UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

April 23, 2002

David L. Wilson, Vice President of
Nuclear Energy
Nebraska Public Power District
P.O. Box 98
Brownville, Nebraska 68321

SUBJECT: MEETING SUMMARY FOR END-OF-CYCLE PERFORMANCE ASSESSMENT

Dear Mr. Wilson:

This refers to the end-of-cycle performance assessment meeting conducted at the Brownville Concert Hall, Brownville, Nebraska, on April 2, 2002. The purpose of this meeting between the Nuclear Regulatory Commission (NRC) and Nebraska Public Power District (NPPD) was to present and discuss the NRC's assessment of performance at Cooper Nuclear Station for the period of April 1 through December 31, 2001. In addition, the meeting included a presentation on the NRC's oversight process and NRC activities in response to the terrorist attacks of September 11, 2001. Prior to adjourning the meeting, the NRC staff, and officials from the Nebraska Public Power District, answered questions from the audience.

The meeting attendance list and a copy of the slides presented during the meeting are included as Enclosures 1 and 2. Enclosure 3 is a copy of Chairman Meserve's January 17, 2002, speech that was distributed at the meeting.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams/index.html (the Public Electronic Reading Room).

Sincerely,

Kriss M. Kennedy

Kriss M. Kennedy, Chief
Project Branch F
Division of Reactor Projects

Docket: 50-298
License: DPR-46

Enclosures:
1. Attendance List

2. Presentation Slides

3. "Nuclear Security in the Post-September 11 Environment" speech by Dr. Richard A. Meserve, Chairman, U.S. Nuclear Regulatory Commission

cc w/enclosures:
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DRP Director **(KEB)**
DRS Director **(ATH)**
Senior Resident Inspector **(MCH2)**
Branch Chief, DRP/C **(KMK)**
Senior Project Engineer, DRP/C **(vacant)**
Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Jim Isom, Pilot Plant Program **(JAI)**
RidsNrrDipmLipb

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RIV:C:DRP/F				
KMKennedy;df/				
4/19/02				

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

ENCLOSURE 1

ATTENDANCE LIST

END-OF-CYCLE MEETING ATTENDANCE	
LICENSEE/FACILITY	Nebraska Public Power District / Cooper Nuclear Station
DATE/TIME	April 2, 2002; 7:00 p.m.
LOCATION	Brownville Concert Hall
NAME (PLEASE PRINT)	**ORGANIZATION**
JoDee Adelung	Mayor, Nebraska City
Stephanie Shrader	Nebraska City
Hal Hansen	Auburn NE
REG CLEO	NEB CITY
Alan Dostal	NPPD
Randel Jane Smith	Brownville Box 96
Ron Ann Fraass	Kansas Dept of Health & Environment
ABUL HASANAT	CNS - NPPD.
ROBERT CORTRIGHT	Whiskey Run Creek Winery
JOE CASS	CNS - NPPD
Marcia Cady	NPPD

END-OF-CYCLE MEETING ATTENDANCE	
LICENSEE/FACILITY	Nebraska Public Power District / Cooper Nuclear Station
DATE/TIME	April 2, 2002; 7:00 p.m.
LOCATION	Brownville Concert Hall
NAME (PLEASE PRINT)	**ORGANIZATION**
VINNIE VARMA	CNS/NPPD
T ROESTER	CNS
Lorab H Bornbever	Nemaha County
KRISTEN ROGGE	Johnson Lake Nemaha County Development Alliance
T. O. Davis	Nemaha Co Devlp. Alliance
Bill Leed	MidAmerican Energy
BRUCE C. THOMAS	NPPD CNS Design Engineering
J. Randel Smith	Brownville Citizen - Retired Banker
Mark J. Lingenfelter	CNS
David Kunsemiller	CNS - Manager Reg & Reg. Affairs

END-OF-CYCLE MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District / Cooper Nuclear Station
DATE/TIME	April 2, 2002; 7:00 p.m.
LOCATION	Brownville Concert Hall

