



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V

1450 MARIA LANE, SUITE 210
WALNUT CREEK, CALIFORNIA 94596

JUN 14 1990

MEMORANDUM FOR: James M. Taylor
Executive Director For Operations

FROM: John B. Martin
Regional Administrator

SUBJECT: SCHEDULE AND STATUS OF STAFF ACTIONS RELATED TO
THE DIAGNOSTIC EVALUATION AT PALO VERDE

Your March 14, 1990, memorandum requested that I provide a summary of the schedule and status of the items under my responsibility related to the diagnostic evaluation of the Palo Verde Nuclear Generating Station performed by AEOD. The attached enclosure provides that summary. As you are aware, Arizona Public Service Company (APS) plans to provide a business plan for Palo Verde as a response to the Diagnostic Evaluation Team Report. That plan is scheduled to be submitted to the NRC by the end of July. We intend to have additional discussions regarding this plan in future meetings with APS management.

The Region will continue to review and assess the licensee's progress towards improvement in the maintenance and engineering areas, which have been found previously to be weak. The Region is particularly concerned with the DET findings related to the licensee's inadequate programs for check valves and motor operated valves. The Region intends to review this area in depth in future inspections.

By September 14, 1990, I will provide a status report on the resolution of the items in the enclosure or the plans for further actions for items not yet completed.

John B. Martin
Regional Administrator

Enclosure:
Summary Schedule and Status

cc: T. Murley, NRR
E. Jordan, AEOD
J. Partlow, NRR
D. Crutchfield, NRR
G. Holahan, NRR
J. Larkins, NRR
T. Chan, NRR
M. Slosson, OEDO

BR

AM

Enclosure

PALO VERDE DIAGNOSTIC EVALUATION
REGION V SCHEDULE AND STATUS

1. Action: (Item 1 of 3/14/90 memorandum) Review and evaluate the adequacy of the licensee's response to the DET report giving particular emphasis to their proposed plans and actions to address areas [particularly noted by the DET to need increased licensee attention]. Also, prepare correspondence for signature by the EDO, which replies to the licensee's response to the DET report.

Schedule and status: The licensee's response to the DET report is scheduled to be submitted by the end of July. Within 30 days of the receipt of the submittal, Region V will coordinate the NRC's review and response with NRR and AEOD and submit it for the EDO's signature. [Within 45 days, issue the NRC's response]

2. Action: (Region V identified) Evaluate and issue any enforcement action based on the DET findings in coordination with NRR, AEOD, and OE.

Schedule and status: Region V is evaluating potential enforcement actions and coordinating our actions with the other offices involved. Any enforcement action will be issued by June 30, 1990.

3. Action: (Region V identified) Conduct detailed discussions of the licensee's business plan which addresses the observations of the DET.

Schedule and status: Within 90 days of the date of receipt of the licensee's business plan, Region V will have a discussion of the plan with senior APS management. Further discussions will be held, as needed, as the plan is developed by APS.

4. Action: (Region V identified) Review the implementation of the licensee's corrective actions to the DET findings and conclusions and any resulting enforcement actions.

Schedule and status: Within 180 days of the receipt of the licensee's response to the DET and any enforcement actions, Region V will verify the adequacy and implementation of the licensee's corrective actions.

JUN 14 1990

bcc:

W. Ang, RV

D. Coe, Palo Verde

HW
REGION V

HWong

6/14/90

SAR
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SAR for
RZimmerman

6/14/90

JMartin
JMartin

6/14/90

REQUEST COPY

YES

NO

REQUEST COPY

YES

NO

REQUEST COPY

YES

NO

REQUEST COPY

YES

NO

SEND TO PDR

YES

NO

Not to PDR



PDR
ccc #
9008200017

POLICY ISSUE
(Notation Vote)

August 15, 1990

SECY-90-288

For: The Commissioners

From: James M. Taylor
Executive Director for Operations

Subject: POLICY STATEMENT ON ECONOMIC PERFORMANCE INCENTIVE REGULATION
AND ASSOCIATED MONITORING ACTIVITIES

Purpose: To respond to the Commission's memorandum of May 8, 1990, which required that the staff (1) prepare a policy statement that sets forth the views of the Commission concerning economic performance incentives, and (2) develop a mechanism to monitor and evaluate the potential safety consequences of these programs before they go into effect.

