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February 20, 2007

AEP:NRC:7514
10 CFR 50.71

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

SUBJECT: Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2
Docket Nos.: 50-315 and 50-316
Response to Request for Additional Information Regarding Reactor Vessel Head Lift
in the CNP Licensing Basis (TAC Nos. MD3046 and MD3047)

Reference: Letter from P. S. Tam, NRC, to M. K. Nazar, Indiana Michigan Power Company (I&M), "D. C. Cook Nuclear Plant (DCCNP), Units 1 and 2 - Request for Additional Information Regarding Reactor Vessel Head Lift in the Licensing Basis (TAC Nos. MD3046 and MD3047)," dated November 24, 2006 (ML063180409).

Dear Sir or Madam:

This letter and attachments respond to a Nuclear Regulatory Commission (NRC) request for additional information transmitted by the referenced letter. In that letter, the NRC requested that I&M provide additional information as to why a referenced reactor vessel head drop analysis should not be included in the CNP Updated Final Safety Analysis Report (UFSAR). As detailed in Attachment 1 to this letter, it is I&M's position that no update to the UFSAR is required because: 1) reference to a generic WCAP analysis in I&M's 1982 response to NRC Generic Letter 80-113 was not provided to the NRC in a manner that would result in its incorporation into the CNP licensing basis; and 2) the generic WCAP analysis was referenced in response to a Generic Letter 80-113 action which subsequent NRC Generic Letter 85-11 stated was not required. More specifically, the NRC did not require I&M to provide a plant-specific reactor vessel head drop analysis at the time, and subsequently stated that licensees need not continue activities that would have resulted in plant-specific reactor vessel head drop analyses.

The CNP licensing basis for heavy loads over the reactor vessel continues to be based on procedures and processes implemented to minimize the likelihood of a load drop accident consistent with NRC guidance. This approach was endorsed by generic correspondence to licensees beginning in 1980. As such, I&M's approach to this issue has been in place for over twenty years with the NRC's knowledge. Notwithstanding this position, I&M did provide the NRC with a "sensitivity" analysis during its recent CNP Unit 1 outage to demonstrate that the potential adverse impacts from a dropped heavy load in the reactor vessel area would not have a significant adverse impact on public

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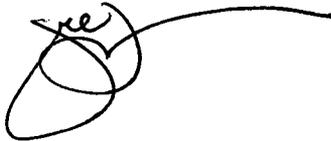
health and safety, and took additional actions to address the NRC concerns. However, that analysis was provided to support one reactor vessel head lift rather than future operations. As such, that analysis also is not appropriate for referencing in the UFSAR.

Although not required by existing NRC requirements, I&M is willing to develop a formal, plant-specific, reactor vessel head drop analysis for incorporation by reference in the CNP UFSAR. However, if I&M voluntarily took this action it would not be in response to, nor reflect acceptance of, the existence of any regulatory requirement to perform this action. This action would be considered voluntary because: 1) the NRC had not previously clearly articulated its expectation that such an analysis be performed, as evidenced by a staff memo (discussed herein) acknowledging that many licensees did not have such an analysis; and 2) the need for a licensing basis reactor vessel head drop analysis was not clearly understood by many licensees, or they likely would have corrected this "deficiency" if it were perceived as such. Additionally, as described herein, the NRC has tacitly accepted I&M's approach for demonstrating heavy load safety inside containment until the issue was raised during a recent reactor vessel head replacement inspection.

Voluntary incorporation by reference of a reactor vessel head drop analysis in the UFSAR should not serve as a basis for enforcement against I&M. If enforcement action is pursued, I&M would consider requesting a backfit analysis. In addition, due to the generic industry implications of the new NRC position, I&M requests that the issue be resolved generically within the industry.

The referenced letter requested that I&M provide a response within 30 days. The NRC Licensing Project Manager for CNP has agreed to extend the due date for I&M's response to February 20, 2006. This letter contains no new regulatory commitments. Should you have any questions, please contact Ms. Susan D. Simpson, Regulatory Affairs Manager, at (269) 466-2428.

