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U.S. NUCLEAR REGULATORY COMMISSION

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PATHFINDER SITE

APPLICATION FOR LICENSE AMENDMENT

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PUBLIC MEETING

TUESDAY, AUGUST 31, 2004

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SIOUX FALLS, SOUTH DAKOTA

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The meeting was held at 7:00 p.m. at the County Commission Meeting Room, Minnehaha County Administrative Building, 415 North Dakota Avenue, Sioux Falls, South Dakota. Dan Hindbjorgen, Facilitator, presiding.

PRESENT:

DAN HINDBJORGEN, FACILITATOR

DAN GILLEN, NRC

CHAD GLENN, NRC

BLAIR SPITZBERG, NRC

JOEL BERES, EXCEL ENERGY

CHARLES BOMBERGER, EXCEL ENERGY

A-G-E-N-D-A

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

MR. HINDBJORGEN: My name is Dan Hindbjorgen. I'm the vice president for the Sioux Falls Development Foundation here in beautiful Sioux Falls, and it is beautiful today. I've been asked by Jim Wilcox -- he's the manager of regulatory and government affairs with Excel Energy. He asked me to facilitate this meeting presented by the United States Nuclear Regulatory Commission. The meeting is to inform the public that the NRC has received a license amendment request from Excel Energy to authorize decommissioning activities at their Pathfinder site here in Sioux Falls. So I would like to welcome all the NRC staff and also the Excel Energy staff here.

Tonight we'll be hearing from three gentlemen with the NRC and also one gentleman, one person, with Excel Energy. I will just introduce one person from the NRC, and then, Dan, you can do the honors of introducing the rest.

This is Dan Gillen. You're the deputy director, decommissioning directorate of the NRC. Dan, at this moment, I would suggest just to go ahead and introduce the rest of your staff.

MR. GILLEN: I will. There's actually a slide on this, but that way I can pass that slide when we get to it. It's the last slide I had on my presentation. But I'm Dan Gillen, the deputy director. I have with me Kim Gruss, who is a section chief of the materials decommissioning section. She has this site under her purview. I'm going to turn to my list and make sure I don't forget somebody. We do have a number of people here. And also speaking for us tonight is Chad Glenn, who is the project manager for the Pathfinder decommissioning. I have Blair Spitzberg from our Region IV office in Dallas. He's going to be giving a presentation of the inspection aspects the NRC's involved with here. And then I have some of our technical reviewers that are involved in reviewing the decommissioning project. Bruce Watson, the health physicist, and John Peckenpaugh, who is a groundwater and surface water hydrogeologist, and Anita Turner, also a health physicist who's involved in the performance assessment aspects of our project.

MR. HINDBJORGEN: Thank you very much. And again, welcome to Sioux Falls. Earlier we talked and for many of you, this is your first time, so I hope you have time to enjoy the sights and sounds of Sioux Falls while you're here.

MR. GILLEN: We already have.

MR. HINDBJORGEN: Good. From Excel Energy, we have Joel Beres. He's the project manager. Am I correct?

MR. BERES: That's correct. On my left is Charles Bomberger, the general manager of Nuclear Asset Management. And then in the crowd here, we have Doug Schult from Duratek. You want to stand up, Doug? He's our project consultant primarily in the radiological area. And welcome and happy to have you.

MR. HINDBJORGEN: Good. And we might as well just keep going with introductions. I mentioned Jim Wilcox earlier. Jim happens to be on the board of directors for the Sioux Falls Development Foundation. That's our connection. And, Jim, why don't you introduce the person next to you and also the other two guests here if you don't mind.

MR. WILCOX: Jim Clark is in our office. Jim and I are coworkers at Excel Energy. And Jim's kind of a community relations manager and a few other things, so he's here to see what's going on tonight. And Martin Bettmann from the South Dakota PUC staff, engineer, and I'm not sure what your title is, Martin.

MR. BETTMANN: That's good for now.

MR. WILCOX: And you met Jim a little while ago.

I guess Jim Herring, the former plant health...

MR. HERRING: Well, radiation chemical technician is what we were called.

