



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

APR - 7 2000

MEMORANDUM TO: Ellis W. Merschoff, Regional Administrator

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SUBJECT: DIFFERING PROFESSIONAL VIEW - FREQUENCY OF PIR
INSPECTIONS

In Manual Chapter (MC) 2515, Appendix A, Attachment 3, dated April 3, 2000 (which is attached to this DPV as Attachment 1), we note that Inspection Procedure (IP) 71152, "Identification and Resolution of Problems," (Attachment 5) is scheduled for annual performance with 210 inspection hours. In addition, as discussed in Section 03.01a of IP 71152, most of the baseline inspection procedures require inspection of problem identification and resolution (PI&R) performance. As discussed in IP 71152, Section 03.01e, the level of effort for routine reviews of PI&R activities is expected to equate to 10-15 percent of the resources estimated for the associated baseline cornerstone procedures. Based on the baseline inspection program annualized total of 2165 hours shown in MC 2515, Appendix A, Attachment 3, this could easily equate to an additional 200 inspection hours in this area. In addition, as discussed in IP 71152, Section 02.01, Appendix D, to Inspection Manual Chapter 2515, "Plant Status," resident inspectors are required to review PI&R issues. Although this is not considered inspection for accounting purposes, it is covered by the inspection guidance provided in IP 71152, Section 03.01.

Further, under IP 71152 we are no longer allowed to count in-office inspection of licensee corrective action documents, such as audits, self-assessments, and condition reports, as inspection time. This time was previously counted toward the scheduled inspection hours under IP 40500, "Effectiveness of Licensee Process to Identify, Resolve, and Prevent Problems." No matter what it is called, we cannot efficiently perform PI&R inspections without preparatory in-office inspection. Based on 5 inspectors at 30 hours each for one week of in-office inspection, this equates to 150 inspection hours, which must be added to each PI&R inspection to make a fair comparison to the inspection hours in the previous program.

Previously, PI&R was inspected every 18 months using IP 40500, with an average resource estimate of 192 hours. The annualized hours for IP 40500 equate to 128 hours. The increased annual hours of 560 [210 for IP 71152, plus ~200 hours for baseline cornerstone procedures (not considering plant status inspection activities), plus 150 hours for in-office inspection, which can no longer be counted toward the scheduled inspection hours], represent more than a four-fold increase in inspection hours in the PI&R area. Although we believe that PI&R is a very important area for inspection, we do not believe this substantial increase in inspection resources is justified.

The first consideration is the resource impact on the licensee of increasing the frequency of the PI&R inspection from 18 months to annually. We surveyed six Region IV licensees to determine what resources they applied to support the most recent PI&R inspections. The results of this survey are contained in Attachment 2. The average man-weeks to support each inspection were 16.25. As discussed above, the revised program requires more than a four-fold increase in inspection resources. These added inspection resources will place a considerable support burden on the licensee and could easily increase their average annual support effort to 20 man-weeks. As illustrated in Attachment 2, this figure could be less for licensees with few PI&R issues and much larger for licensees with serious PI&R issues. Using conservatively low estimates, increasing the frequency of this inspection from 18 months to annually equates to an additional average annual resource expenditure of over 13.75 man-weeks for each licensee to support the PI&R inspections. This is a significant part of the annual budgeted hours for many of our licensees and, more importantly, will preclude them from applying these resources to resolution of problems. Several licensees stated that supporting the PI&R inspection is the highest priority that they have. It is important to note that for several licensees, the personnel who support the inspection are intimately involved in the licensee's day-to-day PI&R program. Therefore, the support hours for the inspection are directly subtracted from the hours available to resolve problems.

Several licensees considered the PI&R inspection and the safety system design and performance capability inspection, which is to be performed biennially under IP 71111, Attachment 21, to be the two most resource demanding inspections. The latter inspection was previously performed under IP 93809, "Safety System Engineering Inspection (SSEI)." The estimated resources for IP 71111, Attachment 21, are 210 hours biennially. They stated that when these inspections are performed in close proximity to each other, it has a significant adverse effect on their abilities to accomplish scheduled work. They also pointed out that these inspections often overlap. We can attest that this is true. For example, SSEI Inspection 50-483/98-18 focused on engineering issues associated with the essential service water system. Because of emergent issues associated with this system, a substantial percentage of the resources for PI&R Inspection 50-483/00-03 were focused on engineering

issues associated with the essential service water system. Performance of SSEI and the PI&R inspections in close proximity could cause a substantial duplication of effort for both the NRC and licensee.

We have observed that the PI&R programs for most licensees are mature and change at a very slow rate. We usually require the entire 45 days after completion of the onsite inspection and sometimes more to issue the inspection reports. We try to advise the licensee at least 90 days in advance of the onsite inspection for our information needs. Using these timeliness numbers, it appears that we will be requesting information for the next PI&R inspection approximately 7 months after the licensee has received the report for the previous inspection. From our experience, we expect approximately 30 percent or more of the documentation requested in this time frame to be identical to the documentation, which had been supplied for the previous inspection.

Of the 14 licensee PI&R programs we inspect, none are currently considered to have significant deficiencies as indicated in the "Corrective Action Program Performance Matrix" (Attachment 3). As illustrated in the PPR 00-01, "Operations Branch Issue and Recommendations" (Attachment 4), all of the most significant performance issues are opportunities for improvement, which have low priority for inspection resources and will not receive additional inspection. This data is based on the previous 18-month frequency for inspections performed under IP 40500. From a performance standpoint, there is nothing in this data to justify increasing the frequency of the PI&R inspections. In addition, since the resident inspectors now have a requirement to assess PI&R on a daily basis as a part of their plant status inspection, they will inform regional management if significant PI&R issues arise, which might justify supplemental inspections.