Sincerely,



Joseph N. Jensen
Site Vice President

JRW/jen

- Attachment 1: Response to Nuclear Regulatory Commission Request
- Attachment 2: History of Regulatory Positions and Actions for Control of Heavy Loads

c: J. L. Caldwell, NRC Region III
K. D. Curry, AEP Ft. Wayne, w/o attachments
J. T. King, MPSC
MDEQ – WHMD/RPMWS
NRC Resident Inspector
P. S. Tam, NRC Washington, DC

RESPONSE TO NUCLEAR REGULATORY COMMISSION REQUEST

References for this attachment are identified on Pages 8 and 9.

In an August 27, 1982, letter (Reference 1) addressing Nuclear Regulatory Commission (NRC) concerns regarding control of heavy loads, Indiana & Michigan Electric Company (IMEC), the former licensee for Donald C. Cook Nuclear Plant (CNP), referenced a generic reactor vessel head drop analysis documented in Westinghouse Electric Company LLC document WCAP-9198. IMEC stated in that letter that the generic WCAP analysis bounded the weight of the CNP reactor vessel head. In a September 22, 2006, letter (Reference 2), Indiana Michigan Power Company (I&M), the current licensee for CNP, provided justification for a one-time lift of the previously installed reactor vessel head with irradiated fuel in the core. As part of that justification, I&M described the CNP-specific conditions that provided margin with respect to the conditions assumed in the WCAP analysis. In a November 24, 2006, letter (Reference 3), the NRC requested the following:

“It appears that the August 27, 1982, I&M letter, contained a reactor vessel head drop analysis performed by the licensee at Commission request. Specifically, the I&M letter stated that lifting the reactor head within the bounds set as assumptions in the WCAP-9198 model is safe. Furthermore, I&M’s letter dated September 22, 2006, “Justification for Reactor Vessel Head Lift With Fuel in the Core,” continued to rely on the WCAP-9198 model. Accordingly, please either explain in your response to this letter why you believe that your analysis of reactor vessel head drop should not be included in the DCCNP licensing basis (i.e., should not be included in the Updated Final Safety Analysis Report (UFSAR)), or state that you plan to include such in the next update of the UFSAR.”

This attachment provides a detailed response to the preceding NRC request.

Background

During an NRC inspection of CNP Unit 1 reactor vessel head replacement activities in the fall of 2006, NRC Region III staff questioned whether CNP should have a licensing basis reactor vessel head drop analysis. I&M personnel stated that the CNP licensing basis did not include a reactor vessel head drop analysis because previous NRC correspondence and generic guidance indicated that such an analysis was not required. The NRC Region III staff’s position was that a reactor vessel head drop analysis should be part of the CNP licensing basis. Based on information provided by I&M, the NRC Region III staff agreed to defer resolution of the licensing basis issue with the NRC Office of Nuclear Reactor Regulation (NRR) until after the Unit 1 outage, while focusing on the staff’s immediate concern of additional assurance that there was no safety issue with respect to the reactor vessel head lift.

As documented in an NRC letter dated September 22, 2006 (Reference 4), any safety concerns regarding lifting the existing Unit 1 reactor vessel head during the 2006 outage were resolved by the actions, plans, and analytical information provided in I&M’s September 22, 2006, letter to

the NRC (Reference 2). Any safety concerns regarding lifting of the new reactor vessel head were resolved by the performance of a finite element reactor vessel head drop analysis, and implementation of additional controls. The NRC Region III staff concurred, in a letter dated October 24, 2006 (Reference 5), with the approach that I&M would use to lift the new reactor vessel closure head. Accordingly, the issue of whether the CNP licensing basis included a reactor vessel head drop analysis remained open and is addressed by this response to the NRC request for additional information. The relevant correspondence is tabulated in Attachment 2 to this letter, portions of which are discussed in the following sections.

Licensing Issue

The NRC's initial position regarding control of heavy loads was established in 1980 when it published NUREG-0612 (Reference 6). The strategy for implementing this position was articulated in Generic Letter (GL) 80-113 (Reference 7), which required six-month and nine-month responses regarding compliance with NUREG-0612 guidance. The six and nine-month responses were also referred to as Phase I and Phase II, respectively. The CNP Phase I response was reviewed by the NRC and its consultant and determined to be acceptable as documented in a Safety Evaluation Report (SER) issued September 20, 1983 (Reference 8).

