

**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

**Title:** **ALL EMPLOYEES MEETING (PUBLIC MEETING)**

**Location:** **Rockville, Maryland**

**Date:** **Thursday, October 30, 1997**

**Pages:** **1 - 43**

**ANN RILEY & ASSOCIATES, LTD.**

1250 I St., N.W., Suite 300  
Washington, D.C. 20005  
(202) 842-0034

#### DISCLAIMER

This is an unofficial transcript of a meeting of the United States Nuclear Regulatory Commission held on October 30, 1997 on "The Green" Plaza area at One White Flint North, Rockville, Maryland. The meeting was open to public attendance and observation. This transcript has not been reviewed, corrected or edited, and it may contain inaccuracies.

The transcript is intended solely for general informational purposes. As provided by 10 CFR 9.103, it is not part of the formal or informal record of decision of the matters discussed. Expressions of opinion in this transcript do not necessarily reflect final determination or beliefs. No pleading or other paper may be filed with the Commission in any proceeding as the result of, or addressed to, any statement or argument contained herein, except as the Commission may authorize.

1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

3 \*\*\*

4 ALL EMPLOYEES MEETING

5 \*\*\*

6 PUBLIC MEETING

7 \*\*\*

8  
9 Nuclear Regulatory Commission  
10 "The Green" Plaza Area  
11 11555 Rockville Pike  
12 Rockville, Maryland  
13

14 Thursday, October 30, 1997  
15

16 The Commission met in open session, pursuant to  
17 notice, at 1:33 p.m., the Honorable SHIRLEY A. JACKSON,  
18 Chairman of the Commission, presiding.  
19

20 COMMISSIONERS PRESENT:

21 SHIRLEY A. JACKSON, Chairman of the Commission  
22 GRETA J. DICUS, Member of the Commission  
23 EDWARD MCGAFFIGAN, JR., Member of the Commission  
24 NILS J. DIAZ, Member of the Commission  
25

ANN RILEY & ASSOCIATES, LTD.  
Court Reporters  
1250 I Street, N.W., Suite 300  
Washington, D.C. 20005  
(202) 842-0034

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

[1:33 p.m.]

1  
2  
3 MRS. NORRY: I would like to welcome all of you to  
4 the Seventh Annual All Employees Meeting on the Green. You  
5 will be hearing from the Chairman and the Commissioners. I  
6 would like to let you know that we will be offering an  
7 opportunity, as we always do, to have questions from the  
8 audience after the Chairman is finished with her remarks.  
9 There are microphones scattered throughout the tent.

10 In addition, we will have questions relayed from  
11 the regions. They will be read to you by Sue Smith and  
12 Keith Everly.

13 I would like to point out that this is a meeting  
14 which affords the Chairman and the Commissioners an  
15 opportunity to discuss the strategic direction of the  
16 agency, and that will be the appropriate subject for  
17 questions. We will not be covering questions today which  
18 relate to personnel, staffing, or working conditions. Those  
19 types of questions will be covered in a meeting which we  
20 will have within a couple of months with the agency  
21 partnership, and it will be a meeting that will be open to  
22 all employees. We will let you know before the meeting is  
23 scheduled. That will be the appropriate time to address  
24 those kinds of questions.

25 Without further ado, Chairman Jackson.

1 CHAIRMAN JACKSON: Thank you, Mrs. Norry.

2 Good afternoon. Let me introduce my Commission  
3 colleagues, Commissioner Greta Joy Dicus, Commissioner Nils  
4 J. Diaz, and Commissioner Edward McGaffigan, Jr.

5 On behalf of my Commission colleagues, I would  
6 like to welcome all of you to this special meeting of the  
7 Commission with the NRC staff. I extend that welcome both  
8 to those of you assembled here in the tent at headquarters  
9 and also to the groups of employees connected by telephone  
10 from the regions.

11 These all employees or all hands meetings have  
12 become an annual tradition at NRC since 1991. They are  
13 intended to stimulate and to facilitate direct communication  
14 between the Commission and individual members of the staff,  
15 to clarify the Commission's agenda, to engender a shared  
16 vision, and to motivate the staff in pursuit of that vision.

17 I should mention that in keeping with these same  
18 purposes I also have begun holding a series of small group  
19 sessions with the staff which are referred to as  
20 Chairman-Staff dialogues. These sessions, which I began in  
21 August of this year, are proving to be extremely beneficial  
22 and positive for all involved, and I eventually hope to meet  
23 each of you in this context.

24 After my introductory presentation, our agenda  
25 today will be determined by you, by your questions. I

ANN RILEY & ASSOCIATES, LTD.  
Court Reporters  
1250 I Street, N.W., Suite 300  
Washington, D.C. 20005  
(202) 842-0034

1 increasingly have become aware of how important it is that  
2 the Commission understand the perspectives and concerns of  
3 the staff if we are to be effective in setting and directing  
4 agency policy.

5           Conversely, it is equally important that the staff  
6 understands the perspective of the Commission, the  
7 priorities and concerns that undergird Commission policy,  
8 decisions and directives.

9           We will respond to your questions today based on  
10 our understanding of your concerns and our individual  
11 perspectives on those concerns.

12           Our format today will be similar to that used for  
13 previous sessions. Following this introduction, the  
14 Commission will entertain questions from any of the  
15 employees present here on the green as well as from any of  
16 the regional and field offices connected by telephone.

17           As in previous years, this is the second session  
18 since we have insufficient space to accommodate all  
19 employees in a single session.

20           Before we address questions, let me take a few  
21 minutes to review with you what we have accomplished as an  
22 agency since our last all employees meeting in October of  
23 1996 as well as to discuss a few of the internal and  
24 external forces of change that continue to shape our  
25 regulatory environment.

1 First of all, on behalf of the entire Commission,  
2 let me extend my hearty congratulations to all of you for  
3 reaffirming in an era of rapid and challenging change that  
4 the NRC is a highly competent technical agency that employs  
5 extraordinarily gifted and dedicated individuals.

6 Let me give you a few examples of some of the more  
7 significant NRC accomplishments of the past 12 months.

8 On March 3rd of this year we officially assumed  
9 regulatory jurisdiction over the U.S. Enrichment Corporation  
10 gaseous diffusion plants in Piketon, Ohio, and Paducah,  
11 Kentucky.

