I would say depending upon when you start dealing with the technical analyses we do, and I am talking about numerical analyses, modelling, and things like that on

. 28

computers, we are quite knowledgeable.

When it comes to information technology, we are

not, and we have to heavily rely on contractor support and some support from IRM.

If there is a lessons learned, at least the lesson I learned, in any future project like this, I will not get involved with it without full partnership with now it would be the CIO organization, which I would say IRM was not.

I am not saying -- if it was anybody's fault it was my own fault for having gotten into this without realizing maybe all of the resources I would have needed, that kind of resources, but I would say that is a lessons learned out of this.

CHAIRMAN JACKSON: No, that's -- and I appreciate your making that comment, Dr. Paperiello, because I think where we want to go, and I think you have already spoken to it, is that if we have a resource here or a putative resource in IRM-CIO, that on the one hand in the working organizations, you know, we have to be willing to go there and make use of what resources exist. On the other hand, that organization has to be working with you to see what in fact can be offered by that organization to help not only purchase technology but to optimize information flow, work flow, and you mentioned that.

Of course, you know, you have people who are

technical reviewers who do this, who do that, and one has to ask where are the resources best deployed in which ones -- but I think you have essentially spoken to it in the comment you made, and that is a good lessons learned out of this.

MR. THOMPSON: I might want to add, because I obviously was dealing with IRM at the same time, there are -- this is probably the first big BPR effort this agency has undertaken, and there was limited IRM experience and IRM often is subject to doing a lot of work by contractors, as opposed to that, so it wasn't that they weren't prepared and willing to assist.

I think it is a kind of a combination of the right mix and skills and as I think Carl said, I think they were there in and their heart was there. I am not sure they didn't have much more than a body and mind to go with it because I think they put one of their better IRM liaison people to work with the contractors.

There wasn't I don't think an IRM lack of desire. I think what they found both in budget space and other space is the fact that it was a -- the program offices had more of the capital and they were focused on other activities, and supported them as best they could.

CHAIRMAN JACKSON: Okay. Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: Could I ask on Lotus Notes, whose advice was it to use Lotus Notes? It is a very

good program. A lot people use it around the country in the business community. Was that from your contractor? Was there --

DR. PAPERIELLO: It was the contractor.

COMMISSIONER McGAFFIGAN: And did IRM happily go along with that or unhappily or what was the --

DR. PAPERIELLO: They approached it, I think, with skepticism, as we did.

It was suggested. We said we will go ahead and try it. We got into it and it has proven to be pretty effective.

There are with any sort of system the potential drawbacks. The earlier version of Notes, when we started this, did not have any way to interface with the Internet.

That almost killed it for us at one point. The new version of Notes does, so as the systems grow, capabilities change.

COMMISSIONER McGAFFIGAN: My experience with software systems in a totally different setting is that the perfect is oftentimes the enemy of the good.

Software people oftentimes tend to try to say, you know, give us enough money and enough time and we'll come up with the perfect system. They never get it and meanwhile you miss the benefits of the good enough system for many, many years in between.

CHAIRMAN JACKSON: Well, to me the ultimate metric is can you process an application? Not can you process it in the way that if we all had this perfect world would do it, but can you do it, because in the end that is what the job is, right? That is what the regulatory function is, and that is what we want to get to.

MR. THOMPSON: And I think that's what our pilot program I think did.

DR. COOL: I can jump five pages --

CHAIRMAN JACKSON: We have got to hear about the regions and the states --

[Laughter.]

DR. COOL: All right.

CHAIRMAN JACKSON: I can't let Dr. Mallett and Mr. Fogle sit at this table and not have their say.

DR. COOL: Yes, ma'am. Okay, then mushing forward with all undue speed so we can get to them in a moment.

We ran the test in Region II. We had participants from almost every region, Headquarters staff and several states, Georgia, Illinois and Texas all had individuals participating. We provided training to these individuals, the adult learning concept, quote on quote, just in time where you provide them some training, you immediately get them on the system and let them use it to reinforce it. That proved, in fact, to be very effective through that

process.

CHAIRMAN JACKSON: Well, before you even go further, I do want to give you cudos on that one. I think that you did truly follow what the '95 SRM asked you to do in involving the regions and the states, the agreement states, and that is, you know, a kind of a model and so I commend you on that.

DR. COOL: Thank you.

The regional test used the information system as we had revised it and improved it from the Headquarters. We used the guidance in an on-line system. That particular version, we were pulling off the NRC intranet. However, the same version is on the Internet outside on our external page.

For the regional test, we did real reviews, real applications. For real applications and for dummy applications from each of the major portable gauge vendors who participated with us.

CHAIRMAN JACKSON: So the vendors did participate?

DR. COOL: We had all four major portable gauge vendors participate and we had four actual applications that participated.

CHAIRMAN JACKSON: All right.

DR. COOL: We performed both a computer-assisted review and a paper-based review. We did those in parallel

at the same time on different floors of the building down in Atlanta so that we could check to see whether we were getting the same product, same result. We ran stopwatches on it to see how long different segments lasted, how long it took to do various pieces.

