

December 11, 2006

MEETING REPORT

DATE: November 14, 2006

TIME: 7:00 pm

LOCATION: Marriott Courtyard Hotel, 10683 White Rock Road,
Rancho Cordova, California

PURPOSE: The U.S. Nuclear Regulatory Commission staff conducted a meeting to discuss and accept public comments on the Rancho Seco Nuclear Generating Station (Rancho Seco) License Termination Plan (LTP)

BACKGROUND:

In accordance with 10 CFR 50.82(a)(9), all power reactor licensees must submit an application for termination of their license. The application for termination of license must be accompanied or preceded by an LTP to be submitted for NRC approval. If found acceptable by the NRC staff, the LTP is approved by license amendment, subject to such conditions and limitations as the NRC staff deems appropriate and necessary. SMUD submitted the proposed LTP for Rancho Seco with a license amendment application dated April 12, 2006. In accordance with 10 CFR 50.82(a)(9)(iii), the NRC must provide notice to individuals in the vicinity of the site that the NRC is in receipt of the Rancho Seco LTP, hold a public meeting, and accept comments from affected parties on the LTP.

DISCUSSION:

A meeting transcript is attached.

ACTIONS:

No actions were identified during the meeting.

ENCLOSURES

The meeting transcript and presentation materials used by the NRC and licensee at the meeting are attached.

cc: Rancho Seco Service List

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UNITED STATES OF AMERICA
U.S. NUCLEAR REGULATORY COMMISSION

* * * * *

RANCHO SECO PUBLIC MEETING ON
LICENSE TERMINATION PLAN

* * * * *

TUESDAY

NOVEMBER 14, 2006

* * * * *

RANCHO CORDOVA, CALIFORNIA

The Public Meeting convened at the Courtyard Marriott Hotel,
10683 White Rock Road, Rancho Cordova, California at 7:00 p.m.

Present on Behalf of the Nuclear Regulatory

Commission:

DON NOTTOLI, Board of Supervisors

JOHN B. HICKMAN, Project Manager NRC

NEIL HAGGERTY, Project Manager NRC

CLAUDIA M. CRAIG, Section Chief, DCB NRC

B. BLAIR SPITZBERG, Section Chief, NRC

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

7:00 p.m.

1
2
3 MR. NOTTOLI: Good evening. My name is Don Nottoli, I'm
4 a member of the Board of Supervisors here in Sacramento County, and have
5 the distinct pleasure of not only representing the District, which Rancho Seco
6 is located but, certainly many communities surrounding that, including where
7 we are this evening, the City of Rancho Cordova, here at the Marriott
8 Courtyard.

9 So, I want to extend a big welcome to our visitors from both
10 back East but also those from the Region, and we know we have folks here for
11 the Nuclear Regulatory Commission and staff as well as obviously SMUD staff,
12 who again are the day to day responsible for the oversight of Rancho Seco and
13 a whole lot of other facilities who provide power to this community.

14 I just want to take a moment to, in addition to welcoming, you,
15 to talk a little bit about the purpose of the meeting. I had the good fortune,
16 about five years ago or thereabouts, when the NRC was out at that time in the
17 City of Galt, had a community meeting. I had a little more attendance from the
18 public but, nonetheless, we won't give up hope that some folks may arrive here
19 this evening. But, at any rate, I know the purpose at that time, and again this
20 evening, is to welcome public input, to get an overview of the reason why we're
21 here, which is to talk about the licensing and the work as it relates to Rancho
22 Seco and the oversight program, and the termination of the license. And so
23 you'll hear about that from folks who are much more expert than me in that but,
24 we want to encourage folks that are here from the general public, and anyone

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1 else, obviously those of you who work very closely with this particular topic and
2 this community, and other communities, certainly to weigh in as well.

3 So, I'm not going to belabor it, I could probably, you know, go on for
4 a couple more minutes this evening but I know you want to hear from the folks
5 who are expert in the field. So, I want to extend a welcome to John and to all
6 the folks that are here this evening, and on behalf of certainly the SMUD staff
7 and their Board, on behalf of the County of Sacramento and the Board of
8 Supervisors, and certainly on behalf of the general public. And again, we thank
9 you for the attention here this evening, and know that again this is part of the
10 role and the work that's very important in permitting regulatory oversight for
11 facilities that have served and do serve our communities in a variety of ways,
12 and again we want to thank folks for taking time this evening.

13 And with that, I'll turn it over to John.

14 MR. HICKMAN: Thank you. I'd like to welcome you all to this NRC
15 public meeting on the Rancho Seco License Termination Plan.

16 To start with, I'd like to mention that we have copies of the slides at
17 the back, as well as sign-up sheets if you want me to send you some
18 documents, the transcript of this meeting or any other NRC documents. And
19 there's another sign-up sheet if you want to make a public statement. And
20 lastly, we have an NRC feedback form, if you want to provide feedback on this
21 public meeting.

