

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9710010010 DOC.DATE: 97/09/26 NOTARIZED: YES DOCKET #
 FACIL: 50-315 Donald C: Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
 AUTH.NAME AUTHOR AFFILIATION
 FITZPATRICK, E. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP.NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Forwards response to RAI re NRC 970701 ltr re violations
 noted in insp repts 50-315/97-03 & 50-316/97-03. Corrective
 actions: work activities were suspended.

DISTRIBUTION CODE: IE01D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 11
 TITLE: General (50 Dkt)-Insp Rept/Notice of Violation Response

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-3 PD	1 1	HICKMAN, J	1 1
INTERNAL:	AEOD/SPD/RAB	1 1	AEOD/TTC	1 1
	DEDRO	1 1	<u>FILE CENTER</u>	1 1
	NRR/DISP/PIPB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRPM/PECB	1 1	NRR/DRPM/PERB	1 1
	NUDOCS-ABSTRACT	1 1	OE DIR	1 1
	OGC/HDS2	1 1	RGN3 FILE 01	1 1
EXTERNAL:	LITCO BRYCE, J H	1 1	NOAC	1 1
	NRC PDR	1 1	NUDOCS FULLTEXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS
 OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL
 DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 18 ENCL 18

C
A
T
E
G
O
R
Y

1

D
O
C
U
M
E
N
T



Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1395



September 26, 1997

AEP:NRC:1260A1
10 CFR 2.201

Docket Nos.: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2
NRC INSPECTION REPORT NOS. 50-315/316-97002 (DRP)
AND 50-315/316-97003 (DRS)
AND NOTICE OF VIOLATION
REQUEST FOR ADDITIONAL INFORMATION

This letter is in response to a letter from G. E. Grant, dated July 1, 1997, acknowledging receipt of our submittal AEP:NRC:1260A, dated April 28, 1997, that responded to a notice of violation and notice of deviation. The July 1, 1997, letter states that the NRC is reviewing the implementation of our planned and proposed corrective actions relative to procedural adherence and procedural adequacy issues; however, the review of our response has indicated that some of our corrective actions taken to avoid further violations may be too narrowly focused or appear vague. Based on this, it was requested that we provide additional information relative to our corrective actions to avoid further violations. The attachment to this letter provides the additional information requested.

The attachment to this letter also provides additional information related to concerns with our response to two violations from NRC inspection report no. 50-315/316-97003 (DRS). In a letter from John A. Grobe, dated August 5, 1997, acknowledging receipt of our submittal AEP:NRC:1260D, dated June 30, 1997, you indicate that our corrective actions for the two violations are inadequate and that additional information would be required.

Sincerely,

E. E. Fitzpatrick
E. E. Fitzpatrick
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 26th DAY OF September 1997

Jan Watson
Notary Public

My Commission Expires: _____

vlb

Attachment

c: A. A. Blind
A. B. Beach
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Padgett

JAN WATSON
NOTARY PUBLIC, BERRIEN COUNTY, MI
MY COMMISSION EXPIRES FEB. 10, 1999

9710010010 970926
PDR ADDCK 05000315
G PDR





ATTACHMENT TO AEP:NRC:1260A1

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
NRC INSPECTION REPORT NOS. 50-315/316-97002 (DRP)
AND 50-315/316-97003 (DRS)



This attachment provides the additional information requested in a letter from G. E. Grant, dated July 1, 1997, acknowledging receipt of our submittal AEP:NRC:1260A, dated April 28, 1997, that responded to a notice of violation (NOV) and notice of deviation.

This attachment also provides additional information related to concerns with our response to two violations from NRC inspection report nos. 50-315/316-97003(DRS). The concerns were identified in a letter from J. A. Grobe, dated August 5, 1997, acknowledging receipt of our submittal AEP:NRC:1260D, dated June 30, 1997, in response to the two violations from NRC inspection report no. 50-315/316-97003(DRS).

Issues from the NRC letters dated July 1, 1997, and August 5, 1997, have been numbered for ease of reference and review.

NRC ISSUES AND ASSOCIATED RESPONSES

Issue #1

Taken from July 1, 1997, letter from G. E. Grant, relative to our response to NRC inspection report no. 50-315/316-97002:

"...your corrective actions may be too narrowly focused or appear vague. For example, in the discussion of the corrective actions taken to avoid further violations for using "in hand" procedures, you state:

"Maintenance work activities were essentially halted while expectations for in-hand procedure use were communicated to maintenance department personnel."

This action does not discuss the specifics of the maintenance department's expectations. It also does not address the use of in-hand procedures by other departments, and whether the expectations for the other departments are consistent with the expectations that now exist in the maintenance department."