MR. HINDBJORGEN: Well, good, and welcome. I don't believe these mikes are on so if anybody has any issues hearing, just go ahead and tell us, okay, so we'll make sure we speak up.

Earlier today the NRC staff members had the opportunity to tour the Pathfinder site, and they discussed the details involved in requesting a license to move forward with the decommissioning process. This, tonight, is a public forum. It's an opportunity to educate us, me, on this process. The NRC will not be making any decisions, however, about the licensing actions at this meeting.

Following each presentation by Dan, Chad, Blair, and Joel, there will be an opportunity for the public to go ahead and ask some questions, and either the NRC or Joel will have an opportunity to answer.

A couple things about the questions. Please just keep them on the topic of this decommissioning process. In other words, if you have comments or questions about nuclear energy, that's for another time, and I would just invite you to handle that outside of this meeting. So after each presentation, we will have an opportunity

to ask some questions.

So without further ado, I will call on Dan once again to give his remarks.

MR. GILLEN: Okay. Talk from over here because we need to operate the Power Point presentation from this mouse here.

Good evening again and there's a small attendance here tonight but one which is very important. And we have a number of other vehicles by which the public can enter into this process, so this is not the only forum that we have. Just did want to mention one thing. Dan mentioned that we had a meeting with the licensee earlier today, and that this, tonight, was a public forum. Well, the meeting today was also -- all of our meetings with licensees, unless we're discussing proprietary information or safeguard information, are open to the public to attend. It's a little different than this type of forum where we are here specifically to get comments from the public. But we have always noticed our meetings that other members of the public can phone into and listen to or come and sit at. But we did not have any member of the public at our meeting at the site today.

First I'd like to talk a little bit about, you know, why we're here. And leading into that, just a

quick overview of where this project is in the process. Excel Energy presently holds a license with the NRC, but it's not for operation. It's for just possessing certain radioactive materials. And in February of '03, Excel submitted a letter to the NRC indicating that they were preparing to move into the decommissioning phase of their activity there. And then about a year later in the beginning of '04, they submitted their decommissioning plan to the NRC. As soon as that's submitted to us, we begin our review. We do an acceptance review, which we did, and accepted the document as having enough information for us to do a full technical review. And we began our review and, at this point in time, are in the midst of that and about to prepare a list of questions on the decommissioning plan that we will submit some time next month.

Once the process of the review plays out, and hopefully we get to a point where we accept the plan as being one that would meet with our criteria, we then move into the phase where the licensee will do their decommissioning. At the end of that, they'll submit a report to us, a final status survey. And during the process, we're involved with confirmatory surveys of the activities that they're doing there.

So once that plays out, then we go and we issue a

termination action and terminate the license. In this case, Excel is terminating that portion of their site for unrestricted review, so I'll get into that in a little bit.

So why are we here? We're basically here not only to describe our process through this decommissioning but also to provide a forum for our licensee here to present the decommissioning plan to attendees. And then of course the main purpose is to obtain any public comment on the decommissioning plan process or plan itself while we're here tonight.

And who exactly is the NRC? I'll just put this slide up here. You know, a lot of people just hear the name but they don't know exactly what we're involved with. And we're an independent federal agency that regulates the commercial nuclear industry in the United States. And I put experienced regulator up there. The NRC's been in existence about the same amount of time I've been working at the NRC, but a little longer. I've been there 29 years. The agency's over 30 years old. Before that, it was regulating the industry under the Atomic Energy Commission before NRC was created.

And then the basic mission and goals of the agency are five-fold. First to ensure public health and safety and protection of the environment. That's our

No. 1 goal. Secondly and certainly prominently since 9/11, we have as one of our missions to ensure the security of nuclear materials and facilities that we regulate. Thirdly, we're ensuring that our openness of our actions and this meeting here tonight is one example of ways that we do that to gain public input to our process. And the fourth goal is to essentially achieve efficiency, effectiveness, and realism in the regulatory activities that we conduct. And lastly, though not so much of importance to the outside interests, we have an internal goal of achieving, striving for excellence in NRC's management of its human and monitory resources.