22 I guess I'll do some quick introductions here, just so you know who we
23 have. To my right we have Einar Ronningen and Steve Redeker with
24 Sacramento Municipal District, Power District. And Blair Spitzberg, who is from
25 the NRC Region 4 office. We have several other NRC staff people in the

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1 audience. Claudia Craig is my Section Chief at Headquarters. Neil Haggerty
2 is one of the reviewers for the Rancho Seco Licensing Termination Plan, and
3 Jim Webb is another reviewer.

4 I guess I'll ahead and get started on presentation. To start
5 with discussing the NRC focus on decommissioning, our primary focus is on
6 the safe removal radiological hazards at the site. This process involves the
7 removal of the facility from service, the reduction of radioactive materials on the
8 site to a safe level that allows release of the site for other usage. Detailed
9 radiological surveys, which will be done by both the utility and the NRC, the
10 goal of which is to eventually lead to termination of the NRC license for the
11 facility.

12 The process that we go through as part of decommissioning,
13 initially, when the licensee decides they are going to terminate operation of the
14 facility, they submit two certifications. The first one is that they have
15 permanently ceased operation and the second one is that fuel has been
16 permanently removed from the reactor vessel.

17 Following these two certifications, we then issue a license
18 amendment that modifies the utilities license so that they can possess the
19 facility but are no longer authorized to operate it.

20 Subsequently, the licensee will submit a decommissioning
21 plan, this will describe their planned activities for decommissioning and, in the
22 case of Rancho Seco, that has changed over time. Initially they were in safe
23 store maintaining the facility and then subsequently they modified that to begin
24 active decommissioning.

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1 They also submit, in the plan, also they have a schedule for
2 their planned activities and they have to generate a site specific cost estimate
3 for the decommissioning of the facility.

4 Subsequently, as they near the end of their decommissioning
5 activities, they'll submit the license termination plan, which is primarily what
6 we're here to discuss this evening. That plan will provide a detailed document
7 that describes the condition they intend on leaving the site in and how they will
8 confirm that they decontaminated sufficiently.

9 They will then conduct final status surveys, as will we, and
10 assuming everything proceeds, they would then -- we would then terminate
11 their license.

12 During the course of decommissioning the NRC regulations
13 prohibit the licensee at any time from performing activities that would prevent
14 the site from being restricted or released for unrestricted use, that would result
15 in any environmental impact not previously considered in their environmental
16 assessment, and that would in any way result in there not being sufficient funds
17 to complete the decommissioning process.

18 The license termination plan, and this will just be a quick
19 summary of what's in there, the licensee will be providing a more extensive
20 description of what's in the LTP, provides a site characterization and this
21 includes a historical site assessment of the activities that have taken place in
22 the site over its operation. It identifies any remaining decommissioning and
23 dismantling activities they would still have to produce before they're completed,
24 their plans for any site remediation, this would be any grading or any other
25 kinds of remediation activities they would have to do, their plans for their final

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1 radiation surveys, description of the end use of the site and if there would be
2 any restrictions imposed, whether it would be something that let's say would
3 control the site for a certain number of years before the public would have
4 access to anything like that. They would provide an updated site specific
5 decommissioning cost at that point, updated from the decommissioning plan
6 that was originally submitted. And they provide any new information that is
7 necessary to supplement the environmental report.

8 The NRC actions, in response to receiving the license
9 termination plan, include we noticed the receipt of the plan in the Federal
10 Register and make it available for public comments. The plan is available in
11 our public document system called ADAMS, and in a copy of my slides there's
12 a reference as to how to obtain and view the document in ADAMS if you want
13 to. Opportunity for hearing is given, this is standard practice for any license
14 amendment and the license termination plan is a license amendment.

15 The NRC holds a public meeting on the license termination
16 plan, which is what we're doing this evening.

17 If the plan is determined to be acceptable by the NRC, it is
18 approved by the issuance of a license amendment. In the meantime the
19 licensee will continue the decommissioning of his site, and will perform their
20 final status surveys.

21 The NRC, usually with the use of contractors, will then visit
22 the site and perform confirmatory surveys. And if the plan was followed and
23 the site meets the release criteria that is specified in the license termination
24 plan, the license is then terminated.

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1 Contact information for, if anybody needs to contact me, it's
2 available in a copy of my slides, it's my name and phone number, email
3 address along with Blair Spitzberg, Region IV, and the reference at the bottom
4 provides the website where you can obtain any NRC documents related to
5 licensing Ranch Seco.

