April 26, 2000

MEMORANDUM TO: James T. Wiggins, Deputy Regional Administrator, RI
Bruce S. Mallett, Deputy Regional Administrator, RII
James L. Caldwell, Deputy Regional Administrator, RIII
Thomas P. Gwynn, Deputy Regional Administrator, RIV

FROM: William M. Dean, Chief ***/RA***
by Cornelius F. Holden Acting For/
Inspection Program Branch
Division of Inspection and Support Programs
Office of Nuclear Reactor Regulation

SUBJECT: REVISED OVERSIGHT PROCESS SELF-ASSESSMENT ACTIVITIES

Attached for your review is the Inspection Program Branch's (IIPB's) proposed approach for conducting its reactor oversight process (ROP) self-assessment during the initial implementation period. I have attached four separate assessment plans that detail the pertinent questions we would ask to ascertain if the ROP is meeting its stated objectives and the agency's performance goals and how we would go about trying to answer these questions. These questions are prioritized within each objective and performance goal. They were developed over the course of the last month by my staff through facilitated working sessions and IIPB management review.

Our intention is to start working on developing actual performance metrics in early May, but I wanted to offer the regions an opportunity to comment on what we have developed thus far and offer any additional suggestions. It should be noted that in the next phase of the self-assessment development process, we will look for possible synergistic affects among the different process areas and also look to focus on identifying what can be reasonably measured over the course of the next year. In addition to receiving any comments you may have on our efforts thus far, we would like to offer the regions the opportunity to participate in the next phase of this process. It will take place the week of May 8, 2000, and will be facilitated by Ms. Heidi Hahn of Los Alamos National Lab (LANL). She will meet with each working group (Performance Indicators, Significant Determination Process, Inspection, and Assessment & Enforcement) over the course of several days. If you are interested, we would welcome the participation of experienced senior inspectors or branch chiefs.

Please provide any comments by May 5 so that they can be considered by the working groups. Any comments should be provided to my task areas leads for this effort: Steve Stein (SRS) for Inspection, Don Hickman (DEH2) for Performance Indicators, Alan Madison (ALM) for the

Significance Determination Process, and Tom Boyce (THB) for the Assessment and Enforcement area. Also contact these individuals if you are interested in having members of your staff participate. Thanks for your continued assistance and support.

Attachments: As Stated

cc: Regional Division and deputy division directors
DIPM Branch Chiefs and Gillespie/Boger
Rich Barrett, DSSA, NRR
Roger Pedersen, DIPM, NRR
Ms. Heidi Hahn, Los Alamos National Lab (LANL)

Significance Determination Process, and Tom Boyce (THB) for the Assessment and Enforcement area. Also contact these individuals if you are interested in having members of your staff participate. Thanks for your continued assistance and support.

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TEMPLATE #: NRR-106

* See previous concurrence.

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Attachment 1

Performance Indicators Self-Assessment Plan

Assessment of the Initial Implementation of the Revised Reactor Oversight Process Performance Indicators

ATTRIBUTES:

A. <u>Objective</u>: PIs will be considered to be objective **if**:

A1 The PI values obtained by different users are the same, given the same conditions:

a. Count the number of significant discrepancies (i.e., errors that result in crossed thresholds) that are identified through implementation of IP 71151, "PI Verification."

b. Count the number of changes made by licensees due to lack of understanding in previously submitted PI data and the number of issues requiring interpretations

A2 PI values are perceived to be objective by stakeholders:

a. Track and trend the number of issues requiring interpretation (e.g., FAQ's)

b. Solicit and trend feedback from licensees and other external stakeholders through use of a survey

c. Evaluate the comments received via workshops, FAQs and other means to determine stakeholders' views

A3 PI's are not subject to being managed by licensees:

a. Identify PI's which lend themselves to becoming managed then track and trend the number of instances where licensees were observed/suspected of managing indicators as part of the PI verification process.

B. <u>Risk-informed</u>: PIs will be considered to be risk-informed **if:**

B1 A logical, quantifiable relationship can be established between PIs and risk-related safety performance

a. For those PIs that cross thresholds, use the plant's PRA to determine whether the change in the PI value had a significant effect on core damage frequency

B2. PIs are perceived to be risk-informed by stakeholders

a. Use survey/feedback forms to measure the degree to which PIs are viewed as risk-informed

b. Evaluate comments received via workshops, FAQs and other means to determine stakeholders' views

C. <u>Scrutable</u>: PIs are scrutable **if:**

C1. They have a well-defined consistent basis

a. Track the number of significant discrepancies (i.e., errors that result in crossed thresholds) that are identified through implementation of IP 71151, "PI verification."