On the other hand, if significant programmatic defects are identified in a licensee's PI&R program, it usually takes more than a few months to assess the results of the corrective actions implemented by the licensee to prevent recurrence. Therefore, if the PI&R inspection is repeated in 1 year or less, the same issue will likely be identified in the next inspection and the licensee will have to expend resources explaining its actions as opposed to applying its resources to correcting the problem.

We cannot identify any discernable safety benefits by increasing the frequency of the PI&R inspection. On the contrary, we believe that supporting this additional inspection effort will divert critical licensee resources from resolving safety issues in a timely manner. Also, it is not in the spirit of our commitments to congress and our stakeholders. Specifically, it is counter to the following two performance goals cited in the draft Fiscal Year 2000 Strategic Plan: a) Make NRC activities and decisions more effective, efficient, and realistic; and b) reduce unnecessary regulatory burden on stakeholders.

The appendix to the strategic plan discusses several strategies for achieving these performance goals. With regard to Performance Goal b, one strategy states that we will improve and execute our programs and processes in ways that reduce unnecessary costs to stakeholders. Part of the explanation states that, in particular, we will evaluate the timeliness of actions, and the necessity for multiple rounds of requests for information. Increasing the frequency of the PI&R inspection is contrary to this strategy. As discussed above, under the revised program some of our requests for information will partially duplicate previous requests.

Another strategy related to Performance Goal b states that we will actively seek stakeholder input to identify opportunities for reducing unnecessary regulatory burden. Data collected for this DPV firmly supports not increasing the frequency of the PI&R inspection to avoid placing unnecessary regulatory burden on the licensees.

A secondary issue is that we have the responsibility, but not the resources within our branch, to perform all the PI&R inspections. We estimate that we have approximately 50 percent of the required inspection resources. It has been proposed that we take the lead on all the inspections and borrow additional inspectors to complete the teams, as required. The problem with this approach is that it is difficult to obtain an adequate commitment on inspection preparation and documentation from borrowed inspectors and their branch chiefs. This increases the burden on the lead inspector in producing a quality product. In view of the fact that we are in the throes of implementing a significantly revised inspection program, this is not a good time to be placing an additional burden on lead inspectors. We believe the quality of the PI&R inspections is much more important than the quantity.

Recently, you quoted the Code of Conduct for Region Inspectors in the Region IV Roundup. We subscribe to that Code and believe that the following four ideals apply to this issue: 1) we will be cognizant of our limitations, 2) we will not abuse our authority and will respect the licensee's time and resources, 3) we will take the lead in establishing and maintaining high professional standards by practicing the principles of good regulation, and 4) we will ensure that our activities will be directed toward protecting the health and safety of the public.

Based on these considerations, we recommend that Manual Chapter 2515, Appendix A, Attachment 3, be revised at this time to allow performance of IP 71152 biennially. It should be phased in over the next 2 years. As a result, some licensees will probably receive PI&R inspections in 18 months from their previous inspections, and all licensees will receive a PI&R inspection within 2 years. Half the plants should be inspected in one planning year and the remaining plants should be inspected in the subsequent planning year. We also recommend that PI&R and SSEI inspections be scheduled in alternate planning years for a given plant and that they not be closer than 6 months apart. This will permit licensees to level their work loads over a 2-year period in support of these manpower intensive inspections and will help preclude them pulling resources away from problem resolution activities.

We understand that this is a pilot program and it is planned to evaluate whether the PI&R inspection frequency is appropriate in the future. However, we feel that the impact on the licensees from this annual PI&R inspection is not reflective of good regulatory practice and is inconsistent with our strategic plan. We further believe that conducting the program biennially will be conducive to providing higher quality PI&R assessments.

Attachments:

- 1) Attachment 3 (Baseline Inspection Procedures and Estimated Resources) to MC 2515, Appendix A
- 2) Impact of Inspection Procedure 71152 Performance on Licensee Resources
- 3) Corrective Action Program Performance Matrix
- 4) PPR 00-01 Operations Branch Issues and Recommendations
- 5) Inspection Procedure 71152

Ellis W. Merschoff

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Attachments:

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- 4) PPR 00-01 Operations Branch Issues and Recommendations
- 5) Inspection Procedure 71152

cc:

Arthur T. Howell III
John L. Pellet
Karla D. Smith

ATTACHMENT 1

**ATTACHMENT 3
(BASELINE INSPECTION PROCEDURES AND ESTIMATED RESOURCES)
TO MANUAL CHAPTER 2515**

ATTACHMENT 3

BASELINE INSPECTION PROCEDURES AND ESTIMATED RESOURCES

IP/IA No.	Title	Frequency ¹	Annualized Estimated Resources ²
71111 Reactor Safety—Initiating Events, Mitigating Systems, Barrier Integrity			1547
71111.01	Adverse Weather Protection	A	18
71111.02	Evaluation of Changes, Tests, or Experiments	A	32
	(Reserved)		
71111.04	Equipment Alignment	Q	80
71111.05	Fire Protection	Q/T	100
71111.06	Flood Protection Measures	A	20
71111.07	Heat Sink Performance	A/B	22
71111.08	Inservice Inspection Activities	B	16
	(Reserved)		
	(Reserved)		
71111.11	Licensed Operator Requalifications	A/B	60
71111.12	Maintenance Rule Implementation	Q/B	236
71111.13	Maintenance Risk Assessments and Emergent Work Evaluation	Q	120
71111.14	Personnel Performance During Nonroutine Evolutions	AN	102
71111.15	Operability Evaluations	AN	77
71111.16	Operator Workarounds	AN	35
71111.17	Permanent Plant Modifications	A/B	56
	(Reserved)		
71111.19	Post Maintenance Testing	Q	84
71111.20	Refueling and Outage Activities	B	107
71111.21	Safety System Design and Performance Capability	B	210
71111.22	Surveillance Testing	Q	132
71111.23	Temporary Plant Modifications	AN	40