6 And now I'll turn it over to Steve Redeker to continue.

7 MR. REDEKER: I'm Steve Redeker, the decommissioning
8 manager of Rancho Seco and I'm pleased to have some other SMUD staff with
9 us here today, Einar Ronnigen, who will give the majority of the presentation,
10 and we also have some industry experts who are working with us today out at
11 the plant, preparing the license termination plan and helping us with overall
12 decommissioning. In the back, Bob Decker, John Newey, George Pillsbury and
13 Leon Brown. So, if anyone has specific questions, they can certainly help us
14 out. Thank you very much, gentlemen, for coming.

15 What are we doing at Rancho Seco? Why are we, the staff
16 at Rancho Seco there? Our whole objective is to decommission the facility in
17 such a manner that we do not harm the environment or cause any issues
18 relative to public health and safety. And we do this in a cost effective and least
19 risky manner. We want to preserve the options to reuse the site by SMUD.
20 That's our basic purpose of our decommissioning program at the Ranch.

21 What are our goals? I tried to make this simple. What do we
22 want tod, and by when? We want to be finished with our overall
23 decommissioning plan by the end of 2008. We'll clean up the site to the NRC
24 standards. We do expect to have a small volume of radioactive waste that we
25 currently don't have an acceptable place to dispose of permanently, that will be

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1 stored in a radioactive waste storage building out at the site. So, by the end of
2 2008, the majority of the site will be available for reuse by SMUD with no
3 restrictions.

4 After 2008, for probably two or three years, we intend to do
5 some non-radiological, I call it industrial decommissioning, where we will
6 remove some non-radioactive portions of the plant from the site and put the site
7 in a very safe and stable condition.

8 We will continue to store the nuclear fuel, our fuel is in dry
9 storage, there's a brochure in the back that describes our dry storage system
10 and program, and it will remain in dry storage until the U.S. Department of
11 Energy comes to take it away. So, we will have a Nuclear Regulatory
12 Commission license to store the radioactive waste, that small portion, and the
13 nuclear fuel for many years to come.

14 Safety is the primary focus of our whole decommissioning
15 effort, both industrial safety and radiological safety. We, again, making it
16 simple, don't hurt anyone, don't drop anything and don't spill anything. It's very
17 easy for the workers to understand that concept. Don't hurt anyone, we want
18 to minimize any radiation exposure dose to the workers or to the members of
19 the public. We don't want any industrial accidents. We're lifting very heavy
20 things, we don't want to drop anything. And don't spill anything that relates to
21 hazardous materials, not just radioactive materials but asbestos, lead paint,
22 PCBs, many other hazardous materials.

23 So, our objective is to adequately control all of that material.
24 So, safety is primary in the whole focus of decommissioning.

25 Now, Einar Ronningen.

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1 MR. RONNINGEN: Thanks Steve.

2 I'm going to describe here, in a little bit of details, what John
3 introduced and Steve led us into here, and we'll start with just what is the
4 license termination plan.

5 Really what it is is a very technical document that describes
6 the Nuclear Regulatory Commission, how we're going to conduct
7 decommissioning at Rancho Seco, and how we're going to leave the site in a
8 manner that's acceptable to the Nuclear Regulatory Commission, that is how
9 it meets the criteria for license termination.

10 John touched on the way the NRC performs the review. We
11 did do some reviews onsite. The content of the LTP itself is specified by
12 regulations and guidance documents that are put out by the NRC. It's prepared
13 onsite with technical experts and also some technical experts from off-site, to
14 supplement the knowledge that we have onsite where it's needed. For
15 example, Tom Cudzillo is here, he gave us input into our hydrogeological plan
16 that helps us to characterize the site.

17 Once it's been prepared by those technical experts, it's
18 reviewed again in a cross review by those technical experts, and then again by
19 Rancho Seco management. After we've reviewed it thoroughly and are happy
20 with the document, then we submit it to the NRC for their review.

21 So, what are those site cleanup criteria? Well, we want to
22 make the site available for unrestricted reuse. John had touched on the fact
23 that we could leave the site for restricted reuse but, we want to leave it for
24 unrestricted reuse. So, the laws tell us that we have to demonstrate to the
25 Nuclear Regulatory Commission that we leave the facility in such a way that the

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1 dose to the worker on the site is less than 25 millirem per year. And not only
2 that, we have to introduce this concept here, that I'll touch on a little bit latter,
3 that we call ALARA, which means As Low As Reasonably Achievable.

4 We actually do a cost benefit analysis to determine how far
5 below that 25 millirem per year it makes sense economically to reduce that
6 dose.

7 Let's talk about 25 millirem here for a moment. What is a
8 millirem? A millirem is a common measurement unit that we use to describe
9 the impact of radiation on the human body. And once we have this unit
10 established, then we can talk about the relative numbers here. And on the
11 chart, you can see we go from a low of five up to 420. Just for comparison
12 purposes, we've got the 25 on the lower right there, which is the annual dose
13 that a worker at Rancho Seco could receive after license termination, and that's
14 a maximum. The lowest number there is five.