12 In May we witnessed the culmination of nearly a  
13 decade of effort when the Commission issued the final rules  
14 certifying the advanced boiling reactor design by GE Nuclear  
15 and the System 80+ design by ABB Combustion Engineering.

16 On July 21st the Commission issued the final  
17 license termination rule establishing radiological criteria  
18 for decommissioning and release of a facility for  
19 unrestricted use and conditions and requirements for  
20 restricted release.

21 The NRC also has made significant progress on  
22 other fronts in areas that continue to receive Commission  
23 focus. Allow me to mention just a few of these areas both  
24 in terms of the progress we have made and in terms of our  
25 agenda and what it should be for the near future.

1           The first such area is a grouping we often refer  
2   to as design basis issues. Over the past year we have made  
3   significant progress in this area, but our efforts also have  
4   made it clear that we need a big picture solution rather  
5   than one more strip in a series of band-aids. Currently we  
6   have multiple methods of dealing with inoperable and/or  
7   degraded conditions, each with its own formula for  
8   classifying equipment, that is, systems, structures, and  
9   components.

10           We have 10 CFR 50.59, Generic Letter 91-18,  
11   Appendix B, Criterion 16, technical specifications, the  
12   FSARs and other guidance, each created at a different point  
13   in the evolution of this agency and of our regulatory  
14   framework, each with a specific purpose and scope.

15           The resultant ambiguity and overlap of these  
16   methods, guidance documents and requirements have created  
17   inconsistent application or gaps in their application that  
18   can create confusion and inefficiency both for us and for  
19   our various stakeholders. The agenda for the near future,  
20   therefore, is to find a unified, consistent approach that  
21   also is understandable, fair, and risk informed.

22           Another area in which we are seeking a big picture  
23   solution concerns the various NRC processes for assessing  
24   power reactor licensees, such as the use of the plant issues  
25   matrix, the plant performance review, the systematic



1 assessment of licensee performance, and the senior  
2 management meeting.

3 NRR currently is working to devise an overall  
4 integrated approach to plant assessment that will clarify  
5 the objectives of each assessment method, eliminate  
6 redundancies, define roles and responsibilities, ensure  
7 consistency, reduce administrative burden, and match the  
8 processes to staff resources.

9 A third area that has received a great deal of  
10 attention both from the NRC staff and from outside observers  
11 is the potential external regulation by the NRC of the  
12 Department of Energy nuclear facilities. Both the NRC and  
13 the DOE have created high level task forces to identify the  
14 policy and regulatory issues needing analysis and  
15 resolution.

16 In a June 1997 meeting Secretary of Energy Pena  
17 and I on behalf of the Commission agreed on a pilot program  
18 to explore NRC regulation of DOE facilities. This pilot  
19 program would simulate NRC regulation of a selected set of  
20 DOE nuclear facilities over a two-year period in order to  
21 help both agencies gain experience in this area.

22 Simulated regulation, as defined for the purposes  
23 of this pilot program, means that the NRC will test  
24 regulatory concepts and evaluate a facility and its  
25 standards, requirements, procedures, practices and

1 activities against standards that the NRC believes would be  
2 appropriate to ensure public health and safety in view of  
3 the nature of the work and the hazards that the pilot  
4 facility represents.

5 Simulated regulation will involve NRC interactions  
6 with both DOE and DOE contractors and other stakeholders and  
7 will involve inspections of each pilot facility to identify  
8 implementation issues but will not result in enforcement  
9 actions to compel compliance with particular NRC standards  
10 or requirements. Any significant inspection findings with a  
11 health and safety impact will be transmitted promptly to the  
12 appropriate DOE organization for review and corrective  
13 actions as appropriate by the pilot facility.

14 In the recently approved NRC budget for fiscal  
15 year 1998 the Congress designated \$1 million for this pilot  
16 program. The NRC and the DOE have worked together to  
17 prepare a memorandum of understanding (MOU) to establish the  
18 pilot program framework. This MOU already has been signed  
19 by Energy Secretary Pena. I expect to sign the MOU on  
20 behalf of the NRC in the near future once the Commission has  
21 completed its formal action on it.

22 Two pilot facilities for this fiscal year have  
23 been chosen to date, the Lawrence Berkeley Laboratory in  
24 Berkeley California and the Radio Chemistry Facility at the  
25 Oak Ridge National Laboratory. We currently are finalizing

1 the NRC teams for the pilot activities at each of these  
2 facilities. In fact, just yesterday an NRC group conducted  
3 a site visit to the Lawrence Berkeley facility.

4 The third facility has not yet been chosen but we  
5 are considering the possibility of a fuel storage facility.

6 As we proceed in this area we must ensure that our  
7 commitments do not overcome our resources, that is, that any  
8 new responsibilities we take on do not compromise our  
9 ability to regulate effectively within the scope of our  
10 current mission.

11 In an area that is somewhat related we have  
12 continued to make progress in our activities with respect to  
13 our potential regulatory oversight of the Hanford Tank Waste  
14 Remediation project. In January of this year we signed an  
15 MOU with DOE regarding this project, and in May we  
16 established a full-time, permanent, onsite NRC  
17 representative to handle our issues. At present we are  
18 continuing to establish review criteria relative to  
19 regulatory and licensing issues and to review submittals of  
20 DOE contractors.

21 In January of this year DOE also issued its record  
22 of decision for the storage and disposition of weapons  
23 usable fissile materials. The dual track approach relative  
24 to plutonium that DOE announced involves immobilizing  
25 surplus plutonium with high level radioactive waste in a

1 glass or ceramic material for direct geologic disposal, and  
2 burning, secondly, some of the surplus plutonium as mixed  
3 oxide (MOX) fuel in existing commercial nuclear reactors.

4 The NRC interest in this approach stems from three  
5 areas of potential impact: high level waste, fuel cycle  
6 facilities, and commercial nuclear power reactors.

7 The Commission received a briefing from DOE  
8 shortly after the record of decision was issued and in  
9 February and March the NRC sponsored two technical seminars,  
10 both open to the public, in which nuclear industry  
11 representatives made presentations on the fabrication of MOX  
12 fuel and its use in commercial reactors. More recently, the  
13 Commission received a second DOE briefing and update in  
14 which DOE acquisition strategy for MOX fuel fabrication and  
15 irradiation services was described.

