

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: BRIEFING BY DOE ON HLW LICENSING
SUPPORT SYSTEM - PUBLIC MEETING

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7 LICENSING SUPPORT SYSTEM - PUBLIC MEETING
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10 Nuclear Regulatory Commission
11 One White Flint North
12 Rockville, Maryland
13

14 Friday, May 12, 1995
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16 The Commission met in open session, pursuant to
17 notice, at 10:00 a.m., Ivan Selin, Chairman, presiding.

18 COMMISSIONERS PRESENT:

19 IVAN SELIN, Chairman of the Commission
20 KENNETH C. ROGERS, Commissioner
21 E. GAIL de PLANQUE, Commissioner
22 SHIRLEY A. JACKSON, Commissioner
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1 STAFF SEATED AT THE COMMISSION TABLE:

2 JOHN C. HOYLE, Secretary of the Commission

3 KAREN D. CYR, General Counsel

4 PRESENTERS:

5 DANIEL A. DREYFUS, Director, Office of Civilian
6 Radioactive Waste Management, DOE

7 STEPHAN J. BROCOUM, Assistant Manager, Yucca
8 Mountain Site Characterization Office, OCRWM

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P R O C E E D I N G S

[10:00 a.m.]

CHAIRMAN SELIN: Good morning, ladies and gentlemen. We are meeting this morning to be brought up to date on the Department of Energy's view about the status of the Licensing Support System. This is the second Commission briefing on this topic. Last month the staff and the inspector general briefed us on the results of the recent audit of our own system.

I would like to point out that this is a terribly important system and admit that I personally didn't realize the full range of functions that were supposed to be encompassed in this system. It's not just a storage and retrieval system, but a system which requires that we, primarily the NRC, try to identify in advance what the topics are and come up with a set of algorithms for associating documents with these topics so that DOE as it goes in its internal considerations is able to identify these topics now and eventually to start entering them into the system well before the license application comes in so that an index file would be available to support the considerable amount of discovery that would have to be done to support systems.

It is truly a cooperative system, and as we said in our own presentation last time, we are not at all

1 satisfied with the results, either our own work or DOE's
2 work. So it's very important we get the system back on
3 track. It would be very difficult if not impossible to
4 process a license application in a reasonable amount of time
5 unless both the system and the documents are available for
6 use. I just want to point out the criticality of the system
7 for this project.

8 We are uncertain whether the licensing support
9 system as presently envisioned will be structured such that
10 in fact it will be possible to capture these documents, and
11 we are also very concerned with the cost to the ratepayers
12 and eventually to the taxpayers that we not duplicate the
13 work of the Department and that the development and
14 especially the data entry efforts be efficient.

15 So we are very pleased to welcome Dr. Dreyfus and
16 Dr. Brocoum today to discuss the Department's views on the
17 status of the licensing support system.

18 Commissioners?

19 Dr. Dreyfus, thank you for coming.

20 MR. DREYFUS: Thank you, Mr. Chairman, members of
21 the Commission. I am pleased to be here to brief you on the
22 status of the Licensing Support System, or LSS. The last
23 time I appeared before you in December I discussed the LSS
24 briefly as part of an overall update of the program. I
25 reported on the working group that had been established to

1 examine the strategy and I told you that we were keeping the
2 LSS administrator and the LSS Advisory Review Panel
3 currently informed.

4 I'm aware of your inspector general's report on
5 the LSS, and although that report has been published since
6 my previous briefing, I believe that many of the concerns
7 that were expressed in the report have been addressed within
8 the past year. The Department is currently working, for
9 example, with the LSS administrator in implementing the
10 first recommendation of the report, that of developing a
11 memorandum of understanding on key aspects of the system.
12 Dr. Brocoum will be more specific about the report in his
13 presentation.

14 As a potential applicant, we recognize that in
15 accordance with the Commission's regulations the LSS must be
16 in place and certified by the LSS administrator at least six
17 months in advance of filing. We recognize that the
18 Commission views the LSS as a necessary tool to meet the
19 mandated time frame for acting on the license application,
20 which of course we both have a serious interest in. And we
21 remain committed to developing the system in a timely and
22 cost-effective manner.

23 I think the history is instructive. The DOE did
24 participate with NRC and the interested parties in the
25 negotiated rulemaking that resulted in the LSS concept. In

1 the 1987 and 1988 time frame the Department was supporting
2 contractor activity to identify a prototype for the LSS, and
3 for two years considerable activity was under way.

4 At about the same time, however, the Waste
5 Management program went into a major reassessment. The
6 result of that was a target date slippage for the license
7 application from 1995 to 2001. That was also followed by a
8 period of very constrained budgets that were not remotely
9 adequate to do the work that we were trying to do and which
10 was the principal issue that I confronted when I came here a
11 year and a half ago. So the combination of the delayed
12 target for the application and the severe limitations on
13 funding postponed further work on the LSS and created the
14 situation, I think, as revealed in the inspector general's
15 report.

16 We are now aggressively pursuing the LSS in
17 accordance with the milestones in our new program approach.
18 The working group that I described to you in December
19 completed its report in January. Copies were passed to the
20 administrator and to the review panel chairman. Based on
21 the cost profiles developed by the working group, we have
22 included multi-year budgets in our program plan and in the
23 1995 budget rebaselining. The schedule linkage of the LSS
24 to the license application is being maintained. At this
25 point, we expect potential parties to the licensing process

1 to have early access to the LSS when it is partially loaded
2 in the 1998 time frame.

3 The capability and the role of the LSS remains, in
4 my view, what it was visualized at the time of the
5 promulgation of the rule. The change in date of the license
6 application from 1995 to 2001 I do not think places
7 additional burdens on the LSS design and development.
8 Obviously all of the changes in the program plan produce
9 additional volumes of material that have to be tracked, but
10 the fundamentals of the design development, I think, are not
11 changed.

12 Near term, the Department and the review panel has
13 reviewed requirements statements for the system at a level
14 that is now sufficient to evaluate the options for
15 acquisition of the system. Completion of the requirements
16 analysis will be done in June.

17 As a separate initiative, the Department is in the
18 process of modernizing its own records management systems.
19 However, we believe that that system will be different from
20 the LSS in that it will not require the full search text
21 capability specified for the LSS and it will include
22 materials that are not involved in the LSS, materials that
23 are non-program in nature.

24 At the present time we are investigating the
25 possibility of making parts of our records management system

1 available for review by members of the LSS Advisory Review
2 Panel.

3 Our current estimate for the ten-year life cycle
4 cost for the LSS is \$70 million. That is about one-third
5 less than was estimated in 1990, and that results primarily
6 from improvements in technology which will result in less
7 hands-on labor in loading the system.

8 The LSS review panel brings together all the
9 interested parties and it provides a forum for raising and
10 resolving issues.

11 The panel has established in turn a technical
12 working group that will be reporting this afternoon, as a
13 matter of fact, in a panel meeting. That working group will
14 report on a proposed set of high level requirements today.

15 We have collaborated with the Commission staff on
16 a proposal for DOE to request the appropriations from the
17 Nuclear Waste Fund for direct payment to NRC for the
18 management and the operation of the LSS. This is an issue
19 that remained open until recently, but we think that the
20 proposal is acceptable to all members of the advisory panel.

21 We are working with the LSS administrator to
22 prepare a memorandum of understanding to identify more
23 precisely the specific organizational responsibilities
24 during each of the phases of the LSS. Draft MOU for the
25 design and development phase is under consideration at the

1 staff level now. This, of course, addresses some of the
2 concerns expressed in the IG report.

3 I am pleased with the working relationships
4 between our staff and our contractors and the NRC staff and
5 the Advisory Review Panel. We have made good progress over
6 the last nine months and we look forward to continued good
7 progress in the future.

8 Dr. Brocoum is our assistant manger for
9 suitability and licensing at the Yucca Mountain office and
10 he has the line management responsibility for the LSS.
11 There again, the clear lines of responsibility were an issue
12 a year ago that I believe we have resolved. He'll discuss
13 some of the more specific facets of the LSS undertaking, and
14 we are prepared to respond to specific questions as you
15 wish.

16 Thank you. That summarizes my statement, which
17 you have.

18 CHAIRMAN SELIN: Trying to leave this job with a
19 good impression, I will withhold my questions on your
20 statement until we hear Dr. Brocoum's. But don't believe I
21 don't have any.

22 MR. DREYFUS: Yes, sir.

23 MR. BROCOUM: Good morning, Mr. Chairman and
24 fellow Commissioners. We are glad to be here to make the
25 presentation. You have my statement for the record. You

1 also have answers to the 13 questions that were submitted to
2 the DOE over Commissioner Rogers' signature on April 18th.
3 What I thought I would do is make a presentation today on
4 some key areas that may underlie some of these questions
5 that came to us. So I have a viewgraph presentation.

6 What I would like to do before I start is
7 introduce three people who might help us answer questions
8 later, who are real technical experts. The first, behind
9 me, is Claudia Newbury, who works for me and is directly
10 responsible for making sure that the LSS meets the
11 requirements for licensing.

12 Claudia.

13 The second person I would like to introduce is
14 John Gandi. He's in charge of IRM at Yucca Mountain, and he
15 will be responsible for actually procuring the system.

16 A third person who will be sitting here in a few
17 minutes but right now is in the projection booth to make
18 sure the right viewgraphs are projected is Fielden
19 Dickerson. He works for the management operating
20 contractor. He's located here in the East, but he's one of
21 our key people helping us to define the LSS, and he'll be
22 out here in a few minutes.

23 So my presentation is the status of the Licensing
24 Support System. The first viewgraph.

25 [Slide.]

1 MR. BROCOUM: The DOE has made development of the
2 LSS a very high priority, and it's a clear-cut component of
3 the overall licensing strategy.

4 As the Commission knows, we have our new program
5 plan. The LSS is defined in the program plan. It is
6 budgeted for. To give you an example how important it is,
7 in our large conference room at Yucca Mountain we have
8 schedules of 17 high priority items. The LSS is one of
9 them. We call those superstones. Every two months we have
10 a directors program review where we report to Dr. Dreyfus
11 the status of each of those schedules, and one of these is
12 the LSS.

13 We feel that we have made significant progress in
14 the last year -- it says "recent months" here, but I would
15 expand that to the last year -- with the following areas:

16 We have identified our preferred LSS configuration
17 based on input from a report that the M&O completed for us
18 last January.

19 We have completed our level 1, the higher level
20 systems requirements documents. We focused on functional
21 requirements rather than on technology. Some of the earlier
22 documents that we had, for example, the SAIC document from
23 '89 time frame, functioned a little bit on the technology
24 and technology changes through time. So we try to separate
25 the technology from the actual requirements of the system,

1 and it focuses on functional requirements.

2 And we are initiating our analysis of benefits and
3 cost activity. The acronym for that is the ABC activity,
4 which will help us decide whether to make the system or buy
5 the system. It's a requirement of procurement to do that
6 before we move forward.

7 The next viewgraph.

8 [Slide.]

9 MR. BROCOUM: In my statement for the record we
10 addressed a number of topics that focus on the progress that
11 we are making on the development and functionality of a
12 system. In this briefing I will address the following
13 topics:

14 The option that we have selected for development,
15 our overall schedule, and particularly focus on our near-
16 term activities to indicate to the Commission the activities
17 that are going on today.

18 What the funding profile looks like through 2004.
19 When one looks at funding, one has to look at not only LSS,
20 but the records and management system and bringing into our
21 current records and management system the backlog that we
22 have.

23 There has been some concern expressed at the
24 meeting that you had with the staff, which I think was April
25 27 when the staff discussed with you using the LSS to

1 memorialize how we made decisions in our program, and I will
2 discuss some of that.

3 Finally, the use of the LSS as a dual system, i.e.
4 can you have one system that functions both as a records
5 management and LSS system, whether it's located or it's
6 under the control of the NRC or the DOE or some other party.

7 So those are the issues I will be discussing in a
8 little more detail.

9 [Slide.]

10 MR. BROCOUM: The LSS option selected for
11 development. The working group. We tasked the M&O to do a
12 study, and it resulted in a study, which I believe the
13 Commission and the staff has, that was issued on January 16
14 of this year that looked at eight different options for LSS.
15 All those options met the requirements of Subpart J.

16 The option that the working group recommended and
17 DOE selected has the following characteristics:

18 It has the ability to capture images
19 electronically. Our system in the past, of course, captured
20 images on microfilm.

21 It has full text capture and retrievability using
22 optical character recognition technologies from the images.

23 It focuses on text that is electronically
24 corrected without significant human intervention, because in
25 this evaluation the cost of human review and correction and

1 proofing was an important cost driver.

2 Finally, the ability to disseminate both images
3 and text to the interested parties by electronic
4 transmission.

5 That option does meet the intent of 10CFR Subpart
6 J, in our opinion.

7 The next thing I want to discuss is our
8 development schedule.

9 [Slide.]

10 MR. BROCOUM: The next viewgraph shows in kind of
11 a gross form our schedule. The working group again. This
12 report here was completed in January 1995.

13 The requirements document is essentially complete.
14 It was given to the LSS ARP, I believe, in the March time
15 frame. They will be discussing it this afternoon. Again,
16 we are trying to focus on the requirements and then the more
17 detailed requirements so once we agree on what they are we
18 can then design the system that meets those requirements.

19 We will then use the level 1 and the more detailed
20 requirements to conduct analysis of the benefits and cost.
21 That will be completed by March of 1996.