IP/IA No.	Title	Frequency ¹	Annualized Estimated Resources ²
71114 Reactor Safety—Emergency Preparedness			72
71114.01	Exercise Evaluation	B	32
71114.02	Alert Notification System Testing	B	4
71114.03	Emergency Response Organization Augmentation Testing	B	4
71114.04	Emergency Action Level and Emergency Plan Changes	AN	16
71114.05	Correction of Emergency Preparedness Weaknesses and Deficiencies	B	6
71114.06	Drill Evaluation	A	10
71121 Occupational Radiation Safety			124
71121.01	Access Control to Radiologically Significant Areas	A	32
71121.02	ALARA Planning and Controls	B	60
71121.03	Radiation Monitoring Instrumentation	A	32
71122 Public Radiation Safety			48
71122.01	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	B	16
71122.02	Radioactive Material Processing and Transportation	B	16
71122.03	Radiological Environmental Monitoring Program	B	16
71130 Physical Protection			96
71130.01	Access Authorization	A	12
71130.02	Access Control	A	24
71130.03	Response to Contingency Events	B	52
71130.04	Security Plan Changes	A	8
Other Baseline Procedures			
71151	Performance Indicator Verification	A	50
71152	Identification and Resolution of Problems	A	210
71153	Event Followup	AN	18
Baseline Inspection Program Annualized Total ³ :			2165

Notes:

1. A = annual, B= biennial, T = triennial, Q = quarterly, AN = as needed
2. Annualized estimate is for a dual-unit site. Any adjustments for single- or triple-unit sites are contained in the inspection procedures.
3. Total does not include other resident activities, such as plant status, that are not considered direct inspection effort.

END

ATTACHMENT 1

DPV - FREQUENCY OF PIR INSPECTIONS

ATTACHMENT 2

**IMPACT OF INSPECTION PROCEDURE 71152
PERFORMANCE ON LICENSEE RESOURCES**

IMPACT OF IP 71152 PERFORMANCE ON LICENSEE RESOURCES

In responding to the survey, the licensee categorized the man-weeks expended in supporting the inspections in various categories such as data collection, document copying, direct onsite support, and exit attendance. Because the overall impact is much more important than how the data is categorized, we are only listing two categories - direct support and other impact. This data does not encompass the time and distractions to numerous licensee supervisors and managers incidental to the PI&R inspections. Neither does it include man-weeks devoted to addressing responses to findings which may have resulted from the inspections.

LICENSEE	DIRECT SUPPORT	OTHER IMPACT CONSIDERATIONS
1	25 man-weeks	18 individuals involved over 3 weeks in direct support, 7,000 pages of copying, 30 other individuals answered questions, 6-10 managers and 10-20 supervisors responded to interviews and questions, great impact in years in which SSEI occurs - should do in alternate years, greater impact when SSEI is performed in close proximity, primary focus of PI&R inspection was engineering, may have up to 3 team inspections in same year counting fire protection, appears there will be more inspection under revised program. Look at PI&R in every inspection.
2	4.25 man-weeks	No significant findings resulted from this inspection. Great impact when SSEI is conducted in close proximity.
3	6 man-weeks	No significant findings resulted from this inspection. Great impact when SSEI is performed in close proximity. NRC is now performing the same amount of inspection in 1 year that was previously performed in 18 months.
4	33.4 man-weeks	No significant findings. SSEI and PI&R were one month apart. Look at PI&R in every inspection; should be able to roll issues up over period and focus inspection. May not have to do complete IP.
5	13.75 man-weeks	No significant findings.
6	15.1 man-weeks	No significant findings. Very burdensome inspection because of complexity and subjectivity. Success criteria are not clearly defined. Results are difficult to assess. For example, it is very difficult to agree on timeliness of corrective actions. Difficult to define focus. Broad scope requires much preparatory work by multiple organization. More followup is required because of complexity and subjectivity of findings.