We tested various roles, the reviewer role, handing it off to the QA reviewer. A customer service person, the person in the licensing assistance type role, bringing the application in, getting it queued up, a manager assigning it to somebody so that they knew they had it. So we tested a variety of job roles and hand-offs.

We also during that same week had people play in various roles, pretending to be an applicant testing the system, doing applications, being a reviewer doing a QA review, a variety of those things during the course of the week.

Going ahead on to the next slide, then.

In terms of the results, first in terms of the consolidated guidance, we received very positive feedback on both the consolidated guidance document, NUREG-1556, and on the electronic licensing system. The gauge vendors and the four applicants were asked to and did both fill out a paper application and an electronic application and we specifically solicited their feedback on how that worked down to and including were you able to load it up, what kind

of problems did you have installing it, how did the screens work, were you able to get out, printing issues, a variety of those things and we provided and we got a great deal of feedback on that.

That feedback was almost unanimously positive in terms of the guidance, the performance orientation of that guidance, its usefulness and on the electronic system associated with this particular app.

CHAIRMAN JACKSON: Now, I don't want to keep beating the same horse but I guess I'm interested. To the extent, then, that you used off-the-shelf software, how quickly adaptable is it to other applications than portable gauges?

DR. COOL: I believe as quickly adaptable as someone can sit down with a reviewer and create the set of screens that goes along with that particular kind of licensee type. So that if and in fact, as I will mention in a moment, we are working on the consolidated guidance for radiography to implement the rule which the Commission approved in October. We will write that to the new form. When that consolidated document is ready and out for comment, my intention is to have a couple people sit down with some of the IT folks and develop a set of screens that goes along with that.

CHAIRMAN JACKSON: All right.

DR. COOL: The next slide.

In terms of the system itself, the computer-assisted review and the paper review were technically equivalent and provided the same level of safety. Meaning they generated the exact same license, they generated it at the same conditions in the same order. There were some formatting glitches. It didn't pull up the date in quite the right format, for example. It turned out that, through all of this, we had managed to forget to have it assign the docket number and print it on the top of the license, for example. Some things like that, you go how did we manage to

miss those.

They identified the same deficiencies. There was one additional deficiency identified in the paper version because, in fact, the electronic version prompted the applicant to include his authorization for field sites. The licensee didn't manage to get that same authorization clipped to the paper copy so, in fact, the electronic version may perhaps have indicated some additional benefits because it does indicate to you whether or not you have checked off all of the areas and edited all of the areas that need to be part of the license. So there was one less deficiency identified in the electronic review.

We demonstrated that we could print out the paper that was necessary to document that particular application

and we demonstrated that the overall metric, goal, target of this operation, which was to have the average turnaround time of 12 days is obtainable.

Now these are simple devices.

Go ahead and go on to the next slide.

The average turnaround time for these is nowhere close to 89 or 84 days. Rough estimate of the turnaround time on a portable gauge under the old system, 18 days. We turned four of them around in one day.

The majority of that, I believe, can be attributed to the guidance, consolidated guidance, which provided all the information which everyone needed. It resulted in very good applications that had essentially no deficiencies associated with it.

Within the constraints of the system that we had which is a very artificial system, timing only certain components of it, there was not a great deal of difference between a paper reviewer who had a copy of the NUREG right there and the electronic version where the copy of the guidance could be brought up on the screen with very few deficiencies, very little reason to go back and forth. Not a whole lot of difference of time.

But as you move to other pieces, the input/output processing or as you expand it toward more complicated ones, those differences not sufficient here to be able to really

call them out for this simple class of licensees will, I believe, become more evident or it becomes more complicated, there's more pieces to look at, where there are more things you would have to run around and do. Within the constraint of this pilot test, we weren't looking at a system that would allow us to really differentiate between those two.

CHAIRMAN JACKSON: Would you say, then, that in some sense the pilot was less a test of the efficacy of automation and more a test of the efficacy of process reengineering for this class of licenses?

DR. COOL: it was a test of the electronic system to the extent that we were testing to see whether or not it would work. It, in fact, did work, it ran at a comparable speed, perhaps a little bit faster if you click the stopwatches, so it tested that. But it did, in fact, also have a major component of testing process and, in particular, I think it validated the value of the consolidated guidance, having a document which, in one place, is the standard format and content, the standard --

CHAIRMAN JACKSON: That's what I put in what I call a process reengineering.

DR. COOL: Yes, yes, that's correct.

CHAIRMAN JACKSON: And that is an important point because, from my perspective, I have been in various technical organizations and the goal is not necessarily

. 38

automation, per se. It is automation as part of an optimization of work process and so the fact that the two both were roughly a day but you came down from an eight-day current estimated average -- 18 day, I'm sorry -- is not something to run away from. Because as we go forward with constrained resources, we have to understand how automation is part of an optimization process. It is part of it. But an equally, probably as important part, has to do with the guidance, other ways to optimize how the information is handled. So don't back away from that, the fact that a lot of it was due to the consolidated guidance.

Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: It's really on the same point.

The consolidated guidance, what this chart tells me is that that really, I don't know how many areas you set at the outset, we have rules --

DR. PAPERIELLO: About 19.

COMMISSIONER McGAFFIGAN: Nineteen different areas and in many cases we've changed rules and not changed guidance documents and all of that. The payoff sounds like getting all those guidance documents up to date, whether you have electronics or paper.

DR. PAPERIELLO: It is getting them up to date, it's consolidating them because unfortunately we put out

. 39

different kinds. Yes.

DR. COOL: That is exactly right.

CHAIRMAN JACKSON: What I would tell you is that the IMTRA, the new law, essentially says that you should look at work process and its optimization and understand paper flow before you make a decision about automation and that's why, in fact, this is not a trivial point.

COMMISSIONER McGAFFIGAN: The other point I would make, and I filled out a soccer application this weekend for a soccer tournament on the Internet, so it had a glitch. I kept entering zero and it kept giving me one and I couldn't -- but in any case, I honestly am a paper person. It may reflect my generation. But I'm not so sure when you get to the more complex licenses where you have to go back and forth, that doing that on a computer screen is better than doing it with a piece of paper on your desk.

I am from Missouri. As I have said in other hearings, when it comes to something like that, it wouldn't be for me.

CHAIRMAN JACKSON: Yes, but I think the way that addresses all of the above, whatever the "above" is, is again, and I hate to sound repetitive, although I am obviously being that, is looking at work process because that allows you to address where doing it by hand or with paper still may be perfectly adequate but where automating

. 40

can actually help you do it better.

DR. COOL: I agree. And with that I am going to turn to Bruce Mallett from Region II to give us perspectives of the host of the pilot.

DR. MALLETT: Chairman Jackson, Commissioners, thanks for letting me be here today.

CHAIRMAN JACKSON: Well, thank you for being here today.

DR. MALLETT: I want to first, before I give you comments specifically on the pilot, I wanted to give you three general insights that we noticed and that we learned part of out of the pilot process and Carl is looking at me so I will be careful what I give you as insights.

CHAIRMAN JACKSON: We're looking at Carl.

[Laughter.]

DR. MALLETT: First of all, I think one of the things we did with the pilot is we set a list of objectives in place. There was a lot of gnashing of teeth but I think you mentioned in your SRM in 1995, we should focus the work on unique packets to complete and that's what we did. And I believe in your Commission paper, those objectives are spelled out. We also spelled out the scope and I think that helped succeed in the project.

Another thing we did which you suggested in your SRM, we put it out with the people that would use it. We

had regional people involved in the pilot and, as Mr. Fogle will attest to, we had agreement state people involved in the pilot.

But third, I'm not sure comes through. We also established a sponsor at a senior manager level. Don Cool and I co-sponsored this pilot and what that did was give Carl a neck to wring if we didn't meet the schedule and deadline. But I think it also showed us something.

You have been asking questions along where are you and where are you going. One of the ways to get there is if you put the person in charge that it is going to be their project it seems to work. I believe that is how we succeeded in the pilot or helped succeed, along with a lot of work from other people.

Now let me give you some specific perspectives on the pilot and what we think it did.

The first slide talks about improve the concept of work. We took the design that the group had worked on that Pat Rathbun talked about and we tested that out and we proved that that design will work and we were quite pleased with it. The key things in the design I thought were good was the electronic referencing to the guidance as well as we proved you could take a diskette, send it to an applicant, receive that back and electronically load it into your system and it works quite well.

As far as the second bullet there, efficiency gains, we talked a little bit about that. I think, Commissioner McGaffigan, you mentioned the benefits for other type of licenses. Let me list a few that we observed during the pilot that I think will help in the other licenses. Some things I didn't believe that we would gain out of it but we reserved and they are a very great benefit.

One is it focused the reviewer on a quick glance of what the applicant had put in and where the applicant was going to cause some procedure they need to look at in more depth. You mentioned before to us how you tie this into risk, into safety risk. If you pull up that screen, you will see right away where the applicants deviated from what is the key safety risk and we didn't figure on getting that benefit but you can see it right away.

Another one was we heard from both applicants and the reviewers. All the guidance was there. They didn't have to go down the hall, ask by word of mouth, do you have the latest guidance. They didn't have to call someone, they

didn't have to go look up some 14-volume set to find the guidance. It was all there. A big benefit. I think it will save you time over the long run, although not in this application because it's so simple.

Another item that my administrative staff told me is it will save time in retyping things. In the current

process now, we take an application from an applicant, type it into a tracking system, pass it on to a reviewer who then types it into some license document. With this process, once you loaded the disk in, it filled in all those documents. I think that has tremendous capabilities.

So the second bullet, I think the efficiency gains were not so much seen in a turnaround time for portable gauges but I think as a basic structure for other difficult, complex cases you will see that.