Basic regulatory framework that we're structured under. In 1954, the Atomic Energy Act was promulgated, which established the framework for NRC's basic responsibilities. And then I have the most recent NRC rule making related to the specifics of decommissioning, which in 1997 we issued a license termination rule which established the standard by which we are decommissioning our sites. It's an all-pathways standard meaning groundwater, air, all different pathways. The basic criteria is a 25-millirem standard, which would indicate that we're going by a dose-based standard as opposed to the old

standard that we had. And the 25 millirem is not just 25 millirem. It's also 25 plus ALARA. ALARA stands for as low as reasonably achievable, which means that the licensee will do an analysis to determine that they don't just stop at 25 millirem. They make, within cost requirements, can make efforts to decrease that down below 25. And just for comparison purposes, the 25-millirem standard that we have, 300 millirem is the -- generally thought of the average dose that one gets just from natural background. The standard also allows for both restricted and unrestricted release. In this case we're dealing with the unrestricted release. If it was a restricted release, it would involve the establishment of some institutional controls. Some of our sites that we have are proposing that but relatively few. And then just a step below the regulations, we have implementing guidance. And we have a NUREG document 1757, which is on our web site, and that document is a compilation of all the hundreds of documents we used to have that was kind of confusing for guidance. And we put that into a three-volume document which provides guidance to both the NRC staff as well as the licensees and hopes through that guidance to achieve complete, acceptable submittals and consistent but efficient reviews by the staff.

Just a slide showing the scope of what is involved in my group. We presently have under our review some 46 complex materials sites in which Pathfinder is one and 15 power reactors. So there's some -- at any given time, we have generally around 60 sites that are involved in various stages of decommissioning.

So tonight we went through this pretty much already so I can whiz through this slide. You know, we've already been through introductions. My presentation will be followed by a licensing presentation by Chad Glenn and an inspection presentation of the NRC from Blair Spitzberg, then the Excel presentations, and then questions and comments.

And I just indicated here, feedback form. That's just to remind me that out on the table as you came in, there are a number of items of a bunch of information on the NRC itself, some information relative to the decommissioning plan. And then the feedback form that I referred to is the form that we use to get feedback at any meetings we have that the public is at or any stakeholder is at just to kind of help us improve upon these meetings and any feedback we can get, like Dan Gillen from the NRC is too dressed up and he should wear a golf shirt next time or something like that.

Just to kind of set a little bit -- and you'll get

a lot more of this from Excel's presentation, but I just want to indicate that the reactor basically operated for three years from '64 to '67. Is that four years? And at that point in time, they shut down. And a few years after that, I think it was 1970, they turned the spent fuel over, and DOE took title to that spent fuel. Then as I indicated, in 1992, they completed the reactor building and fuel handling building decommissioning. And at that point in time, they became a possession-only license for the nuclear materials that remained in contamination. And so now they've entered into their focus, which is on sort of the second phase of decommissioning, the last phase, which is a much less detailed process than the original decommissioning to get rid of the spent fuel and the reactor building.

And then the last slide I have is the attendees which we've already been through, so I can click and what happens, another one? I can entertain questions now, or we can wait until the end. Dan, did you say after each presentation?

MR. HINDBJORGEN: Well, we can do it either way, but as long as you're up here, if there are questions for Dan, we might as well take them now, comments or questions.

Well, with that, let's move on then. And here's the guy that I've been communicating with over the last month, Chad Glenn.

MR. GLENN: Thanks, Dan. My name is Chad Glenn, and you may be hearing some of this -- some of this stuff we're going to be talking about tonight a couple times.

What I'm going to talk about is just an overview of our decommissioning process. This is the same process we use for all NRC decommissioning sites, so it's a pretty standard process within NRC. And I think Dan kind of ran through this already, but it's a series of steps. The licensee -- in this case, Excel Energy -- submits a decommissioning plan to NRC for our review and approval. NRC then normally develops questions or sometimes requests for additional information that are submitted to -- and then submit those to the licensee, and they address those questions and information needs. When those questions and issues are resolved, we are usually -- we then are in a position to approve or authorize the decommissioning activities. The licensee then proceeds with the cleanup and demonstrates that the release criteria are met. The licensee makes this demonstration by completing a final status survey, and then that final

status survey is submitted to NRC for our review. NRC reviews the final status survey report and conducts a confirmatory survey to verify the release of criteria are met. If the release criteria are met, the license is terminated. And there's -- out on the table, there's a flow diagram that probably makes it a lot easier to look at and follow.

