UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
****
BRIEFING ON CONTROL AND
ACCOUNTABILITY OF LICENSED DEVICES
****
PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Wednesday, November 13, 1996

The Commission met in open session, pursuant to notice, at 2:05 p.m., Shirley A. Jackson, Chairman, presiding.

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

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:
ANDREW BATES, Acting Secretary of the Commission
MARTY MALSH, Deputy General Counsel
JAMES TAYLOR, EDO
DR. CARL PAPERIELLO, Director, NMSS
DR. MALCOLM KNAPP, Deputy Director, NMSS
DR. DONALD COOL, Director, Division of Industrial & Medical Nuclear Safety, NMSS
JOHN LUBINSKI, Co-Chair, NMSS
MR. ROBERT FREE, Co-Chair Texas Department of Health
RITA ALDRICH, New York Department of Labor
MARTHA DIBBLEE, Oregon Department of Human Resources
JAMES YUSKO, Pennsylvania Department of Environmental Protection
JOHN TELFORD, RES
LLOYD BOLLING, OSP

P R O C E E D I N G S

[2:05 p.m.]

CHAIRMAN JACKSON: Good afternoon, ladies and gentlemen. Today a Joint NRC Agreement State Working Group and the NRC staff will brief the Commission on improving control over and licensees' accountability for specifically and generally licensed devices.

In June of 1995, the Commission issued a staff requirements memorandum approving the staff's plans to proceed with a Working Group to evaluate this issue. The Working Group completed its tasks and issued a report on July 2, 1996, which included a number of recommendations for improving control and accountability over regulated devices.

Today we look forward to hearing from the Working Group on those specific recommendations. We also look forward to hearing from the staff on its preliminary views of the Working Group's proposal.

The issue of regulatory control over general licensees has a long and complex history. The Atomic Energy Commission created a general license system in 1959 and in the early 1980s the staff first learned of smeltings of radioactive sources in steel mills resulting in costly clean-up for non-licensees and lost plant revenues.

In 1984, the NRC staff initiated a study of general licensees to address device accountability issues.

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Over the past decade, the Commission has considered various options to address this problem, but most proposals have required an infusion of significant new resources.

Today we hope to hear options that address the limited resource issues, along with solutions to the regulatory problem.

Now, I understand that copies of the staff's paper, which is SECY-96-213, the Working Group's report, as well as viewgraphs from Ms. Aldrich, are all available. And I understand that the order will be the Working Group report, then Ms. Aldrich would like to make some remarks, and then we will hear from the NRC staff. Is that correct?

MR. LUBINSKI: Yes, that's correct.

CHAIRMAN JACKSON: So do my fellow commissioners have anything they'd like to add at this point?

[No response.]

CHAIRMAN JACKSON: If not, you may proceed.

MR. LUBINSKI: Thank you. I appreciate your introduction. I'd like to start by introducing the Working Group members. To my far right is Mr. John Telford with the Office of Research, NRC, who served on the Working Group. Next to him, to his immediate left, is Mr. Lloyd Bolling, who is with our Office of State Programs, NRC.

To my immediate right is Bob Free. Bob's with the State of Texas and served as the Agreement State co-chair on

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the Working Group.

On my far left is Mr. Jim Yusko. He's with the State of Pennsylvania and served as a CRCPD liaison to the Working Group.

Seated next to Jim is Martha Dibblee from the State of Oregon. She served as an Agreement State member to the Working Group.

And to my immediate right is Rita Aldrich from the State of New York. Rita served as an alternate to the Working Group and attended several meetings of the Working Group.

Two other individuals I'd like to recognize at this time are Miss Robin Haden, who is with the State of North Carolina. Robin was an original member of the Working Group and attended several meetings and provided valuable input.

In addition, Mr. Joel Lubenau served as the initial chair of the Working Group for the NRC. In March of '96 I succeeded Joel as the NRC co-chair of the Working Group when Joel then accepted a position with the Commission staff.

CHAIRMAN JACKSON: I should point out we have a lot of ground to cover and I think we've allotted about an hour and a half.

MR. LUBINSKI: I'll try to move quickly.

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CHAIRMAN JACKSON: That's a discipline on us, as well as on you.

[Slide.]

MR. LUBINSKI: Starting with slide number 2, the Working Group's slides, in licensing we deal with two different types of licensing at the NRC. The special licensing which requires a pre-approval -- basically the administrative procedures and training are necessary to use products under this license. There are industrial gauges used under this license as well as sealed sources and unsealed material.

The general licensing program is in effect without a license being issued to a particular individual. It is in the regulations. It is fairly straightforward. And the requirements are all spelled out in the regulation. Therefore, they can receive the material without a license.

As stated, the first general license was issued in 1959 with the purpose being to save agency resources. Later it was expanded out to include a large variety of devices.

The bottom bullet indicates that there were 42,000 NRC general licensees and 460,000 devices currently used under the 31.5 license. I'd like to point out that there's NRC general licensees and we're still doing, about rule of thumb, two to one for Agreement States as an estimate. So we're estimating somewhere on the order of 900,000 devices

in Agreement States.

CHAIRMAN JACKSON: You're pretty confident in the numbers relative to the NRC?

MR. LUBINSKI: The numbers from the NRC are from the NRC general license database. Any error would be misreporting by general licensees into the database. If anything, there's probably a slight overestimate. To give a number on what it would be, I could not say.

CHAIRMAN JACKSON: But you're saying it's complete in the sense of capturing the universe?

MR. LUBINSKI: Of NRC licensees, yes.

CHAIRMAN JACKSON: Okay.

MR. LUBINSKI: Next slide.

[Slide.]

MR. LUBINSKI: In looking at the types of devices under a general license we say 460,000. I need to point out that the majority of these devices are fairly low risk. In looking at this slide you can see that 72 percent are exit signs, tritium gas, relatively low hazard, both during use and under accident conditions.

Other devices of lower risk on the pie chart are shown as the chromatographs and static eliminators, so we're talking about 84 percent of the devices being relatively low risk under the current general license. Next slide.

[Slide.]

MR. LUBINSKI: Under the general license, as I stated earlier, the requirements for the general licensee are spelled out in the regulations. This is a listing of the current requirements, fairly simple and straightforward. Basically, the general licensee receives "a black box." They can use the device, cannot service the device, are basically given a list of do's and don'ts. Do's, such as testing the device, maintain the device, maintaining the labeling. Don'ts, don't throw it in the trash, make sure it goes back to someone authorized to receive it. Don't service it yourself. Make sure you have someone who knows what they're doing to service it. Next slide.

[Slide.]

MR. LUBINSKI: The reason we can do this under the general license falls back on the distribution of the product. The device itself needs to meet certain safety criteria. This is ensured during the manufacturing and the design of the device and this is reviewed during the licensing process by NRC.

There's an inherent safety to the device and this looks at use conditions, as well as likely accident conditions for use of the device.

The second bullet lists instructions and what we're saying here is the fact that the general licensee does not have to contact the NRC prior to receiving a NRC, they

need to be aware that they are a licensee and what requirements they have.

This is done through the vendor. The vendor would provide them instructions, precautions and licensing information -- again, the list of do's and don'ts that they need to do.

The last item is the reporting requirement. This is a reciprocal agreement with Agreement State licensees, that is, Agreement State distributors, where they will tell us which NRC general licensees they distribute to and our licensees will tell the Agreement State which devices. This allows the regulator to know who the general licensees are and what devices are being used under a general license.

CHAIRMAN JACKSON: How often is the database updated?

MR. LUBINSKI: The reports are required to be submitted on a quarterly basis. They are immediately updated and again, there's a 30-day grace period on the reporting.