15 Someone on a cross country flight for about six hours at
16 35,000 feet might receive about five millirem. Someone getting a chest x-ray
17 might receive about 35 millirem. And to go to annual doses from natural
18 background radioactivity, you can see there's some variability. The annual
19 average for the member citizen of the United States is 360 millirem, someone
20 in San Francisco, a little bit less, about 350, someone up in Truckee a little bit
21 more elevation, a little bit more rocky soils, about 420.

22 Back in 1975 we did an aerial survey of the direct radiation
23 field and the areas around Rancho Seco, and this is not really the total
24 radiation dose someone would receive, we'll talk about that a little bit more later
25 but, this demonstrates the variability in the natural background radiation that

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1 one receives directly from the naturally occurring radioactive materials in those
2 areas. And we can see -- I'll get the pointer out here -- we've got numbers as
3 low as about 43 down here by Comanche Reservoir, and then numbers as high
4 as greater than 160 east of Lone near Buena Vista. Now, these numbers aren't
5 meant to alarm, and they aren't unusual as far as the variability goes. We're
6 simply illustrating that natural background radioactivity varies so much that 25
7 millirem per year is a small number in comparison to that. And that's all this is
8 meant to illustrate.

9 We had a list before that John kind of showed us, of the
10 contents of the license termination plan, and to kind of go through here chapter
11 by chapter and give a little bit of information on each chapter, and I'll do that
12 with the highlighted chapter.

13 Chapter One is General Information about the site, some
14 history of the site, how the site operated, some geography, climate, those sorts
15 of things, and includes the location of the facility.

16 For those people that aren't aware, we can see this Lego
17 shaped property that is the Rancho Seco property that's located in Southeast
18 Sacramento County, about 25 miles Southeast of Sacramento.

19 Here is a pretty good picture of the Lego shaped property in
20 the white outline here, and all the different things that are on the facility there.
21 It's almost 2500 acre facility. You can see in the upper left here, is the actual
22 industrial facility that is the Rancho Seco Nuclear Generating Station. That
23 occupies about 90 acres of the 2480 acres.

24 In green down here is the location of the new Consumnes
25 Power Plant, which is a natural gas fired power plant that SMUD is currently

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1 using to generate electricity. And then over southeast of the plant here, we've
2 got some older facilities and a newer facility here that actually generates
3 electricity using the photovoltaic technique.

4 Over on the eastern part of the site here, we've got areas that
5 were never impacted by the operation of Rancho Seco. SMUD operates a
6 recreational facility around this lake here. We've actually given some land, we
7 lease it at very low cost, to something called the Performing Animal Welfare
8 Society, that's based in Galt, that rescues circus animals and other animals
9 from around the country and provides a good life for them.

10 This red line here is the Howard Ranch trail. Immediately
11 east of the site is a property called the Howard Ranch, which is a working
12 ranch, and this is a nature trail that allows people to go and enjoy some of the
13 natural sites at the facility.

14 Recently we've turned over about 1200 of that 2500 acres to
15 the Sacramento Valley Conservancy, and what they're going to do at the
16 facility, basically these highlighted areas, the areas down here that are the
17 Performing Animal Welfare Society as well.

18 It looks like we've got someone trying to join us via wireless
19 network here, join us on the meeting.

20 What the Sacramento Valley Conservancy is going to do is,
21 they're taking over custodianship of the land and stewardship of the land, as
22 part of SMUD's commitment to the environment and protecting the
23 environment, they're going to monitor the cattle grazing that occurs in the area,
24 also set aside areas for preservation of endangered species.

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1 In Chapter Two, we move into Site History and Characterization,
2 where radioactive materials were used and stored onsite, and unfortunately, in
3 some instances spilled. And then we did a characterization of the site where
4 we actually went out and numerically determined how much radioactive
5 material was in each location. That helps us plan the work that we need to do,
6 and let's us know where we need to actually do remediation to reduce those
7 levels below that 25 millirem per year.

8 Chapter Three talks about the decommissioning activities that
9 are remaining at the facility. We had presented those to the NRC in our
10 decommissioning plan before, but, these are those activities that are left, that
11 need to be completed, to terminate the license. And I've got a couple of
12 pictures here.

13 This is sort of a before picture, I'll flash it up, an after picture.
14 You can see a lot of things go away. The point here is we've got outside tanks,
15 temporary metal buildings in different areas. We've got this temporary Quonset
16 hut up here, these building out by what were spray ponds. And you can see in
17 the after picture that all that structure is gone.

18 Basically what you see here are all the permanent concrete
19 structures at the facility, and that's basically what the facility is going to look like
20 upon completion of license termination.

