

April 18, 2002

MEMORANDUM TO: William D. Travers
Executive Director for Operations

FROM: Ashok C. Thadani, Director */RA/*
Office of Nuclear Regulatory Research

SUBJECT: COMMUNICATION PLAN FOR PERFORMANCE-BASED
REGULATION

In SECY-01-0205, "Status Report on Performance-Based Approaches to Regulation," dated November 16, 2001, the staff made a commitment to develop a communication plan for performance-based regulation by mid FY-2002. The plan (attached) will be used by the staff as one of the means to achieve a common understanding of expectations and accomplishments relative to the use of performance-based approaches to regulation. The plan will be updated as needed to incorporate feedback from users.

A performance-based regulatory approach focuses on results as the primary basis for regulatory decision-making, and as such allows NRC and licensee flexibility in meeting a regulatory requirement. This, in turn, can result in a more efficient and effective regulatory process. The staff has developed and published high-level guidelines for performance-based activities with the help of an inter-office Performance-Based Regulation Working Group. The developmental phase of this activity will be completed in FY-2002 with the preparation of a user-friendly guidance document.

Attachment: Communication Plan for Performance-Based Regulation

cc w/att.:

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COMMUNICATION PLAN FOR PERFORMANCE-BASED REGULATION

GOALS:

A performance-based regulatory action leads to attainment of defined objectives and results, without detailed direction from the NRC on how those results are to be obtained. An increased reliance on such an approach is an important Commission-directed initiative that is incorporated in the NRC's Strategic Plan. It is NRC's goal to use (wherever it is appropriate) less-prescriptive, performance-based approaches to regulation so as to advance the performance goals of maintaining safety and reducing unnecessary regulatory burden.

The purpose of this Communication Plan is to improve the effectiveness of communication within the NRC and between the NRC and its stakeholders concerning this programmatic initiative. Toward this end, this Communication Plan is a resource for the staff to use to achieve a common understanding of the expectations and accomplishments for performance-based approaches to regulation.

BACKGROUND:

In 1993, Congress enacted the Government Performance and Results Act (GPRA) in order to focus Federal programs on performance. NRC's Strategic Plan, developed in response to GPRA, provides specific performance goals that drive the agency's regulatory program.

The history of NRC's activity in performance-based regulation (PBR) began with the SRM of January 22, 1997, in which the Commission directed the staff to propose a plan to develop performance-based objectives that are not amenable to probabilistic risk assessment. The initiative was given further definition by Direction Setting Issue-12 and the White

What does the Strategic Plan say about PBR?

PBR is a regulatory initiative directed by the Commission in the Strategic Plan to include activities in the reactor, material, and waste arenas.

What guidance exists for a Communication Plan?

On May 1, 2000, the EDO issued a memorandum to NRC staff that included guidance on preparing a Communication Plan. This Communication Plan follows that guidance. It is intended for the use of NRC staff.

What is level of involvement for stakeholders?

The EDO guidance has identified "awareness," "buy-in," and "ownership" as the three potential levels that NRC may seek of each audience's involvement.

What are typical stakeholder concerns?

Experience shows that groups such as Public Citizen think that PBR will lower safety standards; power plant licensees might think it to be too expensive; and some NRC staff might think that the level of complexity of PBR is too high.

Paper on "Risk-Informed and Performance-Based Regulation." The continuing efforts of the staff, including conducting public workshops, led to publication of high-level guidelines for performance-based activities (SECY-00-191 and 65 FR 3615). The guidelines were developed with participation of an interoffice working group called the PBR Working Group. The developmental aspect of this activity will end with issuance of user-friendly guidance to staff at the end of FY-2002.

AUDIENCES:

Communication is key to building support and awareness for performance-based approaches. Examples of audiences outside and within the NRC are provided below.

External audiences comprise a wide range of stakeholders. They include (1) industry groups (e.g., Nuclear Energy Institute, Electric Power Research Institute, Institute of Nuclear Power Operations, Owners Groups, vendor groups), (2) individual licensees, (3) standards developing organizations, (4) representatives of the communications media, (5) public interest groups and interveners, (6) the general public, and (7) the Agreement States. The level of involvement for external stakeholders should be consistent with the “buy-in” level. The level of “buy-in” for different external stakeholders is expected to depend on the diverse interests of each stakeholder.

Internal stakeholders are all staff working on performance-based regulation, that is, all staff that provide technical bases for rulemaking activity or guidance documents as well as staff responsible for developing performance-based regulations or for implementing those regulations. They include supervisory and non-supervisory levels in all organizational elements, including advisory committees and the EDO. The level of involvement for internal NRC stakeholders should be at the “ownership” level, so that performance-based concepts are considered at the earliest stages of a regulatory action rather than as an add-on that is included subsequent to other considerations. If internal stakeholders do not take ownership of performance-based concepts, full success of the Commission’s initiative would become extremely difficult.

What tools can NRC staff use for PBR?

In addition to the high-level guidelines for performance-based activities (SECY-00-191) and the guidance NUREG/BR, the internal web can provide examples of approved regulatory actions that employed performance-based concepts. Communications with external stakeholders can be aided by public workshops.