ATTACHMENT 2

EPV - FREQUENCY OF PIR INSPECTIONS

ATTACHMENT 3

CORRECTIVE ACTION PROGRAM PERFORMANCE MATRIX

CORRECTIVE ACTION PROGRAM PERFORMANCE MATRIX							
(AREAS REFLECTING SUBSTANTIALLY BELOW PAR PERFORMANCE ARE SHADED.)							
SITE	REPORTING THRESHOLD	RESOLUTION PRIORITY	PROGRAM EFFECTIVENESS	PROGRAM MEASUREMENT	PROGRAM UNDERSTANDING	REPEAT PROBLEMS	VIOLATION FOLLOW UP
ANO (IR 00-002, 3/00) LAST: MEDIUM NEXT: HIGH-EQUIP PERF	LOW.	APPROPRIATE PRIORITY SETTING.	NORMALLY EFFECTIVE. EXAMPLES OF SLOW CORRECTIVE ACTIONS.	TRENDING METHODS IDENTIFIED ADVERSE TRENDS. AUDITS SUBSTANTIVE.	PLANT PERSONNEL HAD A GOOD UNDERSTANDING OF THE CORRECTIVE ACTION PROGRAM. ONE EXCEPTION NOTED.	PROCESS WAS EFFECTIVE CONTROLLING.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
CALLAWAY (IR 00-003, 2/00) LAST: LOW NEXT: HIGH	ADEQUATE. SOME DEPARTMENTS NOT AS LOW AS LICENSEE EXPECTS.	ACCEPTABLE, BUT LIBERAL EXTENSIONS WITH LITTLE OVERSIGHT.	ADEQUATE, BUT CHALLENGED BY DELAYS, E.G., ESW.	TRACKING ADVERSE TRENDS BUT SOME MEASURES INCOMPLETE	GOOD, BUT RELUCTANCE ON INITIATING CONDITION REPORTS (SOS'S) NOTED.	HIGH RATE. ADVERSE TREND IDENTIFIED.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
COMANCHE PEAK (IR 00-008, 5/99) LAST: LOW NEXT: LOW	LOW, HOWEVER PROCEDURE GUIDANCE WAS INCONSISTENT.	APPROPRIATE PRIORITY SETTING.	NORMALLY EFFECTIVE AND AGGRESSIVE.	TRENDING METHODS WERE IDENTIFYING ADVERSE TRENDS. AUDITS SUBSTANTIVE.	PLANT PERSONNEL HAD A GOOD UNDERSTANDING OF THE CORRECTIVE ACTION PROGRAM.	PROCESS WAS EFFECTIVE CONTROLLING.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
COOPER (IR 99-003, 9/99) LAST: HIGH NEXT: MEDIUM	LOW.	APPROPRIATE PRIORITY SETTING.	LONG HISTORY OF LOW EFFECTIVENESS. SITE-WIDE HUMAN PROBLEM.	RELATIVELY NEW TRENDING METHODS WORKING. RECENT AUDITS SUBSTANTIVE.	PLANT PERSONNEL HAD AN EFFECTIVE UNDERSTANDING OF THE CAP. STILL WORKING LONG-TERM STAFF RESISTANCE.	PROBLEMS. LONG TERM HIGH REPEAT RATE, E.O., UNTIMELY CORRECTIVE ACTIONS FOR RHR HX.	MISSED TS SURVEILLANCES & GL RESPONSES WEAK FOLLOWING NCVS.
DIABLO CANYON (IR 00-005, 2/00) LAST: MEDIUM NEXT: MEDIUM-SCWE	LOW. 2-TIERED SYSTEM.	APPROPRIATE PRIORITY SETTING	NORMALLY EFFECTIVE AND AGGRESSIVE.	LOW LEVEL SYSTEM NEEDS COMMITMENT FROM MANAGEMENT. AUDITS SUBSTANTIVE	PLANT PERSONNEL HAD A GOOD UNDERSTANDING OF THE CORRECTIVE ACTION PROGRAM.	EXCEPT FOR SOME ISOLATED ISSUES, THE PROCESS WAS EFFECTIVELY CONTROLLING.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
FT CALHOUN (5/00) LAST: HIGH NEXT: MEDIUM	NOT INSPECTED WITH CURRENT VERSION OF 40500 OR 71152.						
GRAND GULF (IR 99-003, 4/99) LAST: HIGH NEXT: HIGH	LOW.	ACCEPTABLE, BUT LIBERAL EXTENSIONS WITH LITTLE OVERSIGHT.	PROBLEMS. USE OF CAP FOR LONG TERM HARDWARE MODS BYPASSED DESIGN CONTROLS.	TRACKING ADVERSE TRENDS OK. AUDITS SUBSTANTIVE.	GOOD UNDERSTANDING OF RECENTLY MODIFIED PROGRAM.	PROCESS WAS EFFECTIVE CONTROLLING.	NORMALLY, ENTERED AND RESOLVED IN TIMELY MANNER (ONE EXAMPLE, SRV TEST SWITCHES DELAYED).
PALO VERDE (IR 99-018, 11/99) LAST: MEDIUM NEXT: MEDIUM-EP	LOW.	APPROPRIATE PRIORITY SETTING.	NORMALLY EFFECTIVE AND AGGRESSIVE. NO EXPLANATION OF HPSI MISS CAUSE.	TRENDING METHODS IDENTIFIED ADVERSE TRENDS. AUDITS SUBSTANTIVE.	LICENSEE STAFF UNDERSTOOD THE PROGRAM WELL.	PROCESS WAS EFFECTIVE CONTROLLING.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
RIVER BEND (IR 00-002, 2/00) LAST: HIGH NEXT: HIGH-ENG/EP	LOW.	APPROPRIATE PRIORITY SETTING WITH SIGNIFICANT EXCEPTIONS.	IMPROVED EFFECTIVENESS SINCE LAST CAP. STILL WEAK.	TRENDING ISSUES, HOWEVER, NOT FULLY EFFECTIVE.	LICENSEE STAFF UNDERSTOOD THE PROGRAM WELL EXCEPT GL9 1-18 ISSUES.	PROCESS WAS EFFECTIVELY CONTROLLING, BUT EDG ISSUES ONGOING.	ENTERED AND RESOLVED IN AN ADEQUATE MANNER, HOWEVER, NOT NECESSARILY TIMELY.
SAN ONOFRE (7/00) LAST: HIGH NEXT: MEDIUM-SCWE	NOT INSPECTED WITH CURRENT VERSION OF 40500 OR 71152.						
STP (IR 99-008, 8/99) LAST: LOW NEXT: LOW	VERY LOW. 10 TIMES # OF OTHER SITES.	APPROPRIATE PRIORITY SETTING.	CORRECTIVE ACTIONS WERE EFFECTIVE.	TRENDING METHODS IDENTIFIED ADVERSE TRENDS. AUDITS SUBSTANTIVE.	LICENSEE STAFF UNDERSTOOD THE PROGRAM WELL.	PROCESS WAS EFFECTIVE CONTROLLING.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
WNP-2 (IR 00-001, 1/00) LAST: HIGH NEXT: MEDIUM	LOW.	APPROPRIATE. SOME INCONSISTENCIES NOTED	IMPROVED, BUT SOME EXCEPTIONS OBSERVED (INCOMPLETE ACTIONS/TRACKING)	TRACKING ADVERSE TRENDS BUT SOME MEASURES INCOMPLETE	ACCEPTABLE UNDERSTANDING OF RECENTLY MODIFIED PROGRAM	PROCESS WAS EFFECTIVE CONTROLLING	NORMALLY, ENTERED AND RESOLVED IN TIMELY MANNER (SOME EXAMPLES OF LONG-STANDING ISSUES)
WATERFORD (IR 99-007, 8/99) LAST: HIGH NEXT: HIGH	LOW.	APPROPRIATE PRIORITY SETTING.	EFFECTIVE, BUT SLOW MPFF EVALUATIONS LED TO 50.65 NCV.	TRENDING ADEQUATE. AUDITS OF PROCESS NOT SUBSTANTIVE.	GOOD UNDERSTANDING OF RECENTLY MODIFIED PROGRAM. INCONSISTENT PROCEDURE REFERENCES	PROBLEMS. NARROW SCOPE ROOT CAUSE CONTRIBUTED TO REPEATS, E.O., CONTROL ROOM HVAC DAMPER.	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.
WOLF CREEK (IR 00-0043/00) LAST: MEDIUM NEXT: MEDIUM	LOW.	APPROPRIATE PRIORITY SETTING.	EFFECTIVE IN MOST AREAS. CONTINUING CHALLENGE W/ MIS-POSITIONING EVENTS	TRENDING METHODS IDENTIFIED ADVERSE TRENDS. AUDITS SUBSTANTIVE.	LICENSEE STAFF UNDERSTOOD THE PROGRAM WELL.	PROCESS EFFECTIVELY CONTROLLED, EXCEPT FOR MIS-POSITIONING OCCURANCES	ENTERED AND RESOLVED IN A TIMELY AND ADEQUATE MANNER.