21 Here's a picture of some demolition occurring of one of those
22 temporary buildings. What I wanted to point out here is that we generate a lot
23 of materials during the decommissioning process, but we do monitor all of this
24 material for radioactivity. Any material that contains measurable radioactivity
25 is disposed of at a waste disposal facility. Only when material can be

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1 demonstrated to have no measurable radioactivity, is it allowed to go to a
2 landfill.

3 Chapter Four is the chapter where we talk about site
4 remediation. Here's where the rubber meets the road, as far as that ALARA
5 concept that we talked about before. Within Chapter Four is where we actually
6 do the calculations that determine the cost, not only to SMUD for the
7 performance of this extra work but, also to society. If we're going to remove
8 ten truckloads of dirt to meet the 25 millirem per year, and we decide we want
9 to go say 20 millirem per year, and remove two more truckloads of dirt, well,
10 now we've got more trucks on the road and there's a possibility of an accident.
11 That has a societal cost, even though the risks are low. But, that's where we
12 perform those calculations.

13 Also in Chapter Four, we describe how we're going to
14 remediate the facility, and that is remove that residual radioactivity and get it
15 down to a level that is below 25 millirem per year. And of course we've got a
16 couple of pictures here.

17 Here's one of a machine that actually shaves off the surface
18 of concrete in a very uniform manner, quarter inch or half inch, after it's been
19 run over the surface you can see it leaves a rather smooth surface behind.
20 When there's residual radioactivity right in that upper layer, sometimes we have
21 to get a little bit more aggressive and use jack hammers, or we even have
22 some really big equipment that we use in the facility to really knockout concrete
23 when we have to really get aggressive.

24 When we're not so aggressive, you can see a rather smooth
25 surface that's left behind, and a nice equipment pad here where some

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1 equipment had been used before but, where we need to, we go in and really
2 get aggressive on this concrete and take out three or four inches off the floor.
3 You can see the exposed rebar down there. So, whatever we need to do to
4 reduce the levels of residual radioactivity to meet that license termination
5 criteria.

6 We move on to Chapter Five, after we've remediated the site,
7 now we've got to take measurements to demonstrate to the NRC that we do in
8 fact meet the license termination criteria, and that's what Chapter Five does.
9 It's the final status survey plan.

10 This is where we tell the NRC how we're going to ensure
11 them that we are in fact below 25 millirem per year. It describes how we're
12 going to take the measurements, where we're going to take soil samples,
13 where we're going to monitor surfaces, outlines the quality program, we'll talk
14 about in a moment. And also provides the content of the final report. When we
15 submit this final status survey report to the NRC, that's the last time that we're
16 going to monitor a particular area for the radioactivity in that area, and we want
17 to make sure we provide them with the information that they need to be
18 confident that they are aware of how we're leaving the site.

19 How do we measure what's left? Well, we prepare very
20 detailed instructions and we literally take thousands of measurements in
21 building, soil, water, and we take field samples out there that are brought back
22 to the laboratory for analysis. And then we take all this data and compare it to
23 acceptance criteria. We'll talk about that in the next chapter a little bit. If the
24 numbers come out too high, we perform additional remediation as needed.

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1 And then we prepare that detailed report of results that get submitted to the
2 NRC.

3 For quality purposes, not only do we look over our own
4 shoulder but, as John mentioned before, the NRC is going to look over our
5 shoulder as well. Sometimes we'll go into a particular portion of a facility and
6 we'll do the final status survey, and then we'll send a different technician in and
7 we'll do it again to make sure the results compare and that we're doing
8 everything the way that we're supposed to.

9 We also have internal quality assurance people onsite that
10 will look over our shoulders and make sure that we're performing everything
11 according to the way that we told the NRC that we would.

12 And then as John mentioned, the NRC comes in, and Blair
13 is going to talk about that a little bit. We have inspectors that come in and
14 monitor what we're doing, and then there are contractors, mostly the Oakridge
15 Institute for Science and Education, come in and actually take samples and
16 perform verification measurements.

17 There is a picture of technician doing some monitoring on a
18 wall, at the point here he's using a very sensitive detector, and you can see the
19 cabling here that connects it to the little hand held computer. This guy is
20 monitoring a floor here. The person helping him is the second technician that's
21 got this hand held computer here that records all the information, as we do the
22 monitoring.

23 So, you can see she's got some paperwork here, hand
24 records are taken, computer records are taken, we're very thorough on how we
25 record this data, so we can present it in the proper way to the NRC.

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1 Here's the drilling rig that we had onsite to perform drilling to
2 establish some monitoring wells onsite, so we could monitor the ground water
3 at Rancho Seco. The results of that ground water monitoring showed that
4 there was no radioactivity of plant origin in the ground water at Rancho Seco.
5 But, the only way we could know that is to drill the wells and perform that
6 monitoring.

