UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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DRESDEN DECOMMISSIONING

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PUBLIC MEETING

Grundy County Administration Center

1320 Union Street

Morris, IL

Thursday, July 23, 1998

The above-mentioned meeting commenced, pursuant to notice, at 7:30 p.m.

PRESENT:

DONALD KAUFFMAN

RICHARD TUETKEN

RONALD BURROWS

BRUCE JORGENSEN

BILL SNELL

MICHAEL MASNIK

ROBERT EISENHOWER

VERNE KOLBA

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P R O C E E D I N G S

[7:30 p.m.]

MR. KAUFFMAN: We're about to get started. Good evening. I'm Don Kauffman, Chairman of the Grundy County Board. The purpose of the meeting this evening is to provided interested members of the public an opportunity to provide comments to the Nuclear Regulatory Commission regarding the decommissioning activities for the Dresden Nuclear Plant No. 1.

I want to emphasize that this is a meeting to exchange information. It is not a hearing.

There are agendas on the table to my right, your left. And if anyone does not have one, if you'll hold up your hand, we'll get one to you. Okay.

We'll go over the agenda items so that you'll know how we're going to proceed this evening. The first part of the agenda will be a description by Richard Tuetken from the Dresden Nuclear Power Station -- from Commonwealth Edison, actually, regarding describing the decommissioning program for the plant. Next will be Ron Burrows from the Nuclear Regulatory Agency who will discuss the decommissioning of a nuclear plant, including information on the termination of the licensing process and future plant oversight.

After that we will have questions and following that comments and statements. I might mention that the

questions, you need not sign up for, but if you wish to make comments or have statements that you sign up and there is a sign-up sheet on the table over here. And we'll take people in the order which they have signed up.

Also I mention that NRC will accept written statements or other written material. If it's lengthy, they ask that you provide a summary. I would like to note that this meeting is being transcribed. There will be a -- there is a second sheet, sign-up sheet, again, one on the table and I believe there is one in the hallway. If you wish to have a copy of the transcript, it will be sent to you if you sign up on that sheet. It may be fairly lengthy and so we encourage people to share copies if necessary.

When we come to the question and answer period and the statements, we would ask that when you come up to the microphone to speak, that you give your name and, if you have a long name or a particularly difficult name, that perhaps you spell it so that the transcriber can get it correctly in the record. We ask that you speak from the microphone so that the transcriber can get your comments accurately.

The NRC will attach transcripts of the overhead slides that you'll see this evening to the transcript of the meeting and if you have something that you want in it, you may present copies to, I believe, Mr. Burrows after the

meeting.

After the meeting the representatives of the NRC and ComEd will be available to answer specific questions that you may have. If the media wishes to have an interview with representatives, there will be conference rooms available for you to do so afterward. There is one conference room at the back meeting room here, also across the hallway.

The other important information is that the restrooms are located right out this door to the left out in the hallway on your right. With that, I would like to introduce Mr. Richard Tuetken. He's the Manager of Decommissioning Projects for ComEd.

MR. TUETKEN: Thank you, Don. And welcome to, those who are attending tonight, and particularly those who are members of the general public. My name is Richard Tuetken. As you can see, I'm the General Manager with Commonwealth Edison. I have been with Commonwealth Edison since 1968. I became the executive responsible for Dresden Unit 1 in February of 1997.

And our purpose tonight is to inform you of our current decommissioning plans and activities for Dresden 1. On the tables over here on my right, there are a document that we filed with the NRC most recently, I think it was June the 1st, describing our plans over the next few years,

and I would encourage you to take that for your own reading.

Dresden 1 is the first of three electrical generating units locating at the merging of the Des Plaines and Kankakee River to form the Illinois River. Dresden 1 is a part of the historic Grundy County. I noted in the picture across the hallway earlier today that placed between the guard, the American Legion, and the Minooka Grain and Lumber Supply Company is a caricature of Dresden Unit 1. And so, as the county has seen, the county has a historic role to play in the history of Grundy County as it has been in the nuclear power industry.

It was the first full scale, privately financed nuclear power plant in the United States. It was not the first nuclear power plant. It had an output of 210 megawatts and I heard someone mention this evening that they wished maybe we could produce power from it this summer, but I would have you realize that we've had the plant shut down for many years.

It went into commercial operation in August of 1960 and operated until October 31st of 1978, at which time it was shut down for an outage. In March of 1979, a few months later, the Three Mile Island accident resulted in a number of new requirements and regulations for the operation of commercial nuclear power plants. Those regulations would have required a significant amount of modifications to the

facility of Dresden Unit 1 and these requirements led to the decision we ultimately made to make permanent the shutdown and decommission the facility.

That decision to decommission was publicly announced in October of 1984. We submitted our first plan for decommissioning in 1987. As you can see, the NRC conducted a review and approved that plan in September of 1993.

Our approach to decommissioning. Our approach is to maintain our sharp focus on nuclear safety. Since 1994 we've had a dedicated project team responsible directly for Dresden Unit 1 activities. Dresden Unit 1 is being decommissioned by maintaining the unit in the term called SAFSTOR, which is a safe storage configuration for the facility. And our plans are to dismantle and decommission the plant of Unit 1 concurrent with the Unit 2 and 3 plants which will continue to operate until the end of their license life in 2011.

In establishing this SAFSTOR configuration, we are working to establish what I'll describe as a dormancy state, meaning less requirement for ongoing systems to operate and maintain and we will accomplish that by having our spent fuel transferred into dry storage casks by the year 2002.

Currently, and even at that state, the existing emergency plan for the plant as you're familiar with it, as

well as our security plans for the plant, as you may be familiar with them, remain in effect because it's a common plant with Units 2 and 3. As I said, our current plan is to decontaminate and dismantle Unit 1 concurrent with Dresden Units 2 and 3.

This is a little busy chart and probably not well read from the audience, so I would encourage you to study it later by picking up a copy of this. And I'll go over and read the left-hand side for those who can't even see it. The left-hand side is a series of activities. First, we call SAFSTOR operation. The second one is SAFSTOR dormancy. Preparation for decontamination and dismantlement. The activity of decontamination and dismantlement of Dresden Unit 1. Final surveys. And then I will describe in a little more detail fuel storage. We have been operating these plants at Dresden since 1960, and as you should therefore know, we've been storing fuel on that property, and we will continue to store it until the year 2047. In part because the Department of Energy, as you get to begin carrying out its obligation to assume the responsibility for that fuel in 1998, the earliest for Dresden 1 that's published is the year of 2010, by which the NRC will begin, or the DOE, the Department of Energy, again, will begin assuming the fuel for disposal.

And, therefore, between Dresdens 1, 2 and 3, it

will take until 2047 to have the DOE take the fuel off the property, at which time we will then begin the dismantlement of our storage facility on the property.

Another element of our planned activities is in part associated with the funding to carry out the activity. As you can see by this, we have currently collected and have a balance of about $93 million of an anticipated $398 million activity. The funding will continue to be collected until 2000, I believe it's 2011, at which time we'll have full funding to be able to carry out the activity of decommissioning and that's in part why you can see how we will then begin preparation for those activities in about 2009. The actual activities commencing in about 2011, because the funding will be there to continue on with an active dismantlement and decontamination activity.

At the same time, we will be storing the spent fuel in a dry storage configuration of the Dresden 1 fuel and we'll have an ongoing security and surveillance program associated with that and that funding will continue out until the year 2047.