NOTE: THE SITE COLUMN ALSO CONTAINS THE LEVEL OF EFFORT FOR THE LAST AND THE NEXT CAP/PIR INSPECTION DISCUSSED IN PRR 00-01, SHOULD THAT OPTION BECOME AVAILABLE.

ATTACHMENT 4

PPR 00-01, OPERATIONS BRANCH ISSUES AND RECOMMENDATIONS

PPR 00-01 OPERATIONS BRANCH ISSUES AND RECOMMENDATIONS					
Area	Site	Priority	Performance Issue	Recommended Follow Up	Weeks
O	DC	LOW	Procedure adherence and adequacy issues have continued to be noted during the period.	RIBIP only	0
O	RB	LOW	Procedure adherence and adequacy issues have continued to be noted during the period.	RIBIP only	0
O	RB	LOW	Corrective action effectiveness is improved but remains below average.	RIBIP only	0
O	W3	LOW	Procedure adherence and adequacy issues have continued to be noted during the period.	RIBIP only	0

ATTACHMENT 4

DPV - FREQUENCY OF PIR INSPECTIONS

ATTACHMENT 5

INSPECTION PROCEDURE 71152

INSPECTION PROCEDURE 71152

IDENTIFICATION AND RESOLUTION OF PROBLEMS

PROGRAM APPLICABILITY: 2515

CORNERSTONES: ALL

INSPECTION BASIS: A fundamental goal of the NRC's reactor oversight process is to establish confidence that each licensee is detecting and correcting problems in a manner that limits the risk to members of the public. A key premise of the revised oversight process is that weaknesses in licensee's problem identification and resolution (PI & R) programs will manifest themselves as performance issues which will be identified during the baseline inspection program or by crossing predetermined performance indicator thresholds. However, there are several aspects of PI & R that are not specifically addressed by either the individual cornerstone performance indicators or other baseline inspections. These are detailed in the following objectives. Completion of the inspection objectives is accomplished by sampling issues during each inspectable area inspection, as well as during an annual focused PI & R inspection.

71152-01 INSPECTION OBJECTIVES ATTACHMENT 5

01.01 To provide an assessment of the effectiveness of licensee PI & R programs based upon a performance based review of specific issues.

01.02 To look for instances where a licensee may have missed identifying potential "generic" concerns, including specific problems involving safety equipment, procedure development, design control, etc..

01.03 To look for instances of risk significance associated with combinations of items in the corrective action backlog which may not have individual risk significance.

01.04 To verify that licensees are appropriately identifying and capturing issues that could affect the availability of equipment tracked by the performance indicators and the maintenance rule.

01.05 To assess whether conditions exist that would challenge the establishment of a safety conscious work environment.

71152-02 INSPECTION REQUIREMENTS

02.01 Routine Review of Identification and Resolution of Problems In Plant Status and Inspectable Area Procedures

As described in Appendix D to Inspection Manual Chapter 2515, "Plant Status" and by baseline inspectable area inspection procedures, conduct inspections of problem identification and resolution activities to:

- a. Verify that equipment, human performance, and program issues are being identified by the licensee at an appropriate threshold and are being entered into the problem identification and resolution program.
- b. Verify that corrective actions commensurate with the significance of the issue have been identified and implemented by the licensee.
- c. Verify that licensees are appropriately identifying and capturing issues that could affect the unavailability of equipment tracked by the performance indicators and the maintenance rule.