22 We will from that time on through 1999 be
23 developing and loading the LSS. We expect to have
24 prototypes available before that. We expect to have it
25 basically operational in the '98 time frame.

1 And we expect the NRC to be able to certify the
2 LSS in the 2000 time frame.

3 One of the key issues in front of us and will be
4 discussed at the LSS ARP today, this afternoon, is
5 inclusion/exclusion criteria. Subpart J gives very broad
6 criteria. If we can better define those criteria in a way
7 that judgments don't have to be made on each individual
8 document, it would be a big help as to whether to include.

9 CHAIRMAN SELIN: Say that again.

10 MR. BROCOUM: The exclusion or exclusion criteria
11 in Subpart J tend to be very broad. I think in terms of
12 controlling the volume of the documents that one would put
13 in the LSS, having clearer defined inclusion/exclusion
14 criteria that allow relatively easy judgment that would not
15 lead to a lot of controversy or challenges as to whether it
16 should be included would be helpful.

17 CHAIRMAN SELIN: You've talked about being able to
18 reduce the size of the database maybe by a third or so. Is
19 there a plan to do that, or is that based on the assumption
20 that if we work together, given that it's so big, we might
21 to be able to squeeze it?

22 MR. BROCOUM: There isn't a clear-cut plan, but
23 the study group that evaluated this thought that the amount
24 of pages in the LSS would vary from about 20 million to 32
25 million, those numbers. In the '89 study, I think the

1 estimate was between 30 and 41. My numbers may not be
2 exact, but that order of magnitude. Of course the cost of
3 storage keeps going down. So whether you have a real cost
4 savings or not to me is not absolutely clear.

5 We have agreed on the format of the header fields.
6 I think the final agreement will be reached today at the LSS
7 ARP.

8 We are modifying our records data management
9 system, which is essentially moving from a microfilm system
10 to an electronic imaging system this fiscal year. We will
11 begin reprocessing our backlog of data for fiscal year 1996.
12 That will occur every year through 1999. That's our plan.

13 COMMISSIONER ROGERS: Excuse me. Before you leave
14 that, Dr. Brocoun, I think you used the word "prototype."
15 Maybe I heard something I wanted to hear. Did you say
16 development of a prototype early in here? I don't see it
17 explicitly on the schedule.

18 MR. BROCOUM: We are going to make available to
19 the LSS parties access to our database, our headers that
20 have already been put into the system as the beginning of,
21 if you like, prototyping how the system might work, along
22 with the abstracts that go with those headers. I think that
23 will be operational by the end of this fiscal year. I think
24 it says July in my presentation. If you want to consider
25 that a type of prototyping, that would be correct.

1 COMMISSIONER ROGERS: I wouldn't.

2 MR. BROCOUM: You wouldn't. Okay.

3 COMMISSIONER ROGERS: I wouldn't consider it a
4 prototype. It seems to me that that is not a prototype. A
5 prototype is, in my view, in this case something that is
6 really pretty complete although it is not the whole system,
7 not all kinds of documents, but that it fully displays how
8 the system would work and how the decisions would be made
9 about what documents are actually going to be put in there.
10 That's the point that has been raised by our staff
11 several times over the last six months or so. I don't
12 really see that coming through here in any way, and it
13 really concerns me rather deeply, because it does sound to
14 me like the system will be totally designed.

15 I'm not talking about the hardware aspects. I
16 don't think that's the big issue. The big issue is how some
17 of these decisions are going to be made as to exactly what
18 will go in there. I'm concerned that that kind of decision
19 is being made in the absence of a real exercise, really
20 working a model of the entire system, how it would work.
21 That's what I would call a prototype, and it doesn't seem to
22 me there is any provision for that here. Just having
23 headers will not do that, in my view.

24 MR. BROCOUM: First of all, I think we will have a
25 functioning -- it won't be certified, but it will certainly

1 be functioning by 1998, if that might be considered a
2 prototype. You'll have a very limited capability at the end
3 of this year, Claudia just whispered in my ear. We don't
4 have a milestone called, to my knowledge, prototype.

5 As to what is included, at the current moment
6 we're planning to include everything but what is excluded by
7 Subpart J. It's easier to do that than to sit down and make
8 decisions, have a human being sit down and make decisions,
9 especially with the cost of storage dropping year by year.
10 So we're planning to load everything into our records
11 management which will be transferred over to the LSS.
12 That's the first point.

13 The second point. We are trying to avoid getting
14 the LSS administrator being challenged all the time that DOE
15 didn't put the right records in and having that big debate.
16 So for us it's easier to just plan to put everything in.
17 However, it would make life simpler if we had better
18 inclusion or exclusion criteria or clear ones. That might
19 help also. But in the absence of that, we're going to plan
20 to load everything in.

21 COMMISSIONER ROGERS: Okay. I'm not sure I'm
22 entirely comfortable that just loading everything in
23 addresses the question of exactly how one will get out
24 information in support of decisions.

25 MR. DREYFUS: What you are looking for is a module

1 in depth --

2 COMMISSIONER ROGERS: Absolutely.

3 MR. DREYFUS: -- and detail to demonstrate --

4 COMMISSIONER ROGERS: Exactly. Total vertical
5 slice through the system and see how it works. That's
6 really what it seems to me we've been looking for and
7 anticipating in some sense before the whole system is
8 totally designed in all of its glory. That's what seems to
9 be missing here.

10 MR. BROCOUM: We're working on a more detailed
11 requirements documents, which at least conceptually once
12 those are completed would be the kind of thing you can use
13 to go bid or procure a system. And then, of course,
14 wherever that is going to come from would -- say it's a
15 contractor -- make a presentation. So at that point you'd
16 see what the system might actually look like in the kind of
17 detail you're asking for. The steps we are going through is
18 trying to meet the requirements, and so we have the high
19 level requirements. We're working on the more detailed ones
20 which we figure we need to do this cost and benefit
21 analysis. So that's kind of where we are right now, working
22 on those. And those are basically the IRM people taking our
23 higher level requirements and turning them into something
24 that a computer type person can understand in terms of
25 designing a system.

1 CHAIRMAN SELIN: Dr. Brocoun, the documents as
2 they exist or will exist in DOE's own document handling
3 system, will they have the headers and the abstracts, or
4 will somebody have to go through and do a header and an
5 abstract for each document which is to be transferred to the
6 LSS?

7 MR. BROCOUM: I believe that all future documents
8 will have headers for DOE's own use and the LSS.

9 CHAIRMAN SELIN: The headers and abstracts will be
10 written before they are entered into the DOE system. Are
11 you charging to the LSS the cost of preparing headers and
12 abstracts for these 32 million documents?

13 MR. BROCOUM: No.

14 CHAIRMAN SELIN: Thank you.

15 MR. BROCOUM: That's part of our records data
16 management system.

17 COMMISSIONER JACKSON: Dr. Brocoun, do these
18 better inclusion/exclusion criteria need to be memorialized
19 in any memorandum of understanding? You've referred to the
20 need for this a number of times.

21 MR. BROCOUM: They probably should be memorialized
22 in such a way that all the members of the Licensing Support
23 System Advisory Review Panel, which includes most of the
24 interested parties, would agree to. Other parties will also
25 be submitting material to the LSS.

1 I was going to move on to the next viewgraph.

2 [Slide.]

3 MR. BROCOUM: Our near-term activities. This is
4 kind of what's going on today. We are in the process of
5 negotiating at the staff level a memorandum of understanding
6 with the NRC staff for the LSS, and we have kind of broken
7 down the MOU to four phases to make it into smaller steps so
8 that we can work on the first phase, the design development
9 phase of the LSS. We're hoping to have the staff work for
10 that completed by June 1995. As in any negotiation, both
11 parties need to agree.

12 CHAIRMAN SELIN: It's the work for all three?
13 There are three MOUs there.

14 MR. BROCOUM: Yes. I'm talking about the first
15 one under the design and development. That's the first MOU,
16 design and development phase.

17 CHAIRMAN SELIN: That would be done within six
18 weeks?

19 MR. BROCOUM: June 1995. Drafts have gone back
20 and forth among the staffs. What I was trying to say is
21 both parties need to agree. We need to, of course, on our
22 side get it through our management, and so on. I'm sure the
23 NRC needs to do that.

24 Then we are thinking of a second MOU for the
25 transition phase, the transition from turning over the LSS

1 from the DOE, which will design and develop it, to the NRC,
2 which would operate it, in November of 1995.

3 The operating phase, which is the operational
4 period from the time the NRC accepts it, say '99 time frame
5 through construction authorization, that will be negotiated
6 by May of '96.

7 Finally, there is a long period of time that the
8 LSS will probably operate, up to 100 years, as we go through
9 performance confirmation, and that MOU by October of '96.

10 These are goals for staff agreement.

11 CHAIRMAN SELIN: I'd like to comment. First of
12 all, this is terrific. We need these documents done, and
13 those probably are reasonable schedules, although you and
14 the staff will discuss that in some more detail. I would
15 like to point out that these are the procedural level use,
16 who is responsible for what, how will we contract. The MOUs
17 to which Commissioner Jackson is referring, which is the
18 documentation of substantive decisions that are made, will
19 be an additional set of tasks, and as the work develops
20 those will also be obviously necessary.

21 MR. BROCOUM: Sure.

22 We have our level 1 requirements documents, which
23 really basically is taking the Subpart J requirements and
24 putting them in terms that engineers can work with. We are
25 working on the more detailed ones. Those are being done by

1 the IRM people based on our level 1 documents. Those are
2 under work today and it will be completed in June of this
3 year.

4 [Slide.]

5 MR. BROCOUM: The analysis of the make/buy
6 decision, as we call it. The analysis of benefits and
7 costs, as I mentioned earlier, will be completed by March of
8 1996.

9 We are working, as I said earlier, to develop a
10 means by which the LSS ARP participants can access our DOE
11 computers for header information and the associated
12 abstracts on the stuff that has already been imaged and
13 entered into the system.

14 And other issues that we need to talk to and
15 consult with the LSS ARP in our decision making process for
16 developing the LSS includes such things as administrative
17 records, which is DOE's method for documenting our
18 decisions, key decisions, what order we ought to load
19 documents in, what's the priority, and of course it's not
20 listed here, but again the inclusion/exclusion criteria.

21 CHAIRMAN SELIN: Can I just stop you for a second?

22 MR. BROCOUM: Sure.

23 CHAIRMAN SELIN: You've already said that the
24 documents within DOE's recordkeeping will have headers and
25 abstracts. It really is only our business to know that we

1 can get the information we need for the LSS system, but it
2 will have to be as efficient as possible for the people who
3 are footing the bill. It's useful for us to know a little
4 more about your own DOE system and how much one can avoid
5 duplicating tasks. Do you have a DOE system fixed and
6 designed?

7 MR. BROCOUM: Yes. We are implementing it this
8 year and it will be operational by the end of this fiscal
9 year. It's called the records data management system.

10 CHAIRMAN SELIN: Now the question I don't know the
11 answer to is, to what degree will the design of the LSS be
12 affected or determined by an attempt to be consistent with
13 and maybe even synchronous with the DOE system?

14 MR. BROCOUM: I think we have to be intelligent
15 about this and design it so we don't have to rescan the
16 documents and create new headers for the LSS system.

17 MR. GANDI: It will be compatible.

18 CHAIRMAN SELIN: Go up to the lectern and
19 introduce yourself.

20 MR. GANDI: John Gandi, DOE. They will be
21 compatible in formats. In other words, our records
22 management system will supply data in a certain format that
23 we'll require the LSS to accept, such as a TIFF-4 format for
24 the images, ASCII format for the text, and that's the link.

25 CHAIRMAN SELIN: Does it make sense to try to

1 constrain the LSS to use any of the software or any of the
2 pieces of the DOE system?

3 MR. GANDI: That will have to be part of our
4 procurement strategy at that time.

5 CHAIRMAN SELIN: Do you intend to take into
6 account the total cost to the taxpayers, ratepayers, instead
7 of just looking at the LSS by itself?

8 MR. GANDI: Correct.

9 CHAIRMAN SELIN: I'm not surprised to hear the
10 answer, but I still wanted that on the record, Dr. Brocoum.
11 Thank you very much.

12 MR. BROCOUM: Thank you, John.

13 Next viewgraph.

14 [Slide.]

15 MR. BROCOUM: This is just trying to show you kind
16 of our near-term schedule, just summarizing what we have
17 done.

18 In terms of requirements development, we started
19 at the level 1 requirements on the 14th of November. We are
20 expecting to be completed -- there is an LSS ARP meeting
21 expected to be completed by the end of this month.

22 Phase II requirements started this April, expected
23 to be completed by June. My understanding is the technical
24 working group, a working group within the LSS ARP, has been
25 providing input into these phase II level requirements.

1 Our analysis of benefits and cost will start on or
2 about the middle of June and go through next March.

3 We'll do the analysis itself in November, December
4 and January of this year and next year.

5 And then we of course have to go through the
6 review and concurrence process within DOE.

7 [Slide.]

8 MR. BROCOUM: The next viewgraph shows you some
9 other near-term activities and schedules.

10 We are working on the document inclusion/exclusion
11 criteria, and that started in January. There was a meeting
12 in March with the LSS ARP, and that continues at today's
13 meeting. I don't know if that will be closed. That's shown
14 as ending on May 22nd. Really we need to get concurrence,
15 if you like, or a consensus position from the LSS ARP.