I would want to at this point in time to have you recognize that, as you probably all know, it's a matter of public policy for the Department of Energy to assume responsibility for the spent nuclear fuel. And as you're probably aware by the media, the Legislature failed to call

to a vote activities that would allow that to begin sooner than what is currently planned. And we have worked with many of the people in the community and the government to encourage you to recognize how your senators are likely to vote. And we would encourage you to think about calling Senator Durbin about his intended activities on voting on that bill.

Some of our key activities. Again, I repeated that we have a focus on safe storage of the fuel. Our objective is to maintain Unit 1's systems and structures that house the fuel, which currently is contained within the spent fuel pool of both Dresden Units 1, 2 and 3. And we will be maintaining those structures until the spent fuel is transferred into dry storage, which we're working right now to obtain certification of a design to allow ourselves to apply this dry storage technology to our spent fuel management and our expectations right now is that a license will be granted by the NRC sometime in the year 1999. I would hazard to say it's about mid-year of '99, by which time we will then begin the fabrication of those cast assemblies and then ultimately the transfer of spent fuel into that storage.

Other activities associated with our safe storage of the fuel is the securing of non-essential systems and structures to ensure no potential leaks for radioactivity.

Again, the plant has been shut down for 20 some years to a large degree. Our activities are basically containing the materials that are currently stored there or removing some. And that removal activities for the last couple of years we've done a large campaign of removing friable asbestos from our containment piping systems and other auxiliary building structures and systems.

We're also actively involved in removing stored radioactive waste that we've had on the property for a number of years, as well as PCB's and other materials.

Some of the activities we have accomplished over the last few years regard our control room that was previously the operating central location for Dresden Unit 1 basically has been modified such that our focus of all our operating activities for spent fuel storage is contained within the spent fuel building. We still have monitors and indications in our central control room, but the Dresden Unit 1 control room basically has been abandoned.

Our fuel pool has been upgraded. I believe our fuel management is well managed. The process by which we are maintaining the spent fuel pool water clarity as well as the chemical condition of the pool has improved drastically. We have draining systems that are no longer required handling that waste and basically obtaining an isolation of Dresden Unit 1 from Dresden Units 2 and 3 systems.

Activities going on between now and 2002, as I said, we're going to basically have our spent fuel transferred from its wet storage configuration into dry storage. We're currently using activities to characterize those elements to figure out exactly which elements we will put into what dry cast systems, and we will continue our isolation and building closure and building the independent spent fuel storage location.

In summary, I'd like to refocus that our purpose is to maintain a sharp focus on our nuclear safety associated with Dresden 1, which is primarily through our spent fuel storage and spent fuel management, placing that into dry storage and we're accomplishing all our activities now with a dedicated organization that does not have to involve itself with the day-to-day operations of our Units 2 and 3.

We are currently in a transition to dormancy. We will have this accomplished by the year 2002, when we will have our spent fuel in dry storage and will have removed all of the other hazards we intend to remove. That's not to say we won't have hazards in a contained stable state that we will ultimately remove in 2011, but to a large degree all our hazards will have been removed.

We are going to decontaminate and dismantle Unit 1 concurrent with Units 2 and 3, which currently are planned

to operate until the end of their license life in 2011. And keep the community informed. We have over the last few years, I think most prominently in 1995, '96 and '97, provided information in the form of mailings to the general public within our near zone emergency planning zone, as well as other communications that we've sent out to the public at large beyond that emergency planning zone.

We are also, as is a practice with both Dresden Units 2 and 3 and all nuclear plants, at the local library has contained all filings between ourselves, the licensee, and the NRC, and those are available for public review.

I also mention that our communications includes our Public Affairs Director, Dan Demos, who is to a large degree out in the public addressing your concerns and your questions, and I would encourage you to use him for that.

Again, I will entertain questions at the end of the NRC's presentation and that completes my prepared remarks. Thank you.

MR. KAUFFMAN: Thank you. At this time I would like to introduce Ron Burrows, who's the Project Manager for the Decontamination of Dresden No. 1.

MR. BURROWS: Good evening. I'm Ron Burrows and I'm the Nuclear Regulatory Commission Decommissioning Project Manager for Dresden Nuclear Power Station Unit 1. As Project Manager, I am the principal point of contact at

the NRC for the decommissioning of Dresden Unit 1. I work at NRC headquarters in Rockville, Maryland, which is near Washington, D.C.

As ComEd has pointed out, there are three units at the Dresden site. Units 2 and 3 are still operating. So our discussion this evening pertains strictly to Unit 1. I would like to thank everyone for being here this evening. We appreciate that you have an interest in the decommissioning of Dresden Unit 1 and have taken your time to be here with us tonight.

A major portion of tonight's meeting will be devoted to answering your questions and receiving your comments. As the Project Manager, I am only part of a team of NRC professionals who are involved in the oversight of Dresden's decommissioning. Joining me this evening are a few of the NRC staff who will have important tasks to perform as part of a team involved in ensuring that Commonwealth Edison's decommissioning activities are performed in accordance with our regulations.

They are available to answer questions you may have this evening. I'd like to introduce them at this time. From our headquarters office, Dr. Seymour Weiss. Dr. Weiss is the Director for the Non-Power Reactors and Decommissioning Project Director. In addition to being the senior manager directly responsible for nuclear power

reactor decommissioning, Dr. Weiss is also responsible for regulatory oversight of research reactors such as the type used at universities.

My immediate supervisor, Dr. Michael Masnik. Dr. Masnik is the Section Chief for Decommissioning and supervises 11 project managers, such as myself, who are responsible for plant specific decommissioning licensing projects.

Ms. Etoy Hylton. Etoy is our licensing assistant and is here to assist in many of the administrative aspects of this meeting.

Ms. Ann Hodgdon. Ann is an attorney from our Office of the General Counsel. She is one of our legal specialists in decommissioning.

Mr. John Minns and Mr. Phillip Ray. Both are project managers like myself.

Ms. Sherry Wu is here from our Division of Waste Management. Sherry is part of the group responsible for reviewing the license termination plan that ComEd will ultimately be required to submit to the NRC for review and approval before the license is terminated.

We also have some representatives here this evening from our NRC regional office in Lisle, Illinois. These are the people tasked to independently inspect and assess power plants undergoing decommissioning. They

provide a reasonable level of assurance that activities are conducted safely and in accordance with our regulations.

Ms. Cynthia Pederson. Ms. Pederson is a Director for the Division of Nuclear Material Safety. She is a senior manager involved with the oversight of power reactors undergoing decommissioning.

Mr. Bruce Jorgensen. Bruce is a Branch Chief in the Division of Nuclear Material Safety and is responsible for implementing the inspection program at Dresden Unit 1.

Mr. Bill Snell. Bill is a Health Physics Manager. With the help from other NRC inspectors he is responsible for performing inspections at Dresden Unit 1.

Not listed on this list is Ken Reimer. He is the Senior Resident Inspector for Units 2 and 3. And finally, we have Angela Greenman. Angela represents the Public Affairs Office in Region III.

Before going any further, I would like to point out the availability of certain documents at the side of the room and outside as well that may be of interest to you relative to tonight's meeting. First of all, we have NRC Staff Responses to Frequently Asked Questions Concerning the Decommissioning of Nuclear Power Reactors. This is a recently published document and it's available for you to take home with you if you'd like.

There are also copies of Commonwealth Edison's

June 1, 1998 Update to the Dresden Unit 1 Post-Shutdown Decommissioning Activities Report. We will discuss this document later on this evening.

We also have copies of the agenda for this evening's meetings, and as Mr. Kauffman mentioned, various sign-up lists.