Background: The staff presented SECY-90-046 on February 13, 1990, in response to the Commission's request to update and evaluate economic performance incentives imposed on power plant licensees by State regulatory commissions. The staff made a presentation to the Commission on this matter on April 3, 1990.

That presentation included information on the current situation of State-imposed economic performance incentive programs, an analysis of those programs that could affect the public health and safety, and an evaluation of the options for NRC to deal with programs it deems unsatisfactory.

Discussion: A draft Policy Statement on economic performance incentives is enclosed for the Commission's consideration. The staff suggests that the Policy Statement be published as a proposed statement for public comment. We would solicit comments from State regulatory commissions that regulate nuclear utilities and any other entity that cares to respond. A proposed cover letter requesting comments on the proposed Policy Statement is included as Enclosure 2. This Policy Statement covers each

NOTE: TO BE MADE PUBLICLY AVAILABLE
WHEN THE FINAL SRM IS MADE
AVAILABLE

CONTACT:
Darrel A. Nash, NRR
492-1256

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of the Commission's five points of concern, (See COMKR-90-003 and COMJC-90-002, included as Enclosure 3) concentrating on the distinguishing features of acceptable and unacceptable incentive programs from NRC's perspective of public health and safety.

Additionally, the staff is establishing a tracking system to go substantially beyond the periodic survey of licensees and State regulatory commissions. In response to the Commission request, we are pursuing three initiatives to obtain early notification and evaluation of incentive programs. First of all, we are preparing a Generic Letter, described herein, which will be sent to all licensees of commercial nuclear reactors. The Generic Letter will request from licensees that, on a voluntary basis, NRC be given early notification of any new, or significant change in, economic performance incentive programs imposed on commercial reactor licensees and that licensees perform an evaluation of possible impacts that these new or changed programs will have on safety. We will point out the advantages to licensees in keeping NRC apprised of safety concerns relating to incentive programs.

The second initiative will be to send the final Policy Statement, as approved by the Commission, to all State utility regulatory commissions and the Federal Energy Regulatory Commission (FERC) with a cover letter. The cover letter will explain the Policy Statement and will ask for their cooperation in keeping NRC informed of State and FERC initiatives to (1) develop incentive programs that will apply to nuclear reactors, or (2) make major modifications to existing programs.

Finally, the staff intends to subscribe to a newsletter which, among other things, focuses on actions planned or taken by rate regulatory commissions. This will supplement the first two actions and provide NRC with an independent source of new or modified economic performance incentive programs.

The Policy Statement has been prepared to reflect the level of concern expressed in the Staff Requirements Memo (SRM). The Commission may wish to consider if a higher level of concern should be communicated by stating that some incentive programs are unacceptable. The higher the level of concern or opposition, the greater the likelihood that an effort will be made by licensees to involve the NRC in state regulatory commission proceedings. If the stated level of concern is lower, there will be less likelihood of an argument by licensees that the NRC would prohibit such programs. The staff recommends the balance expressed in the SRM and has prepared the Policy Statement accordingly.

The primary concern with economic performance incentives relates to penalties applied to operational measures. These tend to

direct attention to decisions on when to shut down a reactor or to maintain operations at some level. In addition, construction cost disallowances have been identified as economic performance incentives by some State regulatory commissions. In a few instances, the staff has been concerned that very large construction cost disallowances can impact funds needed for safe plant operation. Our response to these actions has been to emphasize to licensees that financial difficulties were in no way to be a justification for less than full commitment to safe plant operation. In selected cases, we have increased inspection resources at facilities where licensees were under financial stress during certain phases of startup and operation. We are evaluating whether actions beyond the Policy Statement and Generic Letter are warranted for these retrospective cost disallowances.

DISCUSSION TO BE INCLUDED IN GENERIC LETTER

The NRC is primarily concerned with safety impacts of incentive programs that focus on short-term operational or performance goals. The NRC supports economic performance incentive programs that reward a licensee for a sound operations and maintenance program and for correcting recurrent or predictable failures or other potential problems that could lead to an operational transient, unplanned plant outage, or derating.

Licensees are requested to advise NRC whenever a State rate regulatory commission or FERC takes an official action relating to the establishment of an economic performance incentive program, including a notice of hearing, and draft or final program adopted.