The Phase II submittals for CNP were provided by letters dated August 27, 1982, and December 3, 1982 (References 9 and 10). The August 27, 1982, submittal contained a table that referenced WCAP-9198. No significant discussion of the WCAP was provided. The NRC never specifically responded to I&M's Phase II submittals. Instead, the NRC developed a pilot program involving a limited number of plants to determine if review of Phase II should be reduced or eliminated. According to the NRC, the pilot plant program demonstrated that a cost-benefit analysis did not support requiring PWRs to install single-failure-proof cranes in containment. Subsequently, the NRC issued GL 85-11 (Reference 11), which relieved licensees, including I&M, from performing Phase II activities without exception, including detailed reactor vessel head drop analyses. In GL 85-11 the NRC stated:

All licensees have completed the requirement to perform a review and submit a Phase I and Phase II report. Based on the improvements in heavy loads handling obtained from implementation of NUREG-0612 (Phase I), further action is not required to reduce the risks associated with the handling of heavy loads (See enclosed NUREG-0612 Phase II). Therefore a detailed Phase II review of heavy loads is not necessary and Phase II is considered completed. However, while not a requirement, we encourage the implementation of any actions you identified in Phase II regarding the handling of heavy loads that you consider appropriate.
[Transmittal letter, Page 1]

It is reasonable for I&M to infer from this statement that Phase I actions were sufficient to reduce the risks of handling heavy loads and that Phase II is the "further action" that is not required. The NRC also stated in GL 85-11 that:

Our review has indicated that satisfaction of the Phase I guidelines assures that the potential for a load drop is extremely small. [Enclosure 1, Page 2]

We interpret Phase II of NUREG-0612 as an enhancement to Phase I. [Enclosure 1, Page 3]

The NRC concluded in GL 85-11 that the risks associated with damage to safe shutdown systems are relatively small because:

- Nearly all load paths avoid this equipment.
- Most of the equipment is protected by an intervening floor.
- There is a redundancy of components.
- Crane failure probability is generally independent of safety-related systems.

Finally, GL 85-11 states:

Based on the above, we believe the Phase I implementation has provided sufficient protection such that the risk associated with potential heavy load drops is acceptably small. We further conclude that the objective identified in Section 5.1 of NUREG-0612 for providing "maximum practical defense, in depth" is satisfied by the Phase I compliance, and that the Phase II analysis did not indicate the need to require further generic action at this time. This conclusion has been confirmed by the results obtained from the Phase II pilot program and additional Phase II reviews, which identified no residual heavy loads handling concerns of sufficient significance to demand further generic action. [Enclosure 1, Pages 5 and 6]

I&M has reasonably relied on the NRC's statements in GL 85-11 that Phase I provided the necessary actions required to reduce the risk associated with heavy loads. Additionally, I&M acted acceptably in not developing a plant-specific reactor vessel head drop analysis, which is consistent with the NRC's conclusion that Phase I activities demonstrated that the risk to the public from a heavy load drop was acceptably small. The belief that Phase II actions were not required is further supported by NRC's statement in GL 85-11 that "...while not a requirement, we encourage implementation of any actions you identified in Phase II regarding the handling of heavy loads that you consider appropriate (emphasis added)." A plant-specific reactor vessel head drop analysis likely could have been one of those actions since I&M could not rely on a generic WCAP for licensing basis purposes. In fact, I&M did implement actions that it identified in its Phase II response, such as rapid containment closure in response to any fuel handling accident or other event that could result in a release of radioactive material.

If the NRC had a different expectation after the issuance of GL 85-11, it was not clearly articulated in any later guidance or correspondence. In fact, later NRC correspondence further

supports I&M's reasonable belief that the NRC had withdrawn its Phase II recommendations when it issued GL 85-11. Additional insight is provided by an April 19, 1999, NRC internal memo (Reference 12) from B. W. Sheron, Associate Director for Projects Licensing and Technical Analysis, to A. C. Thadani, Director of the Office of Regulatory Research, in which the NRC staff reviewed the provisions of GL 85-11 several years after its issuance.