The primary focus of these routine reviews should be on verifying that licensees are identifying issues at an appropriate threshold and entering them into their corrective action program. This can be assessed by comparing those issues identified by the NRC during the conduct of the plant status and inspectable area portions of the program with those issues identified by the licensee. This requirement is normally to be accomplished by Resident Inspectors and Region based inspectors responsible for conducting Plant Status and baseline inspectable area inspections. The routine reviews also allow for follow-up to selected issues, to ensure that corrective actions commensurate with the significance of the issue have been identified and implemented by the licensee.

02.02 Annual Problem Identification and Resolution Inspection

Perform an annual inspection of the problem identification and resolution activities to:

- a. Verify that when issues are identified, they are appropriately characterized, and entered into the licensee's problem identification and resolution program.
- b. Verify that an appropriate analysis of the cause of the problem has been performed by the licensee for significant conditions adverse to quality.
- c. Verify that corrective actions commensurate with the issue have been identified and implemented by the licensee, including corrective actions to address common cause or generic concerns.
- d. Verify that licensees are appropriately identifying and capturing issues that could affect the unavailability of equipment tracked by the performance indicators and the maintenance rule.
- e. Verify that licensees are appropriately considering the risk (core damage frequency) associated with combinations of risk significant issues.
- f. Assess whether there is indication that licensee personnel may be reluctant to report safety issues.
- g. Develop insights into the licensee's performance in the PI and R area. Include in the documentation; a comparison of the team's results with the results of the licensee's own assessments in the PI & R area.
- h. Document the team's results in accordance with the guidance contained in IMC 0610*.

71152-03 INSPECTION GUIDANCE

General Guidance

To the extent possible, this inspection should follow a performance based approach. Emphasize the products and results of the licensee's PI & R program. Inspections performed under this procedure should concentrate on the identification of problems and the effectiveness of corrective actions for risk significant issues rather than on reviewing the administrative aspects of the corrective action program and associated procedures.

This inspection will examine, in part, a sample of licensee corrective action issues to provide an indication of overall problem identification and resolution performance.

Detailed Review Guidance

The following additional guidance should be used in conducting a review of licensee problem identification and resolution activities.

- The inspectors review should be of sufficient depth to understand the technical issues, to evaluate why they occurred, and to determine the roles played by the quality verification organizations and line management in identifying and resolving the issues. The inspectors review might include:
 - Determining the chain of events leading to the occurrence and identification of the problem,
 - Developing an understanding of the technical and work activities associated with resolving the problem,
 - Determining the information that is needed for understanding if there are generic implications or common causes associated with the problem, and if such implications were identified by the licensee,
 - Determining the extent to which the licensee identified potential precursors and investigated the facts surrounding the problem.
- While reviewing problems, be alert for cases where the licensee may have mis-classified a problem as non-significant. Some considerations to be considered in determining significance include the impact on plant system functionality, common cause concerns, the risk significance (core damage frequency) when combined with other previously identified issues, and the impact on the fulfillment of regulatory requirements.
- For significant conditions adverse to quality, review the effectiveness and validity of the licensee's root cause evaluation.
- If permanent corrective actions require significant time to implement, ensure that interim corrective actions are identified and implemented to minimize the problem until the permanent action could be implemented.

03.01 Routine Review of Identification and Resolution of Problems

a. Relationship to Baseline Inspectable Area Procedures

Most of the attachments to baseline inspection procedures contain a requirement to inspect problem identification and resolution performance within the attachment's area. The routine inspection of problem identification and resolution performance as part of baseline inspections is intended to ensure that, over the course of an assessment cycle, a sample of PI&R performance in all cornerstones is obtained. As stated in paragraph 02.01, the primary focus of this portion of the PI & R review should be on verifying that licensees are identifying issues at an appropriate threshold and entering them into their corrective action program.

b. Sample Selection

In addition to verifying that the licensee is identifying issues at an appropriate threshold, a sample of issues should be chosen for review to verify that the licensee has taken corrective actions commensurate with the significance of the issue. This sample can be chosen using information obtained from plant status reviews and from reviews conducted as part of the baseline inspection procedure attachments. Inspectable area procedures will provide additional guidance regarding the types of PI&R issues relevant to a particular area. In selecting issues for inspection, the inspectors should seek the broadest range of examples within the cornerstone including the following considerations:

- Licensee identified issues (including issues identified during audits or self assessments)
- NRC identified issues
- Issues related to NCVs (mandatory to review response to a sample of NCVs unless no NCVs were issued in the cornerstone)
- Issues identified through NRC generic communications
- Issues identified through industry operating experience exchange mechanisms (including Part 21 reports, NSSS vendor reports, EPRI reports, experience reports from similar facilities, LERs)
- Specific or cross cutting issues identified by safety review committees or other management oversight mechanisms
- Issues identified through employee concerns programs

The above considerations are presented as guidance and should not be construed as a requirement to select one of each type of issue listed. The guidance is intended to help ensure that, over the course of an assessment cycle and through the performance of the baseline inspections, an appropriate sample will be obtained by which the NRC can obtain indication of the performance of the various elements of a licensee's corrective action program.

In selecting issues for review, inspectors should also use relevant risk insights such as:

- Maintenance Rule program basis documents,
- Individual Plant Examination (IPE) or Individual Plant External Event Evaluation (IPEEE) for the facility, and
- Significance Determination Program (SDP) worksheets for the plant.