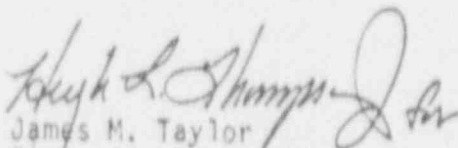
The following information is to be provided where available: (1) the beginning and ending dates of the incentive program, (2) the performance measures to be used for the rewards or penalties, (3) the period covered by a performance measure to assess a reward or penalty, (4) the method of determining rewards or penalties including matters such as the existence of null zones, identification of sharp thresholds between rewards and penalties, (5) an indication of whether the rewards and penalties are established according to (i) predetermined formulae, (ii) the discretion of FERC or State commissions, or (iii) negotiations to be conducted between licensees and commissions; and (6) indicators of whether any programs make use of SALP, or performance indicators developed either by NRC or another entity.

In addition, licensees will be requested to provide to the NRC an analysis of the expected safety consequences of new or substantially modified programs before they are implemented.

Finally, licensees are requested to report significant rewards or penalties from implementation of the incentive programs and provide the results of their assessment of the potential safety impact. Significant penalties will be determined by effects on a licensee's (1) return on common equity, (2) net cash flow, and (3) interest coverage on long-term debt.

Recommendation: It is recommended that the Commission approve the enclosed draft Policy Statement for public comment in the Federal Register.

Coordination: This paper has been reviewed by the Office of the General Counsel and it has no legal objection to it.


James M. Taylor
Executive Director
for Operations

Enclosures:

1. Policy Statement on Economic Performance Incentives
2. Letter to be Sent to the Federal Energy Regulatory Commission and to State Utility Regulatory Commissions
3. COMKR-90-003 and COMJC-90-002, Economic Performance Incentive Regulation

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Wednesday, August 29, 1990.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, August 22, 1990, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:

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ENCLOSURE 1

Commission Draft Policy Statement on the Possible Safety Impacts of Economic
Performance Incentives

AGENCY: Nuclear Regulatory Commission

ACTION: Draft policy statement

SUMMARY: This statement presents the policy of the Nuclear Regulatory Commission (NRC) with respect to the possible safety impacts of economic performance incentive programs established by State commissions regulating electric utilities. The policy statement (1) contains a discussion of the potential impact of the policies and actions of State regulatory bodies, emphasizing that such actions can have either a positive or negative impact on public health and safety; (2) reflects the Commission's concern that certain forms of economic performance incentive regulation have the potential for adversely affecting nuclear plant operation and public health and safety; (3) specifically identifies those methods or approaches that are of particular concern (e.g. use of sharp thresholds, measurement of performance over very short time intervals, lack of "null zone," and inappropriate reliance on SALP scores); (4) indicates that the NRC will continue to monitor the application of economic performance incentives and performance criteria to nuclear power plant operations; and (5) urges licensees and State regulatory commissions to apprise the NRC of economic performance incentive programs that are being considered for application to NRC licensees.

DATES: The comment period expires 75 days after publication in the Federal Register. Comments received after this time will be considered if it

Enclosure 1

is practical to do so, but assurance of consideration cannot be given except for comments received on or before this date.

ADDRESSES: Mail written comments to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch. Deliver comments to One White Flint North, 11555 Rockville Pike, Rockville, Maryland between 7:30 a.m. and 4:15 p.m. Federal workdays. Comments may also be delivered to the NRC Public Document Room, 1717 H Street NW, Washington, D.C., between 7:45 a.m. and 4:15 p.m. Copies of comments received may be examined at the NRC Public Document Room.

FOR FURTHER INFORMATION CONTACT: Martin J. Virgilio, Chief, Policy Development and Technical Support Branch, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Telephone: (301) 492-1254.

SUPPLEMENTARY INFORMATION:

Introduction: After reviewing the information on economic performance incentive programs put in place by State regulatory commissions that regulate the economic returns of utilities operating nuclear power plants, the Commission has decided that it would be appropriate to set forth its views on the possible safety impacts of such programs in a Commission Policy Statement.

Background: A number of State regulatory commissions have established economic performance incentive programs relating to electric power plants. Some programs

have existed unchanged for a number of years, whereas others have been substantially modified or are newly established. NRC monitors and evaluates these incentive programs to determine their possible impact on the safe operation of nuclear power reactors. The NRC firmly believes that these programs should not create incentives to operate a plant when it should be shut down for safety reasons.

Policy Statement: The Commission's views on economic performance incentive programs are as follows:

Potential Impacts

The NRC recognizes that the existing programs vary considerably from State to State and that the plans are not easily classified, especially as to their possible impact on safe plant operations. However, certain general characteristics of programs can be evaluated and found to be either desirable (or at least neutral) or undesirable in their safety impact.