16 As this area continues to unfold we must ensure  
17 that the NRC is prepared to perform its emerging regulatory  
18 role in a manner that ensures the protection of public  
19 health and safety and that avoids unnecessary delays or  
20 costs.

21 Another area in which we have made considerable  
22 strides relates to information technology and information  
23 management. To ensure that the proper focus and emphasis is  
24 given to this area, the chief information officer (CIO) has  
25 reorganized both processes and structure to fully integrate

1 information management into program activities.

2 A significant accomplishment in this area is the  
3 establishment and the beginning implementation of a  
4 requirement that all budget requests related to information  
5 technology must be evaluated under the capital planning and  
6 information control (CPIC) process before an information  
7 technology system is included in the budget.

8 The CIO also has developed a comprehensive plan to  
9 repair or to replace systems that need change to be ready  
10 for the year 2000. More about this later.

11 This set of topics is only a snapshot based on a  
12 promise to be reasonably brief, but other issues that could  
13 be covered include the potential for tritium production in  
14 commercial light water reactors, the business process  
15 reengineering and guidance consolidation ongoing within  
16 NMSS, and various initiatives that come under the heading of  
17 regulatory excellence or regulatory effectiveness.

18 In addition, this focus on change and transition  
19 should not minimize the tremendous accomplishment  
20 represented by your day-to-day efforts on tasks that fall  
21 within the more traditional scope of NRC efforts. What is  
22 significant to note is that as an agency that is seeing  
23 changes on a variety of internal and external fronts we have  
24 continued to be successful in adapting to and positioning  
25 ourselves for those changes.

1           A significant factor in this success, which in  
2           itself has been both a challenge and an accomplishment, is  
3           that we have operated for much of this year with a new  
4           organizational alignment and in many cases with a new  
5           management team.

6           Rarely, if ever, has the NRC gone through a year  
7           with so many individuals taking on new positions of  
8           significant leadership and management responsibility  
9           concomitant with our organizational realignment at the  
10          beginning of 1997. In almost every case these individuals  
11          have experienced challenges considerably greater or  
12          different in character from anything they had faced before,  
13          and I believe it is to their credit that the present  
14          management team, both in the regions and in headquarters,  
15          has made the transition so smoothly.

16          Now let me get to a particular area of focus that  
17          I want to spend some time on. In making my rounds through  
18          the various groups of working level NRC staff I have become  
19          increasingly aware of how important it is that each employee  
20          understands his or her roles and responsibilities, that is,  
21          what we do and why we do it.

22          I also have noticed that the eyes of people  
23          sometimes glaze over when people hear the term "strategic  
24          assessment and rebaselining" even though you have been  
25          hearing it for a long time, primarily because it has been

1 viewed by some as a theoretical exercise with little or no  
2 practical value. Today I intend to mention strategic  
3 assessment and rebaselining repeatedly, and I am going to  
4 ask each of you to pay close attention because I intend to  
5 personalize the message to emphasize how planning, budget  
6 and strategic assessment have directly impacted and will  
7 continue to impact you and your daily tasks.

8           The foundation of strategic assessment and  
9 rebaselining rests on change, the new elements being added  
10 to our mission, the changing world of those we regulate,  
11 that is, new business environments, which dictate that we  
12 must change; new opportunities to use new tools to become  
13 more effective in our regulation; and changing expectations  
14 of our various stakeholders, including the public, the  
15 Executive Branch, as evidenced by Vice President Gore's  
16 national performance review, and the Congress.

17           Perhaps more than in any recent time the U.S.  
18 Congress has taken a direct and an intrusive interest in  
19 holding federal agencies accountable and demanding that they  
20 justify their resource needs, their expenditures, and even  
21 their very existence.

22           None of you are unfamiliar with terms like  
23 reinventing government or with concepts like do more with  
24 less or with the actual impact of budget cuts. What is  
25 important to realize, however, is that the stakes are

1 continuing to rise. Let me give you an example.

2 As I started talking about earlier, most of you  
3 probably are aware of the information management issue known  
4 as the "year 2000 problem," referring to the fact that most  
5 computer systems that manage dates and schedules are based  
6 only on the last two digits of the year and therefore cannot  
7 differentiate between, for example, the year 2000 and the  
8 year 1900.

9 What you may not know is that the member of the  
10 Congress who oversees information technology issues in the  
11 House of Representatives recently issued a report card in  
12 which federal agencies were graded on their progress in  
13 addressing this problem. This represents the high attention  
14 being given to this area by the Congress.

15 But now consider the potential impact on a  
16 practical level. Four agencies, as a result of these  
17 grades, were put on notice by the Office of Management and  
18 Budget that they will not receive any funding for buying new  
19 computer and other information technology systems in fiscal  
20 year 1999 until they have plans and actions in place to  
21 address the year 2000 problem in mission critical computer  
22 systems.

23 The point of this example is to illustrate the  
24 degree of detail and the level of interest that the Congress  
25 has in how well agencies can identify what they do, why they



1 do it, and the resources required. That is, how well  
2 agencies can justify what they do, why they do it, and the  
3 level of resources required.

4 Looking backward from this perspective, the reason  
5 becomes obvious for the level of effort and attention the  
6 Commission has focused on strategic assessment, the  
7 strategic plan, and the performance plan. Over two years  
8 ago we undertook the strategic assessment and rebaselining.

9 Phase 1 was painstaking but simple in nature. We  
10 attempted to answer two basic questions across the agency  
11 and in exhaustive detail: First, what do we do, and second,  
12 why do we do it, considering the various internal and  
13 external factors that bear on that?

14 This phase, which was completed in April of 1996,  
15 identified a series of topics and issues on which the  
16 Commission needed to deliberate and to make decisions. We  
17 call these topics direction setting issues, or DSIs, and I  
18 am glad to see that Commissioner McGaffigan brought the book  
19 of DSIs. He had it this morning and it was very useful.

20 Phase 2 involved the development of options to  
21 address each of these issues. The Commission shared its  
22 preliminary views with stakeholders through the Internet and  
23 public meetings. The staff reviewed and summarized the  
24 comments from stakeholders on each issue paper associated  
25 with the DSIs and the Commission made its final decisions on

1 the DSIs.

2 In phase 3 we developed a new strategic plan based  
3 on the results of the previous two phases undergirded by the  
4 DSI decisions in which we set forth the long-term directions  
5 and goals of the NRC.