16 The header fields I believe we are very close on,
17 and I understand that today at the meeting there will be a
18 consensus position on the header fields.

19 We began modifying our records data management
20 system in October of '94. That modification will be
21 completed by the end of this fiscal year.

22 And we will begin to reprocess our records in
23 fiscal year '96. These are the existing records that are on
24 microfilm that need to be reprocessed. We will talk a
25 little more about that in the next viewgraph.

1 [Slide.]

2 COMMISSIONER ROGERS: Excuse me. Roughly what
3 does it amount to in volume that is on microfilm now?

4 MR. BROCOUM: Roughly 12 million pages. I was
5 going to talk about that in the next viewgraph where we have
6 the budget numbers.

7 The analysis done by the LSS working group in this
8 report here was the basis for the estimates both in the
9 records management and LSS budgets in the program plan. The
10 current planning includes -- I show two sets of numbers.
11 The first is for the LSS itself, which is the procurement,
12 the design, the construction, and the operation of the LSS
13 system which would be turned over to the NRC in the 98-99
14 time frame.

15 Those two lines, those numbers add up to \$70
16 million. I hope. They're supposed to. We show \$20 million
17 for the years 02-04. We didn't break out those years.

18 The second line is the cost of our records data
19 management system. The large number in '96 is because we're
20 putting in place this electronic imaging system. But I need
21 to say that this does not include the backlog. To fully
22 process the backlog, the 12 million pages at about \$3 a
23 page, the estimate would be another \$35 million.

24 So the total cost of LSS, records management and
25 backlog would approach \$200 million. LSS is \$70 million.

1 Records management is about \$80 million; all total through
2 2004, not shown here, it's about \$80 million. So we are
3 approaching over \$150 million and maybe close to \$200
4 million. LSS is just a subset, if you like, of that total
5 number.

6 CHAIRMAN SELIN: Would you go through what the
7 records management line is? I missed that. I'm sorry.

8 MR. BROCOUM: That is our system of capturing
9 documents, creating headers, scanning them, and putting them
10 in electronic form.

11 CHAIRMAN SELIN: This is things that DOE needs for
12 its own work?

13 MR. BROCOUM: Yes.

14 CHAIRMAN SELIN: It's not just a preliminary stage
15 to getting data?

16 MR. BROCOUM: We are transitioning from a
17 microfilm based system to an electronic imaging system. So
18 all these past years we've used a microfilm based system.
19 Now we are transitioning in 1996 to an electronics system.

20 MR. DREYFUS: The document handling costs will
21 serve both purposes to a very large extent. The backlog
22 costs will serve both purposes to a very large extent. They
23 have to be done either way, and some of them have to be done
24 because of simple preservation of records. So it's just a
25 necessary cost.

1 COMMISSIONER JACKSON: I have a question. Do
2 these numbers presuppose what you said, namely that
3 everything will be included in the LSS except that which is
4 specifically prohibited by Subpart J?

5 MR. BROCOUM: That's correct.

6 COMMISSIONER JACKSON: Is that what formed the
7 basis of deriving these numbers?

8 MR. BROCOUM: That's correct. If we had some
9 exclusion criteria that were more specific and allowed
10 exclusion, that 12 million pages might be somewhat less.

11 COMMISSIONER JACKSON: I'm going to ask you some
12 questions later about your ADC process.

13 MR. BROCOUM: Okay.

14 COMMISSIONER de PLANQUE: But you need those
15 records for your own records management system anyway; is
16 that correct?

17 MR. BROCOUM: In all cases we need those for our
18 own records management system; that's correct.

19 CHAIRMAN SELIN: That seems to me inconsistent.
20 If we change Subpart J criteria, you wouldn't need it for
21 the LSS, and that implies you wouldn't need it for your own
22 records management system.

23 MR. DREYFUS: No. I think that our own records
24 management system marches to a different drummer and
25 includes some things that are not relevant to the LSS. What

1 we would avoid doing, of course, is creating documents that
2 are not compatible with the LSS unless it were absolutely
3 necessary. That would be ridiculous. So we have, I think,
4 three separate considerations here.

5 One is to have a records management system that
6 serves our office purposes. One is to deal with a backlog
7 of materials which is in an inappropriate format probably
8 for either of these systems from here on out. And then the
9 third one is to provide the service that the Commission
10 needs under the Commission's control.

11 I would not expect that future documentation would
12 be duplicated. Unless there were some very peculiar
13 requirement of our system, we would use the LSS approach.

14 So I think what we have here is a very expensive
15 records management problem partly due to this backlog which
16 unfortunately is this way, and from here on out we're not
17 going to do anything silly.

18 CHAIRMAN SELIN: I'm really not trying to catch
19 Dr. Brocoun, but I want to make sure I understand this. He
20 said that if we change the criteria for the eventual
21 inclusion within the LSS there would be need to change the
22 format from fewer microfilm pages.

23 MR. DREYFUS: I don't know about the microfilm
24 pages, because I don't really know what the body of
25 microfilm pages are and whether you could arbitrarily

1 exclude some of them from inclusion. The essential problem
2 here, the tradeoff here is that it's easier nowadays, and
3 cheaper, to duplicate something and electronically put it in
4 a system than it is to sit down and decide whether it ought
5 to be in there or not. So to the extent that you have
6 complex determinations about whether it ought to be in there
7 or not, you're better off to just throw it in there. To the
8 extent of a lot of pages, if we had a clear-cut
9 determination, then we would reduce the volume, but if we
10 have a difficult judgmental determination that's likely to
11 be challenged, then, of course, you are losing money to play
12 with it.

13 I had some numbers on that which I don't think I
14 have with me, and it's quite dramatic what it takes to make
15 a hands-on determination as compared to simply image
16 something. It's orders of magnitude difference per page.
17 That's the thing. If there are some clear pieces that could
18 be left out that would not require complex determination, we
19 ought to do it. Otherwise we put them in.

20 COMMISSIONER de PLANQUE: How will you decide when
21 you are at the break-even point in that regard?

22 MR. DREYFUS: It's a pretty easy break-even point.
23 If you've got to think about it, you ought to put it in.
24 Unless you have something that's just, say, this class of
25 thing, because the difference --

1 COMMISSIONER de PLANQUE: I mean at what point do
2 you stop deliberating as to what can be excluded because you
3 spent more time on that than, as you've just said, the cost
4 of putting everything in?

5 MR. DREYFUS: We have some numbers here for an
6 average page of review as compared to an average page of
7 simple imaging.

8 CHAIRMAN SELIN: What I hear you saying is a
9 little different. You're saying, if I understand correctly,
10 it's worth spending some time on the criteria but the
11 criteria would be mechanically implemented; you wouldn't
12 spend the time on individual documents.

13 MR. DREYFUS: If you develop criteria that result
14 in crisp and reasonably --

15 CHAIRMAN SELIN: Automated implementation.

16 MR. DREYFUS: Where there are no arguments type of
17 thing, then you could do it.

18 CHAIRMAN SELIN: But it's not document by
19 document. If there were a finding saying you don't need
20 documents before a certain year, that would be a criterion,
21 and then it would just be carried out mechanically.

22 MR. DREYFUS: That sort of thing would work.

23 MR. BROCOUM: In any case, all total we are
24 talking about -- I'm reading from table 33 in the LSS
25 working group's report. If we assume 90 percent of all the

1 stuff we produce is relevant, we're talking about 33-1/2
2 million pages through 2010 under the current program. So
3 there is another ten percent that we are not including. If
4 you want to include all that, you're talking about 36 or 37
5 million pages.

6 Again, though, the cost of storage technology is
7 dropping so dramatically that maybe it doesn't make a
8 difference in terms of cost, and to avoid debates and
9 litigation and decisions that take time it's just easier to
10 put everything in today. Just from my own personal
11 experience with computers, the cost per megabyte has halved
12 in the last two or three years. So who knows what will
13 happen by 2001 anyway.

14 I will move on here if I can. The next viewgraph.

15 [Slide.]

16 MR. BROCOUM: Bases for decisions. One of the
17 concerns for the licensing process is the ability to trace
18 and understand how DOE, I guess, and other parties have made
19 their decision.

20 In the DOE we have administrative records for the
21 key decisions, and they are part of our records system and
22 will be part of the LSS.

23 We see the LSS as a system that will store, search
24 and retrieve existing information. The traceability
25 linkages for the bases will be through references and

1 decision memoranda.

2 For example, when the DOE makes a key decision and
3 the director signs off and says, you know, if we decide to
4 do this, we'll say it's based on this, this and this. So
5 when a person in the future goes to the LSS to search and he
6 pulls up that memorandum, it will have other references, and
7 then that person can then get the other references.

8 We don't see that those linkages will be built
9 into the computer hardware or software but will be rather
10 --

11 CHAIRMAN SELIN: Through the key words.

12 MR. BROCOUM: It will be done by being referenced
13 in the decision memoranda.

14 CHAIRMAN SELIN: The key thing is to make sure
15 there is a decision memorandum, not that you can get the
16 documents. Today as you are making decisions, even without
17 the LSS you would be documenting the bases for the decision.

18 MR. BROCOUM: That's correct.

19 COMMISSIONER JACKSON: Dr. Brocoum, does that mean
20 that the technical data that formed the bases for the
21 decisions will also be accessible in LSS?

22 MR. BROCOUM: The key technical data will be
23 accessible, yes.

24 COMMISSIONER JACKSON: The key technical data. I
25 see.

1 MR. BROCOUM: Again, I'm being a little cautious
2 here because there will be a lot of information, but I think
3 all the references that aren't normally -- I think normally
4 available textbooks and references are excluded from the
5 LSS, but contractor-produced reports and all those kinds of
6 things will be included.

7 Let me turn to my people.

8 MS. NEWBURY: I'm Claudia Newbury, DOE. I am not
9 sure what you mean by technical data, but all the data that
10 is produced by this program will be in the LSS, and in fact
11 the NRC has access to it prior to an LSS. We have other
12 systems that provide them with the information. So they
13 have access now to most of our technical decisions.

14 COMMISSIONER ROGERS: The question that troubles
15 me is how you are going to deal with the data that are
16 contrary to a decision. In other words, you ultimately make
17 a decision and the decision is to do something, but there
18 are a lot of data that you accumulate in floundering around.
19 We all flounder around before making a decision. And some
20 of that stuff, after a while it just fades; it's of no
21 importance once you've begun to focus on what your decision
22 is probably going to be. Then you certainly accumulate all
23 the positive elements in the data that support the decision.
24 What about the negative elements?

25 I think that's an issue that we've raised before,

1 that we want to be sure that both the pluses and the minuses
2 contributing to a decision are memorialized. But beyond
3 that there is the casting about business that we all have to
4 go through in trying to ultimately come to some kind of a
5 decision. There are a lot of false starts; there are dead
6 alleys, and so on and so forth. Where are those things
7 going to be? Are they going to be just excluded?

8 Presumably so, but suppose somebody wants to go after them.

9 MS. CYR: I don't think they would be excluded.
10 The test for including data in the system is relevance,
11 which would encompass things one looked at.

12 COMMISSIONER ROGERS: I'd like the DOE people to
13 give me the answer.

14 MS. CYR: Okay.

15 COMMISSIONER de PLANQUE: And isn't your question
16 really linkage, how it would surface?

17 COMMISSIONER ROGERS: Some of things, after a
18 while really everybody agrees that was a dead alley, there
19 is no pursuing that particular thing, and yet later on that
20 may come up as a question by somebody and they'll say, well,
21 you don't look at such and such. But you did look at it and
22 you did a little study on it -- maybe a little one, not a
23 big one -- and came to a fairly quick decision that that was
24 just not a good way to go and then closed it out. Is that
25 kind of thing going to be available in the future? There

1 are decisions about this that have to be made, I take it.

2 MR. BROCOUM: Data that may have a negative
3 connotation on some aspect or another certainly produced by
4 the program will be in the system. You just heard Claudia
5 say that all technical information will be in the system.
6 So that data will be in the system. Data produced by other
7 parties presumably will also be in the system as they
8 introduce their information.

9 When the Department makes a decision they usually
10 review all the information. They usually have some kind of
11 a study that reviews all the information, and through that
12 study that information has been considered and referenced.
13 So I think in that sense that information will be available.
14 So that if you go back to the record of decision and all the
15 documents that support that, a properly done evaluation
16 would have considered all the information that applies.
17 Some of it's positive; some of it's negative relative to
18 that decision.

19 I don't know if there's really a better answer
20 than that.

21 MR. DREYFUS: I think there are classes and
22 classes of decisions. The more significant decisions, the
23 findings kinds of decision are, I think, relatively easily
24 traced because there will be contract reports that will have
25 either been accepted or rejected, and there will be records

1 of what went into those decisions and various kinds of
2 reviews that summarize the data that went into the
3 decisions. Other decisions are simply not documented in
4 that way. I think it will be incumbent upon he who
5 researches it to research things that are not directly
6 involved in the decisions.

7 It's somewhat difficult to deal with that except
8 in anecdotal ways. I know that the major decisions are
9 documented and I think most of them will have a summary
10 report that will aggregate the input. Others will be
11 evident but they may not be documented to the point where
12 you can find all of the ingredients. All of the ingredients
13 will be in the system somewhere. Whether they are keyed to
14 the decision or not is something else.