In addition, we have copies of tonight's presentations at the side as well.

The purpose of this evening's meeting is to give you an overview of the decommissioning process from the NRC's perspective. I will first give you a little background of the decommissioning of nuclear power facilities and then discuss the NRC regulations that apply to power plant decommissioning programs. We will end up with Mr. Jorgensen talking a little bit about the NRC inspection oversight program.

Decommissioning is the last phase in the life of a reactor facility. And its purpose is to remove the facility safely from service and reduce residual radioactivity at the facility and site to a level that permits the release of the site and termination of the NRC license. The focus of the NRC is limited solely to the removal of radiological hazards resulting from the operation of the facility.

The fact that a utility may choose to spend additional funds to remove buildings from the facility is of

interest to us only if the material that is being disposed of is radioactive.

Once the residual levels of radioactive materials are reduced to below certain criteria, either by decontamination or disposal off-site, then the NRC license for the facility and site can be terminated. Before the license is terminated, the utility is required to perform an extensive final radiological survey to prove to the NRC that the site is clean enough to terminate the license.

The NRC may do a confirmatory survey to be certain that the site is within regulatory limits. Once a license is terminated, the NRC no longer has any regulatory oversight over the facility or the site. This is the ultimate goal of decommissioning, termination of the license.

There is one other key element in the definition of decommissioning, and that is removing the facility safely from service. Once a facility permanently ceases power operations, there are a number of systems that are still required to protect public health and safety. They primarily relate to the safe storage of the irradiated spent fuel. The spent fuel pool and its associated systems are the principal components that must be maintained operational.

The utility's activities that result in the

disposal of contaminated or activated materials must also be conducted in such a way as to safeguard public health and safety and protect the environment. You may have noticed that I have not said anything about the disposal of the spent fuel that was created during the operation of the facility. Initially when the spent fuel was removed from Dresden Unit 1 reactor vessel, it was both highly radioactive and it generated a lot of heat. Over time the radioactive material decayed and the fuel became less radioactive and the amount of heat generated decreased dramatically.

However, even after many years of decay, radiation levels of the spent fuel are quite high and radiation shielding must be provided. What many utilities are doing and what ComEd has decided to do is to construct an on-site facility for the storage of the spent fuel in a shielded dry condition in large casks. These dry storage facilities are thoroughly reviewed by the NRC prior to approval.

Such storage facilities typically take up a relatively small amount of space and require minimal maintenance. The casks are constructed so that there is no leakage of radioactive material to the environment.

Current plans provide for spent fuel to be ultimately disposed of in a Department of Energy high level waste burial site. However, such a site is not currently

available. Therefore, the fuel will remain on-site until a decision is made on its disposition.

When it comes time to decommission a nuclear power plant, a utility has several options. Our regulations allow utilities to begin dismantlement immediately or, if they prefer, to store the facility in a safe stable condition for some period of time before they begin dismantlement activities. Or they can choose a combination of these two options.

Our regulations state that under normal circumstances the utility has 60 years to complete decommissioning. The decision on how to proceed is a utility decision. A few years ago we performed a generic environmental impact statement that looked at the decommissioning options and we determined that as long as the utility complied with our regulations, either option or a combination of these options is acceptable.

One of the principal reasons for arriving at this conclusion is because the risk to public health and the environment associated with decommissioning activities is significantly less than at an operating plant. The risk continues to decrease over time due to radioactive decay, which reduces both the radiation levels and the heat generated by the spent fuel. This reduction in risk after a period of time is so significant that many of the regulatory

requirements associated with plant operations are no longer needed.

Examples include off-site emergency planning and many of the technical requirements applicable only to an operating facility. Another example of our response to the significant reduction in risk is the elimination of full-time resident inspectors at the site and reliance instead on inspections conducted by NRC specialists in the field of decommissioning.

Having briefly described what decommissioning is, I would like to now talk about the decommissioning process under the NRC's regulations.

In August of 1996, the decommissioning regulations were amended and the process by which the NRC oversees decommissioning changed significantly. These changes were based on the experience we had gained in the decommissioning of power reactors since the original decommissioning rule went into effect in 1988.

A change in the regulations that pertains to Dresden Unit 1 is a requirement for a plant entering decommissioning to submit to the NRC a document called a Post-Shutdown Decommissioning Activities Report, or PSDAR, two years after permanent cessation of operations. This document, the PSDAR, is required by regulations to include several things. These include a description of the planned

decommissioning activities, a schedule for their accomplishment, an estimate of the expected costs, and lastly, a discussion that provides the reasons for concluding that the environmental impacts associated with decommissioning will be bounded by relevant, previously issued environmental impact statements. ComEd provided this information to the NRC on June 1, 1998, as an update.

The PSDAR serves many purposes. One of these is to notify the NRC staff in sufficient time to conduct any necessary safety inspections prior to the initiation of any major decommissioning activities. Another purpose of the PSDAR is to ensure that the decommissioning plans will not result in any environmental impacts that have not been previously considered.

I would like to point out that the regulations do not require NRC review and approval of the PSDAR. The regulations recognize that some plants, such as Dresden Unit 1, have already been shut down for more than two years and specifically state that if such a plant has an approved decommissioning plan, as is the case here, the decommissioning plan is considered to be the PSDAR.

The NRC approved ComEd's decommissioning plan in September of 1993. So by the provisions of the 1996 changes to the regulations, ComEd did not have to submit a new PSDAR.

ComEd has submitted a recent update to their PSDAR, and the NRC staff decided that an NRC sponsored public meeting is appropriate. And that's why we are here this evening.

The regulations also impose some additional restrictions on utilities with decommissioning facilities. The utility is prohibited from performing any decommissioning activity that would foreclose the release of the site for possible unrestricted use, result in significant environmental impacts not previously reviewed, or result in there no longer being reasonable assurance that adequate funds will be available for decommissioning.

The NRC staff will be looking to ensure that all of these three additional requirements are part of the utility's screening criteria whenever they plan to make changes to the plant. In fact, I have personally verified that ComEd incorporates these requirements into their screening criteria during a recent inspection at the Dresden site.

As I mentioned earlier, the utility can place the facility in long-term storage or immediately begin dismantlement and decommissioning activities or choose a combination of these two options. At some prior to the end of the 60-year limit on decommissioning, the utility will be nearing the completion of the radiological clean-up of the

facility.

Two years prior to the planned termination of the Dresden Unit 1 license, ComEd is required to submit a license termination plan to the NRC. As you can see on this slide, the plan addresses many issues. I will comment on a couple of terms used here that you may not be familiar with. What is meant by site characterization is a process that the utility will use to identify the specific locations at the site where decontamination efforts need to be focused.

Site remediation consists of those activities necessary to reduce the radiological hazards to safe levels. Also of note is that the termination plan requires the utility to report any new environmental information associated with the proposed termination activities.

The NRC will notice the receipt of the license termination plan in the Federal Register, make the plan available for public comment and offer an opportunity for a public hearing on the plan. The NRC staff will also hold a public meeting in the vicinity of the site to allow the utility to explain the plan to the public and give the NRC staff an opportunity to discuss the remaining NRC regulatory activities associated with license termination. This meeting will also allow the public to ask questions.

NRC approval of the license termination plan will be by license amendment, which would authorize the

implementation of the plan. The utility then continues to clean up the site and perform the final radiation survey. The NRC staff will continue to provide oversight during this process.

The Commission will terminate the license if it determines that the remaining activities have been performed in accordance with the approved termination plan and the final radiation survey demonstrates that the facility and site are suitable for release.