Response to Issue #1

In response to the described event in the associated notice of violation, the maintenance department took the following actions.

1. Work activities were suspended.
2. Meetings were conducted with maintenance department section managers, first line supervisors, and craft personnel. These meetings focused on the factors contributing to the event and the department expectations for how procedures are to be used and adhered to in accordance with plant policies, specifically, plant manager instruction (PMI) -2011, "Procedure Use and Adherence."

Subsequent to the above actions, follow-up meetings were conducted by the maintenance department prior to the commencement of the unit 1 refueling outage to reinforce the expectations for procedure use and adherence. Additionally, walkdown reviews of outage related procedures were conducted to identify potential challenges to use and adherence prior to use.



PMI-2011 establishes management's expectations for procedure use and adherence at Cook Nuclear Plant. The expectation for in-hand procedure use from PMI-2011 is applicable to all groups performing work activities under such a procedure. At the time of the event, the requirement for using in-hand procedures from PMI-2011 was as follows.

"In-hand procedures shall be at the job site. Unless the procedure specifically allows a different sequence, the procedure shall be performed as follows:

Read the step.
Perform the step.
Document completion of the step (if required).
Proceed to the next step."

Additional guidance provided by PMI-2011 included the following.

"If during the performance of a procedure, a problem is encountered such that the document cannot be performed as written the user shall:

Stop performance of the procedure.
Place affected system or component in a safe condition.
Notify responsible supervisor of the problem."

Subsequent to the event, PMI-2011 was revised to align procedure use and adherence guidance with current industry standards. This revision provides definitions for technical procedure usage levels and designates technical procedures as continuous use, reference use, or information use. The continuous use procedure designation replaced the previous in-hand designation. The expectation for use of this type of procedure remained unchanged.

In May 1997, a plant-wide "time out" was conducted to discuss the expectations of procedure use and adherence with employees. Details of the PMI-2011 requirements were presented during the "time out" to ensure a common and consistent understanding of the procedure, and to re-emphasize the in-hand or continuous use requirement through the review of lessons learned from the most recent events. The associated notice of violation was included with this group of recent events.

Issue #2

Taken from July 1, 1997, letter from G. E. Grant, relative to our response to inspection report no. 50-315/316-97002.

"Also, the corrective actions taken to avoid further violations for the fuel handling procedure violation state, in part, that:

'...at this time, it is believed that increased management attention and support for strict and diligent use of these [foreign material exclusion and heavy load lifting] program controls will be sufficient to avoid further violations.'



Similar to the corrective action discussed above, this action does not clearly state what is encompassed by increased management attention."

Response to Issue #2

Management understood that both procedure adherence and adequacy issues existed. The foreign material exclusion and heavy load lifting issues demonstrated that procedure adherence was not at the level expected by management. The first action taken was to strictly enforce the PMI requirements for procedure adherence. Once strict adherence was enforced, the inadequacy of certain procedures became apparent. Condition reports and necessary procedure changes following this strict enforcement attest to the fact that procedures required improvement.

In addition to strictly enforcing the procedure use and adherence, a plant-wide "time out" was conducted in May 1997. During the "time out", supervisors met with employees to review and reinforce management expectations on procedure use and adherence, review recent pertinent examples where procedures were not properly used or adhered to, and review upcoming changes to PMI-2011.

PMI-2011, as discussed above, was revised to reflect industry standards for classification of procedures as continuous use, reference use, and information use. The PMI-2011 revision provided a definition for each category, enhancing our ability to properly designate a procedure.

A management tool for reinforcing the importance of procedure use and adherence, referred to as a "coaching card", was distributed to supervisors and workers. The "coaching cards" are used by supervisors during pre-job briefs to emphasize the importance of procedure adherence and strict compliance. For more detail on the coaching cards refer to the response to issue #3 below.

Additionally, senior management will place a continued emphasis on the importance of strict procedure use and adherence through discussion and review during daily meetings and staff meetings.

Issue #3

Taken from July 1, 1997, letter from G. E. Grant relative to our response to 50-315/316-97002.

"Attachment 3 to your letter discusses the broad corrective actions taken to address procedural adherence and procedure adequacy. In the "Background" section of Attachment 3, you state that:

'...there was a concerted effort in 1996 to raise standards and general plant awareness of the critical nature of strict procedural adherence and adequacy. Plant wide "time outs" were held that stressed the necessity for strict adherence and self-checking. Management expectations of strict adherence were clearly communicated.'



In the "Raising the Performance Level" section, you state that:

'... A group-wide "time out" for the entire AEP nuclear generation group (AEPNNG) will be held in May 1997 to launch this period of high visibility management focus on procedure adherence. Additional "time outs" will be held during this time to maintain emphasis and review effectiveness.'