15 COMMISSIONER ROGERS: I don't want to prolong this
16 too much, but, for example, in the old days people might
17 walk down the hall and talk to each other and discuss an
18 idea, a concept, and decide that really wasn't a very good
19 idea. But now today they may get on their computer and
20 electronically communicate with each other using E-mail and
21 essentially do the same thing. Do those communications
22 become part of this or not? It's questions like that. I'm
23 not sure you can give a good answer to all that right now.

24 MR. DREYFUS: There is a fairly rigorous document
25 control system at work in our program. The question of E-

1 mail is a policy question government-wide that is unresolved
2 at this point in terms of document control. In fact, a
3 fairly live issue that will be resolved some day. But we do
4 have a rigorous document control program which captures
5 those things which under current and known policy need to be
6 captured. So, yes, things will get in there if they are
7 deemed in document control to be relevant.

8 COMMISSIONER ROGERS: I'm not arguing that they be
9 there or they not be there. I'm raising the issue that it
10 seems to me that this question of early explorations between
11 professionals relevant in some way to some decision about
12 the program that are carried out somewhat informally through
13 E-mail may be something that one has to worry about and how
14 to set a policy on or something.

15 MR. DREYFUS: I think everybody better be worrying
16 about E-mail wherever they live, because it is a very large
17 gray area in the whole business of records management. But
18 we will keep up with the latest ones that we know we've got
19 to worry about. We will do what needs to be done, yes. In
20 fact that is something we've talked about recently
21 internally for other reasons.

22 MR. BROCOUM: I think at least from my perspective
23 out at the Yucca Mountain any decision of any import is made
24 formally; it's not an E-mail decision. There is a lot of
25 discussion. E-mail is full of messages where people are

1 debating in an open and collegial forum, but to make a
2 decision, management usually formalizes it with a memorandum
3 or some kind of other decision process. I wouldn't imagine
4 too many decisions are being made on E-mail systems in our
5 program today.

6 MR. DREYFUS: I hope not.

7 MR. BROCOUM: The last bullet here on the
8 viewgraph is the proper set of key words for search of the
9 thesaurus which the LSS administrator, I think, is
10 responsible for keeping up. All that, I assume, will be
11 debated in the LSS Advisory Review Panel and presumably
12 consensus agreements reached on implementing those things.

13 [Slide.]

14 MR. BROCOUM: The next page is an example of a
15 search we did to see if the current records system that we
16 have can actually meet and pull out decision memoranda and
17 the bases.

18 Remember that we made a decision to modify the ESF
19 from two vertical shafts to ramps. The records management
20 system was queried for the administrative record on the
21 acceptance of the revised Title I design for the exploratory
22 facility which defined the new ramps approach. So they
23 queried for the letters and memoranda that the former
24 Director John Bartlett wrote between mid 1990 and mid 1992.

25 [Slide.]

1 MR. BROCOUM: They produced a memorandum on the
2 acceptance of the revised Title I design, the acceptance of
3 the new approach for using ramps, and that memorandum led to
4 a collection of other material, several decision documents
5 and approval documents and other related supporting
6 documents. We put that all in the package and we will be
7 presenting that and giving that to the LSS ARP for them to
8 evaluate to see if there is an adequate record produced by
9 that process.

10 [Slide.]

11 MR. BROCOUM: I will discuss for a minutes the LSS
12 as a dual system that can serve more than one function.
13 Basically, DOE doesn't think it's very practical. We don't
14 think there are appreciable cost savings. We feel that we
15 must retain responsibility for our own records and that our
16 records management system is not a dedicated records
17 management system. It's on the Vax computer and serves many
18 needs of our program.

19 [Slide.]

20 MR. BROCOUM: In fact, the next viewgraph shows
21 you how we view it as a dual system. This supports
22 everything from security badges to travel vouchers. So
23 there are lots of things in our Vax system.

24 CHAIRMAN SELIN: Your system is on a Vax?

25 MR. BROCOUM: I believe so.

1 Is that correct?

2 Yes.

3 CHAIRMAN SELIN: In that case, we're not
4 interested in it.

5 [Laughter.]

6 CHAIRMAN SELIN: You don't have to go any further.
7 Dr. Wang once came down to see me at State and he told me
8 that I was his biggest customer, and I asked him why is it
9 that that does not reassure me. You're in the same
10 situation with Digital. Okay. That answers that question.

11 MR. BROCOUM: So this viewgraph shows you having a
12 separate LSS on the right-hand side where records are
13 reviewed, indexed, imaged, inserted. If we are as
14 intelligent as John Gandi suggested, as we insert them in
15 our system they'll automatically be inserted in the LSS
16 system. You won't have to redo the work twice. So we have
17 to be careful as we work this in. If LSS requirements
18 change, I think what we would do is look at our system and
19 try to make our system compatible with the LSS system.

20 [Slide.]

21 MR. BROCOUM: The next viewgraph shows you if you
22 have a single system that served more than one need.

23 CHAIRMAN SELIN: You've killed it. You don't have
24 to bury it.

25 MR. BROCOUM: The only other point I would like to

1 make is that Subpart J says that none of the interested
2 parties other than NRC can run the LSS. We'd have to
3 probably change Subpart J.

4 [Slide.]

5 MR. BROCOUM: In conclusion, we addressed the LSS
6 option, schedule, funding, the bases of decision, and the
7 dual system.

8 We are working very hard with the NRC staff to
9 develop our MOUs. I think the LSS system is moving pretty
10 well at the current moment in time.

11 Thank you.

12 CHAIRMAN SELIN: I have a couple of comments and a
13 couple of questions.

14 Basically this was a satisfactory briefing. Quite
15 satisfactory. My uneasiness is that I'm a little unclear as
16 to what's the past, the future, what will be and what might
17 be. Commissioner Rogers, for instance, would ask you a
18 question: What do you plan to do? And you would say the
19 technology permits something to happen. So we need to tie
20 down what is actually part of the plan.

21 I wouldn't call it a quibble, but it's not a huge
22 dissatisfaction. A major part of where we are now is to
23 narrow down our options to things that are really committed
24 to be done rather than what could be done. I honestly don't
25 think you've taken his comment as seriously as it should be

1 taken that in going back to Bartlett's memo it didn't
2 include the things you looked at and decided not to do.
3 Those are very, very important, because exactly as he said,
4 they'll come up in the hearing: Did you look at such and
5 such? And you won't know whether you looked at such and
6 such.

7 It's not a minor qualification, but with that
8 aside, I'm personally very satisfied with the indications.

9 I would like to just stress a couple things. You
10 said these, but I want to make sure that you understand how
11 seriously we take them.

12 A few abstracts and a few memos for the record is
13 not what we are talking about in terms of trying to
14 reconstruct the course of action that led to things. Having
15 said that, it's really the NRC's job, not the DOE's job, to
16 identify what we mean by topical questions and what we mean
17 by what the key issues are.

18 As important as the things are that you discussed,
19 getting the technical side and the MOUs on how to work
20 together, how will we contract, and stuff, cooperation with
21 us as we try to identify what the key issues are and to have
22 some indication of not only what kind of documents to spot
23 but what kind of documents we think you should be preparing
24 for the record now as you make decisions is at least as
25 important.

1 You did say all the rights things, but you also
2 said some of the wrong things, which is we have plenty time
3 and therefore the fact that it's stretched out over 20 years
4 really isn't the problem. We really should have had the
5 system a long time ago so we weren't trying to guess as to
6 what the characteristics were. We would actually have not
7 only the physical system but especially the classification
8 system to start entering documents today, and although your
9 application may be six to eight years off, this is on the
10 critical path.

11 That brings me to my next point. I hear all these
12 wonderful things and I look around and you have one FTE
13 working on this, which I suspect is four people each doing
14 first, second, third, fourth week of the month. Where are
15 the resources to do these pieces? And in particular, do you
16 have a dedicated LSS system project manager?

17 MR. BROCOUM: I like to look at it broader.

18 CHAIRMAN SELIN: So you don't have an LSS system
19 project manager.

20 [Laughter.]

21 MR. BROCOUM: The way we are organized, I am
22 responsible for making sure that the LSS meets the
23 requirements. The office of administration, whatever it's
24 called, that John Gandi is a part of, the IRM people are
25 responsible for designing that system. I showed you the

1 budget numbers for the next several years. I think that
2 kind of defines what the resources will be. My point is the
3 records management is a large system in DOE that will be
4 feeding the LSS. So although we may not have had a large
5 LSS number of people previously, we do have a major effort
6 to aiding and modernizing our records management system
7 which is being designed to be compatible with the LSS.

8 CHAIRMAN SELIN: I am extraordinarily uneasy that
9 you can't put a person up and say this person is full time
10 the manager of this. You're running your own systems, but
11 you're really setting yourself up for serious grief.

12 MR. BROCOUM: It's in my area of responsibility
13 and my person sitting right behind me, Claudia Newbury --

14 CHAIRMAN SELIN: And she doesn't do anything else?

15 MR. BROCOUM: No. She does several things.

16 CHAIRMAN SELIN: That's my point.

17 MR. BROCOUM: Claudia and John Gandi are members
18 of the LSS ARP.

19 CHAIRMAN SELIN: Okay. We're only the clients.

20 MR. DREYFUS: I'm listening.

21 CHAIRMAN SELIN: If I understood as well three
22 years ago as I understand now what's going on in your
23 records system I would not have pushed as hard as I did to
24 try to find a joint use system. As far as I'm concerned
25 that's taken together.

1 The third point I would like to make, and I think
2 you've undertaken to do this, is that we need to work
3 together on trying to figure out criteria for putting things
4 in and out of the database, which for us is a subcategory of
5 trying to figure out what the issues are.

6 This a winging it, so it may turn out to be a bad
7 idea, but it's not out of the question that either one of
8 those MOUs should be extended or there should be another MOU
9 developed quickly about not the system but how decisions
10 ought to be documented as they're made apart from the
11 system, thinking of it as an information, not a computer
12 job, but a set of ground rules that say we know we haven't
13 done our job -- I'll start over with that -- but we think
14 you'll make all our lives a lot easier five years from now
15 if you follow these guidelines as you document things today
16 instead of trying to do the decisions, write your memos, and
17 then afterwards try to reconstruct them. That's as much for
18 our guys as it is for DOE.

19 Commissioner Rogers.

20 COMMISSIONER ROGERS: Just to follow on with the
21 Chairman's comment that it does come back to me in terms of
22 this prototype question. Again, I'm not so interested in
23 the hardware aspects of that, because I think there is
24 plenty of hardware that can do the job and relatively
25 cheaply. Your points about storage capacity is very cheap

1 these days, that's not the issue. The issue is that you
2 have to exercise something fully. I'm uncomfortable that I
3 kind of hear that, well, we're going to think this thing
4 through all the way and then we'll go and we'll do it. I'm
5 an experimentalist. If I have data, I feel comfortable. If
6 I don't have data, I don't feel comfortable. I'd like to
7 really see the wind tunnel model run on this thing, and that
8 means the full design exercised at least in small scale. I
9 think Dr. Dreyfus knows what I'm talking about.

10 MR. DREYFUS: Yes.

11 COMMISSIONER ROGERS: We've had good eye contact
12 here on this issue today.

13 That's the issue I'm concerned about, and it does
14 relate to exactly what the Chairman was touching on. How
15 does one somehow or other feel that everything is there in a
16 reasonable way to extract that really tells the whole story
17 of how a decision was made in all of its messy aspects as
18 well as its nice clear ones? It seems to me you have to do
19 that fairly early on or you may find out that you've got a
20 big system that somehow or other doesn't quite do the job.
21 You won't find it out, I won't find it out, but somebody
22 else will find it out when this thing gets to be used if you
23 haven't got pretty good confidence that you have a well
24 tested prototype.

25 I just keep playing that tune, and I'm sure it

1 sounds like one note to you, but I'm not hearing back what I
2 understand to be ordinary good engineering practice in this
3 system. So that's my concern.

4 I do think that you are making good progress and I
5 hope that we can get on with these memoranda of
6 understanding. I think they are very important.

7 I would like to stress that I think the
8 communication aspect has perhaps improved a lot, but there
9 was a period there where we essentially were not in
10 communication with each other. I think we should try to
11 avoid that again in the future. It gives us all a great
12 sense of discomfort when suddenly we find the whole office
13 has been moved out to Yucca Mountain, there are decisions
14 being made, we don't even know who is making decisions, and
15 there are questions that might be raised that are floating
16 around. I would hope that from here on we could avoid that
17 kind of breakdown in communication that did take place for a
18 period of some months, and they were critical months.

19 I'm very pleased that you could come to us today
20 and give us this briefing. I found it very helpful.

21 CHAIRMAN SELIN: Commissioner de Planque.

22 COMMISSIONER de PLANQUE: I have no additional
23 questions. Thank you for coming.

24 CHAIRMAN SELIN: Commissioner Jackson.

25 COMMISSIONER JACKSON: I just want to perhaps make

1 some reiterations. It strikes me that everything really has
2 to tie back to what Dr. Selin refers to as the key issues
3 and questions. I think those probably have to be
4 memorialized in some higher level MOU as expeditiously as
5 possible, and everything would then be baselined, it seems
6 to me, to that.

7 We've talked a lot about inclusion/exclusion
8 criteria, but if we don't know what those key issues and
9 questions are, there are no criteria one can develop. We've
10 talked a lot about what records are kept and what
11 documentation is associated with key decisions. I'm a
12 theorist. Theorists take one point and generate a curve.
13 Unfortunately that doesn't work well in regulation. You
14 could make a decision and you could have all the records as
15 to how that decision was made, but theoretically there could
16 be some key question for the NRC vis-a-vis licensing that
17 you didn't address at all, and therefore things have to tie
18 back to this high level approach, and that would make your
19 lives easier and it certainly will make ours easier.