7 Here we've got a bunch of different activities going on.
8 We've got some buried piping here that's going to be removed, that contains
9 some radioactive contamination. Then over here we've got a technician that's
10 surveying the soil and making sure that the soil is acceptable in the areas
11 where we're working. And again, we've got the second technician that's
12 monitoring the first technician and recording data as he goes along.

13 That takes us to Chapter Six, which talks about Dose
14 Modeling. Here's where we demonstrate to the NRC and establish what the
15 release criteria are going to be. We have these things called derived
16 concentration guideline levels that are the acceptance criteria, and what I mean
17 by that is that when we take an instrument out into the field, it cannot measure
18 25 millirem per year, there's no instruments that do that. Number one, it's a
19 very low dose rate, difficult to measure and, number two, as we'll see in a
20 minute, radioactivity impacts the body in a couple different ways, not just
21 directly, that's something we can measure with an instrument.

22 So, we developed these DCGLs, which are the numbers that
23 tell us how we're going to meet that 25 millirem per year. In this case, we're
24 going to leave the facilities behind, SMUD is going to reuse the facility. We've

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1 got industrial workers that are going to be occupying the facility, so that's what
2 we based our dose modeling on.

3 The next picture that we're going to go to is going to describe
4 some of the ways that radioactivity can interact with the human body. It's
5 something that happens with naturally occurring radioactivity, and that's sort of
6 a point that I want to make, is that we saw some numbers in the variability
7 around Rancho Seco that varied from 43 up to 160 something.

8 Previous slides before that, I said the average member of the
9 public receives about 360 millirem per year. So, what's the difference there?
10 Well, naturally occurring radioactive material exists in the soil around your
11 home, it exists in the water that you drink, so there's different ways for that
12 radioactivity to impact the body. You drink the water that contains that
13 radioactive material, you're going to get some radiation dose from that. We're
14 all adults here, we don't eat mud pies anymore but, there is a chance to
15 actually ingest some soil that might contain naturally occurring radioactive
16 material.

17 So, there's a bunch of different ways and we have to take all
18 of these different ways into consideration when we're talking about the residual
19 radioactivity left behind at Rancho Seco.

20 Argonne National Laboratory, as it states up here, is actually
21 the facility that developed the computer code that we use to take that 25
22 millirem per year and making it something meaningful that we can measure.
23 And in the case of an industrial worker, we have all these different potential
24 exposure pathways. We can have radioactive material in the soil or on the
25 surfaces of the building, that would directly impact the body, sort of like an x-

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1 ray. Like I had mentioned before, we've got naturally occurring radioactive
2 material in ground water that people drink, or we could have residual
3 radioactivity in the soils of Rancho Seco that could eventually leach into the
4 ground water and then get into the drinking water and impact the body that
5 way.

6 I need to make the point here that the dose calculations that
7 we do are actually for a duration of 1000 years after the license termination.
8 And the reason that we do that is, it would be possible perhaps for some
9 material to get into the soil and then take many, many years to impact the
10 ground water. And then through the drinking water, impact the people at the
11 facility. Everything that we've done, and all the studies that we've done, show
12 that we don't have that pathway at Rancho Seco, but the means exist in the
13 computer code to make that calculation if we had to.

14 So, this picture is really for illustrative purposes only. We've
15 got this dust and Radon cloud here, and there really isn't brown dust of
16 radioactivity surrounding Rancho Seco. It's really just a cartoon to illustrate the
17 different pathways.

18 We get into Chapter Seven, Financial Information. John had
19 mentioned that there some restrictions on money that we can spend. We want
20 to make sure that we don't put ourselves in the financial position that we can't
21 complete decommissioning. So, in Chapter Seven, we give an estimate of the
22 cost to complete all the work that's remaining for the license termination
23 process, and then show how we're going to pay for that work and assure the
24 NRC that we will have the money to pay for it.

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1 Chapter Eight, Environmental Impacts, we've done
2 environmental reports for building Rancho Seco, operating Rancho Seco,
3 decommissioning Rancho Seco. We want to take a look again and see if the
4 license termination is going to change any of the environmental impact studies
5 that we've done in the past. We evaluate impacts to threatening endangered
6 species, water quality in the area. There could be archeological resources of
7 people, remember when we put in the gas pipeline for the Consumnes Power
8 Plant, we found some Woolly Mammoth bones and SMUD was very careful in
9 taking care of that. And then this thing we call Environmental Justice, to make
10 sure that if we are impacting the environment, if there is going to be impacting,
11 that we're doing it in a fair manner.