For example, in considering the inspection of licensee corrective actions associated with post maintenance testing (as required by IP 71111, Attachment 19), inspectors should review issues associated with high risk mitigating systems or issues which may have affected the likelihood of risk-significant initiating events. Additional insights for determining appropriate samples can be obtained by region based inspectors through discussion with resident inspectors or regional inspectors who are familiar with site issues and who are familiar with the licensee's problem identification and resolution process.

c. Performance Attributes

When evaluating the effectiveness of licensee corrective actions for a particular issue, the licensee's actions must be viewed against the nature and significance of the identified problem. While licensee corrective action programs may appropriately consider monetary, plant availability, and other concerns as factors in determining significance, risk should be a primary factor in the licensee's significance determination. Attributes to consider during review of licensee actions associated with individual issues include:

- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery,
- Evaluation and disposition of operability/reportability issues,
- Consideration of extent of condition, generic implications, common cause, and previous occurrences,
- Classification and prioritization of the resolution of the problem commensurate with its safety significance,
- Identification of root and contributing causes of the problem (this attribute will typically only be assessed as part of the annual inspection for significant conditions adverse to quality),
- Identification of corrective actions which are appropriately focused to correct the problem (may be deferred to annual inspection),
- Completion of corrective actions in a timely matter commensurate with the safety significance of the issue (may be deferred to annual inspection),
- Accurate accounting for equipment unavailability associated with the corrective action issue.

It is not expected that the inspectors assess each attribute for every issue selected for followup during these routine reviews. Rather, inspectors may choose to assess licensee performance against selected attributes, as necessary to be most effective.

d. Documentation

In order to support a more complete assessment of the effectiveness of the licensee's PI&R program, it is important that the NRC document the results of PI & R inspections conducted as part of the baseline procedure attachments. It is expected that documenting reviews of PI&R will help focus the annual PI&R inspection on areas where concerns have been identified. In general, issues associated with the PI & R program itself should be documented in the PI & R section of the inspection report. Technical issues associated

with the inspectable area and cornerstone should be documented in the associated areas of the inspection report. Specific guidance regarding documentation of inspection scope and thresholds for PI&R issues is contained in IMC 0610.

e. Level of Effort

While it is expected that routine reviews of PI & R activities should equate to approximately 10-15 percent of the resources estimated for the associated baseline cornerstone procedures, this is a general estimate only based upon the overall effort expected to be expended in each strategic performance area. It is anticipated that the actual hours required to be expended may vary significantly from attachment to attachment, depending upon the nature and complexity of the issues that arise at the particular facility. Overall, an effort should be made to remain within the 10 to 15 percent estimate on a strategic performance area basis. Inspection time spent assessing PI & R as part of the baseline procedure attachments should be charged to the procedure attachment.

03.02 Annual Problem Identification and Resolution Inspection

The annual inspection of problem identification and resolution is intended to complement and expand upon the routine reviews described in Section 03.01 of this procedure by:

- Evaluating additional examples of licensee problem identification and resolution,
- Reviewing the resolution of issues that earlier had been assessed for the licensee's identification efforts only,
- Comparing the NRC's results against the licensee's own assessment of performance in the PI & R area,
- Assessing whether PI & R deficiencies exist across cornerstones that might indicate potential programmatic issues,
- Assessing the risk significance (core damage frequency) of combinations of items in the corrective action backlog.

a. Planning

Obtain licensee administrative procedures that control the identification, evaluation, and resolution of problems. Selected licensee documents needed to support the inspection may be obtained prior to the inspection by the resident inspector. These documents should only be reviewed to provide the inspectors with sufficient knowledge of the licensee's programs and processes, as necessary to conduct an effective and efficient inspection.

Obtain and review documents for the in-office review, such as a list of corrective action documents issued from the time of the last annual PI & R inspection (e.g. a list of work orders, work requests, temporary modifications, calibration failures, condition/problem identification reports, operability evaluations and determinations, etc.).

Obtain and review all NRC inspection reports issued since the last annual PI&R inspection and:

- Determine the extent to which all cornerstones have been sampled by routine reviews of licensee PI&R activities and determine if additional PI&R samples are warranted in any cornerstone(s).
- Determine the extent to which licensee actions to NCVs have been sampled by routine reviews of licensee PI&R activities.
- Identify any trends or patterns in corrective action program issues or performance which may warrant additional sampling to confirm. For example, a series of issues associated with "failure to follow procedures" within one cornerstone may indicate a corrective action performance deficiency within a portion of the licensee's organization; a series of issues associated with failure to follow procedures in multiple cornerstones may indicate a broader concern. Also, a lack of licensee identified corrective action issues within a particular organization may be indicative of a problem with the identification threshold.

b. Annual Inspection Sample Selection

Based on the planning review, identify a sample of licensee corrective actions for review. The samples chosen for review should include a range of issues including:

- Licensee identified issues (including issues identified during audits or self assessments)
- NRC identified issues
- Issues related to NCVs (mandatory to review response to a sample of NCVs unless no NCVs were issued in the cornerstone)
- Issues identified through NRC generic communications
- Issues identified through industry operating experience exchange mechanisms (including Part 21 reports, NSSS vendor reports, EPRI reports, experience reports from similar facilities, LERs)
- Specific or cross cutting issues identified by safety review committees or other management oversight mechanisms
- Issues identified through employee concerns programs.