20 CHAIRMAN SELIN: By the way, I forgot to say
21 something. Your answers to our letter were excellent. They
22 were extremely helpful, very explicit, very clear, and were
23 a big help in preparing for this presentation. So thank you
24 for that.

25 MR. DREYFUS: Thank you.

1 CHAIRMAN SELIN: Thank you very much. This is our
2 month. We will see you very soon on this.

3 MR. DREYFUS: We see you Tuesday, I think.

4 [Whereupon at 11:05 a.m. the meeting was
5 concluded.]

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CERTIFICATE

This is to certify that the attached description of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING BY DOE ON HLW LICENSING
SUPPORT SYSTEM - PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Friday, May 12, 1995

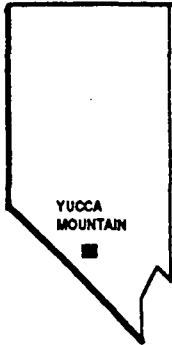
was held as herein appears, is a true and accurate record of the meeting, and that this is the original transcript thereof taken stenographically by me, thereafter reduced to typewriting by me or under the direction of the court reporting company

Transcriber: Michael Paulus

Reporter: Michael Paulus

U. S. DEPARTMENT OF ENERGY

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_____ YUCCA MOUNTAIN
_____ SITE CHARACTERIZATION
_____ PROJECT

Status of the Licensing Support System

PRESENTED TO
NUCLEAR REGULATORY COMMISSION

PRESENTED BY
Stephan J. Brocoum
Assistant Manager for Suitability & Licensing

MAY 12, 1995

Introduction

- **The DOE has made the development of the LSS a high priority, and a component of the overall licensing strategy.**
- **As a result, the DOE has made significant progress in recent months toward the development of the LSS with the:**
 - **Identification of a preferred LSS Configuration**
 - **Completion of the Level 1 systems requirements document**
 - **Initiation of the Analysis of Benefits and Cost activity**

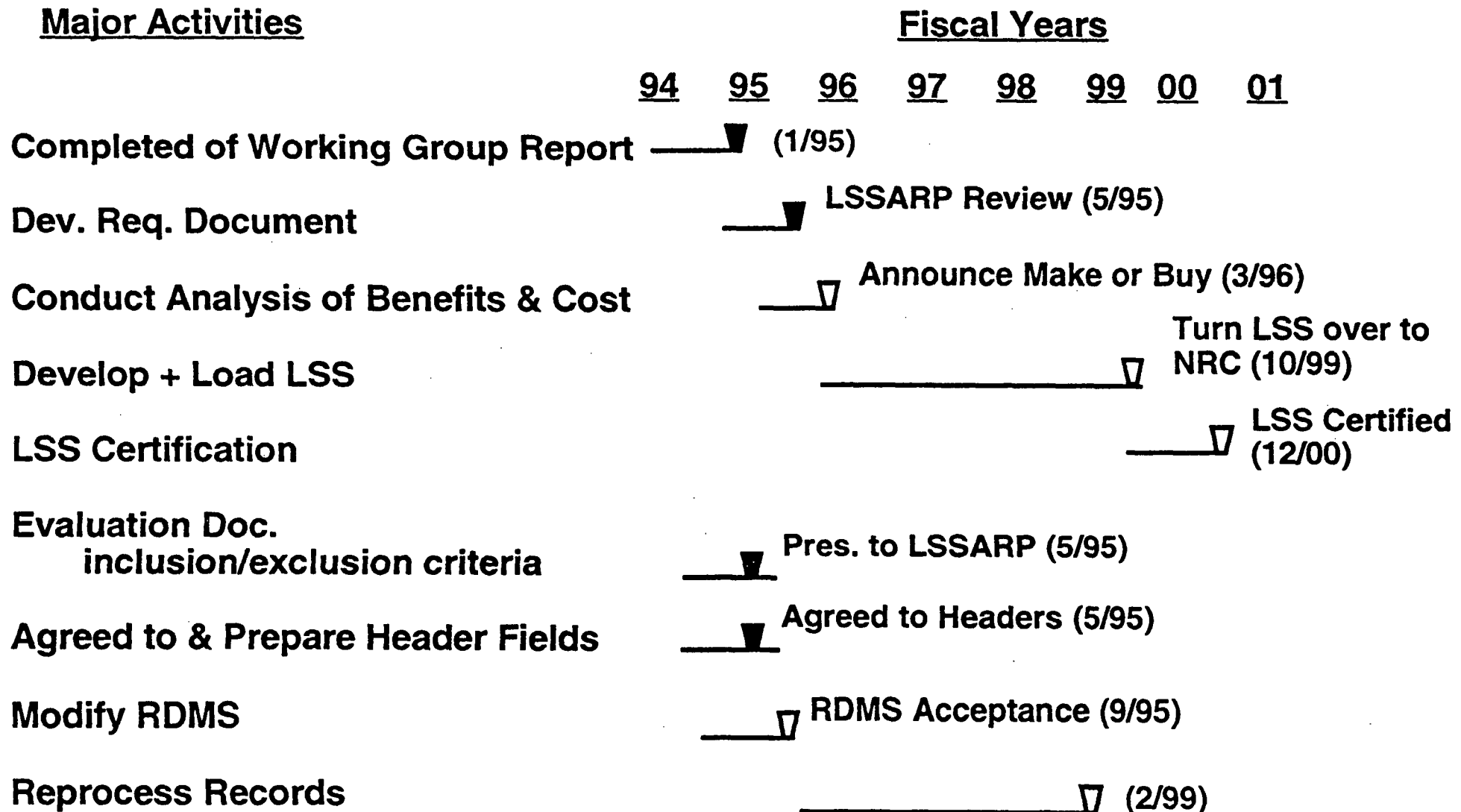
Introduction (contd)

- **My Statement for the Record addresses a number of topics that focus on progress toward the development, functionality and operation of the LSS. This briefing addresses the following in greater detail:**
 - **LSS option selected for development**
 - **LSS development schedule and near-term activities including development of DOE/NRC MOUs**
 - **Funding profile through 2004**
 - **Memorializing the bases of decision**
 - **The LSS as a dual system**

LSS Option Selected for Development

- **A number of options were developed by the LSS Working Group to evaluate a range of LSS operational concepts. From among these options DOE has selected an option which is characterized by:**
 - **Electronic imaging capture**
 - **Full text capture and retrievability using optical character recognition technologies**
 - **Text that is electronically corrected without significant human intervention**
 - **Dissemination of image and text by electronic transmission**
- **The option selected meets the intent of 10CFR2 Subpart J**

LSS Development Schedule



Near-Term Activities

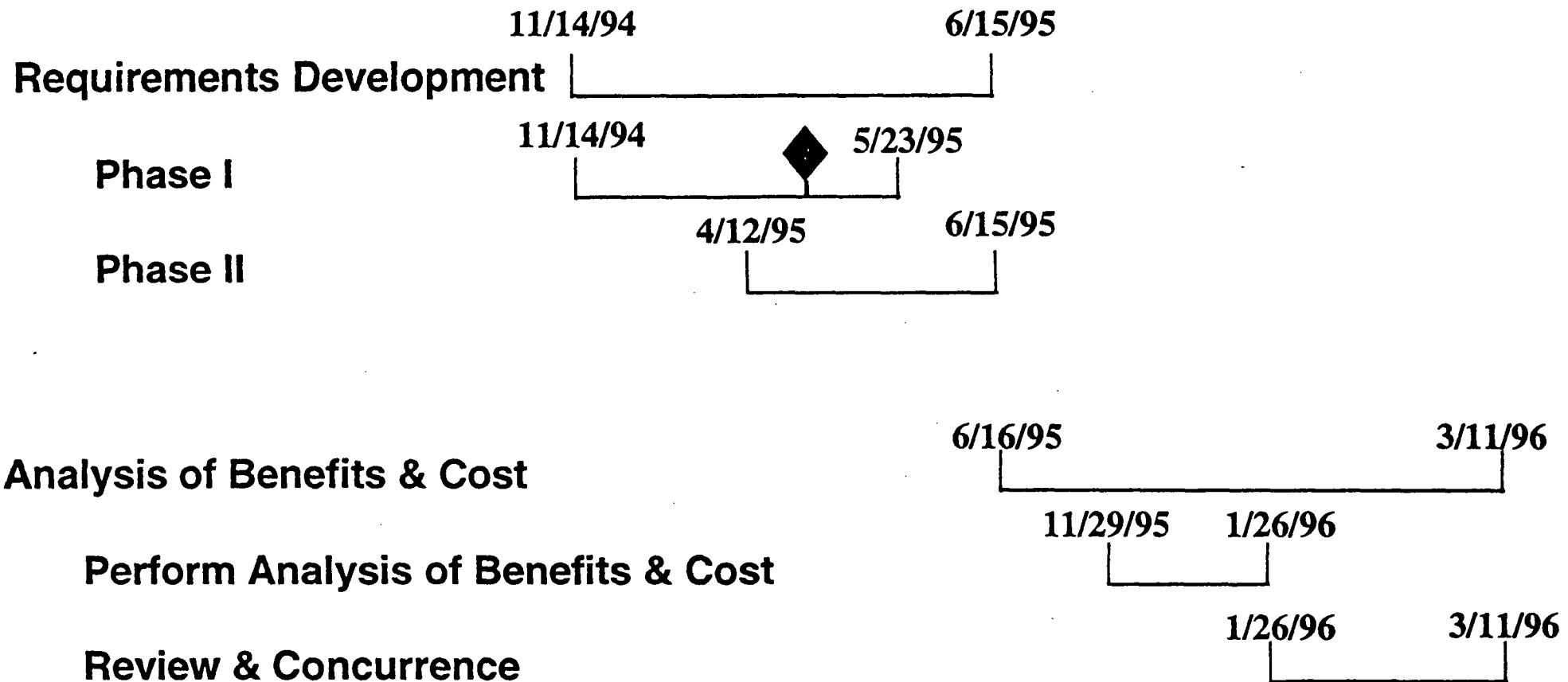
Activities supporting this schedule include:

- **Negotiate an MOU with NRC for the LSS design and development phase by June 1995, followed by MOUs for:**
 - **transition phase (November 1995)**
 - **operating phase (May 1996)**
 - **period after approval of the license to construct (October 1996)**
- **Complete the lower tier LSS requirements to support the Analysis of Benefits and Cost, and detailed design of the LSS (June 1995)**

Near-Term Activities (contd)

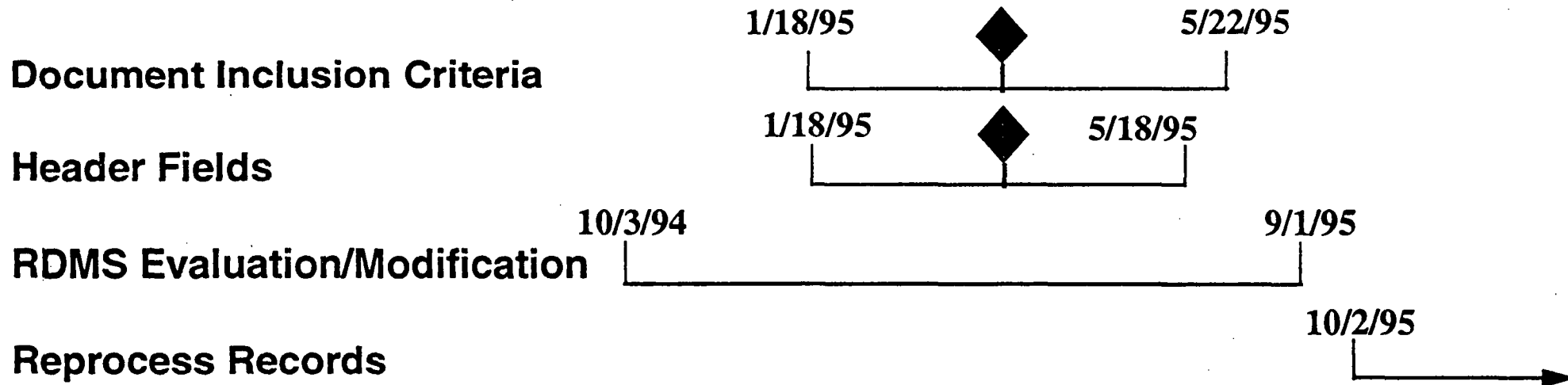
- **Complete Analysis of Benefits and Costs and begin next steps in design and development (March 1996)**
- **Develop a means by which LSSARP participants can access DOE computers for header information on growing set of imaged documentary material (July 1995)**
- **Continue to consult with the LSSARP, in the decision making process for developing and implementing the LSS; e.g., Administrative Record, priority loading**

Near Term Schedules



◆ 4/17 LSS ARP TWG Concurrence Completed

Near Term Schedules



◆ March 22, 1995 LSS ARP Concurrence Completed

Funding

The cost analysis done by the LSS Working Group has been the basis for the LSS and RMS budgets in the Program Plan. The current planning includes:

- LSS Budget Profile (\$M)**

| <u>FY96</u> | <u>FY97</u> | <u>FY98</u> | <u>FY99</u> | <u>FY00</u> | <u>FY01</u> | <u>FY02-04</u> | |
|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-----|
| 2.7 | 3.1 | 8.5 | 0.8 | 0.8 | --- | --- | DOE |
| --- | --- | 6.6 | 6.8 | 6.8 | 7.4 | 20.0 | NRC |

- Costs of Records Management System (\$M)**

| <u>FY96</u> | <u>FY97</u> | <u>FY98</u> | <u>FY99</u> | <u>FY00</u> | <u>FY01</u> | |
|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------------|
| 11.4 | 5.7 | 3.8 | 3.1 | 3.3 | 3.0 | (Does not include reprocessing costs) |

Memorializing Bases of Decision

- **The ability to trace and understand the bases for decisions is a concern for the licensing process.**
- **Administrative records for decisions and actions are a part of the document system holdings (RDMS) and will be a part of the LSS.**
- **The LSS will store, search, and retrieve existing information. The traceability linkages for the bases of decisions will be through references and decision memoranda in the LSS.**
- **Identifying the proper set of key words in a query will provide the information necessary for tracing a decision process.**

Memorializing Bases of Decision (contd)

- **The following is an example of how this can be done:**
 - **A decision was made to modify the ESF plan; ramps instead of vertical shafts**
 - **The records management system was queried for the administrative record for the acceptance of the revised Title I Design Summary for the Exploratory Studies Facility**

Query: Letters and memoranda signed by John Bartlett between Mid 1990 and Mid 1992.