The current regulatory oversight. For specific-licensed distributors, there's a good track record, according to the information we have on inspections of these licensees. They do provide information to the general licensees. They do provide reports to the Commission. The designs that they have have been preevaluated and they are

manufacturing these devices in accordance with those

specifications.
They are also subject to inspections, as well as application and annual fees.
For the general license users, we're dealing with a much different situation here. We maintain -- that is, NRC, the regulators -- maintain a listing of the general licensees and what types of devices they have. However, we do not subject them to routine inspections and we only inspect basically for cause, if we have information such as violations, safety concerns or an allegation.
In addition, they're not subject to fees, which basically means a general licensee may never come in contact with the regulatory authority -- that, NRC in our case -- through the entire life of the device. They may receive it, follow the regulation and then, when they transfer it back to a specific licensee, provide a report to NRC stating that they did such.
CHAIRMAN JACKSON: So the distributors are specific licensees?
MR. LUBINSKI: The distributors are specific licensees, go through the licensing process and are subject to the inspections.
Status of the current program. As I stated, we started in 1959. Only a small number of modifications were

made since 1959 to the actual general licensing program.
However, in looking at the problems that you stated earlier in the early '80s, devices showing up in scrap streams, as well as some follow-up studies of compliance of general licensees, NRC determined that we needed to increase our oversight and a proposed rule was in the form of a registration system for general licensees.
What's important to note about this registration system is it applied to all general licensees. That would be the entire 42,000 licensees, along with their 460,000 devices.
That became a big problem when we tried to retrofit the system to all these devices. We had to follow up on reports of loss, follow up on miscommunications where a vendor may have given us information and the licensee didn't report and now we have to track down was there an authorized disposal?
The registration system did include annual mail contacts, where we would contact the licensees as to whether they did have their material.
The rulemaking was published as a proposed rule in 1991. Extensive comments were received and resolved. However, in 1993 the rulemaking was put on hold. Basically, the issue of resources came back up as the major problem and the major problem with the resources, again, was the

retrofitting of the rule to all existing devices.
The rule continues to be on hold, again because of the low risk with the current devices and the resources needed to backfit the program, retrofit the program.
However, we have continued -- and I say we, NRC staff -- in the area of looking at some of these problems. Specifically, we have tried to address the problem of baghouse dust disposal, which has resulted from devices accidentally being smelted, and other initiatives, such as the formation of the Working Group, the formation of the Working Group to get a national perspective, as well as input from the Agreement States on the process.
At this point I'd like to have Bob Free go over the next few slides and discuss some of the involvement of the states in the process some of the preliminary conclusions.
[Slide.]
MR. FREE: Thank you, John.
The Working Group, of course, felt that there definitely was a problem but needed to identify, if they could, the scope of the problem. In order to do that, public meetings were held and a public workshop. There was a public meeting in October, one in December, and the public workshop was held here in January of this year.
The Working Group determined or identified that

there had been a number of smeltings over the course of the past 13 years. About 20 smeltings had occurred in steel mills and they ranged in cost to the mills anywhere from 3

to 23 million dollars.

Also, there were devices turning up in scrap yards and other locations that states either had to decide to collect themselves, locate a licensee responsible or to get the finder to dispose of them.

A survey was conducted by the NRC in 1990 of 3,000 general licensees that indicated there was a problem in that area, that is that about 60 percent did not respond initially and eventually determined some number less than 1 percent of the devices couldn't be located. Those are small percentages, but when you look at the large numbers of devices we're dealing with, they can be significant.

COMMISSIONER DICUS: Was this survey of general licensees only for gauges or was it all the general licensees, a representative number of all the general licensees?

MR. FREE: There were 3,000 general licensees that were surveyed.

COMMISSIONER DICUS: I know but --

MR. LUBINSKI: If I can answer that, there were actually three categories of general licensees and approximately 1,000 per. That was industrial gauges,

analytical devices and exit signs. The results varied a bit across each type of license. However, for the analytical gauges and the industrial gauges, the results were fairly similar -- the same numbers not responding, the same numbers having difficulties locating.

It appeared in the area of exit signs that there was actually more persons who could not account for gauges. However, it was a lower risk item where there's not as much concern.

MR. FREE: Thank you, John.

I mentioned public meetings and the public workshop that were held. Throughout the process, the Working Group attempted to identify as many stakeholders as possible. Joel Lubenau, who was co-chair at the beginning of the process, spent a lot of time and effort attempting to identify stakeholders.

Participants at the meetings included Agreement State representatives, members of the steel manufacturing industry, licensees, vendors, manufacturers of the devices.

The Agreement States provided the three Working Group members and an alternate and conducted a survey to get some consensus among Agreement States so that there was agreement that at least there was a problem and the extent of the problem. All of the Agreement States agreed that there was a problem.

The Working Group, in its discussions, identified initially seven areas of concern and then another four. I won't try to list or discuss each of those, but compatibility was one of the major ones. Cost and fee considerations. Changes in device manufacturers or changes to regulations affecting devices that are already in possession, versus newly acquired.

Device disposal. One of the categories that we discussed quite a bit under disposal had to do with orphaned devices. We had defined orphaned devices as devices that turn up in the private sector and someone trained to handle them would be required to take responsibility.

Eventually the Working Group came up with a straw-man proposal identifying problems and solutions. One of the problem areas was regulatory oversight. The Working Group felt that some enhanced regulatory oversight needed to be conducted in order to control or contain these devices so that they weren't lost or improperly disposed of.

Increased contact between users and regulators and attempts to identify early warning signs through possibly self-inspection reports that would go out to the users.

Control and accountability was another problem that was addressed. Solutions proposed were require devices to have labels or tags containing certain information and to have a certain durability. Also, the proposal would

recommend that a person responsible for the device and a back-up person be identified.

CHAIRMAN JACKSON: Let me ask you a question, in terms of control and accountability. Inherent in this has to do with requirements that Agreement States might impose

versus what we might. Should there be separate databases? I mean, did you consider that issue specifically?

MR. FREE: At the workshop in January a proposal was put on the table by -- we call it the Jack Dukes proposal. He worked for ABB and at the time suggested a national database of devices -- or sources. And there was a lot of agreement with that.

Subsequently, we did a survey that was mailed out and also handed out at the CRCPD meeting. A number of states agreed with that. The states seemed to be split about 50/50 in terms of agreeing with the utility of the national database.

An additional problem that the Working Group delved into was improper disposal of devices and suggestions there or the recommendations include methods to increase knowledge on the part of the users as to what devices they have, where they are and maintaining some sort of accountability for those, communicating between the user and the regulator and also the vendor so that when a device is put in motion, there's something in place so that a back-up

system, if you will, exists to track it.

CHAIRMAN JACKSON: Before you go on, let me ask you this question. Again, and I'm asking you because you represent one of the Agreement States, some Agreement States do not have civil penalty authority. So in looking at this first bullet as part of the solution, did you consider what types of nonmonetary penalties could those Agreement States impose that do not have civil penalty authority?

MR. FREE: My understanding is that there are a number of different situations existing in states, regardless of whether Agreement States or non-Agreement, relating to civil penalty authority, and some of the non-Agreement States do have some regulatory responsibility for non-byproduct material. They would also be affected by some of these recommendations if they chose to use them.

I've been told on one occasion that a state didn't have any authority to levy civil or administrative penalties. In Texas we use administrative penalties. We also have a system for using our attorney general's office for civil penalties. Other states do use civil penalties.

I don't have numbers that would indicate how many could or how many could not use some sort of penalty system.

CHAIRMAN JACKSON: Okay. At this point, then, you haven't really had the opportunity to consider real mechanisms for implementing this kind of a solution.

MR. FREE: Not for civil penalties. The members of the Working Group represent states who have regulatory processes in place now that address the other regulatory controls that were suggested.

One of the reasons for recommending a method for penalizing persons for improper disposal is that it's another way to get people, persons who are responsible for the devices, to use whatever they have available, whatever means they have available to maintain accountability for the device and to dispose of them properly.