It appears that the effort conducted in early 1996 was not effective in preventing the procedural adherence and adequacy problems identified in the latter half of 1996 and early 1997. Your response does not address the specific nature of the corrective actions which are to take place during the "time outs," nor does it indicate how the "time out" will differ from the time out conducted in 1996."

Response to Issue #3

The 1996 "time out" was a follow-up to an apparent decline in human performance at Cook Nuclear Plant during 1995. The purpose of the 1996 "time out" was to reflect upon recent performance as an organization, and to re-emphasize the philosophies and practices that provide the foundation for our goal of continuous improvement in the area of human performance. Raising performance on a broad issue such as procedure use and adherence does not result from one distinct activity. Our effort has been, and will continue to be, to plan and conduct a series of activities that improve procedure use and adherence as a part of overall human performance. The 1996 "time out" established a foundation for continuing our human performance improvements.

Improvements related to human performance were achieved throughout 1996, based on a reduction in significant personnel error events. Because of the importance of procedure use and adherence, as well as the identified weaknesses, the May 1997 "time out" was dedicated specifically to this subject. This "time out" provided individuals with an increased sensitivity to the expectations for procedure use and adherence and with detailed information for meeting expectations. To convey and reinforce these expectations, "coaching cards" were developed. The "coaching cards" provided a near term method to reinforce the importance of procedure use and adherence by providing user prompts to assist procedure users in asking the right questions for performance of work activities with procedures. The user prompts are as follows:

"What is the activity and does written guidance exist to perform it?

Do I understand what the written guidance is directing me to do?

Is there sufficient written guidance to perform the activity?

Can I strictly follow the written guidance to its successful conclusion?



Do I know what to do if the written guidance doesn't work?"

The coaching cards were distributed to supervisors and workers with the following guidance:

"Supervisors Use:

- Refer to during pre- and post-job briefings.
- Coach on during field observations.
- Review during staff meetings.

Workers Use:

- Review prior to performing activities.
- Reference during performance of activities.
- Coach fellow workers."

In summary, the 1996 "time out" addressed several human performance issues, one being procedure use and adherence. The May 1997 "time out" specifically addressed procedure use and adherence concerns. We observed that, as human performance increases, new issues are revealed and further actions are needed to sustain a high level of performance. It is only through consistent expectation and follow-up actions that performance may continue to improve. The effectiveness of "time outs" was demonstrated by the improvements made throughout 1996, and the resulting condition reports and procedure changes made in response to an increased awareness of the concerns. Management will use future "time outs" as necessary to sensitize personnel to issues and concerns. This is expected to be an ongoing process as the opportunities and challenges are identified, "time outs", new "coaching cards", or other focused activities will be conducted.

Issue #4

Taken from August 5, 1997, letter from J. A. Grobe, relative to our response to NRC inspection report no. 50-315/316-97003:

"For the first violation, in the 'Corrective Actions Taken to Avoid Further Violations' section, no details are given regarding the specific procedures for which the stated actions apply. Additionally, the actions appear to be focused solely on operations procedures; however, PMI-2011 is a plant-wide instruction."

Response to Issue #4

Management recognizes that the proper designation of in-hand procedures was a plant-wide issue, not one limited to the operations department. As stated in response to inspection report no. 50-315/316-97003 (DRS): "Historically, with the exception of the broad quality assurance program document definition, there was no concise definition for in-hand procedures." As a result of this, PMI-2011 was revised to more clearly define the usage level of procedures. The PMI affects all site procedures developed under the PMI system. PMI-2011, revision no. 3, went into effect May 23, 1997, with full implementation required by August 1, 1997. PMI-2011 acknowledges two types of procedures, technical and administrative. Technical procedures (PMPs, DHPs, etc.) are procedures or work instructions that provide details to the user on the performance of specific work activities. Administrative procedures (PMIs, DHI, standing orders, etc.) are procedures that

establish philosophy or process. The PMI applies usage levels to technical procedures. The following are the usage levels applied by PMI-2011.

Continuous Use

Technical procedures characterized by the following attributes:

1. Highly complex, sequence dependent activities that cannot be performed from memory.
2. Significant consequences would result from improper action(s).
3. Procedures that require signoffs for each step to ensure proper sequencing of activities. Valve lineups are excluded from this definition.
4. Due to the nature of the task, user knowledge and/or supervisory oversight are insufficient direction and the activities need to be performed exactly as written in the procedure.