Memorializing Bases of Decision (contd)

- The query produced a memorandum “acceptance of revised Title I - Design Summary Report for the Exploratory Studies Facility.” This memorandum led to a collection of material supporting the decision.**
 - 4 Decision Documents**
 - 1 Approval Document**
 - 9 Related Documents**

LSS as a Dual System

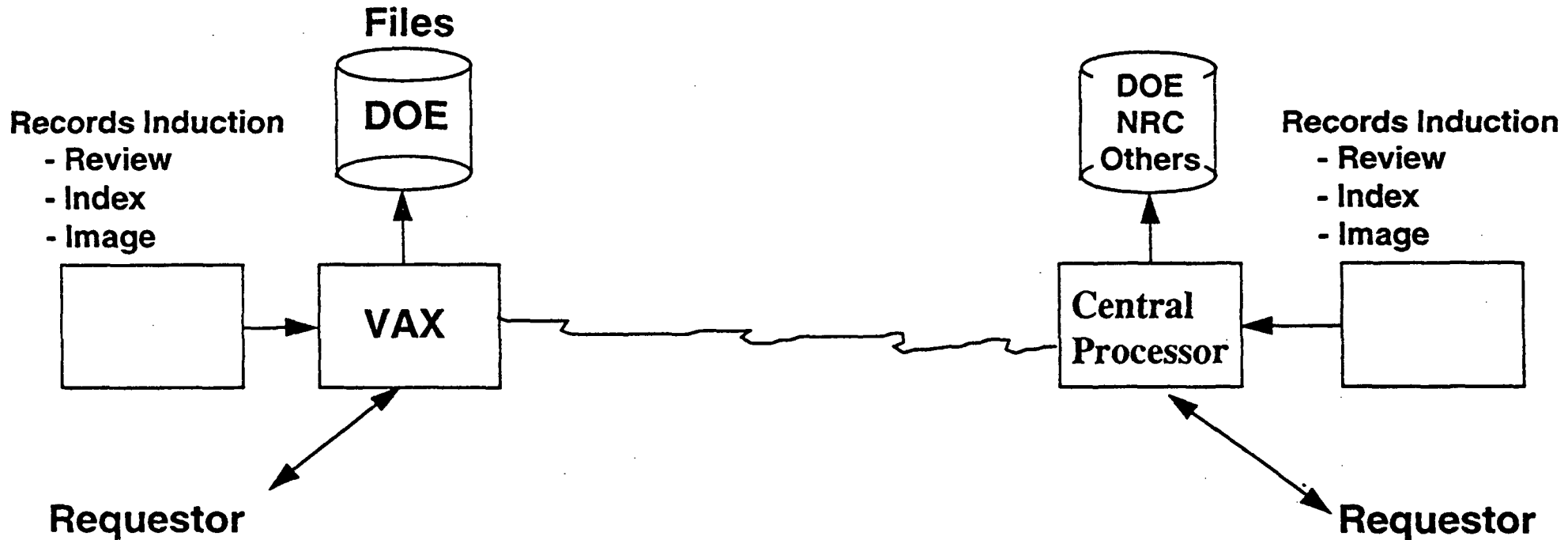
- **The concept of the LSS as a dual use system for the licensing process and as the DOE records management system is not practical given the following reasons:**
 - **There are no appreciable cost savings**
 - **DOE must retain responsibility for its own records**
 - **RMS is not a dedicated system**

LSS as a Dual System

Separate Systems

DOE Records Management System

LSS



- Vax supports 40 additional systems

LSS as a Dual System Single System

DOE Records Management

Records Induction

- Review
- Index
- Image



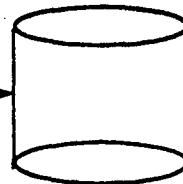
Requestor

Other Support



Vax

Files



Files



DOE
NRC
Others

Central
Processor

LSS

Records Induction

- Review
- Index
- Image



Requestor

Savings

- Disc storage not duplicated
- No duplication of records

Costs

- Added disc storage
- Additional traffic volume

Conclusion

- **The purpose of this briefing was to address questions about the status of the LSS:**
 - **LSS Option Selected for Development**
 - **LSS Development Schedule and near-term activities**
 - **Funding Profile through 2004**
 - **Memorializing the bases of decision**
 - **LSS as a dual system**
- **The DOE is working with the NRC staff to develop MOUs that will assure appropriate interactions throughout the LSS lifecycle.**

STATEMENT FOR THE RECORD
PRESENTATION TO THE U.S. NUCLEAR REGULATORY COMMISSION
STATUS OF THE LICENSING SUPPORT SYSTEM
BY
DANIEL A. DREYFUS, DIRECTOR
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
May 12, 1995

Introduction

Chairman Selin and Members of the Commission:

I am pleased to be here to brief you on the status of the Licensing Support System. The last time I appeared before you on December 19, 1994, I discussed our activities with regard to the LSS as part of the overall update of the civilian radioactive waste management program. At that time, I reported on the working group that had been established to examine the current LSS development strategy, and that we were keeping the LSS Administrator and the LSS Advisory Review Panel informed on the working group's effort. I also stated that we have been working closely with your staff to identify alternatives for funding LSS

operations. At the time I discussed those matters with you on December 19, 1994, I recall that Chairman Selin responded that the reports he received from the December 12-13, 1994 LSS Advisory Review Panel meeting were uniformly positive about the progress of LSS activities.

I am aware of the NRC Office of Inspector General's report, "NRC Needs to Provide Strong Direction for the Licensing Support System". That report has been published since my previous briefing. Clearly an examination of the LSS activities in order to identify strengths, shortfalls, problems, issues, and opportunities is a valuable undertaking. The Department is currently working with the LSS Administrator in implementing the first recommendation of the Inspector General's report; that of developing a Memorandum of Understanding between NRC and DOE on key aspects of the system.

We, as a potential license applicant, recognize that in accordance with the Commission's regulations, the Licensing Support System must be in place and certified by the LSS Administrator at least six months in advance of filing. We recognize that the Commission views the LSS as a necessary tool to meet the mandated time frame for acting on the repository license application. We remain committed to developing the LSS in a timely and cost-effective manner.

History

By way of a little history, DOE participated with the NRC and interested parties in a negotiated rulemaking proceeding that resulted in the promulgation of the rule, 10 CFR Part 2 Subpart J. The Department was fully sympathetic to the Commission's concern with meeting the Congressionally mandated time frame for acting on a license application. Certainly the Department shares an interest in the timely accomplishment of the licensing process. In 1987/88 the Department was supporting contractor activity to identify a possible prototype for the LSS. This effort continued for two years and resulted in analysis of early design considerations. At the time the rule was promulgated, however, a major reassessment of the OCRWM Program itself indicated that the target date for submittal of a repository license application would be delayed from 1995 until 2001. As a consequence of this delay along with severe limitations on funding, the Department postponed further work on the LSS in order to concentrate on site characterization activities and early resolution of licensing technical issues.

Current Status and Progress

The working group I described to you in December 1994 completed its report in January 1995 and copies were passed to the LSS Administrator and the LSS Advisory Review Panel Chairman. Based

on the cost profiles developed by the working group, we have included multi-year budgets for the LSS in the "Civilian Radioactive Waste Management Program Plan, dated December 19, 1994, and in the 1995 budget rebaselining. The schedule linkage of the LSS to the license application is being maintained. At this point, we expect the potential parties to the licensing process will have early access to the LSS when it is partially loaded in the 1998 time frame.

The capability and role for the LSS remains as it was visualized at the time of promulgation of the rule. The change in date of license application submittal from 1995 to 2001 places no additional burdens upon the LSS design and development.

Near term, the Department has developed and the LSS Advisory Review Panel has reviewed requirements statements for the system at a level sufficient to evaluate the options for acquisition of the system. The completion of requirements analysis is scheduled for June 1995.

As a separate initiative from the LSS, the Department is in the process of modernizing its own Records Management System. The Records Management System will be similar to the LSS in volume of holdings and in the ability to view electronically imaged materials. However, the Records Management System will be different from the LSS in that it will not require the full

search text capability specified for the LSS and it will include materials that are excluded from the LSS and materials that are non-program materials.

At the present time we are investigating the possibility of making parts of the Records Management System available for review by the members of the LSS Advisory Review Panel. This "read only" access to portions of the Department's Records Management System could be available in late summer of this year with access limited to the header and abstract data available for some of the documentary material that the Department plans to submit to the LSS.

Our current estimate of the ten-year life cycle cost for the LSS has been reduced by about one-third relative to the estimate in 1990. This is due in large part to improvements in technology which can reduce labor costs. Clearly we plan to consider other opportunities for significant cost savings as the design and development of the LSS proceeds.

Interactions with the LSS Advisory Review Panel

The activities of the LSS Advisory Review Panel are very helpful to the Department as it proceeds with the LSS. The Panel brings together all interested parties and provides a forum for raising and resolving issues. The members of the Panel have demonstrated

commitment and enthusiasm in addressing the many issues and questions associated with the LSS.

The Panel has established a technical working group that has been tasked with reviewing and commenting on the highest level of functional requirements. The technical working group will be reporting at this afternoon's Panel meeting upon a proposed set of phase I system-level requirements for the LSS.

Interactions with the NRC staff

A substantive issue that has been addressed with NRC staff is the Commission's concern about the approach to funding the operation of the LSS. The proposal is for DOE to request appropriations from the Nuclear Waste Fund for direct payment to NRC for management and operation of the LSS. The proposal is acceptable to all members of the LSS Advisory Review Panel.

The Department is working with the LSS Administrator to prepare a Memorandum of Understanding (MOU) to identify more precisely the specific organizational responsibilities during each of the phases of the LSS. An MOU is being developed to identify procedures and responsibilities to support the design and development phase in accordance with established cost and schedule baselines. While DOE has full responsibility for the LSS during this phase, the Administrator must develop a set of

acceptance criteria for the LSS so that DOE can develop appropriate requirements and test and verification standards. A draft of an MOU for the design and development phase is under consideration at the staff level.

Conclusion

I have given you an overview of where we were and where we are today with regard to the development of the LSS. I am pleased with the working relationships between our staff and contractors, the NRC staff, and the LSS Advisory Review Panel. It is imperative that we maintain this level of cooperation to assure timely and effective resolution of issues and questions.

We made good progress over the last nine months in the development of the LSS and we look forward to continued good progress in the future.

5/10

STATEMENT FOR THE RECORD
PRESENTATION TO THE U.S. NUCLEAR REGULATORY COMMISSION
STATUS OF THE LICENSING SUPPORT SYSTEM

BY

STEPHAN J. BROCOUM, ASSISTANT MANAGER
YUCCA MOUNTAIN SITE CHARACTERIZATION OFFICE
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY

May 12, 1995

Chairman Selin and Members of the Commission:

I am pleased to be here to brief you on the Licensing Support System. As Dr. Dreyfus has said, DOE recognizes that the Licensing Support System (LSS) is an indispensable tool in the acceptance and review of our license application for a Mined Geologic Disposal System and we remain committed to developing the LSS in a timely and cost-effective manner. Today I want to reaffirm the Department's belief in the original goals of the LSS and our commitment to provide the resources necessary to make the LSS a reality within the time frame established in Subpart J. In addition it is our goal that members of the LSSARP will have use of substantial functionality of the LSS and access to substantial contents of the LSS well before license application submittal.

The Department participated in the negotiated rule making that led to promulgation of Subpart J. Basic to this negotiated rulemaking was the articulation of the purpose and goals of the LSS. At that time the Department fully understood that the LSS was one of the mechanisms that the Commission was considering to streamline the licensing process; that a significant contributor to licensing delay was document discovery and motions practice-- issues that the LSS was intended to address. The Department fully supported the stated goal of the LSS of providing for timely review of the DOE license application by: eliminating the physical production of documents, eliminating or reducing the FOIA requests, enabling comprehensive and early review of large volumes of material, and providing for electronic transmission of all filings.

The Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) began to design and develop the LSS in 1988. A number of LSS analysis and design documents were prepared for OCRWM between 1988 and 1989, and a prototype system was completed and tested in 1990. However, a major reassessment of the OCRWM program made in 1989 indicated that the target date for submittal of a repository license application was to be delayed from 1995 until 2001. In 1991, DOE postponed further work on the LSS in order to concentrate program resources and efforts on site characterization activities and early resolution of licensing technical issues with the NRC staff. In March 1995,

the NRC Office of Inspector General delivered a report, "NRC Needs to Provide Strong Direction for the Licensing Support System". The report accurately describes events relative to the LSS during the 1989-94 time period. In the past year the Program has undergone both management and structural reorganization. Management of the LSS has been centralized at the Yucca Mountain Site Characterization Office. A preferred design option for LSS development has been selected, and the upper-tier requirements for the system has been completed. Cooperation with the LSS Advisory Review Panel has improved dramatically in the last nine months. Specific milestones and deliverables have been established and resources have been allocated. Those milestones include having a system available for use by 1998, well before the licensing process begins. The Department is also currently working with the LSS Administrator in implementing the first recommendation of the Inspector General's report; that of developing a Memorandum of Understanding between NRC and DOE on key aspects of the system. As a consequence of these changes in the LSS development program, the concerns raised by the Inspector General related to the activities of the Department are being resolved.

Concern has been expressed that the DOE program approach varies significantly from the procedure envisioned by the NRC for licensing the Mined Geologic Disposal System and that this variance will degrade the utility of the LSS. DOE's program

approach contemplates providing a license application that is as complete as possible in light of information that is reasonably available at the time of submittal of the license application. With respect to the LSS, the need for, and the timing of, the LSS is unaffected by the program approach. Therefore, although DOE may continue a number of research programs, and the results of those programs will be loaded into the LSS, substantially all relevant documents needed to support the granting of a construction authorization, including documents needed to support a reasonable assurance finding by the NRC, will be in the LSS at the time of submittal of the initial license application.

The view is that early availability of the LSS is quite different now than it was in 1988. In 1988 the planning documents asserted that the LSS would be operational in 1990; those same estimates indicated that the backlog of documents would be processed in 1991-94. Currently we are planning to begin reprocessing the backlog of documents in 1995 and entering them into our own Records Management System (RMS). We intend to make parts of the RMS available for review by the members of the LSSARP. This "read-only" access to portions of the DOE records management system is envisioned to be available by the end of this fiscal year with access limited to the header and abstract data available for some of the documentary material that DOE plans to submit to the LSS. As the scanned images of licensing-relevant documents (as broadly defined below) become available, we shall

be making them available to the members of the LSSARP. Thus we are making available for early review the millions of pages of relevant or potentially relevant licensing material. The operational LSS will be available in the 1998 time frame as the reprocessing and loading of records continues. The timing of the availability of the LSS relative to the submittal of the license application today is not markedly different than it was at the time the LSS rule was promulgated and the license application date was 1995. However, changing technologies have significantly altered the methods used to implement the LSS and allowed a significant reduction in original cost estimates.

DOE intends to put all of its program relevant records management system documents, apart from that material that is specifically excluded by subpart J, into the LSS. The 2001 license application submittal date places no additional burdens upon the LSS design and development. The date of license application is fixed by the availability of data, analyses, and understanding. Thus the projected date for license application submittal is a milestone indicating that the materials supporting data, analyses, and understanding are available. The volume of the material is not dependent on the date of the license application submittal. The rationale for entering all but the regulatorily-excluded information into the LSS is to minimize any appeals to the LSS Administrator regarding the alleged failure of DOE to include information that is relevant or that could lead to the

discovery of information that is relevant. In addition, the potential for error in judgment in making a relevance determination for individual documents is minimized. Recall that at the initial LSS rulemaking, there was a concern with the apparent high costs associated with document storage. Today those costs have been significantly reduced. Now the concern is with the cost of human participation (e.g., proof reading and screening of documents). Thus, disputes and costs are reduced by being inclusive, rather than exclusive, regarding loading documents into the LSS.

We believe that the only effective way to further reduce the number of documents is for the LSSARP to agree on additional categories of documents that may be easily identified and excluded without the need for substantial judgment to determine whether a given document falls within a particular category. This would enable individual parties to avoid potential administrative challenges to attempts at document exclusion based on relevancy. We believe that by providing a comprehensive data base for the LSS, total costs should be reduced, and time consuming and expensive administrative challenges to document exclusion should be eliminated.

The OCRWM RMS captures and manages those records that document the chronology of events and decisions related to the Program mission. It utilizes a VAX based indexing and retrieval system

and micrographic technology to capture and preserve images of records. Established criteria and procedures are used to exclude from the records system records which are not relevant to the OCRWM Program mission. Types of records which are excluded from the OCRWM RMS include administrative, non-QA procurements, financial and other similar business related records.

The OCRWM RMS is replacing its current microfilming function with electronic imaging of records and documents and integrating the images with the system. Thus, we are modernizing our RMS and modernizing it in a fashion such that it is compatible with the LSS.

The question is raised of whether there can be a single system that is both the OCRWM RMS and the LSS. We believe not for the following reasons: First, there are different requirements for the two systems; Second, the rule as currently accepted by all parties precludes DOE from operating the LSS, thus foreclosing the RMS from being used as the LSS. The rule does suggest that the NRC can operate the LSS and make some separate system integrated into the LSS available to DOE to serve the RMS function. This would appear to put DOE in conflict with its responsibilities for maintaining and operating its own records system as required under the Federal Records Act. Moreover, the inherent reason for adopting such a process, cost savings, is not realized. Basically the costs that DOE incurs for records

management are primarily driven by the records management functions that it must carry out, not by the operation of a automated system such as that which will support the LSS.

With the advent of the Program Approach to support the 2001 license application submittal date, an examination of the status of the LSS and of future requirements was undertaken to assure an operating, acceptable LSS is in place before the submission of the license application. This review of the LSS additionally was appropriate to ensure that the existing LSS operational concept was sound, and to identify strategies for incorporating advances in computing technology to optimize system performance and lower overall cost. As a consequence of this review we:

- Identified several technical options for the LSS that comply with Subpart J and represent a full range of capabilities.
- Evolved a significant cost reduction from previous estimates such that the expected ten year cost for the LSS is expected to be less than seventy million dollars, a savings of forty million dollars.
- Developed a schedule and funding profile to support timely development of the LSS.
- Began modernization of the OCRWM RMS to be compatible with LSS requirements.
- Are beginning the processing of existing records for incorporation into LSS.

Following completion of this study we have been working with the

LSSARP and the Administrator in achieving the following goals:

- Develop LSS requirements.
- Establish protocols for input to the LSS.
- Produce an NRC/DOE Memorandum of Understanding.

We are moving rapidly in our efforts to build a solid foundation for the LSS effort; we have developed an effective working relationship with all stakeholders in the LSS, including the NRC; and, we are on schedule for bringing the LSS into being well in advance of the submittal of the license application.

RESPONSES OF APRIL 18, 1995 NRC QUESTIONS

1. At the time of the negotiated rulemaking the Department viewed the stated goals of the LSS as valid and achievable. Nothing has occurred in the time since the rule was promulgated to cause the Department to change this view. Moreover, the Department has a commitment to provide the resources necessary to make the LSS a reality within the time frame established in Subpart J. The DOE intends to satisfy the requirements of Subpart J regarding the functionality and timing of the LSS as a prerequisite to filing a license application with the NRC. As noted more fully below, although DOE is only required to have the LSS certified by the LSS Administrator six months prior to submittal of a license application, DOE remains committed to have significant portions of the LSS available for use by members of the Licensing Support System Advisory Review Panel well in advance of license application.

The LSS will contain the records from DOE documenting the chronology of events and decisions related to the Program mission. In particular it is expected that an administrative record--a statement of decision and identification of the considerations upon which the decision was made--will exist for all major decisions. The existence of this record in whatever discovery system is used for the license application means that there is no need to develop a unique system capability within the LSS.

2. DOE will use the LSS as the documentary basis for the license application, however, the rule specifies that no party or contractor to a party can operate the LSS nor can the LSS be located within a facility controlled by a party or a contractor to a party. Thus, it would seem that if the DOE were to use the LSS for its records management system the NRC would be operating the DOE's records management system which would appear to put the DOE in conflict with its responsibilities for maintaining and operating its own records system as required under the Federal Records System.

Independent of this control consideration, the possibility has been raised of using the LSS for the DOE records management system on the basis that significant savings might accrue. However, an examination of the details of the

costs, records management operations, and ancillary DOE actions leads to the conclusion that essentially no identifiable cost savings exists for the use of the LSS to support the DOE records management system within the constraints of the rule.

3. Concern has been expressed that the DOE program approach varies significantly from the procedure envisioned by the NRC for licensing the Mined Geologic Disposal System and that this variance will degrade the utility of the LSS. DOE's program approach contemplates providing a license application that is as complete as possible in light of information that is reasonably available at the time of submittal of the license application. With respect to the LSS, the need for, and the timing of, the LSS is unaffected by the program approach. Therefore, although DOE may continue a number of research programs, and the results of those programs will be loaded into the LSS, substantially all relevant documents needed to support the granting of a construction authorization, including documents needed to support a reasonable assurance finding by the NRC, will be in the LSS at the time of submittal of the initial license application.
4. DOE agrees that although not a requirement of the LSS rule, early use of significant functional portions of the system to review documents is a desired benefit. To that end, DOE anticipates having an initial number of documents loaded onto a system with LSS capabilities available for use by the members of the Panel in the 1997 time frame. Use of the system to search and retrieve documents will enable DOE to improve the system where needed well before LSS certification and license application. In addition, DOE anticipates having most of the documents loaded into the system and available to the Panel members in about three years.

This represents an aggressive schedule to which DOE is committed. DOE also recognizes that the development and certification of the LSS is on critical path for submittal of a license application. As noted more fully in response to Question 10 below, DOE has committed to the funding required to complete the LSS in a timely manner.

5. A schedule for LSS design and development is attached to this set of responses for your review. As noted in response to Question 4 above, DOE's schedule for completing the LSS has the LSS available for the affected parties well in

advance of license application submittal. Additionally this schedule includes time to allow iteration with the Licensing Support System Administrator if a problem should appear relative to certifying the loading of the system. A critical element for this schedule is availability of projected resource requirements. Additionally the schedule is based upon timely actions by all participating in the resolution of LSS issues as well as on the assumption that issues once resolved will remain resolved. New interpretations of requirements or additions to requirements add to the cost and impact the schedule. DOE has committed to provide the required resources over the next several years to assure that the LSS is certified in a timely manner and is available for use by members of the Panel as soon as reasonably possible. We are also gratified by the spirit of cooperation demonstrated by the Panel members in identifying and resolving key issues associated with LSS development.

6. The increase in time prior to license application submittal places no additional burdens upon the LSS design and development. The date of license application is fixed by the availability of data, analyses, and understanding. Thus the projected date for license application submittal is a milestone indicating that the materials supporting data, analyses, and understanding are available. The volume of the material is not dependent on the date of the license application submittal. Thus, because the program delay generally has not affected the number or volume of studies or other documents, but rather only the period of time during which various program documents have been and will be completed, there should be no additional burdens on the licensing process (i.e., discovery, depositions, hearing, etc.).
7. The DOE and the NRC are currently developing a Memorandum of Understanding that identifies the responsibilities of each in the design and implementation of the LSS. As a part of this Memorandum of Understanding the NRC will identify a set of certification criteria so that DOE can include these certification criteria in the design process as well as the test and verification standards. In addition, DOE continues to work with the NRC staff through interactions with the Panel and through the Panel's technical working groups. DOE is committed to assuring that the NRC is involved throughout the development and certification of the LSS.
8. The Licensing Support System Advisory Review Panel has been an effective forum for addressing the fundamental issues relevant to the design and development of the LSS.

Additionally the Panel's working groups have been instrumental in resolving critical open questions. This forum together with the direct discussions with the Administrator and his staff are instrumental in close coordination between DOE and NRC. Currently a Memorandum of Understanding is being developed to assure that this cooperation and coordination supports all LSS activities.

9. Steps are currently underway to give members of the Panel limited read-only access to a "firewalled" server that contains the header and abstract data available for portions of the documentary material that will be submitted to the LSS. It is anticipated that this access will begin to be available in late summer. Early access on the part of NRC and the other members of the Panel to what will be going into the LSS and to LSS functionalities will result in a more acceptable and certifiable system.
10. The six year budget planning for the LSS is given in the following table. These figures are direct LSS cost estimates including both DOE and NRC costs.

LSS BUDGET ESTIMATES IN MILLIONS OF DOLLARS

| FY1996 | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 |
|--------|--------|--------|--------|--------|--------|
| 2.7 | 3.1 | 15.1 | 7.6 | 6.5 | 7.3 |

11. The response to question 10 identifies estimates of dollars required to support the design, development and operation of the LSS. In general these budget estimates translate fairly directly into labor costs. The labor hour estimates for this six year span for both DOE and NRC LSS activities are:

LSS LABOR HOUR ESTIMATES IN THOUSANDS OF PERSON HOURS

| FY1996 | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 |
|--------|--------|--------|--------|--------|--------|
| 36 | 41 | 173 | 136 | 100 | 105 |

The current activities by DOE staff in direct support of the LSS constitute a level of about 1.0 full time equivalent.