b. Track the number of PI definition interpretation questions asked by licensees and NRC resident staff

c. Track/trend internal feedback

C2. The relationship between PIs and safety performance is well understood

a. Evaluate comments received via surveys, workshops, FAQs, and other means regarding the relationship between PIs and safety

C3 PIs are perceived to be scrutable by stakeholders

a. Survey internal and external stakeholders to measure the degree to which PIs are viewed as scrutable

b. Evaluate comments received via workshops, FAQs, and other means to determine stakeholders' views

D <u>Predictable:</u> PIs will be considered predictable **if:**

D1 The PI values obtained by different users are the same, given the same data inputs

a. Count the number of significant discrepancies i.e., errors that result in crossed thresholds) that are identified through implementation of IP 71151, "PI Verification."

b. Count the number of changes made by licensees due to lack of understanding in previously submitted PI data and the number of issues requiring interpretations

GOALS:

E **<u>Maintain Safety:</u>** PIs will be considered to help maintain safety **if**:

E1 Strategic plan safety objectives are met

a. Monitor industry-wide trends in PIs to determine wether statistically significant adverse trends are occurring

b. Monitor plant specific PIs (e.g.,RHR system for CE plants) to determine whether goals are being met

E2 A logical, quantifiable relationship can be established between PIs and safety performance

a. Evaluate instances in which PIs cross thresholds from green to yellow to determine whether inspection results provide a consistent view of safety performance

b. For those PIs that cross thresholds, use the plant's PRA models to determine whether a change in a PI value had significant effect on core damage frequency

E3 Provide timely indication of declining safety performance

a. Evaluate instances in which PI crossed thresholds from green to yellow to determine whether the PI should have provided more timely notification of the performance issue

F **<u>Efficiency and Effectiveness:</u>** PIs will be considered to be efficient and effective **if:**

F1 They are applicable to all plants

a. Count percentage of PIs that are reported differently (customized) to identify possible needed changes

F2 They accomplish their intended purpose (i.e., they are valid, measure what they are expected to measure)

a. Count events/conditions that were not captured that should have been

b. Review plant specific and industry-wide PIs for plants in the Regulatory Response Column, Degraded Cornerstone Column, and Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix to determine whether performance results obtained by the PIs are consistent

c. Compare trends in PIs in with those of inspection results, events, ASP etc.

d. Review identified instances that may potentially have resulted in unintended consequences

e. Review the results of supplementary inspections conducted as a result of a PI that crossed thresholds to determine whether the PI reflected an actual performance problem

F3 They are reported accurately

a. Trend number of change reports submitted by licensees

b. Count the number of PI inaccuracies (that result in crossed thresholds) that are identified through implementation of IP 71151, "PI Verification."

F4 They are reported timely and within the reporting requirements

a. Track the number of late PI submissions

F5 Provide timely indication of declining safety performance

a. Evaluate instances in which PI crossed thresholds from green to yellow to determine whether the PI should have provided more timely notification of the performance issue

F6 A logical, quantifiable relationship can be established between PIs and safety performance

a. Evaluate instances in which PIs cross thresholds from green to yellow to determine whether inspection results provide a consistent view of safety performance

b. For those PIs that cross thresholds, use the plant's PRA models to determine whether a change in a PI value had significant effect on core damage frequency

F7 Licensee response to PI results in improved performance rather than degradation to safety

a. Review specific identified instances in which PIs may have potentially resulted in unintended consequences

F8 Standards and processes remain stable over time

a. Track/Trend the number of more than editorial changes(i.e., those that have an impact on calculated PI values)

G **<u>Enhances public confidence</u>**: PIs will be considered to enhance public confidence **if:**

G1 Accurate understandable information is provided in a timely manner

a. Trend number of change reports submitted by licensees

b. Count the number of PI inaccuracies (that result in crossed thresholds) that are identified through implementation of IP 71151, "PI Verification."

c. Track the number of late PI submissions

G2 The public believes the PIs are credible and serve their intended purpose

a. Survey public regarding PI credibility or efficacy

b. Evaluate comments received via local public meetings, and other means to determine the stakeholders' views

H **<u>Reduces unnecessary regulatory burden :</u>** PIs will be considered to reduce unnecessary regulatory burden **if:**

H1 Licensees perceive that burden has been reduced

a. Survey licensees views regarding whether the overall RROP reduces unnecessary regulatory burden

H2 Licensees perceive minimum overlap of inspection program and PIs

a. Survey Licensee regarding perceived overlap between PIs and inspections

H3 Regulatory conflicts are reduced

a. Survey licensees regarding perceived overlap between reporting requirements, such as INPO, WANO and Maintenance Rule