6 In accordance with the Government Performance and  
7 Results Act, or GPRA as it is called, the strategic plan  
8 will be reviewed annually and updated every three years.  
9 When last month we submitted to the Congress and the OMB the  
10 NRC fiscal year 1997 to fiscal year 2002 strategic plan,  
11 phase 3 of the strategic assessment and rebaselining had  
12 officially come to an end.

13 I also should note that a copy of the strategic  
14 plan was distributed to all employees this week. We have  
15 our copy up here, again thanks to Commissioner McGaffigan.  
16 And I would encourage each of you to review it and to  
17 provide feedback.

18 This brings us to the current and final phase of  
19 strategic assessment and rebaselining: implementation, or  
20 what has been referred to as the rollout of the strategic  
21 plan. Regardless of what your involvement has been to date,  
22 at this point in the process every employee should sit up  
23 and take notice.

24 With the issuance of the strategic plan and the  
25 more dynamic performance plan that flows from it we are

1 putting into place a new agency planning process. This is  
2 not an additional task to be added to your workload. In  
3 fact, it is the way to accomplish your work. In this phase  
4 of strategic assessment and rebaselining we no longer are  
5 talking about a special one-time effort but rather a way of  
6 doing business.

7 Each manager, and to a lesser extent each  
8 employee, must understand, first, how to develop an  
9 operating plan for your area of NRC functionality.

10 Second, how that plan fits into the overall  
11 strategic plan.

12 Third, how to integrate that plan with the budget  
13 process.

14 Fourth, how to conduct performance monitoring for  
15 that plan.

16 In fact, I would go so far as to pledge to the  
17 working level staff that your managers in the not too  
18 distant future will be sitting down to explain to you the  
19 linkages of the strategic plan with your specific area of  
20 work. I will be meeting with SES managers next Monday to  
21 emphasize precisely this need and expectation.

22 The new agency planning process will provide an  
23 effective approach for planning, budgeting and assessing our  
24 performance against the goals of the strategic plan.

25 The chief financial officer, Mr. Funches, in

1 conjunction with the other members of the Executive Council,  
2 Mr. Callan and Mr. Galante, has developed a new planning and  
3 performance management system that will involve all  
4 employees in the planning process down to the branch and  
5 section levels. The four main components of the system are  
6 as follows:

7 (1) Setting the strategic direction and  
8 performance expectations for the specific organization.

9 (2) Determining the resources and the planned  
10 accomplishments necessary to meet those expectations.

11 (3) Measuring and monitoring performance against  
12 the established expectations.

13 (4) Assessing performance, developing lessons  
14 learned, and applying the results.

15 This planning and performance system integrates  
16 many of the ongoing efforts associated with the operating  
17 plans, program reviews and program evaluations. In many  
18 ways this planning process represents a paradigm shift that  
19 relates not only to planning and resource management but in  
20 the very way that the NRC conducts business in general.

21 So I encourage all of you to become familiar with  
22 the goals of the strategic plan and to provide feedback on  
23 ways that we more seamlessly can integrate planning into our  
24 day-to-day efforts.

25 So let me now attempt to link all of this

1 together.

2           The more information and planning involvement that  
3 the staff has at the first line level the more success we  
4 will have in meeting and adhering to the strategic plan.  
5 The more success we have at adhering to the strategic plan  
6 the more outcomes oriented as opposed to outputs orientated  
7 we will be, and the more likely we will be to have  
8 consistency and acceptable performance in our programs and  
9 in our budget process in a way clearly linked to agency  
10 goals. Given the current level of congressional and  
11 stakeholder scrutiny, without success and consistency in our  
12 programs and in our budget process, we cannot expect to  
13 succeed in accomplishing our mission as we understand it  
14 today.

15           In summary, I hope that I have reemphasized the  
16 significant progress that we have made in a number of areas,  
17 the issues on which we must continue to remain focused, and  
18 in particular the need for additional effort in planning and  
19 financial management. Most importantly, I hope that I also  
20 have exhibited my pride in serving with you in this truly  
21 remarkable agency.

22           Now I would like to turn this meeting over to you.  
23 I would ask each of you who wishes to ask a question to use  
24 one of the microphones available so that everyone can hear  
25 your question. Please feel free to direct your question to

1 any one of us. If your question is intended for all of us,  
2 I will refer it to each of my fellow colleagues in turn in  
3 order to facilitate moving the meeting along.

4 May we have the first question, please.

5 QUESTION: Madam Chairman, in the fuel cycle area  
6 we are being committed to using a risk informed approach to  
7 our inspections of fuel cycle facilities. My question is,  
8 is there an effort to provide resources to develop a body of  
9 risk assessment technologies or methods that we can point to  
10 and show an impartial observer that we have done that  
11 correctly?

12 CHAIRMAN JACKSON: It is interesting. Are you  
13 sure that question wasn't passed along to you from this  
14 morning?

15 Let me say the following. There is a multipart  
16 answer. First of all, I'm a big believer that you have to  
17 plan the work, resource load it, and then work the plan.

18 There are efforts under way within NMSS to move to  
19 and adopt a more risk informed approach to regulation in the  
20 general area of materials. NMSS encompasses a broad scope,  
21 and in fact Commissioner Dicus spoke very eloquently to that  
22 this morning. Therefore the kind of risk assessment  
23 methodology that may work in one area may not be entirely  
24 appropriate for another, but there is great opportunity to  
25 have synergy and to have a cross feed from efforts that are

1 even going on in the reactor area using PRA techniques and  
2 looking at how that comports or can potentiate what may be  
3 going on with performance assessment if you are talking  
4 repository performance, integrated safety assessments for  
5 fuel cycle facilities, or some other methodology if there is  
6 another activity.

7           There is a rulemaking going on relative to  
8 revision of Part 70 for fuel cycle facilities that is  
9 looking to try to fold into how we regulate in that area  
10 systematic safety assessments using ISAs.

11           There is a rulemaking also going on with respect  
12 to our regulation of the medical use of radioisotopes which  
13 also is intended to be as risk informed as it can be. We  
14 will develop, coupled with efforts that Margaret Federline  
15 is undertaking more broadly and within NMSS, to have a risk  
16 informed approach. We will have a better sense of what our  
17 resource needs are and those things will then work their way  
18 through the budget process as appropriate.