I think what happens on a number of occasions is, though, that companies go bankrupt and then, in the transfer of properties, these devices become lost.

CHAIRMAN JACKSON: Do you have any data that tracks the handling and disposition of the devices as a function of the regulatory authority of the states in which different improper disposals take place?

MR. FREE: Not in terms of the type of --

CHAIRMAN JACKSON: What I'm trying to get at is in terms of a remedy, the issue has to do with effectiveness of the remedy and that, then, tracks into some kind of regulatory space. And you have some of these devices that may be improperly disposed in Agreement States, as you point out, some in non-Agreement States.

Even in some of the non-Agreement States, the

states have certain regulatory responsibilities nonetheless and the issue is to try to get some coherent picture of what's out there relative to what we might do, whether it's in terms of a direct oversight or in terms of what might happen vis-a-vis adequacy and compatibility of Agreement States programs.

MR. FREE: I see. We had a lot of discussion

about compatibility issues and --

CHAIRMAN JACKSON: I'm going to ask you a question about that.

MR. FREE: I think that your question is leading into that and right now a number of -- well, states generally have various means of coping with general-licensed devices. That was the initiating problem that the Working Group was based on.

When we began our discussions it became apparent that a number of states had different means of coping with these problems. Some have taken it on their own to either specifically license GL devices; others have taken other approaches. In Texas we have what we call a general license acknowledgement program.

So to answer your question, I think there's a wide range of methods out there that are currently being used. What we tried to do as a Working Group was come up with something that we could reach consensus on that could at

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least form a foundation to build on adequate control, regulatory control of the devices.

Another item on that issue also has to do with the Working Group recommending that vendors provide disposal information to users prior to transfer, or along with the transfer of the device. That is, the Working Group felt that with that, vendors could be made aware of the cost of disposal, the potential cost of disposal, and know their concerns related to properly handling of devices after they're through using them.

And the last issue or problem that we addressed had to do with orphaned devices. I say last because it's last on this list. It's something that we discussed and agonized over throughout our meetings.

Orphaned devices is a situation that I find troublesome personally because among my responsibilities is responding to incidents and recovering or retrieving some of these devices. And, as a regulatory person attempting to identify the ownership, many times that's impossible.

I've found that there's a variety of ways of handling orphaned devices around the country. Some regulatory bodies leave these devices in the possession of the finder, with some sort of mechanism for tracking it and assuring that it's adequately stored. Others take possession of them and still others try to find a licensee

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who's willing to take possession of it until some arrangement for disposal can be maintained.

Now, these finders generally, when we're talking about these types of devices, small gauging devices, the disposal costs of these things can range upward to $20,000. For a small entity, a person who makes his or her living handling scrap, that's a very significant cost. Many of them have concerns over spending $800 for a radiation detector.

So the Working Group felt that some method needed to be developed so that there was adequate means of taking possession of these devices, putting them under adequate control and disposing of them.

CHAIRMAN JACKSON: How many such devices are there?

MR. FREE: Orphaned devices?

CHAIRMAN JACKSON: Right.

MR. FREE: I don't have a clue. I think we estimated at one point in our discussions regarding just gauges, cesium gauges, perhaps 80,000 in existence across the country, and that was a wag.

But we also discussed, in our recommendations for enhanced regulatory programs, what types of situations should we address. I think there are three situations.

We have devices that are already lost that are

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going to turn up somewhere. We have devices that are in someone's possession now and may be in jeopardy of becoming lost, for whatever reason. And then we have devices that are going to be manufactured and produced in the future.

I don't think it would be adequate to simply address future manufactured devices. There are too many out there already that I feel are in jeopardy of becoming lost and becoming a problem.

CHAIRMAN JACKSON: I think the Working Group's

paper recommended NRC funding for the ultimate disposal of orphaned devices that are not the responsibility of DOE or the EPA.

So the question I would have for you, whether you considered it, if the NRC funds that ultimate disposal of orphaned devices, being orphaned in the sense that you say, given that we're a fee recovery agency, how would you suggest that NRC recover those disposal costs?

MR. FREE: The Working Group didn't feel adequate to really address --

CHAIRMAN JACKSON: You punted it to us.

MR. LUBINSKI: If I can expand on that, we did go into a lot of discussion on the subject. Maybe the end result, as you said, was we definitely punted at that point.

However, in the recommendations, the first part of that recommendation for orphaned devices and ensuring proper

disposal was that DOE and EPA definitely have some responsibilities in this area.

We weren't sure, because there are not definite agreements in place, to say whether or not there will be a "piece of the pie" left that would not be covered by those two agencies. Our statement was that felt a health and safety standpoint and protection of property, we needed these devices to be controlled.

We looked at funding and considered where we would go for funding. We threw around the ideas of recommending that NRC go to Congress and ask for a fund to be set up as part of our funding -- that is, NRC's funding coming from Congress for this, as part of DOE's funding coming for this, as part of a surcharge over all general licensees and all specific licensees, as being a possible solution.

Because of this issue of fees and it being such a volatile siltation, we decided at that point instead to recommend that not necessarily NRC provide the funding but NRC ensure that the funding is available. Where it would actually come from, whether or not it would come from Congress or another agency or whether or not there would need to be a surcharge along the line somewhere would need to be a final decision, a policy decision made by NRC, and we could not bring ourselves to make that kind of recommendation.

MR. FREE: I didn't mean to imply that I was finished.

[Laughter.]

MR. FREE: That's true. In fact, one thing that we did do at the Vancouver-Washington meeting was invite a representative from the Northwest Compact to hear our plea and find out what he might have to add or suggest.

I've talked to our low level waste authority in Texas and frankly, a lot of people are concerned among the waste disposal industry that certain individuals might take advantage of the situation if compacts simply agree to take these devices when they were found.

So there are a lot of complicating features involved in trying to persuade a compact or a waste site to accept the disposal of these devices.

COMMISSIONER DIAZ: Is there an estimated cost for programming on a yearly basis?

MR. FREE: If they're found by someone who has no knowledge of radiation protection, safety or waste disposal, they're going to have to rely on someone to come in and survey, package, ship, deliver, and then the waste site to dispose of it. Estimates, if one of the waste site contractors takes it from cradle to grave, are up to $20,000.

COMMISSIONER DICUS: Along those same lines, do

you have any information about individual states in the situatoin of orphaned devices and when one would show up in the private sector with an innocent bystander, the state, in effect, ultimately became the proud owner of this device. Do you have any data on that? I know of at least one state that did have to go out and bring them in and did have to dispose of them, at a cost of about $100,000 when several of them were sent off at one time.

So I just wonder because it's a case where the states assume the responsibility, and I know there are one or two or three. I know there's more that one state that

assume the responsibility and the cost of doing this. I just wondered if you had data on that.

MR. FREE: Only anecdotal information. In Texas we have storage facilities for devices. And what we've done is collect these and store them. We haven't actually had to pay disposal costs yet. And every year we go through an agonizing discussion over whether we're going to continue to collect them. And it goes beyond byproduct material to the realm of radium and other NARM materials.

I know that some states are not able to collect these because they don't have the facilities to store the devices in the first place. To me, that's a whole new Working Group operation.

MR. LUBINSKI: At this point I'd like to talk

about the recommendations that were specifically identified in the Working Group report. Bob has given basically a skeleton of what the recommendations are.

The first recommendation we call increase regulatory oversight and we left it as that for the fact of the compatibility issue. We talked about that already or touched on it.

Our recommendation for this type of oversight would be a compatibility 2 recommendation, the reason being that there are certain aspects of the program that would need to be in place, and that's what we identified as our increased oversight program -- annual contact with licensees, licensees doing inventory. These are essential.

The method in which a state would do that we didn't think was important. If a state would like to go out and do inspections every year, fine. Why should we limit them and say it needs to be a computerized database?