A desirable plan provides incentives to make improvements in operation and maintenance that result in long-term improvement in the reliability of the reactor, main generator and their support systems. An undesirable plan provides incentives to operate a facility with potential safety problems or to start up before fully ready merely to meet an operational goal.

A desirable economic performance incentive rewards a utility for a sound operations and maintenance program and for correcting recurrent or predictable

failures or other potential problems that could lead to an operational transient, unplanned plant outage or derating. Such an incentive is a desired result because a well run plant and prompt correction of problems enhance safety. Unanticipated transients and shutdowns challenge operators and safety systems and, although a low probability, could initiate a more serious event. Improved performance in a utility's operational organization, which can be encouraged by economic performance incentives, can be conducive to improving both safety and economic performance.

However, the Commission's concern with incentive plans is that, in the interest of real or perceived short-term economic benefit, utilities might hurry work, take short cuts, or delay a shutdown for maintenance in order to meet a deadline, a cost limitation, or other incentive plan factor. Such a program could encourage, directly or indirectly, the adoption of actions designed to maximize measured performance in the short-term at the expense of plant safety (public health and safety). If a licensee keeps a reactor online when it should be taken down for preventive or corrective maintenance and uses shortcuts or compressed work schedules to minimize down time, these actions could adversely impact safety.

Potential Adverse Impacts on Plant Operation and Public Health and Safety

Some specific features of incentive plans now used by some States could adversely affect public health and safety. These features are (1) sharp thresholds between rewards and penalties, (or between penalties and null zones, or rewards and null zones) and (2) performance measurements having short time intervals.

A sharp threshold occurs when a licensee misses a target capacity factor and must bear a large part or all of the resulting replacement power costs. A sharp threshold provides an incentive to continue plant operation to achieve a target capacity factor to avoid the large replacement power cost or to earn a substantial reward. This type of incentive could deflect attention from safe plant operation.

Performance measurements for short-term intervals provide incentives to focus on a short-term target, such as a higher capacity factor or availability factor. This target could become the primary focus, diverting attention from long-term goals of reliability and operational safety. In contrast, performance measurements for long-term intervals provide incentives to the utility to follow sound maintenance and operational practices and make system and component changes so that the licensee improves operating performance in terms of availability and capacity factors.

Short-term measurements tend to make safety and economic goals conflict; long-term measurements tend to make the two goals complementary.

Specific Features That Cause NRC Concern

Sharp thresholds and short-term performance measures can adversely impact safety. In addition, plans that use NRC periodic performance assessments and performance indicators of the NRC industry as a basis for rewards or penalties present

several major concerns. First, the NRC's Systematic Assessment of Licensee Performance (SALP) was developed to assist the NRC in assessing the performance relative to the safety of individual facilities and to serve as a basis for communicating to the licensee. The NRC staff expects licensees to focus on the facts in the SALP report, the issues identified, and the apparent root cause of problems. The prospect of financial rewards or punishments for licensees based on SALP ratings causes concern in that it may change the focus of the SALP process from the underlying issues, where it should properly be, to the numerical ratings themselves. If the issues identified in a SALP report are obscured by concerns over the financial consequences incurred as a result of that rating, the process may not achieve the desired results.

Similarly, performance indicators were developed to assist NRC, and the licensees in identifying trends and areas of performance that should receive a more detailed assessment. Basing rewards or penalties on the indicators could direct a licensee's attention toward improving the scores by possibly inappropriate means rather than toward identifying and correcting underlying safety conditions.

Continued NRC Monitoring Program

The NRC will periodically survey State regulatory commissions having rate regulation over power reactors and the Federal Energy Regulatory Commission (FERC) to determine any new or substantial changes in programs and to ascertain how the programs have been implemented, including the imposition of large penalties.

The survey results will be evaluated to identify safety concerns from inappropriate programs and penalties that detract from safety performance. We plan to update the survey annually. We will periodically assess the frequency of the surveys to determine the need for schedule adjustments.