This memo indicates that NRC management understood that the guidance in Phase II was beyond regulatory requirements. Dr. Sheron specifically acknowledged in the memo that Phase II did not represent required actions and considered such actions "...above and beyond existing regulations to maintain the level of protection necessary to avoid undue risk to public health and safety. In other words, licensees may not be taking adequate measures, if any, to assess and mitigate the consequences of dropped heavy loads." I&M believes that this can reasonably be considered a reference to future plant-specific heavy loads analyses. Furthermore, Dr. Sheron acknowledged, in the following excerpt from the memo, that GL 85-11 conveyed to licensees that they need not analyze the potential consequences of a heavy load drop.

GL 85-11 dismissed the need for licensees to implement the requirements of NUREG-0612, Phase II. It informed licensees that implementation of Phase II of NUREG-0612 was not necessary and exempted licensees from having to use either electrical interlocks and mechanical stops, or a single-failure-proof crane, or load drop and consequence analyses to assure the safety of their handling of heavy loads.

Public health and safety concerns were addressed in the memo by the statement that licensees were not required to comply with Phase II requirements because, by meeting Phase I requirements, licensees had provided assurance of "maximum practical defense in depth." Finally, Dr. Sheron stated in the memo that "GL 85-11 dismissed the need for licensees to implement the requirements of NUREG-0612."

Dr. Sheron cautioned in the memo that "lack of response from the staff can not be interpreted as an approval," and recommended as a solution to this issue that the staff rescind GL 85-11 and require all licensees to perform load drop and consequences analysis as recommended in NUREG-0612, Phase II. This statement acknowledges that such an analysis had not been performed by some licensees. However, Dr. Sheron also recognized that requiring a load drop analysis would involve a backfit, including a technical basis to support the backfit, in accordance with 10 CFR 50.109, because it requires that licensees take regulatory action to ensure they provide adequate protection to public health and safety. This memo provides insight into the NRC's own understanding of what was intended by GL 85-11. This understanding is the same as I&M's, i.e., GL 85-11 withdrew Phase II and, more importantly, licensees need not analyze the potential consequences of a heavy load drop absent an NRC imposed backfit.

In addition, the NRC has endorsed the position clearly articulated in GL 85-11 in the Supplemental SERs (SSERs) for at least two of the more recently licensed nuclear power plants:

Watts Bar and Comanche Peak. The 1985 SSER No. 12 (Reference 13) for the Comanche Peak plant states:

On the basis of that [GL 85-11 pilot plant] evaluation, the staff believes the Phase I implementation has provided sufficient protection so that the risk associated with potential heavy load drops is acceptably small. The staff further concludes that the objective identified in Section 5.1 of NUREG-0612 for providing "maximum practical defense in depth" is satisfied by the Phase I compliance and that the Phase II analysis did not indicate the need to require further generic action at this time.

On the basis of the improvements in the handling of heavy loads resulting from implementation of NUREG-0612 (Phase I), further action is not required to reduce the risks associated with the handling of heavy loads (NUREG-0612, Phase II).

The 1994 SSER No. 13 (Reference 14) for the Watts Bar plant states:

In Generic Letter 85-11 (Completion of Phase II of "Control of Heavy Loads at Nuclear Power Plants," NUREG-0612) dated June 28, 1985, the staff stated that satisfaction of the Phase I guidelines ensures that the potential for a heavy load drop is extremely small. The staff, therefore, concluded (see Comanche Peak SSER 12, NUREG-0797) that the guidelines of Phase I adequately provide the intended level of protection against load-drop accidents and that a detailed review of the Phase II response was not necessary

These SSERs demonstrate that the NRC has previously maintained a consistent position that GL 85-11 eliminated requirements for Phase II actions, and has applied that position in granting operating licenses to at least two nuclear power plants.