What's in a decommissioning plan? The decommissioning plan contains a radiologic characterization of the site. It also includes a plan of decommissioning activities, a plan to protect workers, the public, and the environment. It contains a plan for developing a final status survey that the licensee develops, and it also includes a decommissioning cost estimate and the mechanism they're going to use for funding the decommissioning.

So where are we in the decommissioning process with the Pathfinder site? As Dan indicated, Excel Energy has submitted their decommissioning plan to NRC. We are presently in our -- conducting a detailed review of the plan, and we're in the process of identifying those questions and information needs we feel we need to make our decision.

While we're in this stage -- so it's a two-phase review that we do. One phase is the safety review and

the other phase that goes in parallel with this is an environmental review. So what we -- the document that we create internally is a safety evaluation report on this decommissioning proposal and an environmental assessment. When those reports are completed and we consult with the state before we make our decisions, we -- then the DP -- and if the DP is acceptable based on our safety evaluation report and our environmental assessment, NRC approves the DP and amends the license, we're to complete the decommissioning activities.

After the decommissioning plan is approved, Excel Energy will continue with the site decommissioning. NRC continues with its regulatory oversight in which we do inspections and, in the process, surveys. Excel Energy conducts a final status survey and submits that survey to NRC for our review. And then NRC conducts a confirmatory survey, and the confirmatory survey indicates that the decommissioning criteria are met, then we proceed in terminating the license.

Next, Excel Energy's decommissioning plan. This is the schedule that they have proposed. It calls for a -- they're looking for a decommission approval around the February 2005 time frame. They will complete the site cleanup December 2005. They would complete their final status survey and submit it to the

NRC in February of 2006 and license termination in April of 2006.

The decommissioning process provides opportunities for public involvement through the process. There are meetings, public meetings like the meeting we're having right here. There's publicly noticed meetings that we have with the licensee like we had today. There's informal contact with NRC staff. Anybody can call NRC staff and ask a question or request some information, and we would respond to that. There's also licensee-initiated community outreach, and an NRC web site. This web site is a good place to look for information on our decommissioning program. All our public meetings are posted on that web site. Meeting summaries after the meeting are also posted the same place on the web site. There's information on that web site on public involvement. Here's a brochure that's out there on the table. All this information is also available on the public web site. And there's also -- you can access the decommissioning documents from the web site as well. So the web site is a real good tool for monitoring the decommissioning activities and looking for information.

How can you participate in the decommissioning process? You can give us your comments tonight, or you

can give your comments a little later. Earlier this month, we published a Federal Register Notice on this particular action, and the notice provides -- it talks about Excel Energy's license amendment request and submittal of a DP. The notice provides instructions on public involvement in accessing documents of any public comments. There's an address where public comments can be submitted to the NRC. There's also instructions for a hearing request. Whenever -- since this action requires a license amendment, anytime we do a license amendment, there's also an associated hearing opportunity. So should somebody want to request a hearing, the Federal Register Notice provides instructions for that as well.

And we also have the decommissioning plan. Copies of the decommissioning plan are at the Sioux Falls Public Library. It's going to be available there for the next 60 days or so. That they're good enough to allow us to put a copy there for public examination.

And there's some contact information. If you want to reach me at NRC headquarters, there's my number and my e-mail address. If you would want to reach somebody in the regional office, Blair Spitzberg, branch chief, NRC Region IV, he'll be talking next, that's his phone number and his e-mail address.

And that's where I was going to stop at, and I can try to answer any questions you might have at this time or we can move on.

MR. HINDBJORGEN: Chad, I have one question. Does the license actually come from the NRC, or do you make that recommendation to a different agency?

MR. GLENN: Do you want to answer that, Dan?

MR. GILLEN: No. Go ahead.