19           QUESTION: Thank you.

20           CHAIRMAN JACKSON: Thank you.

21           Is there another question?

22           QUESTION: As kind of a carry-on to that, risk  
23 informed, performance based are very elegant words, but at  
24 my worker bee level I don't hear a dialogue going on that  
25 helps to explain to us what those elegant words mean in a

1 practical manner. Could there be an effort in training or  
2 in other means to open that dialogue so that we are not  
3 perceived as being against the concept if we even ask what  
4 it is?

5 CHAIRMAN JACKSON: Thank you for asking that  
6 question. In fact, we have just begun an effort in my  
7 office working with the other Commissioners to in fact  
8 develop a statement as to what we all agree and can agree on  
9 what risk informed, performance based regulation is. It's a  
10 document that we hope to have developed within the next few  
11 weeks to a month that we can all sign off on, fine tune,  
12 that can then be used as the basis for the kind of  
13 discussion at all levels of the agency.

14 I believe you are absolutely right. There is a  
15 need now to pin this down, to have a common vocabulary, and  
16 to have it form the basis and to undergird the various  
17 efforts that are under way.

18 It has become clear, particularly in the last  
19 several months, that there is a need to do that. I think we  
20 may all start thinking we knew what it meant in reactor  
21 space with PRA, and so forth, but as your question and the  
22 previous question have made abundantly clear, we need to  
23 have some commonality of approach, and that is what the  
24 Commission is setting out to do.

25 COMMISSIONER McGAFFIGAN: As still a newcomer to



1     this agency, someone who has been here only 15 months, I can  
2     tell you I had the same reaction when I first heard the  
3     words risk informed, performance based. I think  
4     Commissioner Diaz at a recent Commission meeting talked  
5     about the need for a picture in your head, and Commissioner  
6     Dicus and I on the side admitted that we didn't have that  
7     picture of just the risk informed piece. We have discovered  
8     in recent weeks we are now making a very careful distinction  
9     between risk informed and risk based.

10           CHAIRMAN JACKSON: That's right.

11           COMMISSIONER MCGAFFIGAN: There is a continuum  
12     that goes from risk based to deterministic regulation, and  
13     risk informed is somewhere on that continuum. I think it's  
14     an exercise that the Chairman has under way. It's a useful  
15     exercise, but I think it's going to be a long time as we try  
16     to define where on that spectrum we are.

17           The strategic plan says we are going to try to do  
18     risk informed and, as appropriate, performance based  
19     regulation. Performance based is really a synonym for  
20     flexible as opposed to prescriptive.

21           The Chairman in a speech she made last week at the  
22     Reactor Safety Conference took a crack at defining what "as  
23     appropriate performance based" might mean, and she said --  
24     I'm sure she will correct me if I'm wrong -- that one way to  
25     try to define when it's appropriate is if the place where we

1 are granting the flexibility does not result in an  
2 intolerable state for the system, then we can consider  
3 flexible or performance based approaches, and conversely, I  
4 think she said if the flexibility could result in an  
5 intolerable situation, then we have to stay relatively  
6 prescriptive or totally prescriptive.

7 We are trying; we are grappling. I think it's a  
8 wonderful question, and I don't know that we are going to  
9 come to simple answers any time soon.

10 CHAIRMAN JACKSON: What the Commissioner has just  
11 described to you in terms of looking at this issue of  
12 deciding whether change will result in something tolerable  
13 versus intolerable in fact came out of a discussion that he  
14 and I had. That's why we realize that there is a need to at  
15 least begin a dialogue here at the Commission level and try  
16 to take some initial stabs at what we think, at least today,  
17 we mean, and we are undoubtedly sure that it will evolve  
18 with time and will take a slightly different meaning,  
19 depending upon the particular context.

20 Commissioner Dicus, do you have a comment?

21 COMMISSIONER DICUS: We all agree at this table  
22 that we have a lot of work yet to do to successfully  
23 implement a march into risk informed, performance based  
24 activities. I believe in it and I think it's the direction  
25 that we definitely should go. I think there is a commitment

1 to do that, but making this commitment where we are today  
2 and successfully concluding that there is a gap in here.

3 I think the two questions we had certainly have  
4 addressed the problem, the definition. Do we all understand  
5 what it is? Do we know how to do it? Are we providing the  
6 kind of training and guidance that we should so that we can  
7 successfully implement it?

8 We have, I think, the nuclear power industry with  
9 us to do this. When we get over into the material side of  
10 the house, I think they will as well, but at the same time  
11 we have got to show some successes in our first attempts to  
12 do this. I am concerned that we are going to get everything  
13 together in the right sequence and in a proper time frame to  
14 do this. We have a commitment to do that, but we have a lot  
15 of work yet to do.

16 CHAIRMAN JACKSON: Commissioner Diaz.

17 COMMISSIONER DIAZ: I think the problem goes  
18 beyond the issue of definition. I think the agency needs to  
19 clearly spell out what is our commitment to risk informed or  
20 risk based or risk informed, performance based, and do that  
21 in a sequence so that everyone in the agency is clear on it.  
22 I think we are all concerned with that.

23 I don't see anybody at the microphones, and that  
24 concerns me. Let me make a comment on that. I don't know  
25 whether it is appropriate or not, but I'm one of those guys

1 that never worries whether what I am saying is appropriate  
2 or not.

3 [Laughter.]

4 COMMISSIONER DIAZ: Somehow I always pay for it  
5 whether I was right or not.

6 We as an agency always have been but lately have  
7 been more and more concerned with the right that every  
8 employee of every licensee has to raise safety issues. In  
9 fact we have put out a new vocabulary, whether it is a  
10 chilled environment, as I like to call it, or whether we  
11 want to develop a warm environment. Actually, tropical  
12 sounds good.

13 [Laughter.]

14 COMMISSIONER DIAZ: I think the same issue is very  
15 important to us. We need to be committed to have every  
16 employee of this agency to raise any issue that is of  
17 importance to our mission or our goals not only without the  
18 fear of retaliation, but actually knowing that it will be  
19 welcomed, knowing that it will be appreciated, knowing that  
20 it will be considered.

21 Although we don't agree all the time on many  
22 issues at the Commission level, and in fact sometimes it is  
23 fun to disagree, I believe that on this issue we are in  
24 total agreement, that you need to know that your comments  
25 and your points of view are very welcome.

1           CHAIRMAN JACKSON: Thank you. In fact that is  
2 precisely why we are here. So I'm looking for hundreds of  
3 people to come to the microphone.