Attachment 2

Inspection Program Self-Assessment Plan

Assessment of the Initial Implementation of the Revised Reactor Oversight Process Working Group on the Inspection Program

Group: S. Stein, J. Isom, G. Klingler, A. Masciantonio, E. Kleeh, S. Malur, A. D'Angelo, A. Spector

Objectives: (1) Identify criteria to determine whether the inspection portion of the revised reactor oversight process meets the attributes and goals; (2) prioritize the criteria and develop metrics (high-level statement of how to measure each criteria)

Criteria and Metrics for Each Attribute or Goal:

A Objective: The inspection program will be considered to be objective if:

A1 The findings contained in inspection reports are based on fact that were collected using the guidance contained in the inspection procedures
- a. Auditing reports to ensure that there is a traceable, factual basis for conclusions
- b. Audits (either paper reviews or shadowing) to compare actual inspection to prescribed inspection
- c. Inspector feedback on areas where inspection procedures are not useful/used

A2 The program is consistently applied, such that two inspectors obtain the same results given the same data/plant conditions
- a. SDP panel assessment of consistency of inspection findings reviewed
- b. Obtaining an independent review, such as by shadowing inspectors
- c. Comparing resource application to ensure consistency across regions

A3 Internal and external stakeholders view the program to be objective
- a. Analyzing stakeholder feedback (from surveys, other comments) for views on objectivity
- b. Reviewing licensee challenges to findings

A4 The program is well defined and does not result in surprises to licensees
- a. Rates of completion of baseline inspections across regions
- b. Licensee challenges/feedback asserting lack of compliance with program
- c. Inspector feedback
- d. Number of inspection plan changes and justifications for the changes

A5 Inspection procedures are written such that a trained inspector can perform an objective inspection
- a. Inspector feedback
- b. Peer review of inspection program documentation

A6 The significance of issues documented is supported by the available information.
- a. Independent review of inspection reports
- b. Number of requests for additional information to complete SDP evaluations [responsible group: SDP]

B Risk-informed: The inspection program will be considered to be risk-informed if:

B1 Inspectors use risk insights to select samples that have risk potential
- a. Inspector feedback
- b. Independent review of inspection reports to verify reasonableness of samples selected
- c. Comparison of scope of inspections performed to scope suggested by plant-specific SDP notebooks

B2 Inspection findings are related to risk
- a. Reviewing reports to ensure that green findings are risk-significant, in accordance with program guidance
- b. Inspector/licensee feedback

B3 The scope and frequency of the inspectable areas are appropriate – inspectable areas are risk-significant, nothing is missing, and there is nothing extraneous
- a. Inspector feedback
- b. Review of findings to ensure that findings are risk-significant, that risk-significant findings are resulting from inspectable area inspections (rather than from other sources, such as licensee identification)

B4 The initiators of actual events are covered in the inspection program
- a. Reviewing events and comparing initiators and causes to inspection program to see whether the program's scope covers the causes of the events

C Scrutable: The inspection program will be considered to be scrutable if:

C1 Stakeholders perceive the inspection program to be scrutable; procedures are clear and understandable to the inspectors and program policy documents are understandable to the public.
- a. inspector feedback
- b. regional feedback from weekly conference calls
- c. comparing reports to procedures
- d. licensee feedback
- e. inspection hours within control bands
- f. feedback from public meetings
- g. other industry/public feedback (NEI meetings, public interest groups)

C2 Inspection reports are understandable and criteria are clear and path from data to conclusion is traceable.
- a. audit of inspection reports
- b. soliciting feedback from regional BCs
- c. site visits to discuss with residents, other inspectors

D Predictable: The inspection program will be considered to be predictable if:

D1 The program is well defined and does not result in surprises—inspections are pre-defined and implemented as planned
   a. Rates of completion of baseline inspections across regions
   b. Inspector feedback
   c. Number of inspection plan changes and justifications for the changes

D2 Scope is repeatable across regions
   a. comparison of frequencies of inspections, sample sizes, and DIE hours to program requirements
   b. Number of and justifications for deviations from the program

D3 Stakeholders perceive the inspection program to be predictable
   a. Licensee challenges/feedback asserting lack of compliance with program
   b. Number of deviations from inspection plans

E <u>Maintains safety</u>: The inspection program will be considered to maintain safety if:

E1 The program is implemented as written
   a. Comparing RITS data
   b. Comparing completion rate to inspection plans and program requirements
   c. Number of and justifications for deviations from program
   d. Audit of regional implementing instructions