And it was more efficient for applicants. I think two things I would comment on that they told us was one is the online guidance was much easier to follow but also that it flagged items for them. If you look in the computer or even in the hard copy of the NUREG, it flags things to watch out for and that was a comment from them that they liked that.

So if I could have the next slide?

Another thing we felt the pilot showed us is that the consolidated guidance was useful and saved time. I mentioned before not having to search the some -- one time we looked, I think there's about 14 different sources of references for reviewers. What the beauty of this system showed us is you don't have to go out and look for them. Once we reviewed them and put them all together in one document, you can just point and click, so to speak, in the

computer and it's right there. Very handy for the applicants as well as the reviewers.

COMMISSIONER McGAFFIGAN: Could I ask, what do you do for the other 18 categories today, some of which have guidance documents that don't even reflect the rule?

DR. MALLETT: There are basically three steps. One is, the reviewer looks at the standard review plan that is out for those and then they go down the hall and talk to other reviewers to find out who knows is there anything new in this area, plus they also looked at -- Don Cool mentioned the TAR database, the technical assistant request database, to see if there was anything in that subject area. Plus you usually turn around behind your desk to some 14 volumes of things and leaf through them.

Now, the reviewers that are experienced, of course, they can do it fairly quickly. But the risk is you miss something. The beauty of this process is consolidating all the guidance now and keeping it updated in one location.

Did that answer your question?

COMMISSIONER McGAFFIGAN: Yes, thank you.

COMMISSIONER DIAZ: Isn't it possible, maybe I missed something, that as you -- as the process gets more complex, all you have to do is, you know, change your protocol and as you change your protocol you will be able to address more and different issues. I don't see where that

would be much more different from where you are now.

DR. MALLETT: Well, there is a particular guidance document out there that says, for this type use that they want to use, these are some things that we have asked them

for in the past. You might want to look at that.

For example, on a portable gauge user, you have a simple leak test that they can or cannot elect to do because most of those things are fairly straightforward radioactive materials. At a research facility, like a large broad scope, you might have something that's an alpha emitter that is a significant difficulty in leak testing. You might have a special procedure for that and so, for that, you might have that further guidance in that area.

COMMISSIONER DIAZ: So you will just bring in an additional protocol?

DR. MALLETT: That's right. You can add to the basic, that's correct.

The second bullet I had there was there was a built-in benefit for consistency. What was -- we heard was both the applicants and reviewers had the same guidance looking at it at the same time, so you didn't have to deal with a difference in do you have the latest version, do I not have the latest version and so forth. And that was quite comforting.

And then last, I put a bullet of access to

guidance. I think a benefit we will gain from this we didn't realize is now when somebody calls in and says, I want to apply for a portable gauge application, we have a person go down the hall, collect that particular document, come back, have somebody put a label on it and mail it to them. With this system now, you can tell them, go to the home page, it's listed in the home page, and pull it up. And that was -- we see a great benefit from that in savings of administrative resources.

I guess I would summarize up by saying that from the regional perspective, the users liked it, the system, we proved it works, and we want it.

[Laughter.]

DR. MALLETT: I think Don Cool's going to talk about that date you've been asking her for.

But before he does that, I would like to turn it over to Mr. David Fogle from the State of Texas. Okay.

MR. FOGLE: It is an interesting segue to what I have. I appreciate that. Thank you.

CHAIRMAN JACKSON: Please speak into the microphone.

MR. FOGLE: To give you a better idea.

Good afternoon. Thank you. Chairman, Commissioners. To give you a better perspective from where I come from, I am, as the plate says, chief of the

Industrial Licensing Project for the Texas Department of Health, the Bureau of Radiation Control, where I've been doing materials licensing for the last 7 years. And a year and a half out, I was given a staff of four license reviewers to assist me. But my first bullet -- what I mean by participation barometer is that I've been involved whenever the NRC has asked for agreement-State participation in different events, several times. Back in 1992 in dose radiography, new rules were being altered at that time, and agreement-State input was sought at that time. Basically NRC said this is what we have, what do you think? Two years later in dose radiography it was still around, and they said well, we think this is what we want to do, what do you think?

Well, to say that what I did three weeks and a day

ago is unprecedented, I don't think is taking it lightly. Basically what happened is that I showed up along with the other agreement-State participants to the Atlanta Region II headquarters, and within an hour of my arrival I was actually doing application entry into the relicensing program. Within an hour and a half to two hours I was completely knowledgeable on how to do entry review, QA review, and then also customer service. So I would venture to say that that is an unprecedented level of agreement-State input at that level.

48

My comment on performance base draft reg guide -- pardon me, draft NUREG-1556, is that when it was first being authored there was agreement-State input represented from North Carolina, represented from Illinois, New Hampshire, and Washington were all involved in either the authoring or the editing of that NUREG. And many States have gone to the performance base guidance. Texas has not. This is supposed to be something I'm supposed to do with my copious free time is to produce guidance of this nature. It is an excellent idea, and the agreement States that were represented at the pilot do believe that this is the way to go.