4           QUESTION: While I was sitting next to my branch  
5 chief he poked me and he said it's okay to ask a second  
6 question.

7           [Laughter.]

8           QUESTION: I'm concerned for safety now, but  
9 actually for a different reason. We might do some very fine  
10 work within the Commission, but when we start in with our  
11 risk informed inspections, the outsider who doesn't maybe  
12 understand what we are doing may look at our efforts and say  
13 all of a sudden we are inspecting one particular facility  
14 twice or three times as much as another. We say it's  
15 because that other facility is more risky. How do we defend  
16 that?

17          CHAIRMAN JACKSON: I think the defense is the  
18 following.

19          First of all, our job is protection of public  
20 health and safety. The ultimate and fundamental objective  
21 of a risk informed approach is to give in fact more meaning  
22 and assurance that what we are focused on are those things  
23 that have the greatest safety significance.

24          Then there are various tools, some of which we  
25 have spoken about, that one can develop and apply to making

1 risk assessments, and out of that there is going to be a  
2 fallout, that one finds that the water flows both ways.  
3 There are going to be some instances or some facilities  
4 where we may have been giving more attention than needs to  
5 be given relative to where the real risks are, but there  
6 could be other facilities or parts of facilities where we  
7 need to give more attention.

8 That's in fact what a risk informed approach does  
9 for you. It means that you are focused on where the risk is  
10 and therefore there can be fallout both ways. It's a  
11 message in fact that I've clearly made with the industry,  
12 particularly the nuclear power industry, namely, that if one  
13 moves down a risk informed path that the water flows both  
14 ways.

15 On the one hand there are going to be places and  
16 cases where we clearly can relieve regulatory burden, and we  
17 should, based on less risk significance. On the other hand  
18 there could be cases where greater vulnerabilities are in  
19 fact realized and recognized and may heretofore have been  
20 known about, in which case there could be more that is  
21 required or more scrutiny that is needed.

22 I think we just have to be consistent in that  
23 message and I think it helps us, but that is why the kinds  
24 of discussions we have already begun here at the Commission  
25 level and the need to try to settle on definition, develop

1 tools to train people, et cetera, and then to have all of  
2 our people deliver this message. I think that helps us in  
3 the long run. So it's different and a change in our  
4 vocabulary and our approach, but it is something that I  
5 think we have to keep working at.

6 I appreciate the question because it's an  
7 important one.

8 Is there another question?

9 QUESTION: This is a question from the regions.  
10 It was asked this morning but we decided to ask it again  
11 with a little more background.

12 As you may know, there has been a significant loss  
13 of senior resident and resident inspector personnel from the  
14 program over the past year both to industry and to other NRC  
15 jobs. There appear to be several factors influencing the  
16 individual decisions but some common themes relate to the  
17 loss of effectiveness of the resident inspector pay scale  
18 due to the implementation of locality pay and the impact of  
19 the resident inspector rotation policy on families and  
20 family finances.

21 What is the Commission doing to enhance retention  
22 and recruitment of high quality resident inspectors?

23 CHAIRMAN JACKSON: I will give the answer that I  
24 gave this morning, which is that in fact retention of high  
25 quality staff at all levels, but particularly in the

1 resident inspector ranks, is obviously of concern to the  
2 Commission at all times.

3 With respect to the impact of locality pay and  
4 rotation policy, that has to do with a specific term and  
5 condition of work, and that is not something that we are  
6 prepared to discuss, but I would in fact invite you to have  
7 those discussions with Mr. Bird and other representatives  
8 from the Office of Human Resources in terms of the specific  
9 issues.

10 In the general sense, in terms of our interest in  
11 recruitment and retention of qualified and capable staff in  
12 the inspector ranks, it's an area that we are giving  
13 attention to. We are looking at the overall situation, but  
14 there is always an issue in terms of the competition, in  
15 terms of what people can do in the private sector vice what  
16 they can do in a government position.

17 COMMISSIONER MCGAFFIGAN: There is a paper due to  
18 the Commission as a result of DSI-11. The demographic  
19 question that came up this morning, I actually hadn't been  
20 aware of the loss, but there is a requirement on the staff  
21 to let us know by November 30th about the past and present  
22 demographics and give us any recommendations that they need  
23 to give us to ensure a stable or improving resident program.  
24 That is something that we are expecting a paper on very  
25 soon, and the demographic data will be in there.



1 I think we all believe that the residents are sort  
2 of the forefront, the pilots of this institution in some  
3 sense, and we need to make sure that they are the best that  
4 they can be.

5 CHAIRMAN JACKSON: Thank you.

6 Is there another question?

7 QUESTION: You indicated that our strategic plan  
8 is the first step in managing for results. Could you  
9 outline how you envision succeeding steps being implemented  
10 to have employees be accountable for the results as they  
11 perform their duties as well as the time line for this?

12 CHAIRMAN JACKSON: The Executive Council has  
13 undertaken the implementation of a new program and budget  
14 planning process for the agency that is getting under way  
15 this fall. A key part of that involves developing operating  
16 plans, as I had indicated earlier, for the various units of  
17 NRC down to the section level.

18 Those operating plans are not just activity  
19 focused; they are focused on what we need to do to  
20 accomplish the overall goals of the agency translated  
21 appropriately to goals down to these functional levels.

22 The activities that would be done as part of those  
23 operating plans are linked to the agency goals. In fact  
24 that is going to be rolled out and is being rolled out in  
25 the next several weeks. As I indicated earlier, I would

1 expect your managers to sit down with you and have  
2 discussions with you about your work and how that links to  
3 the strategic plan and how the various unit operating plans  
4 fit into that.

5 QUESTION: I've got a question about the strategic  
6 plan and implementing operating plans. One of the things  
7 that I have noticed in looking at some of the goals and  
8 things that have filtered down to the working level in my  
9 area is it seems that we are focusing too hard on  
10 establishing goals that are easy to measure rather than  
11 goals that really speak to the quality of the work that we  
12 are doing.

13 As an example, we will do so many inspections a  
14 year versus the quality of the inspections that we do, or  
15 we'll have so many licensing actions a year versus the  
16 quality of the licensing actions themselves.