With that as a background, I would like to comment for a moment on our experience with the actual decommissioning of other power reactors around the U.S. The NRC has had 21 nuclear power reactors permanently cease operations and begin decommissioning since the early 1960's. These plants and their status are given on this slide.

As you can see, we have a fair amount of experience in the regulatory oversight of decommissioning activities at power reactors. Although you have heard this evening that risks are reduced at a decommissioning plant and certain regulatory requirements are no longer needed, we want to assure you that there remains a constant emphasis on inspecting the utility's performance during the decommissioning process. To highlight this emphasis, Mr. Jorgensen, who is responsible for the NRC's on-site inspection activities at Dresden Unit 1, has been invited to

briefly describe our inspection program immediately following my remarks.

Before I turn it over to Mr. Jorgensen, I would like to conclude by saying that I hope this has improved your understanding of the decommissioning process. Your questions and comments are always welcome. For your information, I have provided my mailing address, phone number and E-mail address on this slide.

Please note that the NRC maintains a local public document room in the Morris Public Library. I visited the local public document room yesterday and everything appeared to be in good shape. Ms. Debra Steffies is there to help you if you need any assistance.

That concludes my presentation. I will now be followed by Mr. Jorgensen. Thank you for your attention.

MR. JORGENSEN: Thank you, Ron. Thank you all for being here. Thank you especially to the Grundy County Board and Board Chairman, Mr. Kauffman.

It's a pleasure to be here tonight. Not just because it's kind of close to home. I think this is the fourth or fifth of these meetings I've been to and I don't go home in less than 20 minutes. I live just outside Yorkville.

What I'd like to do is to speak for a few minutes about the program that the agency operates to conduct

inspections at permanently shut down reactors. When the introductions were made earlier, Bill Snell was introduced. I'm going to ask Bill, as our Regional Health Physics Manager and the lead inspector for Dresden Unit 1, to describe the specific inspection activities that have been conducted recently at Dresden and what our findings have been.

Looking at the program then, the program is described in NRC Manual Chapter 2561, that's the book that we follow. It contains the considerations that we have to address, the procedures that we have to use, all of the detail for the general case. And Bill will talk about some specific applications.

The inspection program is divided into four areas. They are listed there. Facility management and control. Decommissioning support. Spent fuel safety. And radiological safety.

The purposes for conducting the inspection. There are four of them listed. They really fall into two categories, though. Come out and look at things in person to observe for ourselves that things are being done the way they're supposed to be. And that the things that are not supposed to be done are not done. And then the remaining three all have to do with sort of getting a programmatic sense that the licensee is doing the right thing so that we

know where to invest our inspection effort.

We can't be there and watch everything that happens. And so we have to be smart about those activities we do inspect and we have to assess what ComEd is doing in order to determine that we have confidence that things are being done the right way when we're not present. So we have to look at their systems, their procedures, their techniques and make that determination, partly from a programmatic review that the focus is on nuclear safety in the way it should be. We want to be able to identify declining performance. Ideally, if there's a performance problem, ComEd is going to find it before we do, but we're emphasizing changes in performance, adverse events, trying to analyze those and develop them and understand if there's some bigger issue.

And then we use that information to make effective inspection decisions. We want to put our inspection resources in the right place considering what ComEd is doing and how well they're doing it. So there is a history that's built and a track record and we make our decisions about what we look at and how much effort we put into it based on some of the results of our inspections as they go on.

You'll see some of the flexibility that's built into the program when I talk about the areas of inspection in a little more specifics. Other issues that are covered

on Manual Chapter 2561 include master inspection plans. We have a master inspection plan for each permanently shut down reactor. And that plan is a list of the inspection procedures, target dates to conduct those procedures and internally we keep track of how many hours we expect to invest in inspecting each area.

The Manual Chapter provides for management visits and meetings when appropriate. Management visit or meeting might be one of the tools we would use to introduce an issue, to call upon a licensee, such as ComEd, to explain some finding, to put some emphasis on something that we see that may be developing an adverse trend.

There are provisions in the Manual Chapter to use inspectors from headquarters, from the regional office or resident inspectors. For plants that are recently shut down and which may be undergoing high levels of activities, we have the option to assign an inspector full time at the site. Because Dresden is a site with two operating facilities, because I know Ken Reimer's name and his phone number, and I know he's talking to ComEd management on a daily basis about whatever happens at the Dresden site, I have great confidence that if something interesting develops on Unit 1 when Bill Snell's not here that we'll hear about it promptly.

And lastly, the Manual Chapter talks about

inspection reports. We write reports of everything we do. There are copies of one or two of the more recent inspection reports on the side table. I encourage you to take a look at them and see how it's structured and it lays out in detail what it is we've looked at during a specified inspection period and what our findings were.

With that, let me go to some of the specific areas of inspection. The first one is facility management and control. This is the list of core inspection procedures. Our inspection procedures are divided into two groups, core procedures, that inspections will be done at every site, and regional initiative procedures. Those are additional inspections that can be done based on our determination of the need to do those. Special activities, decline in performance, something that's non-routine.

The core procedures show a range of inspection hours. And that's the flexibility that I mentioned. The program recommends not less than the smaller number of hours shown in the right-hand column at any permanently shut down reactor and not more than the larger number unless something particularly unusual were to develop, and we can do more inspection above the larger target hours. We would just call it regional initiative inspection if we did that.

Among the things we look at in facility management control, I think the titles of the inspection procedures are

fairly self-explanatory. The first one, management and cost controls, includes verification of the requirement that Ron Burrows mentioned, a dedicated fund for decommissioning. Always has to have enough money. And enough money means they can always either return the plant to SAFSTOR or the money is adequate to complete the decommissioning project.

We look at safety reviews and design changes. Many of the system removals, if that option were to be chosen, would constitute design changes. It was mentioned that certain systems do need to be maintained in an operational condition. That varies from year to year, frankly, as the fuel becomes less and less hazardous and from season to season, as the weather changes, ventilation is a little bit more important in some times of the year than others.

Look at those changes in design to determine that there's no unreviewed safety question. No issue will be created by a change in the design that could involve a new type of accident or a worse accident than has already been analyzed or that would affect the license that NRC has issued to the facility.

Self-assessment auditing and corrective action is all about ComEd looking at their own activities on a day-to-day basis including independent reviews from an outside quality organization to get an independent report

that problems, if they're occurring, are being identified early, that appropriate corrective actions are being taken. This is one of the ways in which we try and develop a confidence that the licensee is finding and fixing their own problems. Any complex endeavor that involves many people and many pieces of equipment is going to have things that don't work right 100 percent of the time. The idea is to find those problems while they're little problems and keep them from becoming big problems.

The next area is called decommissioning support. This also is a focus on equipment that's needed to ensure nuclear safety. Nuclear safety revolves pretty strongly around the fuel in a permanently shut down reactor. That's where virtually all of the radiation hazard is. So that when we look at maintenance and surveillance, we're looking at a system such as radiation monitoring, perhaps ventilation, cooling water. I think Dick Tuetken mentioned water quality, clarity, the kinds of things that promote access to, vision of the fuel in storage. Every year we look at preparations for cold weather. It gets cold in Illinois and a lot of the upper midwest and ventilation systems that don't work or that work too well could be a hazard.

We look at independent spent fuel storage installations, if and when they develop. That's in the

early stages. In the case of Dresden 1, and our involvement in that case would be front end design review. We have it written the physical security inspection procedure. What's being done at Dresden 1 because it shares a site with two operating reactors is the same security programs apply. And we inspect fairly rigorously the overall security program for the site in the inspection of Dresden 2 and 3.