E2 The scope and frequency of the inspectable areas are appropriate–inspectable areas are risk-significant, nothing is missing, and there is nothing extraneous
   a. Inspector feedback
   b. Review of findings to ensure that findings are risk-significant, that risk-significant findings are resulting from inspectable area inspections (rather than from other sources, such as licensee identification)
   c. Number of program changes resulting from reviews of significant events

E3 The program results in appropriate and timely action to address safety-significant issues.
   a. Trending of significant inspection findings and completion of corrective actions
   b. Trend in overall industry performance indicated by number of safety significant events
   c. Program resources applied or redirected to higher priority issues

F <u>Increases efficiency, effectiveness, and realism</u>: The inspection program will be considered to be efficient, effective, and realistic if: [Note: first 3 criteria have equal rank]

F1 The scope and frequency of the inspectable areas are appropriate–inspectable areas are risk-significant, nothing is missing, and there is nothing extraneous
   a. Inspector feedback
   b. Review of findings to ensure that findings are risk-significant, that risk-significant findings are resulting from inspectable area inspections (rather than from other sources, such as licensee identification)
   c. Number of program changes resulting from reviews of significant events

d. Number of program changes from reviewing generic communications, LERs, RES and international studies, other reports

F2 Resources are appropriate—less than previous program, better utilized
a. Analysis of overtime charges
b. Comparison of DIE to travel time, prep/doc time
c. How many inspections are combined by regions
d. Monitoring RITS data
e. Feedback from inspectors and regions

F3 Resources available are adequate to conduct the program
a. Regional feedback
b. inspector skill sets
c. Contracted inspection support
d. Training

F4 The program is well defined and does not result in surprises (program is stable)
a. Rates of completion of baseline inspections across regions (ongoing review)
b. Inspector feedback
c. Number and types of changes to inspection program documents and justifications for the changes

F5 The program is timely (applies to inspection reports, inspections, TIs, and event response)
a. Auditing IRs to timeliness goals
b. Auditing TIs to timeliness goals
c. Completion rate compared to plans and schedules
d. ?measure of event timeliness?

F6 The program is flexible enough to learn over time
a. How easily and timely changes can be made to program
b. Program changes meet criteria I1 and I4

G <u>Enhances public confidence</u>: The inspection program will be considered to enhance public confidence if: (accurate, timely, understandable)

G1 All other goals and attributes are met

G2 It provides timely, effective, and accurate public communication

G3 NRC processes/activities are understandable to the public and provide adequate public involvement, and the program results in better public knowledge of the agency and its programs

G4 NRC's response to events are considered by the public to be proper

G5 Significant issues are identified by inspection

All of the above criteria will be measured by:

a. Surveys
b. Feedback from public through meetings, FRN responses, allegations and 2.206 petitions, Media Monitor
c. Congressional inquiries

H Reduces unnecessary regulatory burden: The inspection program will be considered to reduce unnecessary regulatory burden if: [Note: first two criteria are ranked the same]

H1 Inspections are scheduled to minimize burden, such as through coordination with licensee schedules and combining inspection procedures

a. Number of conflicts with major site activities
b. Number of changes to inspection schedules

H2 There are no unintended consequences to licensees as a result of inspection

a. licensee feedback, reg impact forms
b. surveys
c. RIC feedback
d. feedback from NEI meetings

H3 Other methods of gathering performance information are used in lieu of inspection

a. Agency initiatives (e.g., new PI's)
b. Industry initiatives

H4 Inspection hours are maintained within the "control bands"

a. Measured by RITS analysis and trending inspection hours

H5 Inspection scope and frequency are appropriate

a. public and licensee feedback
b. Comparison of required sample sizes to significance of inspection findings
c. Comparison of PI's and inspection findings

These two measures relate to the overall ROP

1. The program results in poor performers receiving more inspection than good performers

2. The performance of poor performers improves

Attachment 3

Significance Determination Process Self-Assessment Plan

Assessment of the Initial Implementation of the Revised Reactor Oversight Process
Working Session on the Significance Determination Process (SDP)
March 28, 2000

Group: All NRR team members except John Thompson, plus Pete Wilson and Roger Pederson

Objectives: (1) Identify questions needing to be answered to determine whether the PI portion of the revised reactor oversight process meets the attributes and goals identified in the 3/9/00 working session; (2) Time permitting, prioritize the questions and develop metrics (high-level statement of how to answer each question)

Criteria and Metrics for Each Attribute or Goal[1]:

A Objective: The SDP will be considered to be objective if:

A1 SDP outcomes are tied to clear standards and measured by:

a. Number of SDP results that are overturned by SDP panel due to outcomes having not met standards
b. Audit to determine % of outcomes meeting standards

A2 Assumptions used in SDP are based on fact measured by:
a. Number of SDP results that are overturned by SDP panel due to lack of basis in fact
b. Audit to determine fact-basis of assumptions

A3 Assumptions are agreed to by licensee and NRC measured by:
a. The number of times licensees maintain different assumptions at the end of Phase 3

B Risk-informed: The SDP will be considered to be risk-informed if:

B1 SDP results are backed up by risk insights (there is an underlying risk analysis)measured by:

a. Audit to determine that risk insights are contained in inspection reports and transmittal documents

B2 SDP outcomes are not based solely on numerical risk results (which would make them risk-based rather than risk-informed) measured by:

a. Audit to determine the degree to which other information, such as the an assessment of the validity of assumptions and uncertainty, influenced decisions made through the SDP

C Scrutable: The SDP will be considered to be scrutable if:

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[1] **Questions are listed in prioritized order for all attributes and goals**

C1 All information needed to reach a conclusion, including the basis for any deviations, is available measured by:

a. The degree to which an auditor can traces through the available documentation and reach the same result
b. Stakeholder feedback indicating ability/inability to reconstruct SDP outcomes

C2 SDP results can be reproduced, given the same information measured by:

a. The degree to which an auditor, given the data set used in the SDP, reaches the same result
b. Stakeholder feedback indicating ability/inability to reconstruct SDP outcomes

C3 The SDP tools reflect current plant design and licensee operating practices measured by:

a. Tracking the number of worksheet changes to plant design and operating practices that occur not in direct response to licensee changes
b. Tracking the number of licensee challenges based on currency issues

C4 SDP results of the same color translate to the same level of concern for all cornerstones measure by:

a. The effort expended in responding to greater-than-green findings across cornerstones (effort should be similar if white equals white)
b. Observing trends in comments received via workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to equivalence of findings across cornerstones over time
c. Having stakeholders representing different cornerstone areas “audit” results for consistency across cornerstones against some (TBD) standard

D. Predictable: The SDP will considered to be predictable if:

D1 SDP results can be reproduced, given the same information measured by:

a. The degree to which an auditor, given the data set used in the SDP, reaches the same result

D2 Standards and processes remain stable over time measured by:

a. The number of substantive change notices issued on program guidance, tables, or worksheets

D3 The SDP results in the same level of significance being attributed to similar issues identified in different regions or at different times measured by:

a. The degree to which a cross-regional audit team produces results consistent with those of the region

D4 The SDP tools reflect current plant design and licensee operating practices measured by:

a. Tracking the number of worksheet changes to plant design and operating practices that occur not in direct response to licensee changes
b. Tracking the number of licensee challenges based on currency issues

D5 The resources (direct charges and support activities) expended are appropriate to the benefit (significance of issues identified) measured by

a. The number of hours expended per greater-than-green finding

E Maintains safety: The SDP will be considered to maintain safety if all other goals are met and if:

E1 The SDP focuses NRC and licensee attention on safety-significant issues measured by:

a. Tracking the numbers of false positive and false negatives

E2 Events that occur do not reveal areas not covered or not appropriately treated by the SDP measured by:

a. Reviewing events to determine whether, had findings been brought forward, the SDP would have shown them to be significant

E3 The SDP tools reflect current plant design and licensee operating practices measured by:

a. Tracking the number of worksheet changes to plant design and operating practices that occur not in direct response to licensee changes

b. Tracking the number of licensee challenges based on currency issues

F Efficiency and effectiveness and Realism: The SDP will be considered to be efficient, effective and realistic if:

F1 The resources (direct charges and support activities) expended are appropriate to the benefit (significance of issues identified) and the SDP involves less NRC time/resources than the previous enforcement process for issues having similar significance measured by:.

a. Tracking the number of billable hours expended on greater-than-green findings
b. Tracking the number of times the NRC must interact with the licensee to produce the desired result

F2 The SDP results are accurate and complete measured by:

a. Tracking the number of false positives and false negatives

b. Tracking the number of changes to the SDP tool prompted by a deficiency in the SDP
c. Reviewing events to determine whether, had findings been brought forward, the SDP would have shown them to be significant

F3 The SDP results are timely measured by:

a. Determining whether timeliness goals were met
b. Obtaining feedback on the adequacy of the timeliness goals