MR. GLENN: The licenses -- the licensing action is NRC's licensing action.

MR. HINDBJORGEN: Okay. So it's actually your license.

MR. GLENN: Right. So we would amend the license and issue the amended license.

MR. HINDBJORGEN: All right. Any other questions for Chad before we move on to Blair? If not, we'd like to welcome Blair Spitzberg to talk about the NRC inspection responsibilities.

MR. SPITZBERG: Thank you, Dan. This is South Dakota, and that's in Region IV of the Nuclear Regulatory Commission. We have four regional offices, and I'm here representing Region IV, which is located in Arlington, Texas. And some of you may think, well, why isn't everything done out of Washington D.C., which is where the rest of NRC folks are from? And this goes

way back, but in the beginning of the NRC, it was determined that it was a smart thing to have regional offices that would perform basically two functions, and that is, inspection and emergency response. And so we have now four regional offices across the country. Ours in Arlington, Texas, represents the largest geographical region. It's essentially everything west of the Mississippi, and of course, that includes South Dakota. So this site and this decommissioning activity will fall within the inspection purview of the Region IV office.

Just to give you an idea of what the organizational separations are in the NRC on the regulatory oversight of the Pathfinder site -- of course, what Chad has just spoken about is the licensing review of the decommissioning plan -- they'll perform a detailed technical review, an environmental assessment which will implement some of the regulations that the Environmental Protection Agency has concerning the proposed activity. Once they satisfy -- once Pathfinder satisfies all of the NRC requirements, then a license amendment will be issued to authorize the proposed activity, which, in this case, is the decommissioning of the remainder of the Pathfinder site. And we have every expectation that once they

satisfy all of our regulatory requirements and we do issue that amendment, that Excel Energy will implement all of their commitments as intended. But there are skeptics in the world of which we are some in the regional office, and so we ask the question, how do we know that they're implementing the requirements and the commitments that they've made? And one of the ways that we know that is by performing inspections.

So we ask the question, why do we inspect? We inspect for a number of different purposes. First and foremost is to ensure the safety and to verify compliance with all the requirements and the commitments made by Excel Energy. Some of the requirements that we inspect against are the regulatory requirements that you can find in Title 10 of the Code of Federal Regulations. Parts 19, 20, and 30 are the ones that most apply to this site. We also inspect the implementation of the approved decommissioning plan. I saw another copy of the decommissioning plan this morning. It's about a 3-inch thick binder, and it's just chock-full of technical commitments that Excel Energy, once this document is approved by the NRC, will have to meet during the decommissioning of the site. And so when we send inspectors out here, we go item by item through that document and look for all the

commitments and requirements within that document, and we verify that they're meeting those commitments and requirements. There are also other requirements that will be specified in the license that we inspect against. And one of the things that we do is when we find instances of noncompliance, then we take whatever enforcement action is necessary to ensure -- to reestablish compliance with all the regulatory requirements.

Another aspect of the inspection program which is important for our decommissioning site is that we perform confirmatory measurements, and I'll talk about that in a little more detail in a moment. We also provide independent verification that the site meets the license termination criteria, which is what ultimately will satisfy our agency that the license can be terminated and that the site can be released for unrestricted use. And finally we inspect to enhance the public confidence in NRC's regulatory process. It goes back to, as I mentioned earlier, those skeptics in the world that want to know how we are sure that the licensee is meeting all the safety requirements, and this is done in large part through the inspection process.

We have inspection manual chapters and procedures

that we use to conduct the inspections so that if I send certified inspectors out here, they'll all be working from the same guidance and looking at the same things that they're supposed to be looking at. Some of these key areas that we would look at for the site like the Pathfinder site is the performance of the decommissioning activities and the status review of the remediation and the cleanup activities. We also have inspection procedures that look at the radiation protection program, which is the measures that the licensee will have to implement to ensure that the workers at the site are protected from any of the radioactive hazards. We also look at environmental protection. We look at the radioactive waste management and the requirements that are placed on Excel as a generator of radioactive waste and how they characterize and package the waste and how they prepare it for shipment if they're shipping it off-site. And then we look at the transportation of radioactive waste.