However, with that said, we felt the most efficient way of doing this would be a computerized registration system. The idea, we'd like to be able to say it's a great new idea that we came up with. However, as already stated, the 1991 rulemaking talked about registration. A proposal from one of the vendors referenced registration.

We basically tweaked it a bit. The one major

thing we did is we said that this registration would not apply to all generally licensed device. It would only apply to those that contain certain isotopes that we felt were of concern, specifically cesium, cobalt, strontium and all transuranics.

The reason we picked these were based on health and safety concerns when these items are released to the public; in addition, what they could cause as far as property damage. Ten millicuries of cesium, as an example, may not be a major health and safety concern if found by someone on the street. However, that same source smelted in a steel mill could cause millions of dollars worth of damage. Therefore, we felt from the property standpoint, that that needed to be included.

In addition to this, we included certain specific-licensed devices. Basically these gauges were lower priority on the inspection scale currently; that is, five-year inspection cycle, may get bumped back to six or seven years. We said this would be a more efficient way to regulate these devices and ensure that they are actually maintained and controlled.

We looked at the resources that are currently used in the inspection program and said they could be used to actually maintain this registration system. These devices have shown up at scrap dealers, steel manufacturers, both

specific- and general-licensed devices.

The meat of the program is more of a time factor. Over time, if someone gets a device, they don't lose it immediately. It's over time, five years from now. They forget that they're a general licensee. They forget that the device exists because the product line has been shut down.

Therefore, an annual contact would again keep our presence known, let them know that yes, you are a general licensee, give them knowledge.

In addition, we found that the people who maybe had the original general license are no longer with the organization. Maybe they moved on in the organization and

this was very much a low priority in their annual duties.

Therefore, with this annual contact, it's a reminder. Let us know who your responsible person is. Let us make sure they know they have a general license.

We also said from this registration we'd be able to verify disposal, ensure it went to either a proper disposal site or back to a specific licensee.

And the last item that we felt was important to address but could not be addressed on a compatibility issue with the states was the fee per device. We need to fund the program somehow. The fee should come from the users.

States that have programs such as this in place

have indicated that it's better to do it on a per device basis. It gives someone a reason to go out and check if their device is there. Well, I'm not just going to send in the check. I'll go check and make sure the device is here first.

So it's an annual contact. Does the person still have the device? Do they still know they are a general licensee?

The second item we talked about in proposing penalties, many people made the statement, you need to put teeth into your program, and that was a statement made by the stakeholders in the process.

The penalty -- we said, as Bob has already indicated, disposal could cost as much as $20,000 for one device. If you're issuing someone a $2,000 civil penalty when authorized disposal of their device could be $20,000, that hardly keeps them from doing an unauthorized disposal.

Therefore, we said that the penalty should really be based on what the authorized disposal would be. And again, $20,000, that was for a 1 curie cesium source. There may not be that many of those out there but it's an example.

For the states, the question came up earlier about civil penalties. Again, we call it a penalty system in the recommendations because states may need to do it in another way -- administrative. Martha made many comments that she

is able to put administrative penalties on her licensees that sometimes have much better effect than any type of civil penalty she could issue to them.

We felt that the increased civil penalty was justified based on one, the disposal cost but also the consequences. As I said earlier, if you're talking millions of dollars of damage to a steel mill and you're only charging someone a civil penalty of $2,000, it really doesn't have much of an effect.

The third item with the orphaned device, and we've touched on this so I'm going to go quickly, is the fact that no program could be 100 percent effective, so they're going to exist in the future.

In addition, we've said there are 42,000 general licensees, 460,000 devices. Many of these are already lost. They were distributed over 20 years ago. We feel that they may either be lost or waiting to be lost in a storage closet somewhere, getting ready to go out with a load of scrap.

And again, we've talked about that, that we need to get other agencies involved in this and basically make a clear distinction of where the responsibility comes.

The question of what happens when someone finds a device really needs to be answered, as well. It's inconsistent across state lines. Some states will take possession of the device. Other states say, "You took

possession of it; you're stuck with it; you pay for the disposal costs." Hardly an incentive for someone to state that they have a device. What's going to happen? They're going to just pass it along to the next person.

The last two recommendations are recommendations for not NRC but really for NRC to pass along. NARM devices have the same problems. We feel we should recommend to CRCPD that all the states look at this and implement similar programs for NARM.

In addition, nonlicensees, we have no jurisdiction at this point. But if they're going to get a device, let's give them information to educate them and allow them to educate themselves, especially in the area of what do you do when you find an orphaned device or any type of radioactive material.

Of course, the most important thing is probably the cost of implementing the system, as well as the benefits.

[Slide.]

MR. LUBINSKI: The next slide indicates a "cost/benefit analysis" that we did based on $2,000 per person-rem. I'm going to start with the costs first.

Initial set-up cost. The majority of this cost goes into retrofitting the system. Again we're talking about going back, finding devices. You may need to send

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inspectors out to facilities when someone says they lost a device or cannot find it.

This is a one-time cost. If we elected to do this over a three-year period, that is start and do one-third of the retrofit and then the next third, it could be amortized over three years, or however many years to do that.

The annual operating cost again is based on a computerized registration system, the idea being here that with a compatibility 2 system you could not have one national database. You would need to have 30 different databases. Even in a smaller state, this may be the most effective way and we estimated a cost based on that.

Cost to licensees, we feel, if anything, it may be a bit of an overestimate for the fact that licensees are already required to do leak testing of devices. They're already required to do servicing and maintenance of devices. Therefore, to fill out an extra piece of paper when they're doing that to do their accountability and to make sure that they have an inventory record shouldn't be much of a burden.

The annual benefits were much more difficult to calculate in this case. Steel manufacturers -- we looked here basically at property. We said that they're causing property damage, the devices, once they get into a steel mill.

This is based on what we have at this point from

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small steel mills that have smelted devices, based on an average cost of $8 million per device, which included downtime of the facility.

The reason we put "could approach" is that if we cleared it up and never had another lost device, we could say yes, we're going to save $12 million. The effectiveness of our system we can't put an exact number on, to say that it's definitely going to be a total of $12 million.

Exposure savings came from a report that was provided to us by NRC. Pacific Northwest Labs did a report and indicated that for cesium sources that are currently used under general licenses, the exposure savings when converted $2,000 per person-rem could be as much as $2 million. And that again is based on a population dose, the number of people involved, but, on the average, could be about $14,000 per year.

CHAIRMAN JACKSON: Let me ask a question in terms of how those estimates were arrived at. Did they consider the following three probabilities? The probability of loss of the device, the probability of breach of containment and the probability of external or internal radiation exposure for a given event.

MR. LUBINSKI: P&L; considered those indirectly. What they did is they went back and studied all cases where incidents have occurred involving radioactive material

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getting into the public domain. Then they did an analysis of that to determine what were the most likely representative cases of people being in a proximity to the device and the time they were in that proximity.

Based on that information they looked at what the internal dose would be, as well as the external dose, based on cesium sources, those numbers.

From the limited amount of data that P&L; did, they were within an order of magnitude on their estimates. From a limited number of cases -- I don't have the number they looked at -- what they'd indicated is it was a good enough estimate that they thought additional work in this area, with time and proximity factors, should be performed. At this point this was what they called a preliminary estimate for cesium sources.

That concludes the Working Group's recommendations and report. At this time what I'd like to do is ask Rita

Aldrich to provide her views on the report. Rita was involved in some of the meetings of the Working Group.

CHAIRMAN JACKSON: Am I understanding this is going to take about 10 minutes?

MS. ALDRICH: Yes.

MR. LUBINSKI: I just want to note that Rita was not involved in the final writing of the Working Group report. Therefore, Rita submitted a separate letter to the

Commission stating what her views were and she's going to go over those now.

MS. ALDRICH: Some of what I have in my overheads we've gone through already some I'll kind of whip through them.

