

November 7, 2006

Cynthia A. Carpenter, Director Office of Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Submittal of Letter per Settlement Agreement for Dale Miller (LBP-06-021)

Ladies and Gentlemen:

On September 29, 2006, Nuclear Regulatory Commission (NRC) Atomic Safety and Licensing Board Order (LBP-06-021) was issued to me approving the proposed settlement and dismissing the proceedings for Docket number IA-05-053. In accordance with the September 29, 2006 Licensing Board Order Settlement Agreement (Exhibit A, item 7), attached to this letter is a white paper entitled, "The Role of the Licensing Organization - Complete and Accurate Information Communication." This paper explains my understanding of the significance of the role of Compliance Supervisor in ensuring that all communications with the NRC contain complete and accurate information. The paper also discusses the duties, responsibilities and expectations for a Compliance Supervisor to ensure the licensee's actions and communications are consistent with its responsibility to protect public health and safety.

The content of the white paper was coordinated with the NRC Enforcement staff as requested.

It is my understanding this submittal satisfies the intent of the Atomic Safety and Licensing Board Order LBP-06-021, Exhibit A, item 7.

Sincerely,



Dale L. Miller

Attachment

cc: J. G. Penny, Killian and Gephart, LLP

The Role of the Licensing Organization - Complete and Accurate Information Communication

By Dale L. Miller

Introduction and Purpose

The role of Compliance Supervisor and licensing organization to ensure complete and accurate information provided to the Nuclear Regulatory Commission (NRC) is vital to protect the health and safety of the public. Federal regulations in "Title-10, Energy" state that information provided to or maintained by a licensee shall be complete and accurate in all material respects. The discussion that follows provides insights and lessons learned from a licensing perspective as a result of events that transpired at the Davis-Besse Nuclear Power Station (DBNPS) in the fall of 2001. These events generated a demand to emphasize the duties, responsibilities and expectations of the Compliance Supervisor to ensure that consideration of the public health and safety is paramount in all communications with the NRC, especially those communications that may involve potential financial or business conflict.

Background

The DBNPS submitted their response (Reference 1) to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," on September 4, 2001. A series of letters and meetings transpired between the NRC and Davis-Besse to answer the NRC's questions about the initial Bulletin response and to justify continued operation of the DBNPS past December 31, 2001. The DBNPS management desired to postpone inspections required by the Bulletin about three months past December 31 until the start of the thirteenth refuel outage (13RFO). Performing inspections during 13RFO involved a potential financial or business advantage rather than shutting down to perform inspections by the end of the year 2001. Permission was finally granted by the NRC (Reference 2) to continue operation until February 16, 2002, when the thirteenth refueling outage commenced. Significant corrosion of the DBNPS reactor vessel head was discovered during 13RFO while inspecting the reactor vessel head control rod drive penetration nozzles that included a corroded cavity of considerable size adjacent to one of the nozzles.

After a lengthy investigation by the utility and the NRC, several inconsistencies were identified in the original Bulletin response and supplemental submittals made by Davis-Besse to the NRC during the fall of 2001. This investigation resulted in individuals being barred from performing NRC-licensed activities for violating paragraph (a)(2) of 10CFR50.5, "Deliberate Misconduct." (Reference 3) Specifically, they deliberately submitted to the NRC, information that they knew to be incomplete or inaccurate in some respect material to the NRC. These deliberate acts caused the First Energy Nuclear Operating Company (FENOC) to be in violation of 10CFR50.9, "Completeness and Accuracy of Information." (Reference 4)

Enforcement Policy

The first two paragraphs of "NRC Enforcement Policy" (Reference 5) provide valuable insight into the regulatory objectives of the NRC. These two paragraphs state:

The Atomic Energy Act of 1954, as amended, establishes "adequate protection" as the standard of safety on which NRC regulations are based. In the context of NRC regulations, safety means avoiding undue risk or, stated another way, providing reasonable assurance of adequate protection of workers and the public in connection with the use of source, byproduct and special nuclear materials.

While safety is the fundamental regulatory objective, compliance with NRC requirements plays an important role in giving the NRC confidence that safety is being maintained. NRC requirements, including technical specifications, other license conditions, orders, and regulations, have been designed to ensure adequate protection -- which corresponds to "no undue risk to public health and safety" -- through acceptable design, construction, operation, maintenance, modification, and quality assurance measures. In the context of risk-informed regulation, compliance plays a very important role in ensuring that key assumptions used in underlying risk and engineering analyses remain valid.

Regulations on Completeness and Accuracy

Information related to the design and licensing basis of a nuclear facility must comply with regulations on completeness and accuracy. The regulation 10CFR50.9, Completeness and Accuracy of Information (Reference 4) states:

§ 50.9 Completeness and accuracy of information.

(a) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.