I mentioned the confirmatory measurements program. This is one of the areas that we spend a lot of effort in for a site like this, because once we terminate the license, we expect to never have to come back and revisit this license again. It will be out of our

regulatory jurisdiction. So we have to make sure that everything is done right and that they meet the radiological criteria. And they have -- the licensee will have a very extensive survey program that they have to perform to demonstrate to us that they meet the site release criteria. However, we do independent confirmatory measurements along the way to provide another independent measure that they will meet the site release criteria. One of the things that we do, the confirmatory measurement program, is so that it will provide confidence in the quality of the licensee's own analytical measurement program, that it provides confidence that the site meets the decommission criteria. We do this in two ways. One is performing independent surveys by NRC inspectors using handheld instruments that we bring to the site. And we also take samples at the site, and in some cases, we split samples with the licensee. We'll have them analyze the sample, and we'll send our sample off to our contractor lab for analysis and then we'll compare the results. Our samples that we obtain we send to our contractor, which is the Oak Ridge Institute for Science and Education located in Tennessee. The types of samples we take for a facility like this would be soil samples, water samples, groundwater samples, smear

samples for removable contamination. We might actually have some of the technicians come out here at some point in time and perform some measurements for us. And as I mentioned, the split samples that we take with the licensee, we'll be comparing our results with theirs and performing some statistical analysis on those samples to determine whether or not we have statistical agreement between us and the licensee.

So once we perform our inspections and we do our confirmatory measurements and I send my inspectors out here for the better part of a week periodically to do the inspections, what happens after the inspection is conducted? Well, the inspector will come back to the regional office, and on the Tuesday, Wednesday following his return, we have a standing meeting in our office, which is when the inspectors debrief with their management relative to the findings and observations they made during the inspection.

And after this, then we agree on what the findings will be as documented in the inspection report and then the inspector will start drafting the inspection report. And we do issue a formal inspection report normally within 30 days at the end of the inspection. In some cases, if we have confirmatory samples that we're waiting for the measurements on, that we wait for

the sample results to come in before we end the inspection. So it would be 30 days from the date when we receive the results of the samples. And our inspection reports are available on our NRC web site at www.nrc.gov. And I certainly would invite all of you to take a look at some of the inspection reports that will be generated for the Pathfinder site as well as any other sites that we're doing inspections at. That ends my presentation. If there's any questions on the inspection program?

MR. HINDBJORGEN: Well, with that, thank you, Blair. And we'll move on to Joel Beres from Excel Energy.

MR. BERES: My name is Joel Beres. I'm the decommissioning project manager for the Pathfinder project. I'm going to talk a little bit today about the decommissioning activities. I broke it down into standard questions you ask about a project and seeing it for the first time: Who, what, where, when, and why. I'll supply the answers today for everyone as it pertains to decommissioning activities.

The who has probably changed a little bit since some of you have had some experience with Pathfinder. Northern States Power still exists. It's a wholly owned subsidiary of Excel Energy. I'm an Excel

employee. Charlie Bomberger is the head of Excel Nuclear. This project is coming out of the Excel Nuclear organization. The employees at Pathfinder now are basically employees for the fossil side of Northern States Power. They are not really involved with the decommissioning project. That's really coming out of Charlie's office, and I work directly through him. We retained Duratek to be our radiologic consultant, and we have some dotted lines. And there's some of the support groups.

Okay. What have we done? We've assembled a highly qualified project team. It's my Midwest sensibility. We've got a lot of experience. I have over 20 years in the nuclear industry. Doug's got at least that much, and Charlie's got a lot more than that and won't admit to it. So we can get a qualified project team organized here in supporting the project. Had the opportunity to research the site history. We have all the docketed correspondence with the NRC that I took a look at. I spent a lot of time with the microfilm machine. That had a lot of pertinent information on Pathfinder. We also have a very good history of the radiological profile of the site. There's been surveys taken annually at least since 1992 and possibly monthly before that. But at least since

before 1970 there's been surveys on the site. We have a really good idea of where the hot spots are and where the contamination is likely to be. And we have, of course, developed we believe is a comprehensive decommissioning plan to submit to the NRC. It was a fairly big effort that we put together, and now we're awaiting NRC's first-round response in which we're answering their questions and revise the decommissioning plan. And we set up a quality control organization, which is sort of an internal way that we check on ourselves, so things we've been doing can be verifiable and there's a paperwork trail of the things we talk about in the decommission plan.