NAME (PLEASE PRINT)	ORGANIZATION
JIM HUTTON	NPPD - COOPER NUCLEAR STATION
Mark Gillam	NPPD - CNS
Ron STODDARD	LES
M T. COYLE	Cooper
SCOTT & LYNN OTTENBERGER	COOPER
Rick Gach	COOPER
Brad Houston	Coope
LINDA DEWHIRST	COOPER
Mike HALL	Nemaha Rural Fire Chief
Darrell Wellman	Auburn Newspapers
Nm MACKEVIC	Cooper
Jim Flaherty	CNS
John Michael De Bartolo	CNS

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NAME (PLEASE PRINT)	**ORGANIZATION**
Debbie Bean	KNCY- Radio
Julia Schmitt	NE HHS R+L
Jon Schwarz	NE EMERG. MGMT AGENCY
Al Berndt	NE Emerg. Mgmt Agency
Dave Meyers	NPPD - CNS
Paul Fleming	NPPD - CNS
Roger Goos	Nemaha Co. EMA
Jim Grrweck	Richardson Co. EMA
Kim Anville	NPPD - CNS
David C Linnen	NPPD - CNS
Mark Schaebe	NPPD - CNS
John Chaney	Auburn State Bank
Kendall Neiman	Auburn Newspapers

ENCLOSURE 2

PRESENTATION SLIDES

ANNUAL ASSESSMENT MEETING WITH COOPER NUCLEAR STATION

Nuclear Regulatory Commission

Region IV

NRC Personnel

Elmo Collins	Deputy Director Division of Reactor Projects
Kriss Kennedy	Chief, Branch F Division of Reactor Projects
Mike Hay	Senior Resident Inspector Cooper Nuclear Station

NPPD Introduction

Meeting Guidelines

- Meeting with Licensee
- Inform Public of Plant Performance

NRC Meeting Guidelines

- Registration Table
- Questions and Answers
- Handouts
- Feedback Forms

Meeting Agenda

- Regulatory Oversight
- Findings and Assessments
- Additional Focus Areas
- Questions and Answers

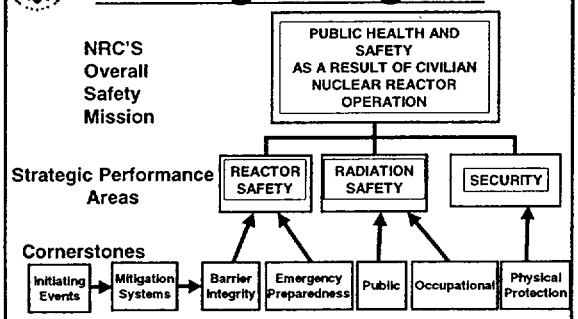
NRC Performance Goals

- Maintain safety and protect environment
- Enhance public confidence
- Improve:
  - effectiveness
  - efficiency
  - realism of processes and decision making
- Reduce unnecessary regulatory burden

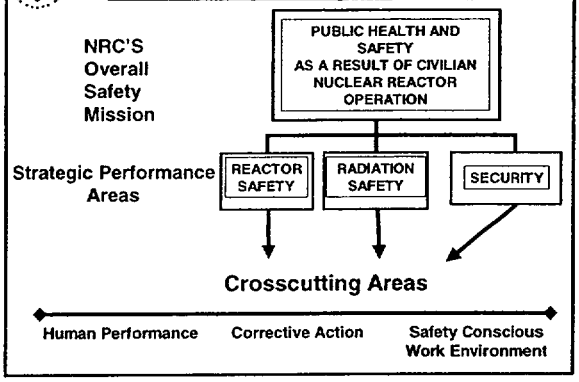
NRC Oversight Activities

- Provide assurance plants are:
  - Operating safely
  - Complying with regulations
- Based on a logical and sound framework
- Objective indicators of performance
- Assessment program triggers regulatory actions