One of the basic premises that we were working with from New York's perspective, we've had a steel mill in New York that's melted two sources, the same mill, unfortunately, at 10-year intervals and it's cost an awful lot of money. So this is a topic that's very close to --

CHAIRMAN JACKSON: Do these mills put any kind of detection devices?

MS. ALDRICH: Yes. After the first smelting, the mill put in a portal monitor. After the second smelting, the mill has also put in a monitor at the scrap bucket, so it'll be looking at smaller quantities.

But the monitor was working when the second source was received and it didn't necessarily protect them from it. If it comes in in the middle of a load of scrap and it's in it containment, the monitor won't pick it up, if it's in its original shielding. So they do the best they can but it doesn't mean that they're always going to be able to detect them.

In my opinion and in our opinion, I guess, in New York, the general licensing of sealed sources and devices is

a basically flawed concept. It tries to establish a middle ground between exemption and specific licensing. And it fails because, in essence, it results in too little control of hazardous sources -- curie quantities of cesium sources, 500 millicuries of americium, things on that order.

And it invites overregulation of sources that don't pose a realistic hazard if they're lost or stolen, such as microcurie quantities of beta emitters in small gauges.

We regulate them all right now as if they had equal hazard. As long as we continue to combine sources with such different hazards in one category, we can't solve the present problems. Any increase in regulatory oversight on the GLs will just shift the imbalance a bit, continue the underregulation of the hazardous sources and the overregulation of the less hazardous sources.

Our proposed solution was to divide the general license into those that should be specifically licensed and those that should be exempted preferably from regulation because what we're doing right now is not adequately regulating anything in the group.

We differ from the Working Group in this respect. This is sort of a fork in the road here. One of them is to say, well, we'll take the general license and we'll try to improve it. The other is to say that the general license

hasn't worked for these more serious sources and that we need to go to another system that we have demonstrated does give us adequate control.

The states have complained about the general license for quite a while and at one of our meetings an old memo from -- I'm sorry; I haven't called for any of the slides. Excuse me. We're now on the fourth overhead. Oh, it is up there.

At any rate, this is excerpted from a 1981 memo, so this concern goes back quite a ways. And in the memo it states that at a recent All Agreement States meeting, which is an annual meeting between NRC and the Agreement States, the states commented that "NRC should reevaluate the GL device distribution licensing concept and seriously consider rescinding the GL concept of licensing gauges."

[Slide.]

MS. ALDRICH: The next slide is just the second part of that memo and just goes on to say that the states have seen a number of incidents involving this use of GL

sources and it would be beneficial to discuss this. Next overhead, please.

[Slide.]

MS. ALDRICH: If an agency has a problem with a class of specific licensees -- that's the case in which you have issued a specific document to a specific company,

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they've applied for a license, they have made commitments ahead of time, they've told you who the radiation safety officer is going to be -- if you have a problem after the license is issued, you use the specific license as a way to address the problem.

It must be issued before the sources can be applied. It must be amended if the person responsible for radiation safety changes. It must be periodically renewed. Next overhead, please.

The proper control over and disposal of sources are the subject of periodic inspection of the licensee. Improper disposal of all sources must be proven before the license can eventually be terminated.

And a question that the Chairman had asked a while ago about nonmonetary penalties, the specific license also gives you a way to impose nonmonetary penalties. You can amend restrictively the license, you can suspend the license, you can make them put all sources in storage because you think they have an accountability problem, or you can revoke the license for cause.

So with a general license, there's no way to do that. It's given in the regulations. You have no control over -- it seems to me, at any rate, you have no control over the person after they acquire the source.

The philosophy behind the regulation of GLs is

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very different from the specific licenses. The sources can be acquired with no prior approval by a regulatory agency, by any company or person that can afford them.

I also think it's important to think about what a company might think if they can order a source, to them, a gauge -- they don't think of it as a radioactive source -- out of a catalogue and receive that with no prior regulatory questions or approval? How much of a hazard are they going to regard that object as presenting? Very little, it seems.

And I think that in that sense, we're failing because in making it that easy to acquire something that is hazardous, could cause a very extensive personal property problem, we are sending that message, that this isn't that important.

So in the absence of issuing a specific license, there isn't any prior designation of a radiation safety officer, there's no licensing document that can be used to enhance control, there are no periodic inspections and almost complete reliance on source vendors for the records of receipt and disposal.

Basic inequities -- overhead, please. Specific licenses, and very often there's no difference between a specific-licensed gauge and a generally-licensed gauge of the same activity, except for the labels. You can get a curie under one kind of licensing or a curie under another

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kind of licensing. It's cesium 137 and it's a curie. There's really very little difference between them in many cases.

But the specifically licensed ones are subject to all code requirements. Many of our code requirements really don't make sense for a simple type of license like this.

On the other hand, the GLs, as they're currently regulated, are exempt from everything except the few requirements in the segregated part of the regulations, plus requirements for proper disposal.

And keep in mind that the only knowledge that the general licensee has of their requirement very often is what the vendor tells them about because they're often not contacted by a regulatory agency. In New York we have always registered GLs and we require them to do semi-annual inventories. We're working towards the point where we're going to have them on a database so that we can contact them on a regular basis.

But because of the concept that they've always been a different kind of animal, they've never been recorded on computer, at least in New York. We kept paper records,

so now we're creating -- in the last few months we've been creating a computer database so that we can regulate them more effectively with direct contact.

The specific-licensed fixed-gauge licensees, our

experience with them -- these are the equivalent or the parallel to the generally-licensed gauge licensees -- that they perform as well as any other licensee of ours, as long as the same degree of regulatory oversight is exercised.

I agree that we need to look at our resources. Next overhead, please. We need to reexamine how our resources and our licensees' resources are being used to regulate these various objects. As I said before, many of the GLs are similar or identical to the specifically-licensed items.

Our conclusion in New York is that we are underregulating the GLs and overregulating the SLs and our experience demonstrates that we can achieve good control of both with a few basic concepts. Next overhead, please.

One is to require a licensee commitment to oversight of sources and proper disposal before the sources are allowed to be acquired. There will be companies that won't choose to undertake the responsibility and may not wish to look at the down-the-line cost of disposal. I think that should be an up-front decision. You can't have that unless there's some previous contact and explanation on the part of the regulatory agency.

Second, require the licensees to maintain good records of receipt and disposal and of current source inventory. Next overhead, please.

Third, require prompt notification to the department of loss of control of a source. Four, regularly scheduled inspections. These don't have to be lengthy. Ours we're trying to keep to an hour. We have a four-page form. It just hits the high topics. Basically, where's your inventory? They'll spot-check what you have in the facility against your inventory because an inventory, by itself, is worth the paper it's written on unless you have some confidence that it reflects the reality in the facility.

And regular license renewals to reinforce the licensee commitments. I think one of the important concepts is that the recipient of one of these gauges makes that commitment up front that they're prepared to care for it, that they're prepared to pay eventually to dispose of it, that they're going to do all of the check tests and leak tests that required.

So what I am suggesting is that to conserve resources, that we can do a streamlined version of a license to cover both the generally-licensed and the specifically-licensed sources that fall into this category of concern, as I think we're calling them. We can guarantee 10-day turnaround. We have a mini-license application form that's four pages long, not too onerous.

It explains what the responsibilities are. It

requires the licensee to enter just the basic information -- their name, their address, who's going to be the radiation safety officer, the person responsible for carrying out the radiation safety responsibilities. I think it can be done at least as cheaply as what's being proposed in adding some refinements to the general license, but I think it gives us the essential concept, which is that we have contact with the applicant before they receive a source over which we are concerned and we would like them to be concerned.

That's really about it. Thank you.

CHAIRMAN JACKSON: Thank you. I just have one last follow-on question. If I look at the recommendations that the Working Group made, and to the extent that you want to comment on Ms. Aldrich's recommendations, you mentioned the suspended rulemaking; to what extent were any or all of these recommendations addressed at that earlier rulemaking?