What are the high-level guidelines for performance-based approaches?

The guidelines (which are presented here as questions) are high-level because they are largely conceptual, and thus can be used for reactors, materials, and waste-related regulatory activities. While formal guidelines have been published (65 FR 3615), a Plain English version of the viability guidelines is shown below:

(A) Can margin be estimated realistically?

(B) Can performance parameters be identified that, together with objective criteria, provide measures of performance and the opportunity to take corrective action if performance is lacking?

(C) Can objective criteria be developed indicative of performance?

(D) Is flexibility (for NRC and licensees)

IDENTIFICATION OF TOOLS:

The high-level guidelines provide the basis for determining whether and how a regulatory proposal can be made more performance-based; they represent the basic tool for communicating the principles and objectives of PBR. Other tools are under development or being considered. A user-friendly guidance document is under development. A section of the internal NRC web site that has an on-line training module is also under consideration.

These tools are primarily intended to serve the needs of internal stakeholders.

KEY MESSAGES:

Existing regulations are largely based on deterministic (i.e., driven by worst-case scenarios) and prescriptive (i.e., compliance-based and one-size-fits-all) approaches. Experience shows that improvements to the regulatory framework are possible and desirable. The Commission has mandated improvements by emphasizing risk-informed and performance-based regulatory approaches in the Strategic Plan.

Performance-based approaches to regulation improve objectivity (i.e., reduce individual bias) in NRC decision-making. This is accomplished by identifying performance parameters and objective criteria that offer confidence that safety margins can be maintained while providing licensees flexibility in operation. Confidence in the level of safety achieved can be increased by establishing performance and results as the primary bases for regulatory decision-making. Performance-based approaches should be considered when satisfactory safety margins exist (after an appropriate treatment of uncertainty), and regulatory effectiveness and efficiency are promoted by granting flexibility with regulatory requirements.

Realistically, it should be recognized that, in some situations, a performance-based approach may be inappropriate or too difficult to achieve. It is most often inappropriate if safety margins are small and if time or opportunity to take corrective actions does not exist.

COST AND SCHEDULE:

The resources for the currently planned level of accomplishments, as described in

What is NRC's experience with PBR?

The strengths and weaknesses of the performance-based approach became evident with the promulgation and implementation of the Maintenance Rule (10 CFR 50.65) and the revised Reactor Oversight Process (ROP). The Maintenance Rule requires commercial nuclear power plant licensees to ensure that maintenance of safety significant structures, systems, and components is adequate to assure they remain capable of performing their intended functions. The Commission identified this rule as "results-oriented," and it was widely viewed by stakeholders as a performance-based rule. The original version of the rule was changed when the NRC became dissatisfied with the results stemming from the use of some of the flexibility afforded by the first version. The ROP has been highly successful in enhancing the level of objectivity in the NRC's licensee assessments. It has resulted in increased effectiveness and efficiency in NRC and licensee operations.

What distinguishes PBR from non-PBR?

The distinctions can most easily be explained through examples. The ALARA provisions of 10 CFR Part 20, together with the specified dose limits, are examples of PBR. Appendix R to 10 CFR Part 50 is an example of a non-PBR approach.

The conclusion from regulations such as these shows that PBR has clear goals and objectives, with performance measures indicative of when objectives are accomplished. Non-PBR regulatory solutions are often silent about accomplishment of goals

SECY-01-0205, "Status Report on Performance-Based Approaches to Regulation," have been allocated, are sufficient, and the work is proceeding on schedule. The actions are issuance of the Communication Plan and completing a user-friendly guidance document. These will be completed by the end of FY-2002. Resources

for some of the additional activities identified under "Identification of Tools" will be addressed during the current planning, budgeting and performance measurement process as appropriate.

Each planned regulatory action is budgeted separately by the responsible office. NRC staff involved in these regulatory activities routinely include cost and schedule information, and consideration of performance-based approaches would be incorporated where appropriate.

EVALUATION:

As indicated in SECY-01-0205, the staff will complete the developmental phase of issuing the high-level guidelines for performance-based activities with publication of a user-friendly guidance document at the end of FY-2002. Success in implementing the guidelines will be gauged by two factors: (1) the extent to which regulatory products which are designed to be performance-based conform with the guidelines, and (2) the extent to which the accumulation of experience shows the strengths and weaknesses of the guidelines. An increased reliance on regulatory proposals

that are result- or outcome-oriented (consistent with GPRA) through the application of the high-level guidelines would indicate definite progress. External feedback regarding possible improvements to the guidelines is likely to be obtained through public comments on *Federal Register* notices, at public workshops, licensee responses, or on the Internet. Internal feedback would be obtained from working groups responsible for developing regulatory actions or from the internal web-site.

FINDINGS:

Significant regulatory actions are systematically reviewed by management and often provided to the Commission for approval. The extent and manner in which performance-based concepts are adopted will be fully evident as part of this review and approval process. The public is made aware of these results through the normal public interaction process during regulation development as well as in the notifications of regulatory actions.

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