On to the electronic licensing information. What did you say, yes, I want it. We're also very interested in seeing this adapted to gas chromatography, fixed gauging, and perhaps even in some medical applications. Most readily we're thinking of bone mineral analyzers, eye applicators, high-rate dose afterloaders.

This day and age I think we're all asked certainly, all asked to do more with less, and a good example of that is, and I have hard numbers, not with me, but back at the office, to indicate that from 1993 to current the number of licensing actions in the State of Texas has gone up 40 percent, while staff remain the same.

Well, what really gives there is time. It takes much more time to review the work that you have, and a

49

system like this would be not only a great benefit to the license reviewers, to the people who pay our -- the citizens of Texas -- but also to the licensee, our customer, because you're getting the product to them much faster, and certainly in the application of new license applications, they're waiting to hear from you so they can order their material, they can receive their material, they can use the radioactive material.

COMMISSIONER McGAFFIGAN: Madam Chairman.

CHAIRMAN JACKSON: Please.

COMMISSIONER McGAFFIGAN: This really goes back to our staff, I think, that technically if agreement States, individually or -- it would have to be individually, with their different computer systems, were to come to us and say I want this, is that going to be a big problem, or, since Lotus Notes underlies this, will that be relative -- perhaps be relatively easy? I mean, did we do this at all from the -- and are there any restraints in terms of any contracts we signed that limits our use of this to this agency? Or is it something that we can propagate to agreement States if there's compatible computer systems?

DR. COOL: I think there's a couple of pieces to those couple different parts -- parts of the question.

The infrastructure is standard system built on Powerbuilder and SY base. Lotus Notes doesn't actually

50

underlie this particular application set of screens. From a

transferability standpoint to put it on a machine in Texas technologically should not be a problem.

I'm not sure this agency has ever actually thought through the steps that would be necessary to migrate out a system like this, but -- and someone from the CIO's office would probably be better placed to specifically answer this. I would not see a reason why when the system was developed and hardened, and I'm going to talk about where we have to go in a minute, that it could not be placed out. It might be that the optimal path would be to have the States who wish to do it work with the contractor perhaps with their own small contract to the same contractor to develop the right set of cross-references to the State's regulations and the State's version of the guidance document, because so many of this keys in and the Texas regs don't number the same way as the NRC regs or the Illinois regs, so there would be some tailoring to that, but conceptually it should not be a problem.

COMMISSIONER McGAFFIGAN: It just strikes me as this could be a tremendous benefit to the agreement States where, you know, we've done most of the up-front pothole-riding-through, whatever -- and they get a fairly smooth product at the end of it.

DR. COOL: Exactly.

MR. FOGLE: To help answer that, I did take a copy of the entry application back with me to show some individuals that work with me where the NRC is going, and they were very excited, to say the least. So it's not a hardware issue at all.

CHAIRMAN JACKSON: You know, the possibility probably exists, either in the context of meetings of the

Organization of Agreement States or perhaps through the regional offices for the NRC to conduct mini-workshops to perhaps not only share the information but let us say proselytize a little bit, so before I get to my closing remarks I urge you to consider.

DR. COOL: We are in fact scheduled to have a booth in the poster session at the conference of radiation control programs.

[Laughter.]

DR. COOL: We weren't calling it by quite those same terms, but in fact we intended to set up the system, show it, and run it on a longer basis than you can get one of those wonderful little 15-minute segues on the front stage.

CHAIRMAN JACKSON: Right. Very good.

DR. COOL: We'll move along to the next steps, and I want to try and address two areas here, first in terms of the guidance consolidation itself. As I mentioned a little

bit earlier, we see great benefit in this, and as you mentioned, Madam Chairman, there is a huge jump to be gained by having that guidance consolidated. There are a whole series of actions to get us to the point where the guidance will be consolidated for all of the various classes of licensees.

Step number 1 obviously is to go ahead and finalize the portable-gauge document. The public comment period has been completed. We've gotten public comments on it. We've subjected it to a test. I think we can move forward very rapidly within the next month or two to make

that a final document and make that the basis for doing the portable-gauge licenses.

Immediately after that you can start to attack some of the very similar things, things like fixed gauges, self-shielded irradiators, a number of places that use sealed sources where devices are designed in already which are very similar for which this application can very quickly in terms of guidance development. A number of the applications are very similar to the sorts of things you would see in guidance are very similar, to move those very quickly during the first half of this year, by the end of the fiscal year have those drafts on the street.

We are moving forward already with radiography, using this approach to write the guidance that will be used

to implement the rule, which is still under OMB clearance and so yet has not even become effective. Our intention is to implement the new rule with the new approach to guidance, to move from there then into other areas where the regulations are relatively stable, they've undergone a more recent revision such as irradiators, well logging, some of those issues.

