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NUCLEAR REGULATORY COMMISSION

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Public Meeting

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1 U.S. NUCLEAR REGULATORY COMMISSION

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3 PATHFINDER SITE

4 APPLICATION FOR LICENSE AMENDMENT

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6 PUBLIC MEETING

7 TUESDAY, AUGUST 31, 2004

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9 SIOUX FALLS, SOUTH DAKOTA

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

16 PRESENT:

17 DAN HINDBJORGEN, FACILITATOR

18 DAN GILLEN, NRC

19 CHAD GLENN, NRC

20 BLAIR SPITZBERG, NRC

21 JOEL BERES, EXCEL ENERGY

22 CHARLES BOMBERGER, EXCEL ENERGY

23

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

1
2
3 MR. HINDBJORGEN: My name is Dan Hindbjorgen. I'm
4 the vice president for the Sioux Falls Development
5 Foundation here in beautiful Sioux Falls, and it is
6 beautiful today. I've been asked by Jim Wilcox -- he's
7 the manager of regulatory and government affairs with
8 Excel Energy. He asked me to facilitate this meeting
9 presented by the United States Nuclear Regulatory
10 Commission. The meeting is to inform the public that
11 the NRC has received a license amendment request from
12 Excel Energy to authorize decommissioning activities at
13 their Pathfinder site here in Sioux Falls. So I would
14 like to welcome all the NRC staff and also the Excel
15 Energy staff here.

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

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

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

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

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1 MR. GILLEN: We already have.

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

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

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

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

24 MR. BETTMANN: That's good for now.

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

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

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

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

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

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

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

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1 to ask some questions.

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

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

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

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

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

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

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

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

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

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

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

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1 No. 1 goal. Secondly and certainly prominently since
2 9/11, we have as one of our missions to ensure the
3 security of nuclear materials and facilities that we
4 regulate. Thirdly, we're ensuring that our openness of
5 our actions and this meeting here tonight is one
6 example of ways that we do that to gain public input to
7 our process. And the fourth goal is to essentially
8 achieve efficiency, effectiveness, and realism in the
9 regulatory activities that we conduct. And lastly,
10 though not so much of importance to the outside
11 interests, we have an internal goal of achieving,
12 striving for excellence in NRC's management of its
13 human and monetary resources.

14 Basic regulatory framework that we're structured
15 under. In 1954, the Atomic Energy Act was promulgated,
16 which established the framework for NRC's basic
17 responsibilities. And then I have the most recent NRC
18 rule making related to the specifics of
19 decommissioning, which in 1997 we issued a license
20 termination rule which established the standard by
21 which we are decommissioning our sites. It's an
22 all-pathways standard meaning groundwater, air, all
23 different pathways. The basic criteria is a
24 25-millirem standard, which would indicate that we're
25 going by a dose-based standard as opposed to the old

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1 standard that we had. And the 25 millirem is not just
2 25 millirem. It's also 25 plus ALARA. ALARA stands
3 for as low as reasonably achievable, which means that
4 the licensee will do an analysis to determine that they
5 don't just stop at 25 millirem. They make, within cost
6 requirements, can make efforts to decrease that down
7 below 25. And just for comparison purposes, the
8 25-millirem standard that we have, 300 millirem is
9 the -- generally thought of the average dose that one
10 gets just from natural background. The standard also
11 allows for both restricted and unrestricted release.
12 In this case we're dealing with the unrestricted
13 release. If it was a restricted release, it would
14 involve the establishment of some institutional
15 controls. Some of our sites that we have are proposing
16 that but relatively few. And then just a step below
17 the regulations, we have implementing guidance. And we
18 have a NUREG document 1757, which is on our web site,
19 and that document is a compilation of all the hundreds
20 of documents we used to have that was kind of confusing
21 for guidance. And we put that into a three-volume
22 document which provides guidance to both the NRC staff
23 as well as the licensees and hopes through that
24 guidance to achieve complete, acceptable submittals and
25 consistent but efficient reviews by the staff.

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1 Just a slide showing the scope of what is involved
2 in my group. We presently have under our review some
3 46 complex materials sites in which Pathfinder is one
4 and 15 power reactors. So there's some -- at any given
5 time, we have generally around 60 sites that are
6 involved in various stages of decommissioning.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8 MR. GILLEN: No. Go ahead.

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

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

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

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

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

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

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

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

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

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

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

25 We have inspection manual chapters and procedures

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

25 Okay. This slide I talked about earlier. This is

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

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

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

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

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

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

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

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

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

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

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

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

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

15 (Proceedings adjourned.)
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