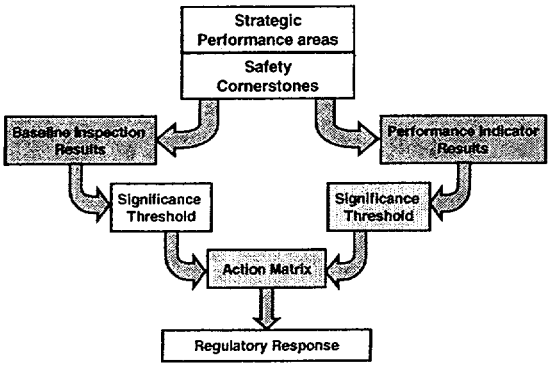
Oversight Program



Crosscutting Areas



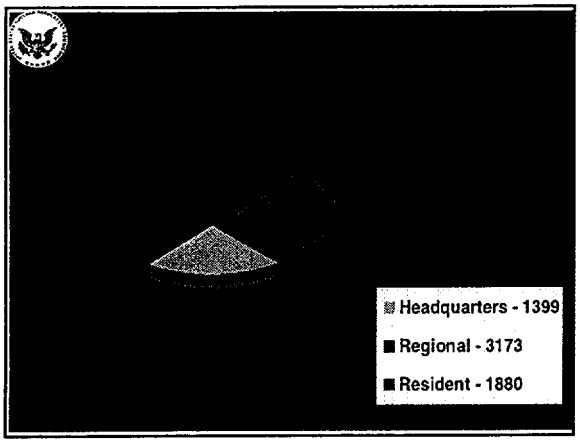
Reactor Oversight Process



Reactor Oversight Process

SAFETY SIGNIFICANCE

GREEN	- very low
WHITE	- low to moderate
YELLOW	- substantial
	- high



Baseline Inspection Program

- Gathers objective evidence of plant safety
- Conducted at all plants
- Focuses on safety-significant:
  - Systems
  - Components
  - Activities
  - Events

Event Follow-Up and Supplemental Inspections

- Review events for significance
- Follow-up significant inspection findings
- Determine causes of performance declines
- Provide for graduated response

Resident Inspectors

- Live in Community
- Stationed at Plant
- Prompt Response Capability

Regional Inspectors

- Specialized
- Team Inspections
- Reactive Inspections

Inspection Program

- Inspection reports describe more than minor findings and non-compliance
- Inspection reports are publicly accessible

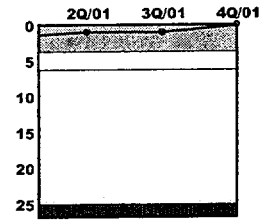
  www.NRC.gov/reading-rm/adams.html

Performance Indicators

- Provide objective measures
- Indicators for all Strategic Areas
- NRC verifies through inspections

Performance Indicators

Unplanned Scrams per 7000 critical hours



Thresholds

White > 3.0

Yellow > 6.0

Red > 25.0

Unplanned scrams per 7000 critical hours	2Q/01	3Q/01	4Q/01
Actual scrams	0	0	0
Critical hours	2183.0	2208.0	863.0
Indicator value	0.8	0.8	0.0

Performance Indicators

Performance indicator results and other assessment information available on the NRC's public web site

www.NRC.gov/NRR/OVERSIGHT/ASSESS/CNS/cns_chart.html

Assessment Program

- Objective review of licensee performance
- "Action Matrix" to determine agency response in three areas:
  - Inspection
  - Management Involvement
  - Regulatory Actions
- Plant specific assessment letters
- Information on NRC public web site