I mentioned focus on spent fuel safety. That is an area of inspection. We have a number of procedures that we use in looking at spent fuel safety. They're listed there. I won't go through them. They are called out pretty much in accordance with what is the licensee doing. And there have been some recent inspections and handling of the spent fuel from Dresden 1. Getting an inventory verifying 20 and 25 year old records about which fuel element is in which storage location and what orientation and that sort of thing, that the information about its condition when it was put in there is correct or that it needs to be corrected. And Bill may have a few more words to say about spent fuel safety.

Then the last area is radiological safety. That's a sort of an overriding area of inspection in all the NRC licensees. The Nuclear Regulatory Commission and the Atomic Energy Commission before NRC were born because the unique aspect of splitting atoms is you get radioactive pieces.

And so most of our people are involved in some way in looking at protection from ionizing radiation. In fact, Bill Snell has a master's degree from Georgia Tech in health physics, which is radiation health.

Again, these are the core inspection procedures. There are a range of inspection hours that are applied and the division of types of inspections are to look at radiation protection for the workers, that's occupational, do a review of the handling of the radioactive waste, what happens with effluents, what kind of environmental monitoring is being done to meet the requirements. And lastly, handling of solid radioactive waste, including packaging and shipping for permanent disposal.

The middle one, 83801 there, on final surveys, is probably the biggest single inspection procedure that the Nuclear Regulatory Commission has. It can involve up to, I think in the case of Shoreham, a couple of thousands of hours. That's our carrying our instruments to the site with our people and repeating the surveys to verify that when ComEd has completely cleaned up the site and done their final survey and says that the site is suitable for unrestricted use that we agree with that conclusion. I think that particular inspection is 15 or 20 years away in the case of Dresden.

With that, I'll ask Bill to speak specifically to

the Dresden Unit 1 inspection activities and findings. Thank you for your attention.

MR. SNELL: Good evening. As Bruce said, I'm the lead inspector for Dresden Unit 1. I would like to point out that I'm not the only inspector who goes down there. This last inspection we did in June, I was down for four days. Bruce mentioned I had a master's degree in health physics. Ron Burrows came up from headquarters. He's got a master's in health physics. And Mr. Dave Nelson, another decommissioning inspector from the region, has a master's degree in health physics, assisted also.

We also have Mr. Ross Lansman with a Ph.D. in civil engineering who's been coming down to the site periodically to inspect fuel activities in the fuel pool. I even had Mr. Ed Kozer, who's one of the decommissioning inspectors, who's a certified industrial hygienist, come down and assist us.

So it's really a -- it's an approach that we take that none of us knows everything about everything. So we try to get a team approach and get a lot of people with a lot of expertise coming down to assist in the inspection program. So when he said I got the lead, that means I try to coordinate that effort and get everybody down there to assist in this.

And of course, we also have Mr. Ken Reimer and we

have two other residents besides him on site as permanent resident inspectors. Dave Roth and Bill Dixon are the other two residents that are assigned permanently to the site. And so they give us a significant amount of assistance also.

What I want to do tonight is kind of walk you through our last inspection report. This is the report. There was copies up here. If you didn't get a copy, if you'd like to get one now, we can get you one. It might make it easier to understand what I'm going to show you here.

Basically what I want to do is kind of walk through the last inspection we did. Now, Bruce outlined there's a number of inspection modules that we do over the course of the year. So in any one inspection or inspection period, in this case, this included activities over several months, we don't do all the modules. We pick some of them and do them and come back and maybe do more on them later. Some of them we'll do in their entirety.

So I'll kind of show you what we did in this one. I'll also point out that copies of the inspection reports we issue all go out to the public document room, which is the public library here in Morris. So if anybody ever wants to get a copy of inspection reports, they're here local, you know, and available to you.

The first few pages of the cover letter that we

transmitted, and trying to make the reports easier for people to get right to the point sometimes is usually you'll find a statement in the cover letter just kind of like a one or two sentence summary of the findings of significance. And in this case we just made the statement that the overall program was satisfactory and no violations or deviations were identified.

Had we had significant issues identified, we would put that in the cover letter. We're not going to make you read the whole report to see if anything important is in there. So we try to put anything of significance right up there in front for you.

Well, we also put an executive summary in here. And the executive summary basically is a quick summation of each of the inspection areas that we looked at and the results of the findings in that area, if they were significant or not. For example, Bruce went through our inspection modules and there are four major areas. Facility management control he talked about. Spent fuel safety and radiological safety, he talked about those. And all those are in here. There's a fourth one on decommissioning support activities that's not addressed in this report. We had looked at that previously, but it's not in here.

I'll kind of just run through each area now. Under facilities management and control, we looked at

organization management and cost controls. And what we looked at during this inspection was the change of the plant manager for Dresden Unit 1. The previous plant manager had left and they were in the process of selecting a new plant manager. So we just looked at that to ensure that the process wasn't, you know, impeding any activities in any way. And Mr. Leech is now the new plant manager for Dresden Unit 1. I don't believe he's here tonight, but he has taken over that position permanently.

He was the dry cask storage project manager prior to that, and he's basically assuming both areas, which is, you know, we didn't see any problem with that.

Another area we looked at was we call safety reviews. Bruce mentioned earlier our 5059 review process. This is a pretty important area for the decommissioning of reactors and what the 5059 is, it's part of the regulation that deals with a licensee doing a safety review before they commence with any work. It's basically to ensure whatever activities they're going to do, if they have not been previously reviewed, that they make sure that there's no adverse impact of doing that.

They don't have to come to us before they carry out those activities, but they do have to do this review. So we like to come out and take a look at what they've done. We look at the 5059 reviews that they've done to ensure that

they're indeed doing these evaluations and making sure they're not carrying out activities that may be unsafe and they miss something.

On this last inspection Ron Burrows came out from headquarters and looked at this for us. And basically we thought that everything was going real good in this area. We found, I think, seven particular reviews for Unit 1 that they had done. It appeared everything was done according to procedures. They were thorough and there was, you know, no negative findings there. We even looked at the people who carry out the reviews, ensure that they're qualified to even do that. And that was fine.

Another area we like to look at is self-assessment. Essentially what we're looking at here in this area is the audit program. Commonwealth Edison's program for auditing themselves. We can't be there all the time. We can't look at everything. And so what we look is to see if they've got a strong program for identifying weaknesses in their program and getting those corrected on their own without us having to come in and do that.

They have a quality and safety assessment staff, and they did an assessment in 1998, in I guess, August 1997. And Mr. Dave Nelson looked at that for me the last time we were out here and his conclusion was it was an excellent review that they had done. They found various different

deficiencies in a wide range of areas. And the only comment he had where they could have improved is take that one step further and try to tie all those deficiencies together to better figure out why these had occurred in the first place. But the fact that they had done, you know, an outstanding audit to identify all of these on their own we felt was very good.

Another area is decommissioning performance and status. What we did here, we didn't do the whole module, but we went out. We did tours of the plant. We just walked through and we look at things. We look at the way they've got things laid out, housekeeping, is it clean, are they keeping the place well taken care of and basically making a safe work environment for the workers to work in.

And again, housekeeping was for the most part quite good. And I know we just toured the plant tonight, and I notice they continue to clean up the plant. There's areas where there's a lot of equipment laid down the last time we were here that I noticed is gone. So they continue to make progress in that area.