MR. LUBINSKI: The first comment is that Ms. Aldrich's letter that she'd sent in -- the Working Group hash all seen a copy of a letter. As a Working Group, the Working Group has not gotten together and commented on the report, so I think at this point we don't want to have any comments except to say that many of the conclusions or bases for what Rita has stated are the same as what the Working

Group says.

From the point of the suspended rulemaking, the

current rulemaking that was in place in 1991, that is, the proposed rulemaking, besides the registration system, did have some other essential elements that are needed for the program and are things that we basically addressed.

For example, providing disposal information to a licensee up front, that was included in the rulemaking. Tying up some loose ends on what a general licensee can do and what they should do, such as inventory systems and disposal of devices and providing proper notification of disposal.

However, the way the current rulemaking is set up, it only addresses generally-licensed devices. We felt that was one shortfall of the current rulemaking.

The second would be the current rulemaking was designed to address all general licensees. However, the wording in the rulemaking is not such that it would require all general licensees to comply with the registration program. It put the burden on NRC to contact the licensee. The burden on the licensee was to respond to NRC and requests for information.

So the implementation could be modified; however, the proposed rulemaking that did go out addressed all general licensees and told the public that's what we were going to do. What we would have to do to revive that would be an issue.

However, the fee situation would need to be addressed as part of that, as well. The current rulemaking, with it only applying to licensees responding to NRC requests, may have some problems in the fee area. You're trying to collect fees from someone at that point and set up an equitable billing system for those types of licensees.

So we did look at the rulemaking. We pulled the parts out that we thought were good and we agreed with that along our process. However, from this standpoint we would probably recommend that new rulemaking be developed along the same lines that would include specific licensees and would clearly address just those devices that we're concerned with in the regulation, not as a policy issue.

CHAIRMAN JACKSON: And what about this issue of equity of treatment of general licensees and specific licensees?

MR. LUBINSKI: We feel that the equity would take place in that case with the class of general license we're concerned with because we would also recommend the specific licensees that are doing the same operations. As Rita said, some devices are identical except for the labeling, whether they're used under a specific or general license. If you put them into the same registration system, they would be treated equally.

Currently, many of these are gauge licensees with

prior number 5, which is inspection every five years. Instead of going through that type of method, instead, put them under a general license. Make that the requirement, that they're under the general license registration system.

The general licensees that we did not address -- that is, exit signs, chromatographs -- we, at this point, would say we don't see where we would need to look at those. Maybe in the future, as an expansion of the general license registration system, it may be something to consider, but at this point we would say leave them as they are.

If you want to say there's inequitable treatment between them and the current SLs, there probably is, from the standpoint of fees and the amount of oversight. However, it is valid based on the risk associated with each of those devices -- during use, during accident conditions, and during loss conditions.

CHAIRMAN JACKSON: I guess I'm really more referring to specific licensees and general licensees who may de facto have the same kind of device.

MR. LUBINSKI: We would say put them under the same registration system, and that's part of our recommendation. Put them under the same criteria, same fee system, same system of requirements and take them out of their current licensing system as we see it and the current inspection system that they're under and put them into this

registration system.

CHAIRMAN JACKSON: Commissioner Rogers, do you have any questions?

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Commissioner Dicus?

COMMISSIONER DICUS: Yes, one quick one. You said that you thought that the cost of what you're proposing or what the State of New York is proposing is about the same as what the Working Group is proposing and I wonder if you had actually run the numbers on a cost/benefit basis.

MS. ALDRICH: No, we haven't, but I think that what the Working Group is starting with is really kind of soft numbers. I'm just thinking of it qualitatively in light of what actions you'd be taking. You would have a one-time contact with the applicant in the licensing process. The basic requirements would stay the same. The other activity that would require time and money would be this annual contact. I'm not sure that that's absolutely necessary if you put them on a regular inspection schedule.

There are a lot of differences between what the states do now and what NRC is doing. Our fixed gauges are inspected on a three-year interval. They're quick inspections but they're there. You get there and show the flag so that they know that you exist and that you're actually going to look at what they have.

I'm in complete disagreement with saying we're going to equalize the playing field by taking these fixed gauges we now specifically licensed and put them into a level of control that I consider to be inadequate as it stands, even with the improvements. To me, this is illogical. We're going in the wrong direction.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: Precisely that was my point. It seems to me like we might have an issue of concern that although it might have little health benefit impact right now, it could have at any one point, in any one area, become an issue, like it has happened in other places in the world.

And putting the system on the same basis seems to me like it would be actually decreasing control, rather than if we're going to go to a registration system, have a registration system that's very specific and designates which isotopes according to those and according to a risk basis analysis, which ones should actually be done.

MR. LUBINSKI: I would argue the point of less efficient system going under a registration and the reason I would say that is there's one aspect to the registration system that we currently don't have under a specific licensing program. When a specific licensee is inspected, we can check records of transfers at that facility but there's really no cross-check done against what a

distributor may have said.

So with the registration system you would have a real-time, per device check of what a licensee has. You would get the reports from the distributor that says a licensee received a device. When you did your annual contact you could specify that device by serial number, verifying that it is indeed there.

When you go to someone's facility every three years, every five years, and you look back at some of the records, the license may say you can have any type of gauging device containing cesium, americium or cobalt. You don't know, as an inspector when you go there, exactly what devices are supposed to be at that facility until you look at transfer records at that facility.

So if the licensee does not have the transfer record that he received it, you're not going to look for the device. Therefore, you never check to see if the device was there. Through the registration system you can do that cross-check.

COMMISSIONER DIAZ: But taking a devil's advocate position, what is the incentive for a licensee to switch from a general license to a specific license or registration? It's always the fact that it will be more economical to be under the general license and that could actually be a fact that would deregulate them, rather than

increasing regulation.

MR. LUBINSKI: That would be something, as far as the costs we could see, as being a benefit to the licensee that would push them to say yes, I'd rather be under the registration program rather than the specific licensing program.

We also considered the -- and I'm going to use the word inequity again -- when we're talking about the exact same device being used under either a specific license or a general license and it being the choice of the recipient. They decide how they want to use it.

If they are only using it and possessing it and not doing any additional services to it, we would say that we should structure the program such that they are required to have it under this registration system.

If, for other reasons, such as they want to have training and be able to do servicing of that device, now they say they want to put it under the specific license instead, well, now we're dealing with someone who has a higher level of training and knowledge of the consequences in dealing with this device.

But if they're just dealing with the straight possession and use of the device, we would look at that as being in the regulation as a requirement to go under the registration system.

CHAIRMAN JACKSON: Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: Could you comment on the 1 millicurie standard that Ms. Aldrich is proposing as the category of general licensees that we would think about moving to specific license, the amount of activity that would relate both to the industrial problem and the public health and safety problem. Is that in the right ballpark, from your perspective?

MR. LUBINSKI: It is in the ballpark. If you look at the numbers that the Working Group proposed, we were talking 1,000 times the exempt quantities in Part 30, which would range anywhere from .1 millicuries up to 10 millicuries, depending on the isotope, and we also picked a 1 millicurie for the transuranics, which were not listed in the exempt quantity table. So we're in the right ballpark.

As far as the different types of isotopes, we had determined -- that is, the Working Group had determined -- with the input from the stakeholders, which isotopes should be included based on what the effects would be if lost, handled by members of the public, in addition to making it into a steel mill or a scrapyard and causing damage to property.

Miss Aldrich indicated that she was looking at the gamma emitters -- is that correct? -- 1 millicurie --

MS. ALDRICH: And the transuranics.

MR. LUBINSKI: And the transuranics, so we're very close right there. We're talking cobalt cesium; she's talking all gamma emitters. Our strontium we felt needed to be added more for the health and safety risk if it is lost, because of the high doses someone could get.