What will we do? We're not going to do anything until we get approval from the NRC because we have to get a license amendment. We have a license that the NRC -- with the NRC rather for the byproduct material. It currently does not allow us to do any decommissioning activities. Once we get approval granted from the NRC, then we can go into the active decommissioning phase. What we do is we remove the radioactive byproduct material from the Pathfinder site, which we currently estimate very conservatively to be about 1,300 cubic feet. I think in reality it might be even a tenth of that. That's a reasonable

number, but we do have a conservative estimate. That's about -- well, if I looked at my ad correctly, that's about 40 refrigerators full. So if you can think of 40 refrigerators lined up full of contamination. I looked at a Best Buy ad. I think it's 25 cubic feet. But we don't expect to have that. That's our conservative estimate. But if the stars don't align, then we have ways to handle that. And then the waste will be shipped to a low level radioactive waste facility in Tennessee. We have backup places for that if that doesn't work. We expect that to work. We don't have any high level waste, and there won't be any low level waste left in South Dakota. It will all be shipped out of state. And of course as it's been said more than once tonight, we will survey to make sure remediation's successful, and the NRC will check us on that to make sure we're giving them accurate data.

What is the scope of the remediation activities? We're talking about an old power plant and secondary system. Basically where the power block is, the condensor, turbine, feed water, condensate, and then some boiler buildings which I'll show later in another slide. We're going to clean and/or remove portions of the condensor, which is at the bottom of the condensor and the floor drain piping and the sumps. We found

some contamination there and also in the boiler mud drums. Those are the areas where the contamination was found, and that's where we expected to find it also. But our characterization survey looked at a lot more than that.

Okay. This is the slide where a lot of things have already been discussed so I'll just hit the highlights again. In 1964 to 1967 I suppose I should start out, needed a nuclear reactor there to produce activated nuclear material. To make residual activity -- rather to make -- to activate things like rust and other steel parts, et cetera, other parts of the plant, we need to have a reactor operating. Once the reactor shuts down, what is ever there doesn't get added to. So that's sort of the key point, and it's sort of the case every time depending on the half-life that the activator causes. So it's important to note just how long the atomic plant operated. So that was for three years. Off and on, had a bit of a checkered operating history. A very pioneering effort. One of the very first commercial operating reactors in the nation. So you know, it's almost prototypical in its design. In 1970, the spent fuel has been removed off-site. That's a key point because that's high level waste and that's all gone. In 1970 -- also I started

in ’71 I think, commercial operation, rather in ’70, commercial operations, 1970, the nuclear reactor was disconnected, the steam lines were cut, and we hooked up the old power block with three new boilers. Now the new plant was sort of christened Pathfinder Peaking Plant. So we had power out of that unit, but it was from boiler steam and not reactor steam. In ’92, decommission the reactor and nuclear steam components. In 1994, Angus Anson was built at the site. Those are those gas turbines that are out there now. We’re building another one as we speak. So we’ll have three units possibly by 2005. In 2000, Pathfinder, the cooling tower blew down, and it was determined to be uneconomical to restart the plant, so that ended the life of the Pathfinder Peaking Plant and also put us into the process to start the decommissioning. The last bullet there has been talked about before. That’s the activities we’re talking about, the site, moving to decommission the plant. And once that’s done in a way that the NRC approves of, we’ll submit a license amendment to terminate our materials license. Essentially the site will be open for any activity after that, and there won’t be any radiological contamination on the site.

Okay. This slide I talked about earlier. This is

essentially a blocked diagram of the site. All or most of the contamination is in the basement of this building. There was some activated products that were activated during the nuclear reactor operation. This is the gas and oil boilers that were put in after the reactor was shut down in 1970. These are now supplying steam for the turbine generator, but of course there's no steam now but there was up until the year 2000. Now the mud drums are in here, and there's some contamination in the mud drums. These two buildings have been previously decommissioned in 1992, the nuclear reactor building and the fuel handling building.