12. DOE intends to put all of its program relevant records management system documents, apart from that material that is specifically excluded by subpart J, into the LSS. The

rationale for entering all but the regulatorily-excluded information into the LSS is to minimize any appeals to the LSS Administrator regarding the alleged failure of DOE to include information that is relevant or that could lead to the discovery of information that is relevant. In addition, the potential for error in judgment in making a relevance determination for individual documents is minimized. Recall that at the initial LSS rulemaking, there was a concern with the apparent high costs associated with document storage. Today those costs have been significantly reduced. Now the concern is with the cost of human participation (e.g., proof reading and screening of documents). Thus, disputes and costs are reduced by being inclusive, rather than exclusive, regarding loading documents into the LSS.

13. Because DOE has a records management system and as the DOE records are estimated to comprise about 85% of the total number of documents directly or indirectly relevant to licensing, the direct benefits to DOE of actually using the LSS for document retrieval and discovery are not great. The major benefit is to the NRC and other parties to the licensing proceeding in enhancing their ability to identify and review the vast number of DOE documents over a period of years prior to the licensing proceeding. The LSS will enable the parties to identify what they consider to be the relevant documents addressing key program issues. Thus, it is anticipated that prior to and immediately after DOE's submittal of a license application, potential contentions can be narrowed more effectively. In addition, the parties should be better prepared to address the contentions admitted into the licensing proceeding.

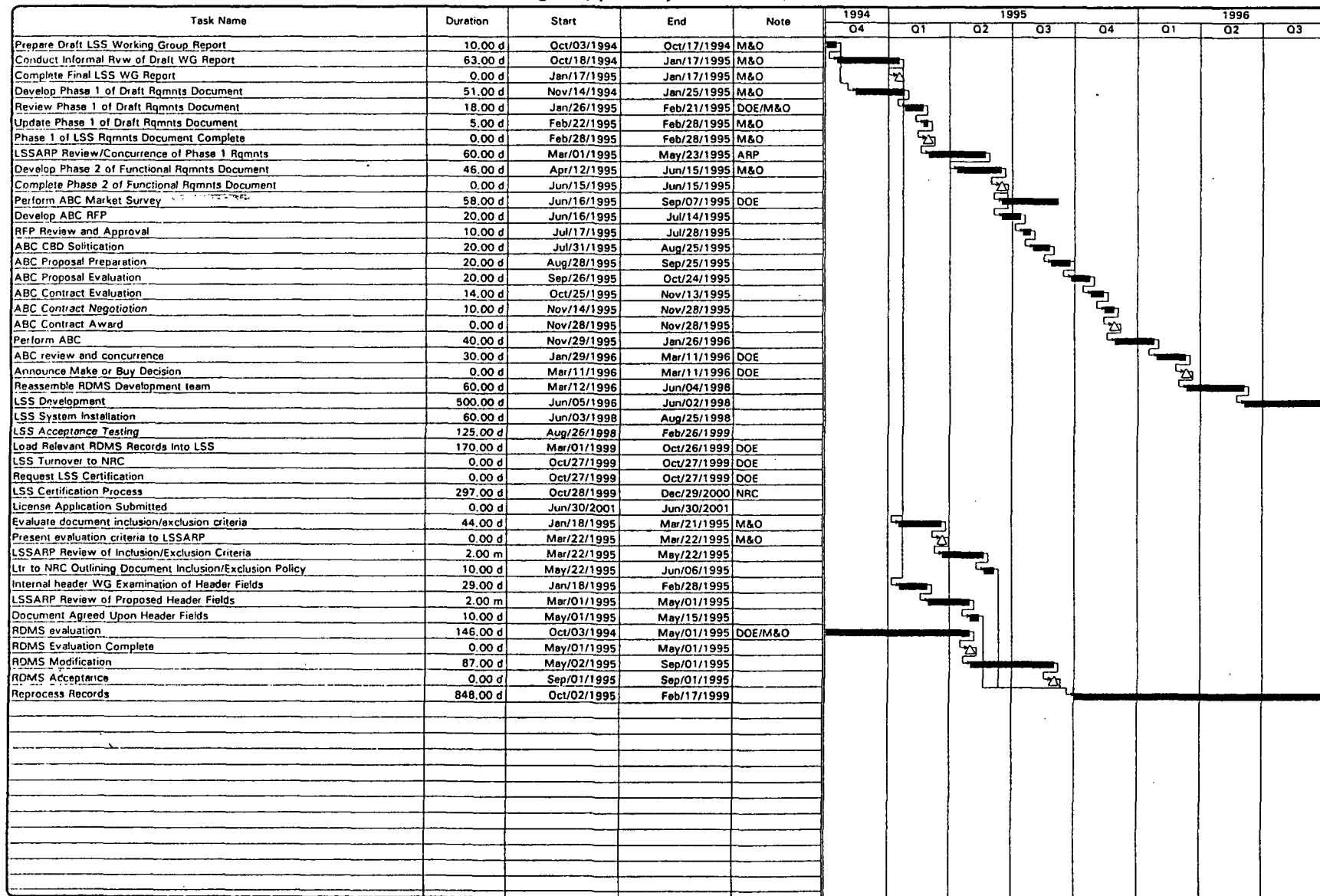
- a. The NRC is in a better position than DOE to assess how much time may be saved through the use of the LSS and as a result of other Part 2 procedural reforms enacted over the past several years. The DOE has no basis to be able to determine whether the use of the LSS will assure that the NRC will meet its licensing schedule under Subpart J; however, DOE does believe that the use of the LSS should result in a more efficient and timely licensing process because all parties will have had early access to all relevant documents in a relatively convenient electronic format.

- b. Again, it is difficult to estimate how much money may be saved through the use of the LSS. We believe that earlier NRC estimates given during the time of the initial rulemaking for Subpart J, which were based on a fairly strict discovery schedule to be imposed on the parties by the licensing board, projected a potential schedule savings

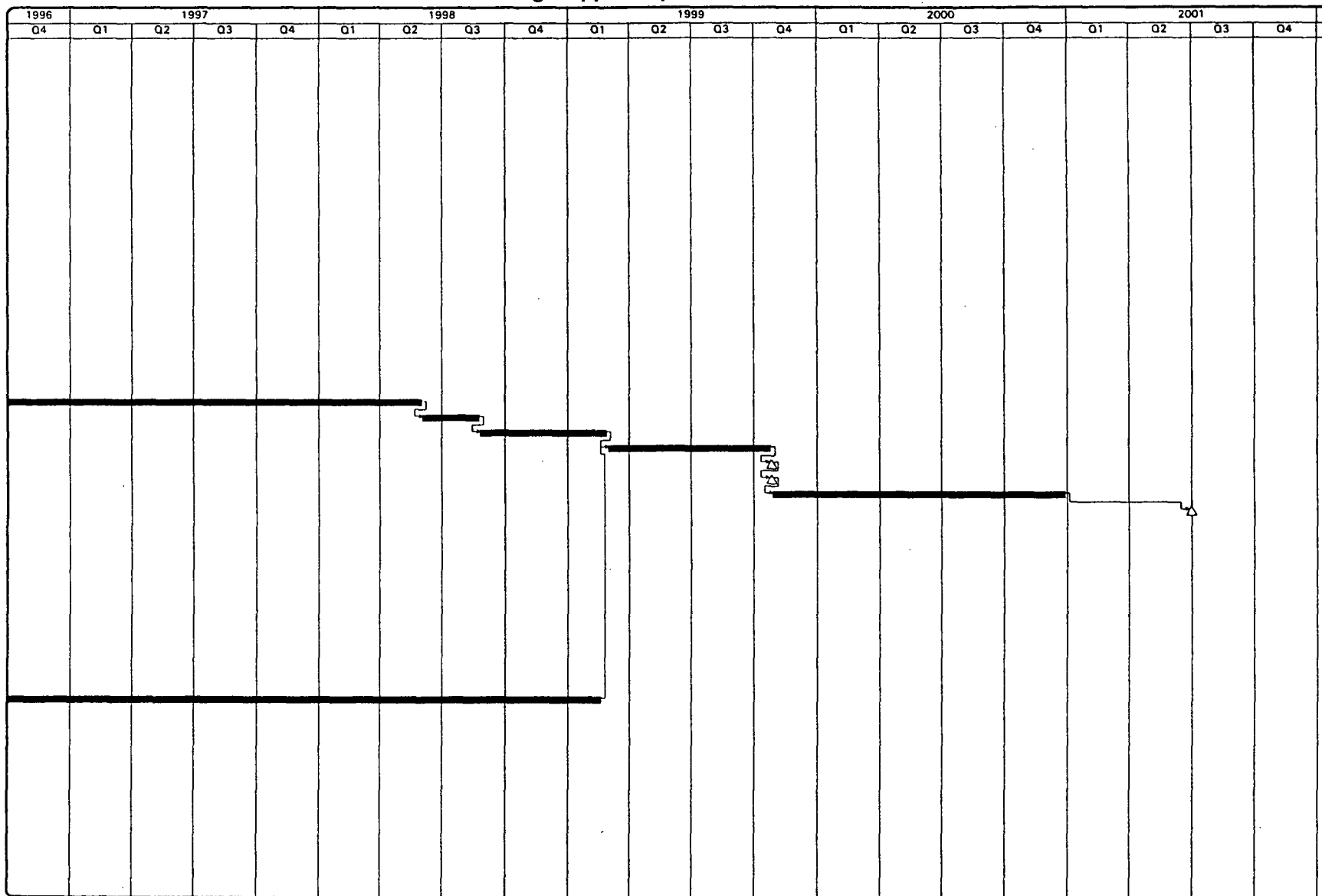
on the order of a few years, which in turn might result in potential cost savings of a few hundred million dollars. However, we are unaware of any recent NRC projections of cost or schedule savings that might result from the implementation of its regulations found in Subpart J.

c. DOE currently estimates that the direct cost of the LSS to DOE is approximately \$70 million for the ten-year life cycle.

Licensing Support System Build Schedule



Licensing Support System Build Schedule





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 18, 1995

Dr. Daniel A. Dreyfus, Director
Office of Civilian Radioactive
Waste Management
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Dr. Dreyfus:

As you are aware, the Commission has scheduled a public meeting on May 12, 1995, to discuss the status of the High-Level Waste Licensing Support System (LSS). The purpose of that meeting is to provide the Commission an opportunity to ascertain DOE's current level of commitment to the LSS and whether, in light of DOE's implementation of the program approach and other recent events, we should continue to support the present concept of the LSS and, if not, what changes would be appropriate.

I have enclosed several questions that the Commission would like you to address in your briefing. Your responses to these questions will allow the Commission to make informed decisions about any needed redirection of the LSS. If you have any questions about the meeting or the enclosed questions, please have your staff contact Mr. Arnold Levin, the NRC's LSS Administrator. He can be reached at (301) 415-7458.

Sincerely,

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Kenneth C. Rogers
Acting Chairman

Enclosure:
As stated

Originating Office: EDO/NMSS
Ref: CR-95-042
(Commission Correspondence)

IS - Approved
KR - Approved w/edits
GD - Approved w/edit

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|---------|---------|-------------|---------|
| OFFICE | SECY | OCM | OCM |
| SURNAME | CCrimes | [Signature] | Kell |
| DATE | 4/18/95 | 4/18/95 | 4/18/95 |

QUESTIONS FOR DOE

1. The original goals of the LSS are attached. Another potential benefit of the LSS is memorializing the bases for decisions. Does DOE consider these goals and benefits to be appropriate. Does DOE consider the LSS to be a necessary element in meeting its schedule for a repository licensing system?
2. Does DOE intend to use the LSS as its documentary database for the high-level waste repository and, if not, is DOE intending to rely on an alternative database whose use is restricted to DOE? What would be the projected incremental cost of this approach and why would it be justified?
3. What are the implications of DOE's new program approach for the need and timing of the LSS if it is to achieve its original goals?
4. With the LSS goals and benefits in mind, how soon should the LSS be implemented? Would a pilot project be a useful step? The Commission fears that the benefits are likely to be lost if the LSS is not available until 1999.
5. What is DOE's present schedule for completing the LSS and what are the critical path items? Can any of these items be started earlier and accomplished quicker?
6. When the Nuclear Waste Policy Act was passed in 1982, a decision process of about 10 years was contemplated. Now the process is expected to take until 2004 or about 20 years. In light of the increased time, what additional burdens does DOE foresee in the discovery, deposition, hearing, etc., process and how has that affected its plans for the LSS?
7. What steps will DOE take to involve the NRC during design and implementation of the LSS to ensure NRC acceptance and certification for use?
8. Our joint efforts in developing and implementing the LSS require close coordination between DOE and NRC. The timely response to requests made of each other is critical to the ability of both organizations to carry out their responsibilities in this. In order that requests for information do not become delayed, does DOE have any suggestions for improving access and flow of information between the two agencies regarding LSS?

Enclosure

9. Are there any factors which will preclude DOE from granting LSS participants access to DOE computers containing the document (sub)collections it wants to replicate and deliver in a separate, distinct LSS?
10. What is the current five year budget forecast for LSS design, development, and implementation activities? How much of that budget is LSS-unique; how much is serving dual purpose in meeting DOE systems or records requirements?
11. What level of resources, including staff time, will be needed to develop and implement the LSS?
12. Given the longer time frames now involved, does DOE plan to screen its data base to ensure that documents which may no longer be relevant to licensing because of the extended repository program schedule are excluded from the data base? If so, how?
13. What specific benefits does DOE expect to realize by using the LSS?
 - a. How much time will be saved?
 - b. How much money will be saved?
 - c. What is the cost of the LSS and the cost-benefit of having an LSS?