12 Steve kind of covered the schedule, I'll just give a wrap-up
13 summary here. We expect to have all the radiological work done and license
14 termination surveys complete by 2008. At that point we're going to reduce the
15 NRC license to about a one acre facility and have some legacy waste stored
16 on site for a number of years. After that waste is shipped, we'll perform the
17 same monitoring on that one building that we're leaving the waste in, as we did
18 for the rest of the site. And then finally completely terminate the license.

19 And as Steve mentioned, we are going to do a little bit of non-
20 radiological work for a couple of years, after the radiological work is complete
21 at the facility.

22 If you want some more information, John mentioned in his
23 that he's got some access to the ADAMS website, it's spelled out on the slide
24 here what that stands for. And they also have a lot of information on
25 decommissioning in general, and we've got that website available on our slides.

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1 And some contact information, Steve Redeker and myself,
2 Bob Jones, who is not with us tonight, is our licensing engineer, and Dace
3 Udris is here form our Public Information.

4 And with that, I believe I'll turn it over to Blair. I'll get your
5 presentation setup here. All yours.

6 MR. SPITZBERG: Okay. Good evening. My name is Blair
7 Spitzberg. I'm here representing the Region IV Office, which is located in
8 Arlington, Texas. I work as the Chief of the Fuel Cycle and Decommissioning
9 Branch in the Regional Office, and our responsibility is to perform safety
10 inspections of decommissioning activities at nuclear facilities within our reach,
11 and also have responsibility for inspecting spent fuel storage facilities in our
12 region.

13 Over the next few minutes, I hope to explain a little bit about
14 our inspection program and how we conduct it at the Rancho Seco facility.

15 Just to let you know where we come from, this map actually
16 shows only three of the regions, because the materials program for the eastern
17 half of the U.S. has been combined into Region 1. We actually have a Region
18 2 office in Atlanta, Georgia for the power reactor program.

19 Region IV is the western half of the United States, as you can
20 see it looks very much like the Louisiana Purchase. The states in blue are
21 what we call agreement states, in which the states have certain regulatory
22 responsibilities over radioactive materials. However, they have very little
23 responsibility over nuclear power plants. The brown states are the non-
24 agreement states.

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1 Our office is in Arlington, Texas, which is right between Dallas
2 and Ft. Worth, and we're about 15 or 20 minutes from the DFW Airport.

3 The Regional Office has about 160 employees, and my
4 branch is within the Division of Nuclear Material Safety, which is one of three
5 technical divisions within our office. My branch includes seven inspectors,
6 several of whom are qualified decommissioning inspectors, and have been
7 involved in the inspection of the Rancho Seco facility.

8 The Regional Office only has two major responsibilities. The
9 first is the implementation of the NRC's inspection program. That's our major
10 reason for existence.

11 Our second responsibility is that of emergency response. We
12 would be the first agency responders to any event or emergency at NRC
13 licensed facilities. While this response mode has seldom been used for actual
14 events, we train and drill hard in the event that one were to occur.

15 Both the region's major areas of responsibilities, the
16 inspection and emergency response are better performed by the Regional
17 Office, because we're isolated from the headquarters office, which deals more
18 with policy and program management, and a lot of the other activities that are
19 not associated directly with direct oversight of the licensees.

20 This is just another map showing the decommissioning sites
21 in Region 4, of which Rancho Seco is one of four power reactors. Actually, I
22 guess you could throw the Pathfinder side in South Dakota in that group also.
23 That license is also going through final decommissioning but, that was a much
24 smaller reactor facility.

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1 I also have the responsibility for some major fuel cycle
2 facilities located, one is General Atomics in Southern California, and several in
3 Oklahoma.

4 I want to talk, spend just a minute talking about how NRC
5 ensures the safety. One of the fundamental features of the safety of nuclear
6 areas is what we call the Defense In Depth, and that means essentially that the
7 processes and equipment that are important to ensuring safety, that at least
8 two independent controls be in place to prevent unsafe conditionings from
9 occurring. So, I like to thin of the NRC's regulatory programs also in terms of
10 the Defense in Depth.

11 The first layer being the safety oversight that stems from the
12 regulations codes and standards that have been established and must be met
13 by the licensees.

14 The second layer is the site specific safety reviews and
15 licensing safety analysis performed by the program office in Washington D.C.
16 And the license places specific safety requirements on the licensee, which are
17 not codified in the regulations, and are specific to each licensee's activities.

18 The third layer of the NRC regulatory oversight involves the
19 area of inspection and enforcement, and that's the area that my office is
20 involved in.

21 In any case, the inspection and enforcement is what the
22 Region IV office is primarily responsible for and it's like the old saying that
23 Ronald Reagan used to use, "Trust but verify". We trust our licensees to
24 perform in accordance with all of their safety requirements but, on occasion we

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1 find that there is some problem with that process, and we like to catch it early
2 before something can become more problematic.