Okay. The "where" question. The remediation will occur within the Pathfinder turbine building and the boiler buildings. Surveying is going to occur at all the areas of the plant that are affected by plant operation. And there won't be any remediation of things like soil, groundwater, or surface water because these things aren't contaminated.

When? We submitted a schedule as part of our decommissioning plan. Of course, that's subject to a lot of things with approvals and some other things involved. That we fully expect to have the project complete in the 2005-2006 time frame. Remediation

activities where we actually go in and clean up the contamination, that's a two- to four-month activity. Surveying activities depending on how we do a confirmatory -- the NRC does a confirmatory survey, we do our own survey, and that will be one to two months per survey. So there's at least one survey that we'll do. The NRC will do the confirmatory survey that we've already talked about. So there's two activities under the survey heading. And we have about -- I think there's two years from the time the decommissioning plan's approved. That's the statutory requirement to apply for a license termination request. And we have full expectation we will meet that requirement based on the complexity of the remediation, which is fairly simple.

Why? Certainly the most compelling reason is we're required by law to do it and we like to comply with the law. It's a statutory requirement of our license. But there's also other good reasons to do it now. We have a really good understanding of the radiological condition of the site. That information is available and we captured it. And who knows, 10, 15 years from now, that could have got lost. We have a lot of internal expertise. Excel owns two other nuclear power plants, and they're providing help and

advising us of some of the radiological questions. We have the financial wherewithal. Even the biggest companies go bankrupt. We like to think we're somewhat healthy, but we also put aside $3 million in a letter of credit to make sure we can do what we said we were going to do. And all indications out there in the industry is that decontamination and decommissioning is likely to get more expensive in the future.

Here's some pictures that I put in. This is on the sump area. There's a sump in there that has some contamination. This is a picture of the condensor. This is the condensor proper. This hot well is where the water collects in the bottom of the condensor. This area is contaminated too. There's also an expansion joint that goes around here. You can't see it very well, but that's contaminated. We'll clean those up or remove them if we can't clean them up to the standard we like to get them clean to. We'll ship them off as rad. waste. There's another picture of the condensor, which is the southern side of it. And there's the old turbine built by Allis Chalmers, 66 megawatt. This happens to be clean, but it's a good picture to show. We did make power there one day. We couldn't hardly give it away. We had some phone calls of some people in Africa. It was one of those crazy

things. But they said we'd love to have it, but we won't pay to move it. And that kind of killed the deal pretty quickly. And this is a side picture of the boiler. Can't really see the mud drums there but -- actually this is the back where we looked at where the tubes are in there. It's the back of the boiler, one of the three.

And some contact numbers. You're free to call any of those numbers whenever you'd like. There's Jim Wilcox's number. He's in South Dakota. Charlie's head of Excel Nuclear. And that's my number. I'm also located in Minneapolis as is Charlie. I think that wraps up my portion.

MR. HINDBJORGEN: Thank you, Joel. Any questions for Joel, or this would also be a good time to ask any questions to any member up here or any comments. With that, maybe I can just have one comment to our guest from the NRC. You know, we looked out at the audience and we don't see many guests from the greater Sioux Falls area, and I would just suggest one of the reasons why is because Excel Energy has a long history of being a very good company here in Sioux Falls. When they do things, they do it right, and they have a very positive and strong image. And no doubt, if members of the public or the city or the press would have any issues,

they would have been here tonight. And so I see this as a good thing that we have few guests. But it was good for me to meet you and to go through this process and I appreciate it.

MR. BERES: We'll strive to uphold that standard for our project.

MR. HINDBJORGEN: By the way, this hat comes from the decommissioning efforts back 12, 13 years ago. My friend found it in his closet and gave it to me when I told him I was doing this. So I might just have to give it to someone. We'll see who buys beer tonight. Thank you very much for coming and thank you to the members of the NRC and for Excel Energy. With that, we are adjourned.

(Proceedings adjourned.)