We're also looking at fuel handling activities. They had a couple activities going on over the last number of months in the Unit 1 fuel pool. They moved some fuel or fuel assembly around, which was of significant interest because it was the first time this fuel had probably been

moved in, I don't know, maybe 20 years. That went quite well. There was a lot of preparation went into it. I attended a lot of the pre-job briefings, meetings, preparations, so everybody knew what to do in case something didn't go right. And they're very, very thorough. And it was well done.

Once the job commenced there were, you know, some minor problems that came up that delayed things, but as far as the work itself went, it went quite well.

By the time the inspection ended, they were just getting started on also doing some fuel characterizations of Unit 1 fuel in the Unit 2 and the Unit 3 fuel pools. They've since completed that. Again, the preparations in that area went quite well. So we take a pretty, you know, careful look at that when they start moving the fuel around.

Another area we looked at, and we do pretty much every time we come down, is radiological controls. That's kind of the crux of what this is all about is radiation safety. So we try to evaluate the radiological program they have and we'll ensure the workers that are working there are working in a safe environment from a radiological standpoint in what they're doing and continues to ensure the health and safety of any off-site residents and other people.

Again, a lot of that just deals with going out and watching work. See what people are doing. Look at the

plant. And see what's going on. If we find anything that we really don't like, we thought we were overtagging, seems like everything we found had a tag on it. And a lot of these tags indicated that the item was not contaminated. And so we found that kind of -- too many tags confusing. We like to see the tags there to tell people that, hey, there is something contaminated here so be careful. I know that that was implemented a number of years ago because they were finding that people were removing contaminated material from the radiologically protected area. And so they figured, well, we'll tag everything so we can identify it better, but it might be time to go back and revisit that issue. Just from our standpoint we were a little confused ourselves walking around to figure out what was actually contaminated and what wasn't.

But in general, the radiological program is much improved over the past year and we didn't find many problems. We also looked at the rad waste program. Probably one of the high dose jobs that they're doing this year is removing water and sludge from a lot of old rad waste tanks. A lot of this water and sludge has been sitting there for probably at least 20 years, maybe longer. And so they've been working to get these tanks cleaned out, and it's, you know, a lot of it is fairly highly contaminated material. And so we've been watching fairly

carefully what they've been doing in this area and what their activities are. And it's been going quite well. We just, while we were out there, they identified a few little issues that came up. A drum was mistagged and a worker went into a high rad area when he was supposed to be out of that area while the work was going on even though he was part of the work team. And they were following up and looking at that. We didn't see any adverse health or safety significance to either event. It's just a matter of why did it happen in the first place as we try to prevent those kind of things. But otherwise their progress in the rad waste work has been going fairly well. We also looked at the, I think the last year I guess we looked at here was the rad waste management, basically transportation materials.

They've been shipping waste out as they've been putting it together, collecting it. They tend to -- what they do do is actually combine the waste from Unit 1 for the most part with the waste from Unit 2, 3, and it's shipped for the whole site. When they ship it off, we just look to make sure all the procedures and paperwork were being followed and implemented as required, and the people doing the work were actually well trained and qualified to do that. They also were generating some higher activity waste from this waste sludge rad waste tank sludge project, and that's been going quite well. And those are totally

different kind of shipping containers. And so, you know, that's being handled as appropriate also.

Probably the last thing that we did go back and do is whenever we do an inspection and we find an area of concern that we want to come back and follow up on later, or it could be an issue that may be a violation or it may not, we don't know, we call those unresolved items, or possibly violations, we assign these numbers and we track them and then we come back and we follow up on them later.

And a number of items going all the way back to 1994 that we followed up on during this last inspection period and we addressed all these in this inspection report. There were a number of them. I'm not going to go into all of them. There was only one of, you know, that you may be interested in. And that had to do with the ventilation system. Quite a few years ago, I think probably around '88, I believe, or '89, somewhere in there, they shut the ventilation system down for Unit 1. And a number of years ago somebody raised the issue, you know, was this is, you know, is this a safety concern or not. Did they adequately review this. Did they see what the impact of not having a ventilation going. There was concern about work in this field that was going on. It was asbestos abatement and so on.

And one of the issues that came up in this also is

that the Unit 2, 3 side of the site had put a hot shop, and I say hot shop basically is they built a room where they would work with contaminated material and they built this on the turbine deck of Unit 1. And with the ventilation system off in Unit 1, you know, would this be a problem or not. And what we were looking for is just information to show us that you reviewed this and, you know, there is no safety issue here or not.

That was the only area that we couldn't resolve during the inspection. So we wrote up a new open item to carry that one forward. So the next inspection we go out we're going to be following up on that to see what information they have provided on that. But that's what all these open items that you would see in the report are related to. They're just issues that need, you know, follow-up in the future. And usually they're at the end of the report. There are just various other things, references of documents that we looked at and define some of the acronyms. I know we're great for using a lot of acronyms for items so we put those in there.

So I'll be around after the meeting is over to answer any questions that people have about the inspection report. Thank you.

MR. KAUFFMAN: Thank you, all of our presenters. At this time we'll open the floor to questions that you may

have of any of the presenters. Are there any questions? Comments will come later. You have a question. Okay, Bob. Go ahead.

MR. EISENHOWER: Yes. I heard the NRC's presentation talk about inspection procedures. My name is Bob Eisenhower. I'm a president here in Morris, or a contractor I should say. I heard mention of an ISFSI? I heard mention of an independent spent storage installation in your inspection reports. Is there intentions to turn Dresden into a spent fuel storage facility? Is that in the plans?

MR. BURROWS: The utility does have plans to initiate an independent spent fuel storage installation on site, yes.

MR. EISENHOWER: Okay. There's a difference between a decommissioned facility and a spent fuel storage facility. A decommissioned facility has 60 years, as you stated, or one of the gentlemen stated, to dismantle, turn back into green field?

MR. BURROWS: That's correct.

MR. EISENHOWER: As an ISFSI, that implies that they're licensed to bring in fuel from other facilities.

MR. BURROWS: Well, you have to separate the type of license that you're looking at. What they're operating under now is a Part 50 license in our regulation. That

would be 10 CFR Part 50. The SF facility, or the ISFSI, that would fall under the 10 CFR Part 72 license.

MR. EISENHOWER: I'm aware of that. That's why I'm asking. Because I understand everything was talked about 10 CFR 50 and 10 CFR 5059 as far as safety and storage. Now you're bringing in ISFSI storage under 10 CFR 71, I think it is, or 72.

MR. BURROWS: Seventy-two.

MR. MASNIK: I think -- is your question -- your concern about --

MR. EISENHOWER: My concern is about --

MR. MASNIK: -- bringing from fuel from other facilities --

MR. EISENHOWER: Yes.

MR. MASNIK: -- to the site?

MR. EISENHOWER: That's my question.

MR. MASNIK: That's not allowed unless there is a license amendment to allow for that.

MR. EISENHOWER: Why is inspections being set up to approve the site as a 10 CFR 72 storage facility under the ISFSI's? Because in 10 CFR 50 that is not an ISFSI. It's a decommissioned or SAFSTOR facility. You're tying in two different documents and CFR's to a site that is only licensed under 10 CFR 50.

MR. MASNIK: You're absolutely correct, but let me

explain. The way you get an ISFSI, there are two ways of getting an ISFSI on a site. You can either get under what's called a general license or a site specific license. A site specific license is issued under Part 72. A general license allows you to build an ISFSI using the existing Part 50 license. Okay.

So what the licensee is proposing here is the general license route, which means that the ISFSI would be licensed, but they would have to maintain their Part 50 license during the period of time that the ISFSI is on site.