Licensees and Utility Commissions Urged To Inform NRC of Program Initiatives

The NRC should be apprised of economic performance incentive programs that are being planned by State regulatory commissions and that can impact safety. Frequently, these programs are developed in coordination with regulated utilities. Toward this end, the NRC will be requesting that licensees report whenever these commissions are developing or substantially revising economic performance incentives. The objective will be that NRC be informed of the principal features of the program so that their likely impact on plant safety can be assessed. Further, NRC will be requesting licensees to report the penalties assessed through these programs as they occur. NRC also will be seeking the cooperation of FERC and the State utility regulatory commissions to advise the NRC of initiatives to impose or change an economic performance incentive program that applies to an NRC licensee.

ENCLOSURE 2

Enclosure 2

TEXT OF LETTER TO BE SENT TO THE FEDERAL ENERGY REGULATORY COMMISSION AND TO
STATE UTILITY REGULATORY COMMISSIONS REQUESTING COMMENTS ON THE PROPOSED POLICY
STATEMENT ON ECONOMIC PERFORMANCE INCENTIVES

(Heading)

A number of State regulatory commissions and the Federal Energy Regulatory Commission (FERC) have established economic performance incentive programs relating to commercial nuclear reactors. Some programs have existed for a number of years, whereas others have been substantially modified or are newly established. The U.S. Nuclear Regulatory Commission (NRC) has monitored these programs through periodic surveys of State commissions and licensees to determine whether they create incentives for reactor licensees to change operating or maintenance practices in such a way that safety is diminished.

In reviewing the programs in effect in 1989, the Commission has determined that a few economic performance incentive programs have the potential to direct licensees' attention away from the primary responsibility of safe operation and toward attempting to meet an operational goal to avoid a penalty or receive a reward. As a result, the Commission directed the NRC staff to develop a proposed Policy Statement that describes desirable and undesirable features of these programs with respect to licensee's responsibilities for public health and safety. Enclosed for your consideration is a copy of the proposed Policy Statement.

Your cooperation in providing comments to the NRC on this matter will be greatly appreciated. The NRC has indicated in the past that properly devised economic performance incentive programs can meet both the goals of economical and safe operation.

Sincerely,

James M. Taylor
Executive Director
for Operations

ENCLOSURE 3



OFFICE OF THE
SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON D.C. 20555

May 8, 1990

COMKR-90-003 and
COMJC-90-002

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: ECONOMIC INCENTIVE REGULATION

At the recent staff briefing on Economic Incentive Regulation of Nuclear Power Plants various concerns were expressed by the Commission. Upon further consideration, the Commission (with Commissioners Roberts, Rogers, Curtiss, and Remick agreeing) has agreed that it would be appropriate for the Commission to set forth its views on this matter in a Commission Policy Statement on Economic Incentive Regulation. In addition, the Commission believes that the NRC should have some mechanism to monitor and evaluate the potential safety consequences of proposed economic incentive programs before such programs go into effect. Accordingly, the staff should:

1. develop and submit a Policy Statement on Economic Incentive Regulation for the Commission's consideration. The proposed policy statement should -- (i) contain a discussion of the potential impact of the policies and actions of state regulatory bodies, emphasizing that such actions can have either a positive or negative impact on public health and safety; (ii) reflect the Commission's concern that certain forms of economic incentive regulation have the potential for adversely affecting nuclear power plant operation and public health and safety; and (iii) specifically identify those methods or approaches that are of particular concern (e.g., use of sharp thresholds, measurement of performance over very short time intervals, lack of "null zone", inappropriate reliance on SALP scores); (iv) indicate that the NRC will continue to monitor the application of economic incentives and performance criteria to nuclear power plant operations; and (v) urge licensees and public utility commissions to apprise the NRC of economic incentive programs that are being considered for application to NRC licensees.
- (EDO) (SECY Suspense: 7/1/90)

2. establish a tracking system, as originally recommended in SECY-85-260, to monitor proposals for, and implementation of, performance incentives applicable to nuclear power plants. The tracking system should provide for early notification when an incentive plan is proposed, instituted, or substantially modified, or when significant rewards or penalties are imposed under such plans. Additionally, the tracking system should provide sufficient information in a timely manner so as to permit the staff to evaluate the potential safety consequences of such plans prior to such plans' going into effect.

(EDO)

(SECY Suspense: 7/1/90)

Chairman Carr disagrees; he believes that the investment of resources proposed is inappropriate at this time. He favors continuing with the program of monitoring by the staff as described in SECY-90-046. If adverse impacts are noted, the Commission would then select from the options presented in the paper to protect public health and safety.

cc: Chairman Carr
Commissioner Roberts
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
OGC
OIG