(b) Each applicant or licensee shall notify the Commission of information identified by the applicant or licensee as having for the regulated activity a significant implication for public health and safety or common defense and security. An applicant or licensee violates this paragraph only if the applicant or licensee fails to notify the Commission of information that the applicant or licensee has identified as having a significant implication for public health and safety or common defense and security. Notification shall be provided to the Administrator of the appropriate Regional Office within two working days of identifying the information. This requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.

An important concept of 10CFR50.9(a) is that any information material to the NRC, whether it is maintained by the licensee or submitted to the NRC must be complete and accurate. Any records that have a tendency or capacity to influence the NRC in the conduct of its business are material and therefore must be complete and accurate. Information may be material to the NRC even if the NRC does not actually rely on the information. The meaning of accurate is more obvious than the meaning of complete. Completeness means that information provided adequately reflects the course of the activity. The information must be supported by sufficient backup information that reflects the course of events. Supplied information must adequately support the regulatory requirement for which it applies. Information such as bases for engineering assumptions, test data and inspection data must be able to recreate events. Programs and procedures should reflect requirements to document events in a thorough manner to ensure a historical record. Completeness also means that any and all pertinent information to an issue is presented and can successfully answer and/or resolve any questions. When involved in any activity that has regulatory significance, the best basic practice is to supply and/or maintain sufficient information to illustrate and backup the line of reasoning and conclusions.

Licensing's Role in Effective Communication

Licensing professionals serving the utilities and operators of nuclear power plants are in a unique position. The expectation of the NRC is that each licensee staff member is responsible for ensuring that issues which may affect public health and safety are identified and raised within a licensee's organization and appropriately communicated to the NRC without regard to the perceived or potential economic impacts to the licensee. Communication is the heart of an effective organization to accomplish this goal. The licensing professional is often at the center of effective communication with the NRC. This position may appear to place the licensing professional between the NRC and the plant staff. This is an appearance only in that the absolute goal for both the utility and the NRC is to ensure the facility is operated in a manner that protects the health and safety of the public and plant personnel. Effective communication to achieve this common goal is vital to a healthy and safe plant operation. Any communication that is incomplete or inaccurate in a manner contrary to this vital goal has a lasting effect on the NRC, the plant operation and most importantly the public trust and confidence in them both. Any communication with the NRC must be open and honest regardless of any potential economic or business conflict.

Personal Insights

A review of what happened at the DBNPS provides several personal insights into the role of the licensing professional through observations and lessons learned in that situation. These insights do not start and end with the licensing person. All personnel at a nuclear facility must have an attitude of safety consciousness.

Licensing must never let down their guard as the champion of the rules. The relationship between the licensing professional and the balance of the plant staff is a key component of compliance. Management must recognize licensing's role in regulatory compliance. This means compliance with the NRC regulations, compliance with the plant licensing and design basis, compliance with the Technical Specifications, compliance with procedures and policies, and the implementation of plant programs. This does not mean licensing is supervising all aspects of compliance. It is largely up to the plant staff to monitor and maintain compliance. Licensing professionals that monitor the day to day activities in the plant through review of plant status data, Corrective Action Program reports and plant change programs, must keep compliance as the very top priority. Licensing must serve as the conscious of the plant, even at the expense of financial impact. The licensing organization must be respected and valued by management in this role. Rules are established in the interest of protecting public health and safety. Issues of compliance must be critically evaluated and reported to plant management in an open, honest atmosphere to maintain the objective of protecting public health and safety.

Licensing is expected to be the liaison between the plant staff and the NRC. This can place the licensing person in a precarious position, particularly when there is a subject that is sensitive, contentious or involves financial considerations. Licensing is the emissary of the plant when communicating with the NRC. Communication should always be polite and professional. No one should be afraid to communicate with the NRC. Licensing must be proactive with issues material to the NRC. Licensing can not take the approach that someone else within the plant staff will handle it. Many times when an issue is not addressed in a timely manner, frustration builds between the plant and the NRC. Untimely communication can only hinder or degrade the relationship with the NRC personnel involved, and can actually develop into a barrier to effective communication. Licensing must facilitate getting information to the NRC to allow them to perform their job. Licensing must work toward an understanding of the issues and a conclusion. The conclusion may not always be the most economically favorable for the plant, but licensing must reinforce to plant management the ultimate goal to protect the health and safety of the public.

Licensing must exercise due diligence to validate communications with the NRC. It is not realistic to know all aspects of every issue. Everyone in the organization is responsible for accuracy and completeness, whether it is related to an NRC inquiry or not. The importance of completeness and accuracy can not be overemphasized for licensing personnel. It is the licensing individual's responsibility to champion the concept of completeness and accuracy. To ensure all information is accurate, a system of checks and validation must be in place to ensure accuracy and completeness. The system must be sufficiently rigorous to verify all pertinent information is presented and can successfully answer and/or resolve any questions. Licensing must be on guard against complacency when dealing with plant personnel that may be overwhelmed with several duties. Issues must be prioritized and additional help implemented when needed. Never rely on anyone's memory to support any material information. The memories and beliefs of plant personnel will likely not stand the test of time versus documented facts.