MR. EISENHOWER: If I recall reading 10 CFR 50 inspection procedures, specifically the NRC inspection procedures, I didn't recall it stating or calling it as an ISFSI. That that was only going to happen under 10 CFR 72. That's was my point. Now, if you're telling me that I'm wrong on that, I'll review that again. I have another question, if I may.

We've had nuclear energy producing electricity for approximately 40 years in the United States. Yet we're sitting here today with no storage facility by the government. What part is the NRC taking in moving the DOE along to have a SAFSTOR facility for spent fuel for our commercial nuclear power plants in this country 40 years after we started generating power? And from what it sounds like, we're talking about the year 2047 from Mr. Tuetken's

report of having spent fuel sitting here at Dresden.

It seems to me that it would be logical that the government would have moved faster knowing that they were responsible for assuming control of spent fuel to have a facility before the year 2047. I mean, we are talking to the people who regulate and control and mandate what these electric companies can and can't do. And they mandate that they will turn the fuel over to the DOE at the end of the operation of the facility, yet here the government has not taken the lead in controlling our costs as users by taking that fuel away from the facilities. They're going to have extended costs. ComEd is always on the dime for spending too much money, pissing things away, charging too much for their rates, but yet now they're being forced to handle the cost to continue storing fuel that should have been taken by the government years ago or be ready for taking now.

You mentioned that you had three decommissioned plants, 18 in the process of decommissioning, yet no place to store the fuel that the government owns. Do you have any answer of when we can expect the fuel storage facility and if we're going to have to wait until 2047 to have it?

MR. MASNIK: Well, first of all, I agree with your comments. Second of all, unfortunately, there's no one from DOE here to answer that question. I know that the NRC is doing what it can to encourage DOE to make a decision on

this issue. But it, quite frankly, is to a great extent a political issue. And as Mr. Tuetken said, perhaps the best way to influence the situation now is through your congressional representation.

The NRC doesn't really have any say in DOE's activities in this area. We would be involved --

MR. EISENHOWER: But you can mandate some of the electric companies. You can set controls and limitations on them, but you can't force it back on to the DOE to take responsibility for handling it.

MR. MASNIK: But you understand that our mission is public health and safety and protection of the environment. So we're obligated to make sure that the fuel, whether it's on-site or at some interim storage facility or in the final repository, is done in a safe fashion. And that's the extent of our responsibility.

MR. EISENHOWER: I understand that. And I think the NRC does a good job on that. My point is that as looking at safe storage of the fuel after the reactor is decommissioned, it would make logical sense to have fuel from 21 reactors in one facility and stored safe away from terrorism or other outside forces in one site than have it in 21 sites around the country. And I think that the NRC should take some lead in that in pressuring, whether it be the Congress or the DOE, to take control. And the DOE needs

to drive home to the Senate and the Congress. But I think that the NRC should be forcing the issue as a safety issue.

MR. MASNIK: I'll take that comment back with us.

MR. EISENHOWER: Okay. And along with that, just a side note, here we are talking about not being able to store the fuel from the United States. Now you see on the news that we bring fuel in from Korea, from reactors in Korea. Fuel assemblies are going into Idaho that our government is taking responsibility for storage. Now, I'm concerned as a taxpayer as to how we are paying for that or whether we're billing Korea for the real costs on that. And again, it may not be an NRC issue, but perhaps you can get some feedback for your report to us, because we don't get a chance to talk to the DOE as we do to the NRC.

MR. MASNIK: I understand.

MR. EISENHOWER: That's all I have.

MR. MASNIK: Okay.

MR. EISENHOWER: Thank you.

MR. KAUFFMAN: Are there any other questions? Yes?

MR. KOLBA: Verne Kolba. I'm a resident of Morris. I have a question about these dry storage casks. Are they going to use a standard approved design that's already on the drawing boards or already been made to store other fuel or are they coming up with a whole new design?

MR. TUETKEN: I am going to try and answer your question and give you some information that you didn't ask about. We've been talking in the last dialogue about the Department of Energy being responsible for storing spent fuel. The Department of Energy has yet to come out and define the criteria for the containers of which they will store the fuel in.

Our approach is to use the latest published DOE specifications and we have filed with the NRC through one of our vendors a design approach that is typical to those others that have previously been licensed, but that will also meet the DOE's current published requirements. So it actually is a multi-purpose canister. It can both store, be transportable and ultimately is intended to be able to be used right directly into the depository for the DOE.

So we are using designs that have previously been approved, altering them to meet the DOE's specifications and our expectation is that the design will be approved, as I said, next year. Am I clear in my answer?

MR. KOLBA: Yeah.

MR. KAUFFMAN: Are there any other questions? Okay. If not, we're at the comment section of this meeting. And I have one person signed up for comments. And that's Bob Eisenhower. Bob?

MR. EISENHOWER: I think I threw my comments in at

the same time I was asking the question.

MR. KAUFFMAN: I thought you had.

MR. EISENHOWER: I was a politician once. Excuse me.

MR. KAUFFMAN: Is there anyone else who has comments that did not sign up and wishes to say anything?

If not, we thank our presenters, both from Commonwealth Edison and from the NRC, for this fine presentation. I think we've all learned a lot tonight about the process and thank you all for coming. Good night.

[Whereupon, at 8:15 p.m., the meeting was concluded.]

Dresden Unit 1 Decommissioning Public Meeting

ComEd Update

Richard P. Tuetken
General Manager

ComEd

Historical

- Dresden Unit 1
  - » First full scale privately financed nuclear power plant
  - » 210 Mwe gross output
  - » Commercial operation from August 1,1960 to October 31, 1978
  - » Went out of service for modification and backfit with equipment to meet new federal regulations
  - » Decision to Decommission in October 1984
  - » Submitted Decommissioning Program Plan in 1987
  - » Nuclear Regulatory Commission (NRC) approves Decommissioning Program Plan on September 3, 1993

ComEd

Decommissioning Approach

- Maintain sharp focus on nuclear safety
  - » Dedicated Project Team
- Dresden Unit 1 is being decommissioned by maintaining the Unit in a Safe Storage (SAFSTOR) mode until Units 2 & 3 are decommissioned and dismantled at the end of their licensed life (2011)
- Achieve Long Term SAFSTOR Dormant State by 2002
  - » Site Security Plan and Emergency Planning remain under Units 2 and 3 until end of license
- Decontaminate and Dismantle Unit 1 concurrent with Units 2 and 3