And then a little bit later in the cycle, down the line a year and a half, two years, to be bringing on the guidance associated with broad-scope applications, medical applications, for which we have ongoing contemplated significant changes to the regulatory structure such that you write the consolidated guidance document to go along with the new rulemaking rather than pumping resources into a consolidated document for something which we are undergoing simultaneous change. And to do that in the process where we would be looking at developing application screens from electronic systems to implement that which can be relatively readily facilitated by an electronic assistance during the comment period associated with each of those consolidated guidance documents.

So those pace along as you schedule them out, and we've in fact laid out a schedule within my operating plan to look at doing those taking into account those factors. We plan to move forward with that, adjust that as necessary

to respond to assessment directions. We're looking at that same system, underlying information, as being part of the basis for the generally licensed devices where we might go in a registration system.

This fundamental set of information is the exact same set of information you would want a registrant or someone else to have available to them. So we believe there is a great deal of crossover to that.

In terms of the electronic system, this gets back to some of the points that you brought up, in terms of portable gauges itself, continue to refine the application through what in the industry is referred to as beta testing. Yes, we identified some other glitches that need to be fixed.

There are some things that need to be done to make this a system that you have confidence in. There's essentially no security password controls, backups, that you build into it in the three or four-month developmental window that you want to have in place if you're using it as your processing system. Those need to be accomplished.

You need to continue to work through the process, let reviewers continue to use it. In a week's time you identify some things; you'll continue to find those sorts of

things. As Bruce mentioned, we plan to use the sponsor approach. Region II will be the sponsor for this activity.

. 55

It'll reside in Region II. It'll be used in Region II to review applications that come in. We may send applications from the other regions down there to run them through that particular system.

We will have to have some workarounds. What do we do to make sure that we generate the right kind of documentation to put in the licensing file in order to accommodate the present system, the present requirements for having files and backups that meet archive requirements. We will continue to do those things over the next few months.

So one answer to your question is we will be processing applications. Once the document is final and that becomes the baseline for licensing portable gauges, we will be doing at least some of them that way as we continue to harden-down the system.

As I mentioned with other types of licenses, develop the associated application screens as you bring each one of those consolidated documents along. As you mentioned, it makes no sense to electrify that which you haven't already gone through and consolidated and pulled the information together, looked at what the questions are that you really have to ask. So that's our process, our plan to bring each one of those along as we run through that guidance system.

In terms of bringing it on line as a network

. 56

application, that obviously has to pace along with where the agency is and the CIO is in terms of the underlying information management system, document control systems, electronic document systems, code name ADAM. Our understanding, we've been meeting with the CIO, Carl met with Mr. Gallante this morning, is that the CIO will be selecting the fundamental software packages probably in the next 90 days or so. I'm not sure how firm a number that is.

DR. PAPERIELLO: I won't hold him to that number, but we had a discussion, it's in that time frame, that I believe they're going to have the underlying software that's going to support ADAM identified.

DR. COOL: Once we have that software identified, we can look and see whether we have to make any changes in order to be able to be compatible with the infrastructure. And then as those systems are brought on line, we can also bring on line to a greater extent the system that we have developed. And so that will be a hand-in-hand process which we will need to walk down with them as the infrastructure is available to use it, as the network capabilities are available, as we have hardened and secured it such that it meets the standards, it has the proper kinds of backups that we don't lose the information, that it becomes an online system. And so the answer to that question is I can't really give you a date for being able to do that, because

. 57

that will be a hand-in-hand process as we select software test systems, validate systems out, and move in that direction.

CHAIRMAN JACKSON: Okay. I have a followup comment and a couple of questions.

I agree with you, when you talk about refinement of the information system from the point of view, you mentioned no security, no password controls, no backup.

Those are very serious issues that one has to deal with as up-front as one can.

But there's a difference, I would think, between that and what I'll call iterative performance improvements, where you may have an already usable or good system, and it strikes me that that kind of iterative performance improvement is something that IRM or the CIO ought to be doing for you, and not necessarily have it done by the resources of people who are materials licensing people. It just strikes me that it's a question of how resources get used.

I had a couple of followup questions on your SECY. You had an attachment to that SECY that showed that as far as training plans are concerned the staff intends to conduct a BPR of the administrative support functions within NMSS, and NMSS was mentioned also in SECY 96-205 last September. And this is a good, may be a good idea, but now my

understanding though is that the regions perform basically the materials licensing function, not the headquarters. And so the question is, how will this new effort relative to BPR of administrative support and NMSS affect continued progress toward licensing process reform, which is what our goal was here, and it was the original objective.

You mentioned a kind of pacing in terms of dealing with fixed-gauge, self-shielded irradiators, radiography licensing, well-logging, and broad-scope applications. And so the real issue becomes one of, if it's a question of expenditure of resources, that you keep the momentum going in the licensing area, not that it's, you know, that you don't want to obviously streamline administrative support functions as much as you can, but what the Commission has supported you in doing is streamlining the licensing, materials licensing process.