I&M Position

I&M does not believe that existing regulatory guidance requires that a generic reactor vessel head drop analysis be part of the CNP licensing basis. I&M did not intend to, nor did it inadvertently, reference WCAP-9198 in a manner that would result in the WCAP being incorporated into the CNP licensing basis. The NRC erroneously asserts that I&M stated its reliance on the WCAP to establish the safety of heavy load movements. As was stated in the August 27, 1982, letter, the generic WCAP analysis was referenced for bounding purposes. Also, the WCAP was not prepared by I&M at the NRC's request as is stated in the NRC request for additional information. The WCAP is a 1977 generic document that Westinghouse prepared for the NRC as part of its RESAR-414 standardized plant design review.

For a licensee to adopt a generic WCAP, certain plant-specific actions must occur. The licensee must establish that the WCAP is applicable to its plant, and the licensee typically submits documentation of applicability to the NRC for review and approval. None of these actions occurred in this instance and the WCAP remained as no more than a reference document because the NRC withdrew the Phase II requirements and never completed its review of IMEC's response to Phase II. Furthermore, I&M believes that, if a licensee had tried to adopt a WCAP as part of its licensing basis without establishing applicability and similarity using the aforementioned process, use of the WCAP as a licensing basis document would be denied by the NRC.

I&M acknowledges that the "sensitivity analysis" sent to the NRC by the September 22, 2006, letter referenced the WCAP. However, the September 22, 2006, letter was provided in response to a concern raised during an ongoing inspection. NRC practices do not treat such a submittal as a formal analysis or as a licensing basis document. Therefore, the September 22, 2006, I&M letter does not, of itself, establish the WCAP as a licensing basis document.

Potential Solution Options

I&M now better understands the NRC's underlying concern, notwithstanding statements made in GL 85-11, with respect to ensuring that CNP has a licensing basis reactor vessel head drop analysis. Acceptance of the NRC's change in what constitutes reasonable assurance of safety can be achieved by I&M voluntarily performing a reactor vessel head drop analysis and incorporating it, by reference, in the UFSAR. I&M is willing to implement these actions upon completion of a robust plant-specific reactor vessel head drop analysis for CNP.

I&M believes that enforcement action based on the absence of the reactor vessel head drop analysis in the CNP UFSAR would not be appropriate. Following the NRC's suggestion would result in incorporation of a generic analysis into the UFSAR, which CNP did not rely on to demonstrate reasonable assurance of public health and safety, and would be misleading. I&M considers that enforcement for any of I&M's solution-based actions would be inappropriate in that the historical documentation regarding the NRC's prior position on this matter: 1) apparently did not clearly articulate what the NRC now states as its intent; 2) was not clearly understood by many licensees; and 3) does not provide an adequate foundation for enforcement. Finally, since I&M is willing to essentially do what the NRC desires, the benefit of debate over enforcement for a matter that, based on NRC statements, does not appear to be a significant safety concern is unclear.

I&M respectfully suggests that, if the NRC believes that reactor vessel head drop analyses should be part of the licensing basis for all nuclear power plants, this new NRC staff position should be managed in accordance with the backfit provisions of 10 CFR 50.109 consistent with Dr. Sheron's memorandum. If the NRC determines that it is appropriate to continue pursuit of enforcement for this matter, I&M reserves the right to request a backfit analysis at a later date.

Dissimilarity to Point Beach Circumstances

Based on the NRC request for additional information and from discussions with NRC Region III staff, it appears that the NRC is considering enforcement action at CNP, similar to the enforcement action taken at Point Beach Nuclear Plant (Reference 15). Enforcement action at CNP would not be appropriate for the following reasons:

- Point Beach submitted a plant-specific analysis to the NRC in November 1982. No plant-specific analysis was docketed for CNP.
- The quality and specificity of the Point Beach analysis appear to warrant its incorporation by reference in the plant UFSAR. No similar type of document was docketed for CNP.