Plant Safety Performance Summary

ACTION MATRIX

		Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
RESULTS		All Assessment Inputs (Performance Indicators (PIs) and Inspection Findings Green; Cornerstone Objectives Met	One or Two White Inputs (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Met	One Degraded Cornerstone (2 White inputs or 1 Yellow input) or any 3 White Inputs in a Strategic Performance Area; Cornerstone Objectives met with compensated degradation in safety performance	Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or 1 Red Input; Cornerstone Objectives met with longstanding issues or Significant degradation in Safety performance	Overall Unacceptable Performance; plants not permitted to operate within this band; Unacceptable Margin to Safety
RESPONSE	Regulatory Performance Meeting	None	Branch Chief (BC) or Division Director (DD) meet with Licensee	DD or Regional Administrator (RA) meet with Licensee	RA (or EDO) meet with Senior Licensee Management	Commission meeting With Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee root cause Evaluation and corrective Action with NRC oversight	Licensee cumulative root cause evaluation with NRC oversight	Licensee Performance Improvement Plan with NRC oversight	
	NRC Inspection	Risk-Informed Baseline Inspection Program	Baseline and supplemental inspection procedure 95001	Baseline and supplemental inspection procedure 95002	Baseline and supplemental inspection procedure 95003	
	Regulatory Actions *	None	Supplemental inspection only	Supplemental inspection only	-10 CFR 2.204 DFI -10 CFR 50.54(f) Letter -CAL/Order	Order to modify, Suspend, or revoke licensed activities
COMMUNICATION	Assessment Letters	BC or DD review/sign Assessment report (w/ inspection plan)	DD review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	
	Annual Public Meeting	SR or BC meet with Licensee	BC or DD meet with Licensee	RA (or designee) discuss performance with Licensee	EDO discuss performance with Senior Licensee Management	
	Commission Involvement	None	None	None	Plant discussed at AARM	Commission Meeting with Senior Licensee Management

INCREASING SAFETY SIGNIFICANCE →

Note 1: The regulatory actions for plants in the Multiple/Repetitive Degraded Cornerstone column are not mandatory agency actions. However, the regional office should consider each of these regulatory actions when significant new information regarding licensee performance becomes available.

Inspection Results

- NRC inspection activities identified four WHITE findings
- Findings were of low to moderate safety significance

1st White Finding

- Emergency Preparedness Cornerstone
- Ineffective corrective actions to prevent recurrence of dose assessment weakness
- Low to moderate safety significance

NPPD RESPONSE

2nd & 3rd White Findings

- Emergency Preparedness Cornerstone
- Failure to perform timely offsite notifications
- Failure to activate the emergency response facilities within an hour
- Low to moderate safety significance

NPPD RESPONSE

4th White Finding

- Mitigating Systems Cornerstone
- Failure to take immediate compensatory actions following identification of a compromise of the biennial requalification written exams
- Low to moderate safety significance

NPPD RESPONSE

Crosscutting Issues

- NRC identified adverse trends
  - Problem Identification and Resolution
  - Human Performance

Problem Identification and Resolution

- General lack of understanding and ownership of programs and procedures
- Examples of ineffective corrective actions
- Program implementation problems
- CNS quality assurance audits and assessments critical of program

NPPD RESPONSE

Human Performance

Personnel Performance issues and errors contributed to a number of White findings

- Failure to perform timely offsite notifications
- Failure to activate emergency response facilities within the time required
- Failure to take immediate compensatory actions following identification of a compromise of the biennial requalification exams

NPPD RESPONSE

Performance Indicators

All performance indicators within the Licensee Response Band

Assessment Results

- **CNS began assessment period in Regulatory Response Column**
  - **White finding in Emergency Preparedness**
- **Ended assessment period in Degraded Cornerstone Column**
  - **2nd white finding in Emergency Preparedness**
- **Supplemental inspections (95002)**
  - **Completed one inspection**
  - **Second planned**

Assessment Results

- **Licensee entered Repetitive Degraded Cornerstone Column of the Action Matrix on April 1, 2002**
- **Supplemental inspection planned (95003)**