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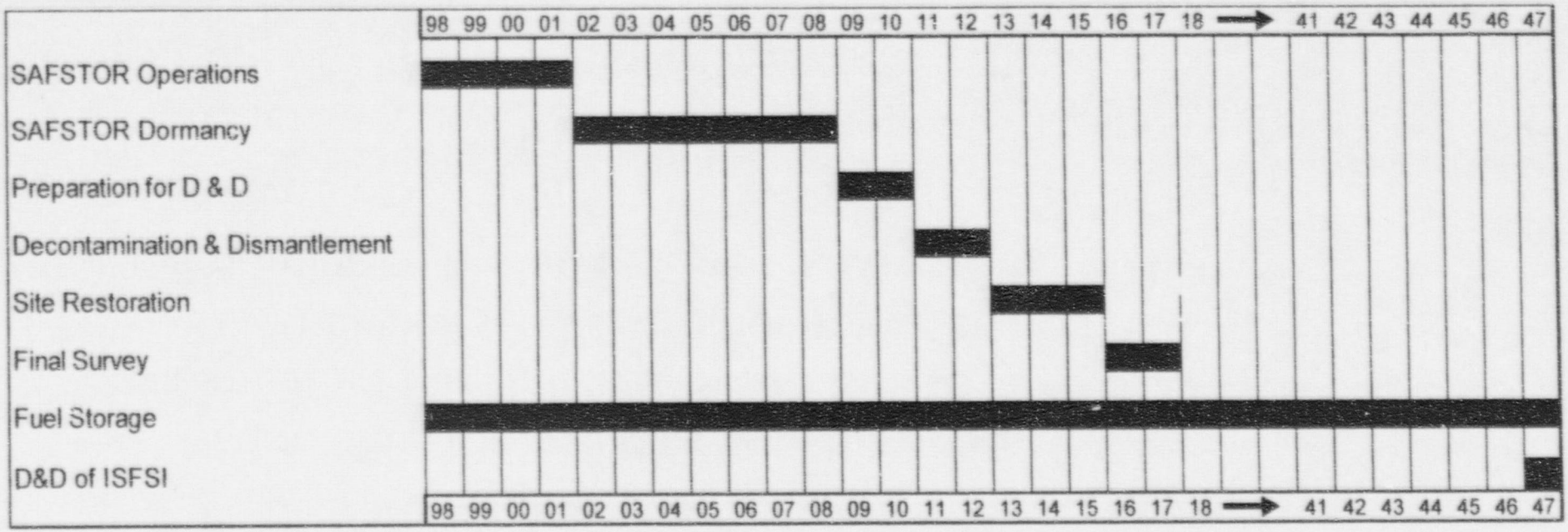
Long Term Activities



- Decommissioning fund balance (7/98): $93.556 million
- Current decommissioning estimate: Approximately $398 million
- Current plan is to begin decontamination and dismantling in 2011

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SAFSTOR Key Activities

- Sharp Focus on Nuclear Safety
  - » Safe storage of nuclear fuel
    - – Maintain Unit 1 systems and structures required to support Unit 1 Fuel Pool until the spent fuel is transferred to dry storage
    - – Secure nonessential systems and structures to ensure no potential for release of radioactivity
    - – Draining, de-energizing and securing systems
  - » Disposal of Unit 1 Hazards and other wastes including:
    - – Asbestos, PCB's, Lead and Radioactive waste

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Summary

- Sharp Focus on Nuclear Safety remains top priority for Dresden Unit 1
  - » Safe Storage of Nuclear Fuel
  - » Place spent fuel in dry storage
  - » Dedicated Organization
- Transition the plant to Dormancy
  - » Remove hazards and retire plant systems
- Decontaminate and Dismantle Unit 1 concurrent with Units 2 and 3
- Keep the community informed

ComEd

United States
Nuclear Regulatory Commission

PUBLIC MEETING ON DRESDEN NUCLEAR POWER STATION, UNIT 1 DECOMMISSIONING

July 23, 1998

Morris, Illinois

Ronald A. Burrows
Project Manager
Non-Power Reactor and Decommissioning Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

NRC STAFF PRESENT

Office of Nuclear Reactor and Regulation

Dr. Seymour H. Weiss, Director, Non-Power Reactor and Decommissioning Directorate
Dr. Michael T. Masnik, Section Chief
Ms. Etoy G. Hylton, Licensing Assistant
Mr. John Minns, Project Manager
Mr. Phillip M. Ray, Project Manager

Office of Nuclear Materials Safety & Safeguards

Ms. Sherry Wu, Project Manager

Region III

Ms. Cynthia Pederson, Division Director
Mr. Bruce Jorgensen, Branch Chief
Mr. Bill Snell, Health Physics Manager
Ms. Angela S. Greenman, Public Affairs Officer

Office of the General Counsel

Ms. Ann P. Hodgdon, Senior Attorney

DECOMMISSIONING OVERVIEW

What is decommissioning?

Decommissioning is the removal of a facility safely from service and the reduction of residual radioactivity to a level that permits release of the property and termination of the license.

What is NOT decommissioning

- **Non-radiological demolition.**
- **Site restoration activities.**
- **Spent fuel management and funding.**

DECOMMISSIONING OVERVIEW (Continued)

NRC Process and Focus Overview

- **NRC focus is on removal of radiological hazards**
- **First step is to remove facility safely from service**
- **Utility reduces levels of radioactive material on site**
- **Utility performs detailed final radiation survey**
- **NRC may perform confirmatory survey**
- **If release criteria are met, license is terminated**
- **NRC oversight ends**

DECOMMISSIONING ALTERNATIVES

Utility has a choice of decommissioning alternatives

- **Dismantlement and decontamination (DECON)**
- **Safe storage (SAFSTOR) for up to 60 years**
- **Combination of DECON and SAFSTOR**

NRC has found these alternatives acceptable as long as the regulations are followed

- **Risk to the public from decommissioning is significantly reduced from when the facility was in operation**
- **Regulatory requirements are reduced from those for an operating plant**

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT (PSDAR)

The PSDAR is required to provide:

- **Description of planned decommissioning activities**
- **Schedule for accomplishment of planned activities**
- **Estimate of expected costs**
- **Reasons for concluding that environmental impacts are bounded by previously issued environmental impact statements**

The NRC staff will hold a public meeting in the vicinity of the site.

PURPOSE OF PSDAR SUBMITTAL

- **Inform the public of the utility's plans for decommissioning**
- **Allow the NRC to conduct inspections prior to the initiation of major decommissioning activities.**
- **Allow NRC staff to budget and allocate resources for decommissioning inspections.**
- **Requires the utility to reexamine financial resources for decommissioning before any major activities are conducted.**
- **Requires the utility to evaluate the potential environmental impacts associated with planned decommissioning activities against existing environmental statements.**

ADDITIONAL RESTRICTIONS

The utility is prohibited from performing any decommissioning activity that:

- **Forecloses the release of the site for possible unrestricted use; or**
- **Results in significant environmental impacts not previously considered; or**
- **Results in there no longer being reasonable assurance that adequate funds will be available.**

LICENSE TERMINATION PLAN

The plan will describe:

- **Site characterization**
- **Identification of remaining dismantlement activities**
- **Plans for site remediation**
- **Detailed plans for the final radiation survey**
- **Description of the end use of the site, if restrictions are imposed**
- **Updated site-specific cost estimate of remaining decommissioning costs**
- **Supplement to the Environmental Report describing any new information or significant change associated with the utility's termination activities.**

LICENSE TERMINATION PLAN (continued)

- **Plan receipt will be noticed in the *Federal Register* and the plan will be made available for public comment**
- **Opportunity for a hearing on the plan will be given**
- **NRC will hold a public meeting**
- **The plan will be approved by issuance of a license amendment**
- **Utility continues to decommission the site and perform a site radiation survey**
- **NRC may perform a confirmatory survey(s)**
- **The license is terminated if the license termination plan was followed and the site meets the release criteria**

DECOMMISSIONING EXPERIENCE

3 Power reactors have completed decommissioning

- **Pathfinder, Shoreham & Fort St. Vrain**

18 power reactors are in decommissioning;

- **6 facilities are being decontaminated and dismantled: Trojan, Yankee Rowe, Big Rock Point, Saxton, Haddam Neck, Maine Yankee**

- **10 facilities are in long-term storage: TMI-2, Dresden 1, Fermi 1, VBWR, La Crosse, Peach Bottom 1, Rancho Seco, San Onofre 1, Indian Point 1, Humboldt Bay 3**

  2 facilities planning long term storage: Zion 1 and 2

POINTS OF CONTACT

- **Licensing**

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- **Inspections**

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