17 I am a little bit concerned that we are going to  
18 get misdirected from the real focus and the real goal, which  
19 is to do high quality work, by trying to achieve some other  
20 goals that may be somewhat important but just happen to be  
21 the easiest things to measure and therefore the goals that  
22 are going in the operating plans.

23 CHAIRMAN JACKSON: What you have talked about,  
24 whether you are talking number of inspection hours or number  
25 of licensing actions, fall into the column of what I call

1     outputs. What I think you are concerned about or what we  
2     all should be concerned about is outcomes. Outputs simply  
3     have to be designed to be measures or metrics of the things  
4     we do to achieve certain ends.

5             As part of the new planning process the Executive  
6     Council is charged with seeing to it that in fact what gets  
7     translated down to the various functional unit levels is  
8     clearly outcome focused.

9             I think Mr. Callan is sitting here and he's not  
10    wiggling in his seat. So I believe that he clearly  
11    understands that all of these issues are meant to be  
12    addressed in this new planning process.

13            Thank you.

14            QUESTION: Thank you.

15            COMMISSIONER DIAZ: I think we all see this  
16    tremendous amount of work in different fashions, but I think  
17    it's important to realize that the strategic plan is  
18    supposed to be a living document; it's not supposed to be a  
19    line in the sand: we are going to do this. That is a plan.  
20    As it is implemented these kind of issues will come and will  
21    enrich the plan and will make it then implementable.

22            That is essentially what Mr. Callan and you are  
23    charged to do. The plan is only as good as it will be  
24    implemented, but it's not a point or a line; it is a living  
25    plan of the Commission and it needs to be adjusted year by

1 year, and that is why it is a plan and not simply an action  
2 item.

3 CHAIRMAN JACKSON: In fact the new planning and  
4 budget process has built into it continual review and  
5 feedback, assembling of lessons learned, and that goes back  
6 into the loop to refresh and update the strategic plan. So  
7 that is in fact a part of the structure of what is being  
8 rolled out today.

9 QUESTION: Good afternoon. Several minutes ago I  
10 believe Commissioner McGaffigan used the word  
11 "tolerability." Some nations, our colleagues overseas, have  
12 defined tolerability in a risk informed manner, you might  
13 say. I was wondering if the Commission has any plans to  
14 address that same issue as we move forward with this risk  
15 informed, performance based program in terms of perhaps  
16 revisiting how we have used the words "adequate protection"  
17 under the Atomic Energy Act.

18 CHAIRMAN JACKSON: I think as we move forward we  
19 have to move forward in a way that is consistent with the  
20 legislative and legal foundation on which we do our work and  
21 that we don't in fact pull that foundation away.

22 Having said that, that does not preclude our  
23 revisiting these issues, and in fact as we move along we  
24 have the Office of the General Counsel involved with having  
25 the various legal analyses vis-a-vis our undergirding

1 foundation done and considered by the Commission as we move  
2 along in the technical and definitional arena. I think that  
3 is responsive to your question. Thank you.

4 COMMISSIONER DIAZ: We can also say yes.

5 CHAIRMAN JACKSON: We could say yes within the  
6 law.

7 Is there another question?

8 QUESTION: I've got another question from the  
9 regions that was also asked this morning. Given the recent  
10 troubles experienced by vendors that manufacture approved  
11 spent fuel storage casks through ongoing bankruptcy and  
12 regulatory issues, how concerned is the Commission that some  
13 reactors will have to shut down in the not too distant  
14 future because of the lack of viable options for removing  
15 spent fuel from the spent fuel pools.

16 CHAIRMAN JACKSON: You're right. The question did  
17 come up earlier today. Of course the Commission is  
18 concerned at all times about the issue of fuel offload and  
19 the impact that the lack of spent fuel storage space would  
20 have on the continued operations of the plant.

21 Having said that, as I indicated this morning, the  
22 issue of adequacy of spent fuel storage capability, whether  
23 it's in a pool or in a dry cask on site, is obviously  
24 something that we monitor very closely.

25 As far as I know, there has been one particular

1 bankruptcy of one particular cask vendor, and there are a  
2 number of dry cask designs that NRC has certified and/or  
3 licensed and are being used. So while it is an issue that  
4 we continue to monitor and keep track of, it is not that  
5 there is a crisis because one particular vendor has  
6 experienced difficulty.

7 Maybe I'll let him speak to it, because I think  
8 Commissioner McGaffigan spoke very eloquently this morning  
9 to licensee responsibility and concern in this area.

10 COMMISSIONER MCGAFFIGAN: I'll just add what I did  
11 this morning, and I got a thumbs up from Carl Paperiello for  
12 doing this. So it must be okay.

13 The point I made is that as a result of these  
14 problems that are being encountered licensees are taking  
15 more ownership for the vendors now, for their suppliers, and  
16 developing relationships. They realize there is a quality  
17 control problem and that they have to do something about it.  
18 I think that is happening and will continue to happen.

19 CHAIRMAN JACKSON: In the end it is in fact the  
20 licensees' or the reactor operators' ox that will be gored  
21 and they are now taking a more active interest in the whole  
22 quality assurance issue with the cask vendors. As far as  
23 our being in an immediate crisis situation, there are other  
24 cask vendors whose casks continue to be used at licensee  
25 sites.

1 Is there another question?

2 QUESTION: What are the top three priorities for  
3 the Commission in FY-98?

4 CHAIRMAN JACKSON: I think I have already outlined  
5 them. It has to do with some big picture solutions in areas  
6 related to reactor performance and assessment. It is making  
7 sure that the initiatives that I outlined that are already  
8 under way in terms of certain critical rulemakings and NMSS  
9 are successfully implemented, and it is to get our planning  
10 and budget framework fully in place and under way.

11 Having said that, there are a whole lot of things  
12 that I could just list for you that are varying degrees of  
13 interest to varying members of the Commission, but in fact  
14 it basically covers the waterfront.

15 Thank you.

16 QUESTION: This is a question from the regions as  
17 well as a similar question from a headquarters employee.  
18 The President announced an agreement with China where U.S.  
19 companies could apply for licenses to sell equipment to the  
20 Chinese for their nuclear power plants subject to U.S.  
21 monitoring. What do you believe NRC's role will be  
22 regarding the China-U.S. agreement on the transfer of  
23 nuclear technology and equipment?

24 CHAIRMAN JACKSON: The NRC was contacted and asked  
25 for its position on so-called supplemental implementing

1 agreements and we issued our assent to that earlier this  
2 week.