Assessment Results

- **Public Health and Safety Assured**
- **Strategic Area Objectives Met**
- **Significant Performance Issues Warrant Further Inspection**

Cooper Action Matrix

	Dates of the Quarters									
	Calendar Year 2000		Calendar Year 2001				Calendar Year 2002			
	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
	7/1/00 - 9/30/00	10/1/00 - 12/31/00	1/1/01 - 3/31/01	4/1/01 - 6/30/01	7/1/01 - 9/30/00	10/1/01 - 12/31/01	1/1/02 - 3/31/02	4/1/02 - 6/30/02	7/1/02 - 9/30/02	10/1/02 - 12/31/02
Cornerstone										
Initiating Events	Green	Green	Green	Green	Green	Green	NA	NA	NA	NA
Mitigating System	Green	Green	Green	Green	Green	White (12/5/01)	White Continued	White Continued	White Continued	NA
Barrier Integrity	Green	Green	Green	Green	Green	Green	NA	NA	NA	NA
Emergency Preparedness	Green	White (10/11/00)	White Continued	White Continued	White Continued	Green	NA	NA	NA	NA
				White (9/27/01)	White Continued	White Continued	White Continued	NA	NA	NA
					White (9/5/01)	White Continued	White Continued	White Continued	NA	NA
					White (9/5/01)	White Continued	White Continued	White Continued	NA	NA
Public Radiation Safety	Green	Green	Green	Green	Green	Green	NA	NA	NA	NA
Occupational Radiation Safety	Green	Green	Green	Green	Green	Green	NA	NA	NA	NA
Physical Protection	Green	Green	Green	Green	Green	Green	NA	NA	NA	NA

NPPD RESPONSE

Additional Focus Areas

- NRC Responds As-Needed
- Mandated Licensee Actions
- Implemented Emergency Response

Nuclear Industry Issue

- Security at Nuclear Power Plants
  - Substantial security measures in place prior to terrorist attacks
  - Federal, State, Local and Licensee integrated response to terrorist threat

Contacting the NRC

- Report an Emergency:
  (301) 816-5100 (collect)
- Report a Safety Concern:
  (800) 695-7403 or Allegation@nrc.gov
- General Information or questions:
  www.nrc.gov
  Select "What we do" for Public Affairs

Summary

- Comprehensive Oversight Program
- Cooper Nuclear Station maintained public health and safety
- Capability and resources to respond and impose additional requirements

NPPD CLOSING REMARKS

ENCLOSURE 3

"NUCLEAR SECURITY IN THE POST-SEPTEMBER 11 ENVIRONMENT" SPEECH BY
DR. RICHARD A. MESERVE, CHAIRMAN, U.S. NUCLEAR REGULATORY COMMISSION

NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200
Washington, DC 20555-0001 E-mail: opa@nrc.gov
Web Site: www.nrc.gov

S-02-001

NUCLEAR SECURITY IN THE POST-SEPTEMBER 11 ENVIRONMENT

Dr. Richard A. Meserve
Chairman, U.S. Nuclear Regulatory Commission

National Press Club
Washington, DC
January 17, 2002

Good afternoon. I am pleased to have this opportunity to address you.

I suspect that you have a strong interest in security at nuclear power plants. I hope to provide you with a summary of how the Nuclear Regulatory Commission approaches security matters, with a description of some of the actions taken in the aftermath of the September 11th attacks, and with a survey of some of the major challenges ahead.

Let me make a few general points at the outset.

First, and perhaps most important, since September 11th there have been no specific credible threats of a terrorist attack on nuclear power plants. Of course, there is information that al Qaeda considers nuclear facilities as potential terrorist targets. In light of the high general threat environment, we and our licensees have maintained our highest security posture.

Second, the physical protection at nuclear power plants is very strong. I know that there has been a lot of discussion concerning the adequacy of security in light of the sensitivity of these facilities. But let me assure you that nuclear plants are not "soft" targets. For decades, security against sabotage has been an important part of the NRC's regulatory activities and our licensees' responsibilities. The plants are among the most formidable structures in existence and they are guarded by well trained and well armed security forces. The security at nuclear plants is and has always been far more substantial than that at other civilian facilities.