References

1. Letter from R. S. Hunter, IMEC, to H. R. Denton, U. S. NRC, "Control of Heavy Loads – Phase II.a," dated August 27, 1982.
2. Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Justification for Reactor Vessel Head Lift With Fuel in the Core," dated September 22, 2006, AEP:NRC:6514.
3. Letter from P. S. Tam, NRC, to M. K. Nazar, I&M, "D. C. Cook Nuclear Plant (DCCNP), Units 1 and 2 - Request for Additional Information Regarding Reactor Vessel Head Lift in the Licensing Basis (TAC Nos. MD3046 and MD3047)," dated November 24, 2006 (ML063180409).
4. Letter from J. L. Caldwell, NRC, to M. K. Nazar, I&M, "Commitments and Plans Related to Reactor Pressure Vessel (RPV) Head Lifts at D. C. Cook Nuclear Power Plant," dated September 22, 2006 (ML062650461).
5. Letter from C. D. Pedersen, NRC, to M. K. Nazar, I&M, "Reactor Pressure Vessel (RPV) Head Lifts at D. C. Cook Nuclear Power Plant," dated October 24, 2006 (ML062970389).
6. NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," dated July 1980.
7. NRC GL 80-113, "Control of Heavy Loads," dated December 22, 1980.
8. Letter from S. A. Varga, NRC, to J. Dolan, IMEC, "Control of Heavy Loads (Phase I) – NUREG-0612 Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2," dated September 20, 1983.
9. Letter from R. S. Hunter, IMEC, to H. R. Denton, NRC, "Control of Heavy Loads – Phase II.a," dated August 27, 1982, AEP:NRC:00514A.
10. Letter from R. S. Hunter, IMEC, to H. R. Denton, NRC, "Control of Heavy Loads – Phase II.b," dated December 3, 1982, AEP:NRC:00514F.
11. NRC GL 85-11, "Completion of Phase II of 'Control of Heavy Loads at Nuclear Power Plants' NUREG-0612 (Generic Letter 85- 11)," dated June 28, 1985.
12. Memorandum to A. C. Thadani, Director Office of Nuclear Regulatory Research, from B. W. Sheron, Associate Director for Projects Licensing and Technical Analysis Office of Nuclear Reactor Regulation, "Proposed Generic Safety Issue - Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants," dated April 19, 1999 (ML003714155).

13. NRC Safety Evaluation Report related to the operation of Comanche Peak Steam Electric Station, Units 1 and 2, Docket Nos. 50-445 and 50-446, NUREG-0797 Supplement 12, Section 9.1.5, dated October 1985.
14. NRC Safety Evaluation Report related to the operation of Watts Bar Nuclear Plant, Units 1 and 2, Docket Nos. 50-390 and 50-391, NUREG-0847 Supplement 13, Section 9.1.4, dated April 1994.
15. Letter from J. L. Caldwell, NRC, to D. L. Koehl, Nuclear Management Company, Notice of Violation [NRC Special Inspection Report 05000266/2006011; 050000301/2006011] Point Beach Nuclear Plant, Units 1 and 2, dated January 29, 2007 (ML070290711).

Attachment 2 to AEP:NRC:7514

HISTORY OF REGULATORY POSITIONS AND ACTIONS FOR CONTROL OF HEAVY LOADS

This table provides a high level timeline of selected U. S. Nuclear Regulatory Commission (NRC) correspondence regarding control of heavy loads, including key correspondence from the former Donald C. Cook Nuclear Plant (CNP) licensee, Indiana & Michigan Electric Company (IMEC). This table is intended to show the length of time that has transpired since issues regarding control of heavy loads were raised by the NRC.

DATE	DOCUMENT	KEY CONTENT
July 1980	NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants."	Documented initial NRC position on heavy loads.
December 22, 1980	Letter from Darrell G. Eisenhut, NRC (later referred to as Generic Letter (GL) 80-113).	Established regulatory position on control of heavy loads. Required interim actions within 90 days of letter. Established Phase I scope and due date. Established Phase II scope and due date.
August 27, 1982	Letter from IMEC to NRC providing Phase II.a response.	Provided table of "Dropped Heavy Loads in Containment Evaluation." Listed "Subject of Westinghouse WCAP-9198" as the basis to determine no radioactive release, no criticality, and no Reactor Coolant System (RCS) boundary damage would result from a dropped reactor vessel head. Included footnote for the dropped reactor vessel head line-item stating: "This heavy load is from WCAP-9198. Since the D. C. Cook RV head weighs 297,000 lbs and the heights are similar, this load is bounding."