3 More substantively, NRC is the export licensing  
4 agency for the export of nuclear technology for the U.S.  
5 Government, but that occurs under the umbrella of what is  
6 called the Peaceful Uses of Nuclear Energy Agreement, which  
7 we already have with China, but it is one that has not been  
8 fully implemented heretofore because of a number of concerns  
9 in areas related to nuclear export controls and China's  
10 activities with countries with which we had some difficulty,  
11 such as Iran.

12 In fact China has put into place a new export  
13 control regime both from the point of view of their laws as  
14 well as joining a nuclear suppliers group known as the  
15 Zangger Committee and giving assurances that it will not  
16 export nuclear technology to countries whose facilities are  
17 not safeguarded, and then more recently in writing some  
18 specific commitments to the President vis-a-vis its  
19 cessation or non-engagement of activities with Iran.

20 If the President certifies China with respect to  
21 these requirements and the Congress accepts that, then the  
22 Peaceful Uses of Nuclear Energy Agreement can be fully  
23 implemented, but even once that occurs the NRC has a  
24 specific responsibility on a case by case basis each time  
25 there is an export license application to make certain



1 determinations vis-a-vis the safeguarding of nuclear  
2 facilities in the country to which the export would be made  
3 and with respect to inimicality questions with respect to  
4 national defense and security. So there are specified  
5 requirements and determinations that we have to make on a  
6 case by case basis as we consider whether to issue an export  
7 license in each instance.

8 If in fact the activity picks up, and I think U.S.  
9 vendors certainly expect the activities to pick up, then our  
10 activities in those areas will also pick up. The Commission  
11 reviews those license applications on a case by case basis  
12 because of the national security and safeguards issues  
13 involved.

14 Are there other questions?

15 QUESTION: We've got one last one from this  
16 morning that was also from the regions. What is the  
17 Commission doing to ensure that the safety impact of the  
18 economic deregulation of the electric utility industry is  
19 minimized? Has the Commission considered the potential  
20 impact of economic competition between nuclear producers on  
21 the willingness of licensees to freely share important  
22 safety information?

23 CHAIRMAN JACKSON: I think the answer has to be a  
24 variant on what we gave this morning. First of all, if  
25 Commissioner McGaffigan will let me draw on a comment he

1 made this morning, which is true, while we have certainly  
2 spoken and I have certainly spoken in speeches about the  
3 need for us to monitor the potential of economic pressure in  
4 terms of eroding a focus on safety, economic operation and  
5 safe operation is not an oxymoron; they aren't mutually  
6 exclusive.

7 I said this morning, and I'll let Commissioner  
8 McGaffigan speak to what he spoke to, that the real issue in  
9 terms of how economics affects safe operation probably has  
10 more to do with licensees who may be predisposed to cut  
11 corners in the first place and who may have gotten  
12 themselves into a hole, and once they have gotten themselves  
13 into a hole, that's where the expense occurs; it is very  
14 expensive to dig out of the hole.

15 Nonetheless, we monitor it, and a particular area  
16 to which we have given focus and in fact have a rulemaking  
17 relates to the adequacy of decommissioning funding and some  
18 specific changes to our regulations in that area that need  
19 to be made to ensure the adequacy of decommissioning funds  
20 for licensees that may no longer come under an economic  
21 regulation umbrella at the state level and/or licensees that  
22 may prematurely shut down their plants.

23 The final statement, which is also what I  
24 mentioned this morning, is that I've already outlined to you  
25 some fundamental changes in how we go about or at least look

1 at some fundamental change in our plant assessment  
2 processes, taking an integrated look and review in addition  
3 to dealing with what you might call some of the design basis  
4 issues. These are all oriented to making sure, coupled with  
5 risk informed regulation, that we are all looking at the  
6 same thing.

7 Now let me turn the microphone over to  
8 Commissioner McGaffigan.

9 COMMISSIONER MCGAFFIGAN: The only thing I'll add  
10 is echoing the point about safety does not have to cost. We  
11 have lots of data now that shows that there are a lot of  
12 plants in the virtuous quadrant of the graph where you have  
13 SALP 1 or high SALP scores and very low cost.

14 There could be a safety benefit to economic  
15 deregulation was the point I made this morning in that there  
16 is clearly going to be some consolidation in the industry.  
17 That consolidation could lead to people who have  
18 traditionally done better operating their facilities, who  
19 haven't gotten in the trouble that the Chairman referred to,  
20 operating more facilities. So on average a few years from  
21 now we may have a significant safety upgrade if the  
22 economics allows it.

23 It's licensee choices that are going to lead to  
24 the consolidation, not choices that we make, although I  
25 think our job is going to be to watch and do the right thing

1 in terms of facilitating and protecting safety as that  
2 consolidation goes forward.

3 CHAIRMAN JACKSON: In addition, with respect to  
4 the issue of information sharing, we have no regulatory  
5 authority to tell one company that it should share  
6 information with another. It is certainly discussion that  
7 is going on within the industry itself, with INPO, with NEI,  
8 because the industry recognizes that it is an issue.

9 To the extent that it affects the extent to which  
10 our licensees take advantage of and make use of operating  
11 experience, then that is something of concern to us.

12 Also, when we find there may be a safety issue  
13 that has generic implications, then we put out a generic  
14 communication and we expect the licensees to respond to  
15 that.

16 So those are some of the ways in fact that we are  
17 addressing it, but I again would like to reiterate  
18 Commissioner McGaffigan's comment. The issue has to do with  
19 licensees who may be predisposed to cut corners or not pay  
20 attention in the first place. Those that are good  
21 performers may turn out to be the big players in the end.  
22 It's not for us to predict, but those who are the good  
23 performers certainly are the ones that need not fear that  
24 competition necessarily means that they are going to have  
25 trouble maintaining safety, and I would not expect that to

1 be the case.

2 Is there another question?

3 Again I thank you for coming out. It's a very  
4 beautiful day, so it gave us all an opportunity to walk in  
5 the sun. Thank you very much.

6 [Applause.]

7 [Whereupon, at 2:40 p.m., the public meeting was  
8 concluded.]

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

CERTIFICATE

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

TITLE OF MEETING: ALL EMPLOYEES MEETING -- PUBLIC  
MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Thursday, October 30, 1997

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 G Paulus

Reporter: Mike Paulus