And it has been augmented since September 11.

Third, I want to assure you that the NRC is responding to the terrorist threat in a comprehensive fashion. September 11 has served to alert America to the need for re-examination of past practices. As a result, the NRC is undertaking a top-to-bottom review of our security program to ensure that we have the right protections in place for the long term.

I. The Existing Security System

Let me start by providing you with a more detailed description of our security requirements.

Each licensee has a responsibility to defend its nuclear power plant, subject to regulatory scrutiny by the NRC. Under our existing regulatory system, we require that our licensees demonstrate a high assurance that they can defend their facilities against a so-called "design-basis threat." Although the details of that threat are classified, it basically involves a commando attack by several skilled attackers, armed with automatic weapons, with hand-carried explosives and incapacitating agents, and with assistance by an insider, the use of a 4-wheel drive vehicle, and a vehicle bomb. Our licensees defend against such a threat by the establishment of a fenced perimeter (usually a double fence topped with concertina wire), intrusion detection devices, layers of access barriers, heavily armed and carefully trained guard forces, armored defensive positions, and a comprehensive defensive strategy. The adequacy of the defenses is subject to detailed inspection by the NRC, including periodic force-on-force exercises designed to probe for weaknesses so that corrections can be made.

The design basis threat does not include an aircraft attack. In the aftermath of September 11, many have asked about the consequences if a large airliner, fully loaded with jet fuel, had crashed into a nuclear power plant. We had to say candidly that we were not sure. We know that reactor containments are extremely robust, typically being constructed with two to five feet of reinforced concrete with an interior steel lining. The plants benefit from redundant and diverse safety equipment so that if any active component were unavailable, there is another means to satisfy its function. The operators are trained to respond to unusual events. And carefully designed emergency plans are in place. Nuclear power plants are certainly far more capable to respond to an aircraft attack than other civilian facilities. But the NRC has never previously had reason to perform a detailed engineering analysis of the consequences of a deliberate attack by a large airliner. We are performing those analyses now.

I am sometimes asked whether a terrorist might be able to gain employment at a nuclear plant. Let me describe some of the regulatory requirements that bear on this issue. At the time of employment, every potential employee who will have access to safety equipment is required to pass various background checks, including examination of past employment, references, credit history, and an FBI criminal record check, as well as to undergo psychological testing. During the course of employment, each employee is also subject to fitness-for-duty requirements, which include random drug and alcohol testing. Behavioral monitoring of employees is also required so as to ensure that any aberrant actions receive appropriate attention. Of course, access to the plants is controlled and there are portal detectors for metals and explosives. We are examining

whether these requirements should be supplemented in the course of our top-to-bottom review.

II. Response to the September 11 Events

Let me turn now to the events on September 11 and the NRC's subsequent actions.

Shortly after the second crash into the World Trade Center, the NRC activated its Headquarters Emergency Operations Center and the parallel Incident Response Centers in each of NRC's four regional offices. We immediately called for our major licensees to go to the highest level of security, which we have maintained since that time and augmented as circumstances warranted. This heightened security stance generally includes, among other resources, increased patrols, augmented security forces and weapons, additional security posts, heightened coordination with law enforcement and military authorities, and additional limitations on access of personnel and vehicles to the site.

The NRC's safeguards analysts have worked continually with the intelligence and law enforcement agencies to assess the general threat environment, as well as information about specific targets. In order to assess whether terrorists may have been conducting surveillance of nuclear facilities, we, with assistance from Federal, State and local law enforcement, have carefully examined unusual incidents, such as fly-overs, threats, or the possible probing of defenses. NRC investigators have also examined incidents over the past two years that might have seemed innocent or odd at the time, but that in retrospect might suggest a pattern that should be referred to the FBI for follow-up.