And so -- but my questions are not meant to question the wisdom net net of streamlining or BPRing secretarial or administrative support functions, but given the bumpy road we've gone along to get to where we are, it's important that we don't lose that momentum, and that we don't divert resources that could be used to help the regions do their regulatory function, you know, unless this is all part of an integrated picture. And so that's my one caveat about that.

Commissioner Rogers, you have some questions.

COMMISSIONER ROGERS: Well, we had a lot of good words said today and a lot of wisdom --

[Laughter.]

COMMISSIONER ROGERS: -- folks, and I'm not going to add to that. I think that they're all good things, they're all things that have to be kept in mind as you proceed. I'd just like to say that I, in reflecting on this project, I really want to compliment NMSS and Dr. Paperiello for getting started on it, and this was really the first major BPR effort at NRC, and I think that it so far looks like it's being successful and being very carefully and well executed. And I hope we can learn lessons from it that will allow us to take the same kind of critical review of all of our other licensing activities in other areas.

Thank you very much.

CHAIRMAN JACKSON: Commissioner Dicus.

COMMISSIONER DICUS: It follows up a bit I think on the Chairman's question or statement about overall resources. The comment is made in the SECY paper I believe

it is that the verification of the information that's presented in this format, together perhaps with other formats, but is going to have to be done in the inspection part of the program.

And some of the language would imply, or perhaps

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60

suggest, that while there may be a savings for the agency, not to mention licensees, et cetera, but a savings for the agency, perhaps in FTE, time, whatever, at some point, it could be lost because it's going to overload the inspection part of the program. And I just want to raise this to make you aware of it, and if you had any thoughts on it.

DR. COOL: Well, we're certainly aware of that particular issue. It's been an issue that we spent actually a lot of time talking about where do we go and what is the tradeoff, because there are two kinds of touches. There are inspection touches, and there are licensing touches. We in fact as part of the routine program can do an initial inspection of each license that we issue. This would change the list of things that they look for. But fundamentally I don't believe it would change significantly the amount of time we would actually spend, because we put a great deal of priority on having an initial inspection out there shortly after they've had the material to make sure that the set of commitments they've given, whether it's old system or new system, have actually been translated into a program. And that becomes equally important irrespective of whether they're doing it under this particular guidance, 1556, or whether it's under the older guidance.

CHAIRMAN JACKSON: Do you have a question, Commissioner Diaz?

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61

COMMISSIONER DIAZ: Yes. Follow along these same comments, but it seems to me like you have taken two big steps already. One is develop the consolidated guidance document, that was certainly good, and then going to the electronic processing. But we don't want to let you off so easy, so we'll ask the next question. What provisions have you made or have you been considering in taking the next step in making this into a true expert system and providing full Internet access to handle licensing.

DR. COOL: Let me answer that in two halves, the latter first. We spent a great deal of time thinking about Internet access. That's very much the way we would like to be able to go as the infrastructure allows the acceptance of an application from that mode and we can process it, handle it correctly, retrieve it and archive it. We have already taken the steps and plan to have the steps of having the documents available on the Internet for someone to use and download. So it is a logical next step as we have the infrastructure availabilities to allow them to fill it out as Commissioner McGaffigan was dealing with soccer, or buying tickets from American Airlines or whomever.

[Laughter.]

DR. COOL: The second question, we have also thought about some, although not as much yet. We are still at this point putting the reviewer in the loop looking at

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62

the application.

Now, a logical step is, as we gain some more confidence, letting the computer look and see if they have clicked that they have committed to the standard condition, letting the computer only flag those pieces for which they

have requested a special provision or otherwise. We have not taken that step yet but the system does not preclude adding to it, probably relatively simply, a quick scan by the system saying, check, check, check, check, go look at items 5 and 26.

COMMISSIONER DIAZ: That's precisely the point. It seems to be a very simple thing to do. Why not take a risk and go and do it while you're taking these steps?

CHAIRMAN JACKSON: It's a question of where you start, where they're coming from.

COMMISSIONER McGAFFIGAN: Could I just ask, as you go down, in this case, you don't have any technical diagrams that would be part of a normal license application for a portable gauge but in the other 18 areas, I am sure in the reactor world we have very, very complex documents that are volumes and lengths at times. But in your world, what is the worst? Of the 18 categories yet to be done, which will be the hardest to apply this paradigm to?

DR. COOL: Probably the big, broad-scope programs where the license is covering licensee programs of radiation

protection and bioassay and for which there are very few things you can just say, I commit to do X. Because the license is issued for programs.

And in between that are a variety of things in medical areas where you need to look at certain procedures or some of the more complex isotope productions, things like the productions of sealed sources or devices -- sealed source device reviews, for example, where you've got a lot of detailed technical drawings and have to go through a lot of specifications still require a great deal of interaction where you can't simply check some things off. So you've got a whole range. We picked that on the bottom end and there are several other categories. Even though they may be more risky like radiography, for which this approach covers virtually all of it.