DATE	DOCUMENT	KEY CONTENT
September 20, 1983	Letter from NRC providing Phase I Safety Evaluation Report for Donald C. Cook Nuclear Plant (CNP)	Concluded that the guidelines in NUREG-0612, Sections 5.1.1 and 5.3, had been satisfied and Phase I response for CNP was acceptable.
June 28, 1985	GL 85-11, "Completion of Phase II of 'Control of Heavy Loads at Nuclear Power Plants' NUREG-0612"	<p>Revised previous NRC position by stating:</p> <p>"Based on the improvements in heavy loads handling obtained from implementation of NUREG 0612 (Phase I), further action is not required to reduce the risks associated with the handling of heavy loads (See enclosed NUREG-0612 Phase II). Therefore, a detailed Phase II review of heavy loads is not necessary and Phase II is considered completed. <u>However, while not a requirement, we encourage the implementation of any actions you identified in Phase II regarding the handling of heavy loads that you consider appropriate.</u>" (emphasis added)</p> <p>A detailed Phase II review would have required preparation of a plant specific report. Since none was prepared by the time GL 85-11 was issued, it was reasonable to conclude that none was required.</p>
April 11, 1996	NRC Bulletin 96-02, "Movement of Heavy Loads Over Spent Fuel, Over Fuel in the Reactor Core, or Over Safety-Related Equipment"	<p>Reiterates previous regulatory position to very strongly urge implementation of NUREG-0612 Phase I guidelines and GL 85-11.</p> <ul style="list-style-type: none"> • Comply with existing regulatory guidelines associated with the control and handling of heavy loads at nuclear power plants. • Review their plans and capabilities for handling heavy loads • Require addressees to report to the NRC whether and to what extent they have complied with the requested actions contained in this bulletin. <p>Required response to bulletin.</p> <p>I&M's response (dated May 10, 1996) stated its conclusion that the CNP plans and capabilities for handling heavy loads were in accordance with I&M's commitments to existing regulatory guidelines. The NRC closed the bulletin in a letter dated February 8 2000, stating that I&M's responses were acceptable.</p>

DATE	DOCUMENT	KEY CONTENT
April 19, 1999	NRC internal memo from Brian Sheron to Ashok Thadani, "Proposed Generic Safety Issue - Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants"	<p>Stated: "...although licensees may be operating within the regulatory <u>guidelines</u> in GL 85-11, they may not be taking action <u>above and beyond existing regulations</u> to maintain the level of protection necessary to avoid undue risk to public health and safety." (emphasis added)</p> <p>Confirms NRC position that Performance of NUREG-0612, Phase II is beyond existing regulations.</p> <p>Review of responses to NRC Bulletin 96-02 indicated that a majority of the plants operated in accordance with GL 85-11 and did not implement Phase II guidelines to assure additional safety in their load handling operations.</p> <p>NRC was aware that specific analyses had not been prepared pursuant to NUREG-0612 recommendations for plants that do not have a single failure proof crane.</p> <p>One obvious solution to the identified concerns is to rescind GL 85-11 and require all licensees to perform load drop and consequence analyses as recommended in NUREG-0612, Phase II. However, this resolution would involve a backfit in accordance with 10 CFR 50.109 because it requires that licensees take regulatory action to ensure that they provide adequate protection to public health and safety.</p>
October 31, 2005	Regulatory Information Summary 2005-25, "Clarification of NRC Guidelines for Control of Heavy Loads"	<p>Did little to clarify existing heavy loads guidelines; clouded previous industry interpretation of NRC expectations.</p> <p>Addressed Advisory Committee on Reactor Safeguards-endorsed recommendations.</p> <p>No new guidelines or rigging applications.</p> <p>Attachment 1, Section C, stated: "When a licensee identifies a new heavy load handling evolution that is not bounded by previously evaluated load movements, the licensee should evaluate the change in accordance with 10 CFR 50.59 to determine the need for a license amendment."</p> <p>Section B.1.ii, stated "Since the 1982 Point Beach reactor vessel head drop analysis was submitted to NRC based on a request from the NRC staff, 10 CFR 50.71(e) required that the results of the evaluation be incorporated into the safety analysis report."</p>