As you might expect, there have been extensive interactions with other governmental agencies. We have worked closely with the new Office of Homeland Security, the FBI, the Federal Emergency Management Agency, the Federal Aviation Administration, the military, and the Department of Energy, among others. And I have communicated with the governors of 40 states so as to ensure that any state defensive assets (National Guard or state police) are used as needed to augment our licensees' defensive strategies.

III. Fundamental Challenges

Let me turn now to some longer-term challenges. The Commission has not yet had the opportunity to complete its consideration of some of these issues, so these comments should be seen as my own.

A. The Need for a Comprehensive Security Strategy

I shall first discuss the context for examining the security of nuclear plants.

As you know, there have been numerous discussions about the potential vulnerability of nuclear power plants to terrorist attack. Some argue that the only acceptable response to the risk is to shut down the Nation's reactors. Others contend we can continue with nuclear power – which provides about 20 percent of the Nation's electricity -- so long as appropriate security measures are in place.

The crimes of September 11 were designed to shock the American people in part by the very fact that they involved such large and imposing targets. In the effort to ensure that no such horror ever occurs again, there is a danger of drawing the wrong lesson from the attacks: of blaming the victim, so to speak. The destruction of a skyscraper does not suggest it was a mistake to build skyscrapers, any more than the dissemination of anthrax spores through the mails proves that it is an error to operate a postal service. If we allow the threats of terrorists to determine what we build and what we operate, we would be headed into the past -- back to an era without suspension bridges, harbor tunnels, stadiums, or hydroelectric dams, let alone skyscrapers, liquid natural gas terminals, chemical factories, or nuclear power plants.

The problem is not the terrorists' targets, but the terrorists themselves. It is they who need to be eliminated, not the creations of a modern industrial society. It is thus my view that a strategy of risk avoidance -- the elimination of the threat by the elimination of potential targets -- does not reflect a sound response. Rather, the evaluation of the terrorist threat to infrastructure, including nuclear plants, should include a careful and realistic examination of risks and benefits and the development of appropriate defenses in light of those risks and benefits.

September 11 has made clear that our society must increase the vigilance with which we defend ourselves from terrorist attack. But the reality is that, as a society, we do not have infinite funds to spend for this purpose. Accordingly, we must allocate our defensive resources in a fashion that serves to minimize the total risk. As a result, any policy regarding the defense of nuclear facilities should be integrated in the overall response to the threat to infrastructure of all kinds.

Clearly this is not a task that the NRC can undertake alone. We have sought, and will continue to seek, appropriate security at facilities subject to our jurisdiction. We look forward to working with the Office of Homeland Security and others to ensure that our strategy is coordinated with the Nation's overall defensive posture. I see this as a great challenge, however, because the task is large and the defense of infrastructure involves government at all levels.

B. Public and Private Roles.

The second policy issue that I would like to discuss relates to public and private roles in the defense against terrorism. This is an issue that the events of September 11 have brought clearly to the fore.

As I have explained, the NRC licensees must defend nuclear power plants against the "design-basis threat." September 11 obviously revealed a type of attack -- a suicidal assault using a large commercial aircraft -- that has not been part of the NRC's planning (or that of any other agency with similar responsibilities). Moreover, the event has demanded that the NRC and its licensees reevaluate the scope of potential assaults of all types.

There are limits, however, as to what should be expected from a private guard force, even as assisted by local law enforcement. For example, if it were determined that nuclear plants should be defended against aircraft attack, I cannot conceive that the NRC would expect licensees or local law enforcement to acquire and operate anti-aircraft weaponry. Rather, this obligation would be one for the military. Similarly, there

might be other types of attacks which should properly involve governmental response because of the size of the assumed attacking force or the equipment that must be employed in defense. As a result, in its development of policy, the NRC must be prepared to differentiate the defensive obligation that is borne by licensees from that which must be undertaken by the government.