F4 Inspection staff is comfortable/proficient using the SDP tool and find value in using it measured by:

a. Trending inspector feedback over time
b. Numbers of false positives

F5 Manpower goals for administering the SDP are met and appropriate personnel are doing the appropriate jobs measured by:

a. Determining whether manpower utilization goals were met

F6 SDP results of the same color translate to the same level of concern for all cornerstones measured by:

a. The effort expended in responding to greater-than-green findings across cornerstones (effort should be similar if white equals white)
b. Observing trends in comments received via workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to equivalence of findings across cornerstones over time
c. Having stakeholders representing different cornerstone areas “audit” results for consistency across cornerstones against some (TBD) standard

F7 Standards and processes remain stable over time measured by:

a. The number of substantive change notices issued on program guidance, tables, or worksheets

F8 Licensees accept SDP results measured by:

a. Tracking the total number of appeals
b. Tracking the proportion of appeals that are successful

G <u>Enhances public confidence</u>: The SDP will be considered to enhance public confidence if:

G1 Results are communicated in a way that demonstrates that the NRC understands the plant’s performance measured by:

a. Verifying the accuracy of facts communicated

G2 Public communication of issues is timely:

a. Verifying that timeliness goals are met
b. Obtaining feedback to determine whether the public finds the timeliness goals reasonable

G3 Results are understandable to the public measured by

a. Verifying that media reports accurately reflect the facts communicated (but, only positive relationships count – inaccurate reports do not necessarily mean that the facts communicated were inaccurate)
b. Obtaining feedback to determine whether the public understands the communications
c. Observing trends in comments received via workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to understandability of communications over time

G4 The SDP process allows for appropriate public involvement measured by:

a. Obtaining feedback to determine the degree to which the public finds the level of involvement appropriate
b. Observing trends in comments received via workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to the adequacy of involvement opportunities over time

H <u>Reduces unnecessary regulatory burden</u>: The SDP will be considered to reduce unnecessary regulatory burden if:

H1 The use of the SDP results in the licensee spending less time responding to low significance findings measured by:

a. Licensee feedback regarding time spent

H2 The SDP involves less licensee time/resources than the previous enforcement process for issues having similar significance measured by:

a. Licensee feedback regarding time/resources expended on greater-than-green findings
b. NEI-provided data on actual time/resources spent in old vs new programs

H3 Implementation of the SDP results in identification of potential areas for reduced regulation measured by:

a. Tracking the number of license renewals and exemption requests submitted based on SDP

H4 Are unintended consequences caused? Measured by:

a. Tracking stakeholder feedback.

Attachment 4

Assessment and Enforcement Self-Assessment Plan

Assessment of the Initial Implementation of the Revised Reactor Oversight Process Assessment Program
April 2000

Questions to be Answered for Each Attribute or Goal[2]:

A Objective: The assessment program will be considered to be objective if:

A1 Subjective judgment is minimized and is not a central feature of the process. Actions are determined by quantifiable assessment inputs (Examine PIs, SDP, cross-cutting issues). Measured by:

a. Number and type/scope of deviations from the action matrix (audit documentation and evaluation)
b. Number and type/scope of licensee challenges of assessment outcomes (data collection)

A2 The program is well-defined enough to be consistently implemented. Measured by:

a. Program audit (audit documentation and evaluation; feedback forms regarding IMC 0305)
b. Survey of regions (survey on IMC 0305 clarity and content)

B Risk-informed: The assessment program will be considered to be risk-informed if:

B1 The program is measuring the right things, such that there are no identified risk-significant "holes" not identified by PIs and inspection. Measured by:

a. Obtaining feedback on specific examples of aspects of licensee performance not captured (survey and review of operating events)
b. Number of changes/additions to PIs and inspectable areas resulting from areas not captured (do not count changes already being planned)(audit documentation of program changes (number and type/scope) from inspection, PI, SDP areas)

B2 Actions taken are commensurate with the risk of the issue and overall plant risk. Measured by:

a. Obtaining feedback on the appropriateness of actions taken (survey)
b. Plant-to-plant comparison of actions taken to check for consistency (audit documentation and evaluation)
c. Actions taken on plants meet common sense test of significance (two example scenarios: IP2 or multiple degraded cornerstones)(survey of regions/residents)

B3 All actions taken IAW Action Matrix are commensurate with overall plant and industry risk (scenario is migration of plants to the left of action matrix while industry PIs show a decline). Measured by:

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[2] Questions are listed in prioritized order

a. ASP-like indicators (data collection)
b. Peer review group (first year only - stakeholder lessons learned panel; Agency Action Review in future)

C Scrutable: The assessment program will be considered to be scrutable if:

C1 Stakeholders understand why actions were taken. Measured by:

a. Obtaining specific feedback from all stakeholders (survey)
b. Observing trends in comments received via public meetings, workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to lack of scrutability of actions taken over time

C2 Information is understandable, accurate, and readily available in a timely manner. Measured by:

a. Timeliness goals of IMC 0305 were met (audit documentation for letters, public meetings, NRC meetings, etc.)
b. Timeliness of web posting and availability via ADAMs (data collection)
c. Stakeholder feedback to determine acceptability of timeliness goals and information distribution methods (survey)

C3 Process documents are clear and understandable.

a. Specific feedback from all stakeholders (survey)

C4 Process documents are stable enough to be perceived as scrutable. Measured by:

a. Number and type/scope of revisions to documents (beyond those currently planned) - expect a declining trend (audit documentation)
b. Specific feedback from all stakeholders (survey)

C5 The Agency Action Review confirms decisions made throughout the assessment cycle. Measured by:

a. Number and type/scope of actions overturned by the Agency Action Review (audit evaluation)

D Predictable: The assessment program will considered to be predictable if:

D1 Results are repeatable. Measured by:

a. Independent verification of results - consistency between regions on issues that input to action matrix - arrive at same column & same action from range of actions (audit documentation and evaluation)
b. Implementation of the process is consistent across plants/regions such that, given similar inputs (particularly cross cutting issues), the same results are obtained (Audit documentation and evaluation)

c. Stakeholder feedback (survey)

d.

D2 There are no surprises. Measured by:

a. Number of deviations from the action matrix, including whether level of management is appropriate (audit documentation and evaluation)
b. Number of licensee challenges (data collection)
c. Licensee feedback (survey)

D3 The Agency Action Review confirms decisions made throughout the assessment cycle. Measured by:

a. Tracking the number of actions overturned by the Agency Action Review (audit evaluation)

D4 Timelier are followed. Measured by:

a. Timeliness goals in IMC 0305 are met (meetings, letters, etc.)(audit documentation)

D5 Information is understandable, accurate, and readily available in a timely manner. Measured by:

a. Timeliness of web posting and availability via ADAMs (data collection)
b. Stakeholder feedback to determine acceptability of timeliness goals (survey)

E <u>Maintains safety</u>: The assessment program will be considered to maintain safety if:

E1 Appropriate actions are taken to address significant reductions in safety margin, and to prevent recurrence. Measured by:

a. Feedback on appropriateness of actions -- expect a declining trend of negative comments on appropriateness of actions (survey)
b. Number of actions overturned by Agency Action Review (audit evaluation)
c. Lessons learned workshops (audit evaluation)

d.

E2 NRC actions are timely, and the process provides timely indications of declining safety performance. Measured by:

a. Lag time between discovery of a significant issue and taking action (audit documentation - compare PIM to inspection schedule date in assessment and follow up letters, measure from SDP finding to date)
b. Number and type/scope of events that occur but that were not preceded by related assessment inputs from SDP or PIs (audit documentation)

E3 Industry safety performance is maintained. Measured by:

a. Monitoring industry-wide statistics (e.g., ex-AEOD PIs, aggregate ROP PIs, RES RBPIs)(data collection)

E4 It identifies new generic safety issues. Measured by:

a. Conducting a senior management survey of the program's effectiveness in identifying generic safety issues (survey)

F Efficiency and Effectiveness and Realism: The assessment program will be considered to be efficient and effective if:

F1 It achieves the desired outcomes (i.e., maintains safety)

a. See measures in Maintains Safety attribute

F2 Resources expended are appropriate to plant performance. Measured by:

a. Stakeholder feedback on appropriateness of resources expended (survey)
b. Actions appropriate for SDP results in cornerstone area (survey)
c. Tracking deviations between the job level of people involved in NRC actions vs the job levels specified in the action matrix (audit documentation and evaluation)
d. Correlating the number of hours spent in assessment and plant performance (data collection - RPS reports assessment hours vs. issues $\geq$ Green)
e. Overall program hours spent in various areas (data collection - TBD)

F3 The process utilizes the same inputs (products) throughout. Measured by:

a. Number of times materials are updated or added to between assessment steps; Number of times materials are "repackaged" before moving to the next process step (audit documentation)

F4 The Agency Action Review confirms decisions made throughout the assessment cycle. Measured by:

a. Number of actions overturned by the Agency Action Review (audit evaluation)

F5 NRC actions are timely and the process provides timely indications of declining safety performance. Measured by:

a. Lag time between discovery of a significant issue and taking action (audit documentation - compare PIM to inspection schedule date in assessment and follow up letters, measure from SDP finding to date)
b. Timeliness goals in IMC 0305 are met (meetings, letters, etc.)(audit documentation)
c. Stakeholders feedback regarding whether they feel that the time allowed is reasonable to obtain the desired product (survey)