This was based on experience of the members who are involved in these working sessions, members of the public as well as licensees on their experience.

To say that we did a risk assessment at that point, it was a type of risk assessment, but very much along the lines of disposal problems, half-life of the isotopes, internal and external exposures, as well as cost of damage.

So it's not far off when you talk about this category.

COMMISSIONER McGAFFIGAN: I might ask Ms. Aldrich, what is the matter with the isotope-specific range that they're talking about as an approach?

MS. ALDRICH: I don't think it brings us any more precision because as John said, we're still just making qualitative comparisons. I think it's preferable to keep things simple and not to pretend to precision that we don't really have. That's all.

So I would prefer the 1 millicurie across the board, making it easier for everybody concerned, both the recipients and the manufacturers.

CHAIRMAN JACKSON: Although, in fact, the kind of emitter you have relates to what the biological damage is. Is that not correct?

MS. ALDRICH: Well, we're talking about sealed sources and I have no incidents in New York, at least, that I can recall where the sources themselves were breached. They're very sturdy. So we're talking about external dose, so it seems to me that a millicurie is precise enough.

CHAIRMAN JACKSON: I think we'd better move along and hear from the staff. Thank you very much.

MR. LUBINSKI: Thank you.

CHAIRMAN JACKSON: Mr. Taylor?

MR. TAYLOR: The staff will now give its preliminary views based upon what was in the SECY paper. This will be given by Don Cool.

DR. COOL: Good afternoon. I'll try to move things along quickly. We'll go ahead and go to slide 2.

[Slide.]

DR. COOL: Just a couple of observations with regard to the risks. When you talk about the category that is generally licensed today -- all the devices, all that entire range -- under ordinary conditions, those kinds of devices do not represent a high risk to health and safety. That's the kinds of environments that they were particularly designed and used for.

For the majority of those devices and, as we saw earlier in the Working Group slide which had the pie chart on the kinds of devices, exit signs and a variety of things, even most of those, the vast majority of those under accident conditions, loss conditions and otherwise, don't pose a significant hazard, even if they are lost and out there in the environment.

However, it is true that some of those devices do not account for the radiation exposure, property damage. That's an area which this agency has not looked at in terms of assessing public health and safety. We've looked at it in terms of dose. We've looked at it in terms of the collective doses and risks in a traditional sort of analysis in terms of a regulatory analysis that would be done with a rulemaking.

Heretofore, rightly or wrongly, property damage and some of those issues associated with a nonhuman health effect type of analysis have not been considered as part of the activities.

[Slide.]

DR. COOL: Basically, the options -- next slide -- that we look at fall into sort of three major types of categories. We could maintain the status quo as it presently exists today. You could go back and simply reinitiate and move forward the rulemaking plans and

activities that were in place a couple of years ago, recognizing some of the resource considerations that were associated with those. Or we could, as a third option, go back and take a look again at those rulemaking activities but attempt to readjust them in light of what has been learned with the Working Group report, some of the other activities, and some of the other issues that have arisen. If I can go ahead and go to the next slide.

CHAIRMAN JACKSON: No, not quite.

DR. COOL: Okay. Trying to keep it moving. Sorry.

CHAIRMAN JACKSON: If you're assuming you're tracking to option 3 --

DR. COOL: I am tracking to option 3 on the next slide.

CHAIRMAN JACKSON: What further evaluation do you need? How long would it take to develop such an action plan? And when would it be finished, with the existing resources?

DR. COOL: That's exactly what I hope to address in just a moment, if I can.

CHAIRMAN JACKSON: Good. Okay.

DR. COOL: Because the answer to that depends on the component of the action. For some of it, in terms of moving forward, I think we can move forward on a couple of

fronts relatively quickly.

The rulemaking that was previously on the books, as the Working Group indicated to you, was a rulemaking that covered all generally licensed devices. In retrospect, in looking at the hazards associated with those devices, that's

probably not necessary. We really don't see just simply attempting to go forward with that with all of the implications that would be associated with that.

On the other hand, as they also noted, it doesn't deal with some of the inequities and some of the sources that are out there under a specific license category, which are really kinds of identical sources.

And what we would like to do is go back and look at it in terms of reracking the entire system. Here I think perhaps we have maybe a slightly different view from the Working Group that might actually end up sounding a little bit closer to where Ms. Aldrich was in the sense that rather than perhaps being still considered a generally licensee that you would, in fact, create what would amount to perhaps a fourth category right in the middle which bears some of the characteristics of a specific license, in terms of contacts, in terms of fees and billings and other sorts of things, but which was a much simplified process and which perhaps might involve a different kind of touch, if you will, to the licensee.

If the issue, as the Working Group pointed out, was a matter of contact and accountability, we believe you could achieve that through an annual sort of registration approach where you ask them to certify certain things. You ask them to provide points of contact. You ask them to certify that they've, in fact, done a proper leak test, that it has the right kind of signage, that they've eyeballed it, they have inventory control over the thing, that they provide evidence of disposal if they have disposed of the device, and limit perhaps then an inspection program to those situations where you don't get back a satisfactory set of answers to that.

That, in fact, would be more like a variation of a specific license than a registration of a general licensee, although the semantics get to be rather fine, depending on how you particularly cut the process.

We believe that we could probably move forward to put some of that in place and start to test the system. One of the things I think we're trying to learn here is that you don't try to go and conquer the entire universe in one large bite chunk. Certainly some of the states have done it and there's been some different approaches which the states have used.

As part of our business process reengineering going along on separate tracks, we've been looking at some

of the ways that people have been doing registration and licensing in other sectors. And, in fact, there are federal agencies out there who issue enormous numbers of licenses -- the Federal Communications Commission -- who use processes like this and, in fact, have systems already developed, which we may be able to take advantage of.

Our proposal would be to try and implement and try and implement within the next year a test pilot, our thought being perhaps those generally licensed devices which were distributed in the last year or perhaps 1995 and 1996. That would be something on the order of 1,000 gauging devices.

CHAIRMAN JACKSON: How would you limit the sample?

DR. COOL: Test the system. That has a couple of advantages as we see it, just in our preliminary thinking, in that those are most likely to be the ones which we'd have the best records on, the most recent records on, and the fewest number of those that we won't find on the first pass because the real issue, as has been pointed out a couple of times already, where you really get into the resources is how long and how far and how many times do you chase the device that doesn't come back when you sent that letter to XYZ locality and it comes back undeliverable, no person here, don't know what you're talking about. Then you maybe get the standard sort of skip trace.

From there you start to send out inspectors and

how far down do you pursue those, recognizing, as the Working Group indicated, that there are some which are already lost. They are sitting in somebody's scrapyard someplace and the only way those will ever be found is if they show up on a detector sometime as the metal continues to move about the process.