As part of the top-to-bottom review that I mentioned earlier, the NRC is examining the new threat environment in coordination with various other agencies of Government. There may also have to be an additional discussion with the military, the States, and local law enforcement about the provision of governmental assets at appropriate times. I do not expect that defining the appropriate boundary between the public and private sector in the defense of nuclear facilities will be easy.

C. The Balance Between Security and Openness.

The third issue relates to the balance between security and openness. The NRC has sought to achieve public confidence through a variety of means, but perhaps the most effective tool has been a policy of transparency. We recognize that decisions made behind closed doors may be viewed with suspicion. We have therefore sought to assure open decision processes that would enable the public to be fully informed of the issues before us. We cannot aspire to a world in which all will be satisfied by our decisions, but we have hoped that all would see that our decisions were reached through fair processes.

September 11 has made clear that we need to rethink just how open we can and should be with respect to physical security issues. In this process we must give due regard to two vital but competing interests. The first is the public's right to know, a right that is grounded in law and that is one of the most cherished principles of our democracy. The other is the need to keep sensitive information away from those whose purpose is to destroy that democracy. We are striving to strike an appropriate balance between openness and security.

D. Achieving Progress In Other Agency Business.

The final challenge I would like to mention is the need to accomplish security reform at a time of major transition in the energy sector.

Over the past year or two, we have seen a quiet Renaissance in the nuclear business. The nuclear generating companies have become "leaner and meaner": more efficiently run, with far fewer outages and greater reliability. In the past decade, the average capacity factor, which is a measure of plant utilization, has jumped from 70 percent to nearly 90 percent. Not surprisingly, as the electrical production of the average plant has increased, the cost of the electricity has declined. As a result, the production cost of electricity from nuclear plants is less than that from its principal competitors -- coal and natural gas. And nuclear is not burdened with the emissions constraints and concerns about global warming that attend fossil fuels.

Most importantly, by all objective measures, the safety performance of nuclear plants has improved in parallel with economic performance. The NRC tracks "significant events" -- safety system failures, unanticipated plant responses, degradation of key systems or components, and operator errors. The number of significant events has declined 99 percent in 15 years. It is not an accident that safety performance and

improved economic performance should be linked to each other: both are furthered by preventive maintenance, better training of operators, and the fostering of a safety culture.

Just a few years ago, some pundits claimed that restructuring in the electricity business would lead to the premature shutdown of nuclear plants. But, as a result of this strong economic and safety performance, we are instead seeing interest among our licensees in expanding their activities. Generating companies are seeking the renewal of the licenses of existing plants so as to allow operation beyond the initial 40-year license term. And some are even contemplating new plant construction.

License renewal involves a careful examination of the systems of the plant that are subject to aging so as to ensure that safety margins are maintained over an extended operating period. We have renewed the licenses for eight plants at four sites already, and either have applications or expect applications from literally the entirety of the remaining 95 plants. We are committed to a thorough, expeditious review of each application.

New construction offers the promise of improvements in both safety and in economics. But new construction presents a significant challenge for many reasons, including that new construction might involve designs that are completely different from existing facilities. For example, there are discussions of reactors that are cooled by helium, rather than water. We have started to prepare for the possibility of new applications so as to ensure that we have the appropriate regulatory and analytical tools in place.

I mention these developments because, even before September 11, the NRC was an agency that was confronting significant challenges. Fortunately, we have used the past quarter century to good advantage, improving our processes and preparing to accommodate technological and economic developments. If society decides to expand reliance on the nuclear option, the NRC is prepared to perform its role of protecting public health and safety.

Conclusion

Let me note in conclusion that we live in very uncertain times and it is difficult at this juncture to predict how the security and other challenges I have mentioned will be finally resolved. I hope that I have left you with the awareness that the NRC takes its obligations very seriously.

Thank you for allowing me to join you. I would be happy to respond to questions.