F6 Information is understandable, accurate, and readily available in a timely manner. Measured by:

a. Timeliness of web posting and availability via ADAMs for PIs, assessment letters, etc. (data collection)

b. Stakeholder feedback to determine acceptability of timeliness goals (survey)

F7 Resources expended are less than in the previous process. Measured by:

a. Comparing the number of meetings requiring management participation and the job levels of required attendees in both processes (audit documentation)
b. Tracking the FTEs needed to accomplish each process (data collection)
c. No extra meetings, formal or informal, outside of process (survey)
d. No overlap with other areas of program (survey)
e. Fewer challenges to NRC's assessments (data collection)

F8 The process is stable. Measured by:

a. Number and type/scope of revisions to documents (beyond those currently planned) - expect a declining trend (audit documentation)
b. Specific feedback from all stakeholders (survey)

G Enhances public confidence: The assessment program will be considered to enhance public confidence if:

G1 Actions taken are consistent with the action matrix. Measured by:

a. Number and type/scope of deviations from the action matrix and justifications for the deviations (audit documentation and evaluation)
b. Other goals and attributes listed herein are met

G2 Information is relevant, useful and meaningful. Measured by:

a. Reports written in plain language (survey, review of assessment letters by OPA recognizing that letters are primarily intended to communicate to licensees)
b. Specific feedback from stakeholders (survey)
c. Trends in comments received via public meetings, workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to relevance of information taken over time (audit documentation - survey data)

G3 Information is understandable, accurate, and readily available in a timely manner. Measured by:

a. Timeliness of web posting and availability via ADAMs for PIs, assessment letters, etc. (data collection)
b. Stakeholder feedback to determine acceptability of timeliness goals (survey)

G4 The role of the NRC is understood and credible. Measured by:

a. Specific feedback from stakeholders (survey)
b. Observing trends in comments received via public meetings, workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to the NRC's role taken over time (audit documentation - survey data)

c. Feedback from public meetings (audit documentation - meeting minutes)

G5 Stakeholders find actions to be appropriate. Measured by:

a. Specific feedback from stakeholders (survey)
b. Observing trends in comments received via public meetings, workshops, FAQs, Federal Register notices – expect proportionally fewer significant negative comments related to appropriateness of actions taken over time (audit documentation - survey data)
c. Feedback from public meetings (audit documentation - meeting minutes)

H Reduces unnecessary regulatory burden: The assessment program will be considered to reduce unnecessary regulatory burden if there are no unintended consequences and if:

H1 It focuses licensee and NRC resources on areas of greatest significance. Measured by:

a. Correlation the hours spent on issues with their significance (avoid possible overlap with inspection area) (data collection)
b. NEI/industry group input (survey - ask for input on this early in ROP initial implementation)

H2 Actions taken are consistent with the action matrix. Measured by:

a. Number and type/scope of deviations from the action matrix and justifications for the deviations (audit documentation and evaluation)

H3 Actions taken are consistent with NRC communications to the licensee. Measured by:

a. Differences between the actions specified in the transmittal letters to licensees and Agency Action Review results and the Commission SRM following the annual briefing (audit documentation and evaluation)

H4 It minimizes rework/duplication on the part of the licensee. Measured by:

a. Feedback from licensees (survey)
b. NEI/industry group input (survey - ask for this early in ROP initial implementation)
c. Regulatory impact forms (audit documentation)
d. Reduced overlap between NRC processes (survey)

H5 It minimizes inconsistencies between regions and inspectors. Measured by:

a. Number and type/scope of licensee complaints (data collection)
b. Program office audit for consistency (audit documentation - rely on results in inspection self-assessment for input)

Survey consists of inputs from feedback forms, formal surveys, Federal Register Notice(s), web-based feedback forms, and lessons learned workshops. Surveys will be tailored for specific target groups such as the following:

- Licensees and industry groups (NEI, INPO, utility groups)
- NRC regions & residents
- NRC headquarters stakeholders (OPA, technical branches, Projects)
- Public (general public and public interest groups)
- State and local officials
- Media (national and local press, etc.)

Audit documentation means a documentation review of assessment letters, follow up letters, and minutes of public meetings/conference calls; and inspection types & schedules in that documentation.

Audit evaluation means program office review (physical presence) of quarterly, mid, & end of cycle reviews, as well as the Agency Action Review.

Data collection means collection of data from various databases.