3 The objectives of the NRC inspection program are fairly
4 straightforward, it's to verify the safe conduct of the licensee's activities and to
5 verify the adequacy of the licensee's controls, and to examine trends in licensee
6 safety performance.

7 The NRC inspection program for the Rancho Seco facility has
8 been implemented in some areas by inspectors out of our headquarters office
9 but, primarily, for the most part, the inspection programs have been
10 implemented by region based inspectors and those inspectors in my group.

11 In general, the inspection program for decommissioning
12 reactors consists of two categories of inspection. We have what we call the
13 core program, that's a group of safety areas that we inspect as part of the
14 routine scheduled inspections. And for reactor sites like Rancho Seco, that are
15 in a state of high decommissioning activity, we inspect the core inspection
16 areas at least semiannually.

17 We also have a set of inspection procedures that we call on
18 called discretionary inspection procedures, which are detailed reviews of
19 particular functional areas. These inspection procedures are conducted based
20 on the licensee's activities at the time of the inspection, or may be based upon
21 licensee performance in areas found to be weak or declining.

22 This slide shows some of the core decommissioning
23 inspection procedures, which are routinely implemented at the Rancho Seco
24 site. Since this is a meeting about decommissioning activities, I have not
25 shown another area that my organization is responsible for, and that's the

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1 spent fuel storage, the dry storage of the spent fuel at the site. I also have
2 responsibility for that area, so I put this in here as safety of spent fuel. That's
3 not strictly a decommissioning inspection area but, it's an important area that
4 we also devote resources to.

5 One of the things I'd like to just mention briefly is the quality
6 of the inspection staff that we bring to bear on the inspection program. These
7 are highly qualified, dedicated and hard working inspection staff. Most of our
8 inspection staff have advanced degrees in physical sciences, and most also
9 have many years of experience in the field of health physics and nuclear safety.
10 In addition to their academic training and experience prior to joining the NRC,
11 we also have a rigorous internal training and qualification process that they
12 must complete before they're allowed to conduct inspections in any given area.
13 The NRC inspection staff is very dedicated to safety at the facilities they inspect
14 and are driven to find problems which could affect safety.

15 Now, I'd like to also take this opportunity to introduce Mr.
16 Emilio Garcia, who is one of our senior inspectors from the Regional Office,
17 and he's one of the principal inspectors at the Rancho Seco site. And I'd like
18 to offer you all the opportunity to introduce yourself to Mr. Garcia during the
19 meeting and ask him any questions you might have.

20 The findings of the inspection are typically debriefed to
21 management. Actually, before the management debrief, quite often I get calls
22 from the inspectors from the field, prior to their exit meeting at the end of the
23 week, to let me know what their preliminary findings are. Once they get back
24 to the office, we setup a management debrief, usually the week following the
25 inspection, and that's where they debrief their findings to not just me but the

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1 other regional managers. And we make a determination of the significance of
2 the findings of the inspections.

3 If there are significant findings from the inspection, violations
4 rising that have certain safety significance associated with them, it may be
5 important for us to take enforcement action with the licensee.

6 In other cases, where there's no significant inspection
7 findings, we still issue an inspection report detailing what we looked at and
8 what state of safety and compliance the plant was in.

9 Our inspection reports are available to the public for the most
10 part, there are some exceptions to that, and these are the ones that I think you
11 would probably take some comfort in, that we don't issue inspection reports
12 dealing with -- that have a lot of information on physical security or safeguards
13 information, or information that could place the plant in jeopardy if it fell into the
14 wrong hands but, for the most part the decommissioning inspections are
15 publicly available on our website at NRC.gov. And here you just go to the
16 reference library and click on the ADAMS and then NRC Public Electronic
17 Reading Room.

18 One of the other things we do, as part of our inspection
19 program, is we track and followup on safety issues. So, if we have a problem
20 that's identified during one inspection, we assign a tracking number to it and we
21 keep tracking that item until the licensee has taken effective corrective action.

22 I'd like to just close with just summarizing what our
23 inspections have revealed during the decommissioning process at Rancho
24 Seco. Rancho Seco has a good inspection history with the NRC during the
25 decommissioning phase. The inspection findings and violations have been of

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1 low safety significance and they've been rare, and overall we would say that
2 Rancho Seco has an excellent safety record.

3 So, with that, I'd like to close and I think we're going to open
4 it to questions.

5 MR. HICKMAN: Does anybody have any questions on
6 anything they've heard this evening?

7 (No response.)

8 MR. HICKMAN: And I don't believe we had anybody sign up
9 for any public statements, so that will conclude this evening's meeting. Thank
10 you for coming.

11 (Thereupon, at 7:45 p.m. the meeting was concluded.)

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