So we believe we could move forward relatively

rapidly in that arena.
Likewise, we would like to go ahead and start moving forward to revise the rulemaking, move that into production, to address some of the issues that have been dealt with here, to look at a rerack of the system -- that is, to take some of the things which are specifically licensed now and put them into this new category, to put in some new requirements with regard to looking at property damage in terms of an evaluation. It will take some period of time and almost certainly require a reproposal of the package, rather than simply bringing back the package that was brought up before.
That has a probably two-year time frame for total completion of analysis, proposed rule, public comment period, final analysis and bringing those sorts of things closer.
CHAIRMAN JACKSON: Two years from now?
DR. COOL: Roughly two years or so from now, given
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those sorts of circumstances.
CHAIRMAN JACKSON: And how long a test registration period would you be having, a pilot test registration?
DR. COOL: Off the top of my head, and this is only the preliminary planning, I'd like to get that in place within the next year, run that for a year and start the expansion the year after that.
CHAIRMAN JACKSON: Let me just get to the bottom line. If we don't push you, when would you have come back with a plan?
DR. COOL: I would have come back with a plan within a few months.
CHAIRMAN JACKSON: Okay. You've had the Working Group report since July, correct?
DR. COOL: That's correct.
CHAIRMAN JACKSON: So a few months, meaning the beginning of next year, with a plan?
DR. COOL: With a plan. And --
CHAIRMAN JACKSON: If we don't push you on it.
DR. COOL: And if this Commission would give approval, that plan would indicate when the test would actually be getting off the ground.
CHAIRMAN JACKSON: Commissioner Rogers?
COMMISSIONER ROGERS: No, I don't think I have any
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questions.
COMMISSIONER DICUS: I'll wait. No, I do need to ask it.
You are going to do these at the same time but some of the information you get out of registration is going to be necessary for the rulemaking, is it not? It seems like the two are not necessarily tracking together, is my point, that the registration program, I think you said upwards of three years, and, if I heard you right, on the rulemaking, maybe two years. Now, maybe I'm missing something.
CHAIRMAN JACKSON: Yes, how does one inform the other?
DR. COOL: Preliminarily, if we were to have a registration running by the time you got to the comment period, within the next year or so, then you could be gathering data in that year which could also inform a final rulemaking activity.
What I meant to imply was that in the third year you could then be looking to move it, with the rulemaking final, towards those specific licensees, to bring them into part of the program if you wished to do that, and to begin to go back, depending on how far back and how much resource you want to put in it, to capture previous years, '94 and '93, the older cases.
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So I believe roughly they could time-out. Part of it would depend on the speed with which the rulemaking activity could proceed and the speed with which we could get a first cut registration system off and get them signed out and see what kind of response we got.
CHAIRMAN JACKSON: Commissioner Diaz?
COMMISSIONER DIAZ: I'm probably a little confused but let me see if I can express my confusion. We seem to be always worried about a series of sources of radiation to the

public from many things and our control or lack of control over them. Here we have in a specific case, hundreds and thousands of sources which we have been dealing with for many years, and I think we have now concluded that we need to take additional action on it.

I haven't seen, and maybe it exists and maybe you have done it, what is an overall risk assessment of all of these sources, static and moving, in this country, and what is the potential for any of those sources, in the curie range, for example, to really have an impact on health and safety?

Second, I didn't see a staff number of how much would be the incremental cost to put a program that would actually, in a short period of time, address the issue. I think the issue has been standing around and it might very well be that it's an issue of resources. I think that we

should consider addressing the issue in as short as possible time.

So I have a statement, that being about risk assessment, and cost and implementation.

DR. COOL: Okay. With regard to the first piece of it, we do not have a formal PRA or similar risk analysis which addresses all moving or static sources within the United States, as I think you have outlined. What we do have is the operational experience here in the United States, which indicates that we have not had significant sources which have caused major exposures to the population.

COMMISSIONER DIAZ: You mean you believe you have not had significant exposure.

DR. COOL: The data which we have available --

COMMISSIONER DIAZ: The data which you have indicates that but you're not sure that you have not.

DR. COOL: I would have to say that I do not believe that there have been significant exposures of individuals within the United States.

COMMISSIONER DIAZ: The data indicates that there is --

DR. COOL: That's correct.

COMMISSIONER DIAZ: Okay.

DR. COOL: With regard to the second case, actual costs, the previous cost estimates in FTEs are probably not

bad in terms of what it would take to try and move relatively rapidly and to try and recover, to the extent that you could recover and recapture sources which are out there and which you can find.

Our reason for trying to move in a pilot test in terms of the system and then to bring it on line is really driven by two purposes: one, to make sure that what we develop will work before broadening it and two, to gain some experience with the capture rate for those that we believe the capture rate should be low on, and to gain some measure of understanding of how far we would wish to push the topic of pursuit.

I really believe that the issue of the resources that the agency would spent is really a function of, from a policy standpoint, how far and how long we wish to pursue old sources which we could not find, recognizing that there is some number of them which we will never find except as they show up on a portal monitor or a scrap line monitor within the actual systems.

COMMISSIONER DIAZ: Should we reduce the uncertainty that surrounds the issue?

DR. COOL: You're trading those off. That's correct.

COMMISSIONER McGAFFIGAN: I may also be confused. It strikes me that the test program you're proposing, it

isn't really a very good test because it's the part that we understand, you know, the devices that have been distributed in the last year or two, whereas the problem is those things -- it strikes me that a better test would be to go to find everything half a curie and above that might have been generally licensed ever. I don't know how many of those there are. I'm just making that up, but that's a real test.

That would tell us how hard it is to find, how many things we're going to have to go beat the bushes to try to find, whether there's a real concern. But the test program doesn't sound to me like it's going to tell me

anything, other than we can find what was done in the last year with close to 100 percent accuracy without very much sweat.

CHAIRMAN JACKSON: And it's not necessarily referenced to public health risk.

COMMISSIONER McGAFFIGAN: Right.

CHAIRMAN JACKSON: Which is what our jobs are.

COMMISSIONER McGAFFIGAN: So my big problem with this, and I join Nils in not understanding, is if the concern is -- and I also differ -- I got the briefing a week ago from Joel and there is a Texas case where one of these devices ended up in a home and people were exposed to decent exposures. Wasn't that in Texas?

DR. COOL: I believe what you're referring to is

what we refer to as the Larpin event, which was a radiography camera, specifically licensed, in fact, under relatively tight control. Texas was swinging by every few weeks and the device was stolen.

So it doesn't really exactly fit the mode that we're talking about here but it certainly demonstrates what happens when people sort of forget and other things happen around the source which sort of leave it sitting there all by itself.

COMMISSIONER McGAFFIGAN: I know we have to get on to other things but my suggestion is the pilot you've discussed really wouldn't inform me very much in a rulemaking, I don't think.

DR. COOL: One brief comment. You're correct. The test, as proposed right now in its interactive thinking, would not be a good test in terms of the difficulty of finding older cases. That's very true. The test would, I think, be a reasonable test of the actual registration and operation of such a system, a computerized system that mails out the returns and that interaction set with licensees which needs to be ironed out before you would expand it.

So for part of it I believe it would work. Certainly for the part of trying to capture all the old sources, no, it was not intended to go try and capture all the old sources at one pass, at least within the resources

that we had available to us in the present budgeting cycle.

CHAIRMAN JACKSON: Thank you. The Commission would like to thank the members of the Working Group and the NRC staff for an informative briefing on the Working Group's report and the staff's response to that.

The Working Group presents a number of recommendations that would improve control, they believe, over and licensee accountability for regulated devices and I commend the Working Group for your structured approach to designating which devices require increased regulatory oversight. I also compliment you for seeking wide stakeholder input and participation.

The Commission further would like to thank all of the individuals, regulators, organizations and all stakeholders who, in fact, participated in the Working Group's meetings, including the Organization of Agreement States, the Conference of Radiation Control Program Directors, affected industries and the public.

The Commission does value your input in helping to develop solutions. And your views, in fact, as you can see, influence our thinking and decisions and strengthen our actions to resolve what's been a longstanding issue.

So the issue, then, before the Commission seems to be whether a significant amount and how much of agency resources must or should be redirected to resolving the

problem of device control and accountability. The staff recognizes this dilemma and seem to be suggesting a moderate approach. Included in that is a potential action plan.

So the Commission wishes to consider more specifically the staff's recommendation relative to the Working Group's recommendations, specifically this putative action plan, to weigh the resource implications and to make a decision accordingly.

So we will ask you to accelerate the development of the action plan with elements included of the plan, schedule relative to the elements and resource implications. You'll hear from us on what that accelerated date is going to be.

Do my fellow commissioners have anything they would like to add?

[No response.]

CHAIRMAN JACKSON: If not, we're adjourned.

[Whereupon, at 3:37 p.m., the briefing was concluded.]