No specific number of previously reviewed or additional samples is specified. Rather, the annual inspection team leader should choose as many examples as warranted to complement the routine PI&R inspections and ensure a sufficient basis for evaluating the effectiveness of the licensee's PI&R program. An effort should however be made to maintain the total hours expended in completing this procedure to within the estimated level of resources contained in paragraph 03.02g..

c. Performance Attributes

When evaluating the effectiveness of licensee corrective actions for a particular issue, the licensee's actions must be viewed against the nature and significance of the identified problem. While licensee corrective action programs may appropriately consider monetary, plant availability, and other concerns as factors in determining significance, risk should be a primary factor in the licensee's significance determination. Attributes to consider during review of licensee actions associated with individual issues include:

- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery,
- Evaluation and disposition of operability/reportability issues,
- Consideration of extent of condition, generic implications, common cause, and previous occurrences,
- Classification and prioritization of the resolution of the problem commensurate with its safety significance,
- Identification of root and contributing causes of the problem for significant conditions adverse to quality,
- Identification of corrective actions which are appropriately focused to correct the problem (and to address the root and contributing causes for significant conditions adverse to quality),
- Completion of corrective actions in a timely matter commensurate with the safety significance of the issue (included within this attribute would be justifications for extending corrective action due dates),
- Accurate accounting for equipment unavailability associated with the corrective action issue.

d. Assessment of Safety Conscious Work Environment

In conducting interviews with or observing other activities involving licensee personnel during the inspection, be sensitive to areas where employees may be reluctant to raise concerns. Although the licensee may be implementing an employee concerns program regarding the identification of safety issues, the possibility of existing underlying factors that would produce a "chilling" effect or reluctance to report such issues could exist and the inspector should be alert for such indications.

Appendix 1 to this procedure provides a list of questions that can be used when discussing PI & R issues with licensee individuals to help assess whether there are impediments to the establishment of a safety conscious work environment. If, as a result of the interviews or observations, the inspector becomes aware of specific examples of employees being discouraged from raising safety or regulatory issues within the licensee's or contractor's organization or to the NRC, the inspector should get as complete a set of facts as possible. If the inspector becomes aware of a reluctance of employees to raise safety or regulatory issues unrelated to a specific event or incident, continue pursuing the issue during the remaining interviews and try to determine the reason employees are reluctant to raise issues. However, if any indication of a "chilling" effect is suspected, inform regional management for further review and follow-up.

e. Development of PI&R Program Performance Insights

By reviewing a sufficient number and breadth of samples, the inspection team should be able to develop insights into the effectiveness of the licensee's corrective action program. Compare the result of the team's review of corrective action issues with licensee performance reviews, including specific licensee reviews of the corrective action program. Determine whether licensee reviews are consistent with the NRC review of corrective action issues,

The intent of this inspection procedure (both the routine and annual inspection effort) is to provide insights into licensee performance in the PI & R area based upon a performance based review of corrective action issues. More detailed programmatic reviews of licensee performance in the PI & R area will be conducted during supplemental inspections, in accordance with the assessment action matrix, should established performance thresholds be crossed.

f. Documentation and Evaluation of Program Effectiveness

At the completion of inspection activities, the team should develop a clear and concise discussion of the results of their review. This discussion should be supported by the inspection activities conducted over the assessment cycle including both routine and annual inspection of PI&R activities. The discussion should be documented in the inspection report for the annual PI & R inspection and should be included in the PIM. Included in the documentation should be any issues associated with establishment of a safety conscious work environment that may have been detected during the inspection.

Additional evaluation of the licensee's PI & R programs will be conducted as part of the mid-cycle and/or end of cycle plant performance review by assessing licensee performance using the results of this inspection, as well as other information, including performance indicator data and the results of any supplemental inspections. Additional guidance on documenting the annual problem identification and resolution inspection is contained in IMC 0610.

71152-04 RESOURCE ESTIMATE
OF THE FREQUENCY OF PIR INSPECTIONS

The annual inspection will involve on average 210 hours. Participation (either full or part time) on the inspection team by a member of the resident inspector staff should be strongly considered.

END

APPENDIX 1

SUGGESTED QUESTIONS FOR USE IN DISCUSSIONS WITH LICENSEE INDIVIDUALS CONCERNING PI & R ISSUES

The following are suggested questions that may be used when discussing PI & R issues with licensee individuals. It is not intended that these questions be asked verbatim, but rather, that they form the basis for gathering insights regarding whether there are impediments to the formation of a safety conscious work environment.

Suggested Questions

1. How would the individual raise a safety or regulatory issue (e.g. inform supervisor, corrective action program, employee concern program (ECP), NRC)?
2. Why would they pick that approach (e.g. supervisor's preference, trying to keep numbers down, system difficult to use)?
3. Has the person ever submitted an issue to the corrective action program or the ECP? Was the issue adequately addressed? If not, did he or she pursue the issue? If not, why not?
4. Does the individual know whether employee concerns are tracked to completion and whether employees are informed of the result?
5. Does the individual believe the licensee's corrective action programs are successful in addressing issues submitted?
6. Is the individual aware of any specific instances in which another employee submitted an issue to the corrective action program or ECP and considered the licensee's response incomplete or unacceptable or was retaliated against for pursuing the issue? (Try to get enough specific information to followup with the other employee.)
7. Does the individual believe there has been a change in the amount of time necessary to resolve corrective action issues or employee concerns?
8. Is the individual aware of or have there been interactions with NRC personnel that suggest that some employees may be hesitant to raise concerns or present information to the NRC?
9. Is the individual aware of any events that would discourage employees from raising concerns (e.g. chastisement for submitting issues to corrective action program, ECP, or NRC; supervisors holding up submittal of concerns). Has there been an unexplainable change in the number or nature of concerns raised by employees to the licensee's corrective action program or employee concern program or the NRC?
10. Are there any unofficial corrective actions or tracking systems that exist because the existing formal systems are thought to be ineffective? (Unofficial corrective actions that bypass the recognized corrective action program have been previously in engineering and health physics areas.)