COMMISSIONER McGAFFIGAN: Right. But is your intent to be flexible? I mean, as you go through the other 18 categories and this paradigm doesn't work perfectly you'll say, okay, it doesn't work and we're going to do something -- we'll stick with paper, we'll get the consolidated guidance done but we'll stick with paper? Or what is the intent as you go forward?

DR. COOL: The intent is to apply it as it works. So even for those pieces of program where you may need to do detailed reviews in certain areas, there are probably other

areas for which this can assist. Name, address, contact and some other things still always come up; you might as well use the system to the extent you can use it but without being slavish to it.

DR. MALLETT: Don, let me add to that, I think what you'll find, though, what I learned this morning, something new, is there is a section of this now that allows the reviewer to comment on their basis for why they made a certain decision and it is documented right into the record as something we've been trying to achieve for a long time and I think you'll find reviewers will like the ease of doing that and will gain benefit in those more complicated cases having that in there.

COMMISSIONER McGAFFIGAN: Well, my final comment is only that I don't know how we got into the situation where our guidance was as you described it when this process started but I commend every effort to fix it and use

whatever flexibility you need to fix it. It strikes me we should not do new rules if we can't see within a finite period of time a way to get reg guides out and standard review plans and all that sort of stuff to implement the rule. And the resources have to be there. You know, you have to come to us as a commission and say the resources, you know, there is a mismatch here and we have to fix it.

And so I don't want to revisit the past but where

you guys started from is obviously not an acceptable place to start from and I am glad you are trying to get out of it as rapidly as possible.

CHAIRMAN JACKSON: I think, if I can speak, they are starting from a point of, particularly in the materials area, you know, there is a lot out there that has to be fixed and within the last year-and-a-half to two years the Commission has given the staff explicit guidance that is they bring forward new rules. They should be bringing forward the regulatory guidance, as well as standard review plans that go along with those rules so as to not end up in this kind of lead/lag situation. So the guidance from the

Commission is already there in that particular context.

MR. THOMPSON: That's right and that has been the practice. It is the old rules that were there, probably from the time I started working for the NRC, that have created a lot of the problems that we find today that we are addressing.

CHAIRMAN JACKSON: I think Dr. Paperiello had an itch?

DR. PAPERIELLO: We can consolidate the guidance within this framework. There is no problem there. For the complicated receipts, where we have shielding that we have to calculate or structural issues that way, yes, that's going to be. But the computer helps you. The computer

forces people to walk through every step that has to be submitted and make sure the applicant, not only that we re-dot the "i" and cross the "t" but by providing it to the applicant who sees exactly what the reviewer is going to look at forces the applicant to do the same thing, so it is a discipline in the process.

CHAIRMAN JACKSON: Thank you.

The Commission would like to thank the staff and Mr. Fogle, the representative from the Texas Agreement State Program, for this briefing. It has been very informative and useful and the Commission particularly appreciates the agreement states' perspectives as we reform our licensing processes because any improvements or efficiencies that the staff makes in NRC's business practices we hope could be easily adapted and accepted by the agreement state programs with appropriate modifications. And particularly if we can resolve issues once in a manner that is agreeable to both the federal and state regulators, we will end up minimizing the cost to our citizens and to our licensees as the case may be.

But what the staff has shown today though is that through the successful results of the BPR pilot program, the materials licensing processes can be reformed to provide greater efficiencies without a loss that you've told us of technical quality or safety and, in fact, the pilot program

seems to demonstrate the license applicants' satisfaction

with the process, which is a significant achievement for a regulatory agency. So I am cautiously optimistic that the improved efficiencies and customer satisfaction can be propagated and continued over longer time periods if the program is implemented NRC wide as well as within your particular area, Dr. Paperiello.

And so I think we are all urging the staff to proceed rapidly particularly with the implementation phase to the greatest extent you can. But aside from the program's, the pilot program's success, there has been a fair amount of resources invested and -- and the issue becomes what the scale factor is in terms of going. What do we take away as lessons learned? And so the next year will be a critical time for this project and it's important to be able to report some tangible results to the Commission. And so in that case, then, there has to be a movement beyond process and a focus on implementation and there was something that Dr. Mallett mentioned that I think are good, overarching metrics. We have talked a lot about them. One is consolidation of guidance, consistency and resource savings.

I think falling out of this, and I would also say customer satisfaction. And you can think of customers both in the sense of license applicants, licensees as well as

agreement states and our own regional offices. I mean, they are our internal customers. And I would just urge you to focus particularly on the issue of the role of what I call work process optimization as we are making or as a prerequisite to information technology investments. And also that we move along to creating, as Commissioner Diaz has said, a truly more expert system but particularly one, and you spoke to this, that provides the appropriate Internet access.

We know we have to deal with things like security and controls of various kinds as we do that. But it is important if we really want to move beyond mailing out diskettes but actually have people do it on line.

So again, the Commission commends the staff and the agreement states on the success of the pilot program and we thank you for the briefing. And so unless there are further comments by the commissioners, we are adjourned, just on time.

[Whereupon, at 2:32 p.m., the briefing was concluded.]