Reference Use

A technical procedure characterized by the following attributes:

1. Complex, but easily performed in procedure segments or grouped tasks.
2. No immediate consequence resulting from improper actions.
3. Signoffs, if applicable, are primarily aligned to procedure segment or grouped task accomplishment(s).
4. Segments or grouped tasks are within the knowledge and skills of qualified individuals.

Information Use

Technical procedures characterized by the following attributes:

1. Activities that are not complex and can be easily performed from memory.
2. There are no significant consequences as a result of improper action.
3. The procedure does not contain signoffs.
4. Activities are within the knowledge and skill of the user.

As of August 1, 1997, applicable procedures required a clear designation as to what usage level the procedure has been categorized. The designated usage level is placed clearly on the cover page of the procedure. Procedures not properly marked are being documented in condition reports as they are identified, and reviews are conducted to ensure proper updating.

The change in usage level designation was introduced during the conduct of the May 1997 "time out" in preparation for implementation of the PMI-2011 revision.

Issue #5

Taken from August 5, 1997, letter from J. A. Grobe, relative to our response to NRC inspection report no. 50-315/316-97003:

"In your response to the second violation...The corrective actions for the violation apply specifically to the regualification program; however, these actions appear narrowly focused when considered with previously documented findings. Other NRC inspection reports and your own audit program, in SURV-97-135, have identified past problems with the failure to perform an adequate review of procedure/program changes against source documents."

Response to Issue #5

The training issue dealing with thoroughness of program change reviews is different from that being experienced in other areas of the plant. Prior to 1997, the training program was being controlled by administrative manuals. These manuals did not fall under the PMI system and did not require the independent review required under the PMI system. The training program is transitioning from an administrative manual driven program to a procedure directed program under the PMI system. This will place our training program under the PMI system requiring an independent review, consistent with the rest of the plant. This goes beyond the regualification program, to address the issue of thoroughness of program change reviews for the overall training program.

As a point of information, we will address the generic aspect of the plant-wide issues with change reviews through the reinstitution of biennial reviews as specified in ANSI N18.7, step 5.2.15, "Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable. A revision of a procedure constitutes a procedure review."

Summary

We understand that procedure adequacy and procedure adherence play a fundamental role in the safe and effective operation of Cook Nuclear Plant. The use of "time outs" is an effective tool to introduce, increase awareness, and reinforce expectations to personnel on current weaknesses in the area of procedure use and adherence, and to provide tools to supervisors and workers for improvement. The issues of procedure adequacy and procedure adherence continue to be of importance. We intend to continue to use "time outs" as opportunities or challenges arise in the future.

In addition to conducting "time outs", the following actions are in place, or are planned, to ensure a continued level of high performance in the areas of procedure adequacy and procedure adherence.

The operations department has established a procedure improvement plan. The plan provides for the revision



of normal and surveillance procedures. The resources dedicated to this effort go beyond the procedure group to include on-shift operators.

The maintenance department has established a maintenance performance management guide that specifically addresses procedure use and adherence. The maintenance department has performed thorough reviews of their procedures. These reviews have identified the need for changes, outdated instructions, and the need for upgrading of certain procedures.

The chemistry and radiation protection departments are making changes to enhance procedure effectiveness. Procedures are being simplified and streamlined. The changes are being accompanied by training so that the changes are understood and user knowledge level is maintained at the appropriate level.

The training department is reinforcing the requirement for strict procedure compliance during training exercises. Additionally, the training department is transitioning from an administrative manual to a procedure directed program.

The plant performance assurance department has incorporated the evaluation of procedure use and adherence into their routine evaluations during audits and surveillances. The performance assurance department will continue to review progress regarding procedure adherence in assessments of plant activities. These are summarized at monthly management meetings. Relevant statistics on procedure adherence and adequacy will be monitored and reviewed periodically.

The following indicators are being monitored by managers, superintendents, and line supervisors to assess the issue of procedure adequacy and adherence, and to determine appropriate actions to be taken as opportunities and challenges arise.

Condition reports are being assessed relative to procedure adequacy and adherence. Along with the CAG review of condition reports, the performance assurance department is providing a periodic trend report to aid in the monitoring of procedure adequacy and adherence opportunities and challenges.

The performance assurance department's audits and surveillances are assessing procedure adequacy and adherence as an attribute of the audit or surveillance to these assessments. In addition to these assessments, monthly reports providing observations made during audits and surveillances relative to the issue are being provided to aid in the identification of opportunities and challenges.

Feedback from line manager and supervisor oversight of in-process and field activities is being used to assess procedure adequacy and adherence to determine appropriate actions to be taken as opportunities and challenges arise.



Feedback from first line workers on procedure and work package quality is being used to assess procedure adequacy and adherence to determine appropriate actions to be taken as opportunities and challenges arise.