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Documented and verified facts never lie. Hind sight is usually as clear as 20-20 vision. To prevent the need to apply hind sight, apply a magnifying glass well before it is too late!

No subject matter expert is beyond challenges to information relevant to an issue. It is the responsibility of everyone in the plant to ensure information is complete and accurate. When technical information is being assembled for presentation, a system or program must be in place to ensure information is credible and reliable. Sources of information must be backed up by accurate documentation and this documentation must be reviewed and verified. Licensing's job is to facilitate communication to ensure the NRC gets the information they need. In direct communications, it is always very beneficial to have the subject matter experts directly involved. A licensing individual can not know every detail of information on plant systems, design basis or licensing basis. Likewise, a licensing individual should expect the subject matter expert to have gaps in their knowledge. NRC personnel are assigned to deal with plant issues based on their qualifications and training, and are tasked to maintain their independence and objectivity. However, the plant management staff must expect to provide NRC contacts with any knowledge of plant specific details or nuances. Never assume anything during the review and discussion of an issue. It is better to review supporting information to make sure everyone is on the same page. When differences in knowledge level and experience are bridged by a review of background and new information, a positive outcome is much easier to promote. During the conduct of any meeting, if accuracy is not absolutely certain, any answer provided should include an explicit commitment to review the answer provided and follow up with the NRC individual. The relationship with the NRC must be one that works toward an understanding and conclusion for the benefit of the public.

Never take the attitude that the NRC "doesn't need to know." Approach the subject as if any supporting information is material to the conduct of their business. Management involvement must be encouraged. As necessary, use the management chain and keep people involved and engaged. Investigate vigorously what is of interest to the NRC for the issue. Then pursue the information and supporting documentation aggressively. Make sure any gaps are closed with regard to technical understanding to reach a common understanding among all parties. Once an understanding is reached, resolution becomes much simpler. In some rare cases, even if the path of understanding is to agree to disagree at some point, this is only the entry point for further investigation and learning.

Use the Corrective Action Program to resolve any identified condition. When information is developed in response to an NRC inquiry, whether it is a Bulletin or a question from the NRC staff, sensitivity to the Corrective Action Program must be kept in mind. If the rules aren't being followed, apply the Corrective Action Program. Corrective action is fundamental to a safety conscious work environment. The Corrective Action Program must be geared to leave no stone unturned and should provide complete documentation of the resolution. Documentation may be onerous, but sufficient documentation is fundamental to the regulations for completeness.

Never accept verbal acknowledgement that information is complete and accurate. Most programs at a plant are built around the concept of verification and approval processes. Work only with properly documented and verified information. Do not depend on a person's memory or recollection without backup or corroborating information that is always preferred to be documented, reviewed and approved. Always get the facts out in the open for everyone to see and then encourage open discussion. Any subject matter expert needs to be open for discussion and challenges. Subject matter experts must be made aware that a healthy challenge is for their own good in the long run. Everyone must have a questioning attitude and to ensure no stone is unturned. Technology changes occur daily in the nuclear world. When a new concept is being discussed, take the approach that everyone needs a good background review. Never interpret any request or issue as frivolous. Further digging is required if someone appears to hold back information. Work to break down barriers to communication. Issues are resolved with a good blend of methodical investigation mixed with aggressiveness. This is commonly called a sense of urgency. An issue is always first priority until an understanding of the urgency is agreed upon with the NRC. Do not procrastinate and remain cognizant of the benefits of facilitating management involvement.

Nuclear workers require certain fundamental behaviors. Two behaviors paramount for a nuclear professional are trustworthiness and integrity. The integrity of the people providing information must be beyond reproach. When working with individuals that are personally unfamiliar or of unknown background, ensure their management is engaged and aware of the individual's activities in support of issue resolution. This may seem harsh, but it is crucial to remember that the licensing individual's job is to be the conscious of the plant and organization. Facts must be presented in a clear, unambiguous manner that leaves little room for interpretation. All that matters are the facts and only the facts. Communication must be clear and concise. Licensing is responsible for providing a factual presentation of information from trusted sources. Trustworthiness is indispensable to the behavior of any nuclear worker. Accurate and complete information will never betray an individual. However, lack of complete and accurate communication can and will turn the tables.

E-mail is one of the most commonly abused methods of communicating. The intent of an e-mail can easily be misconstrued. An e-mail, hastily prepared with confusing language can contribute to misunderstanding the issue. This confusion can also send the reader down a completely unintended path and lead to an incorrect conclusion. E-mail can also convey a hidden or sometimes very overt hint of frustration. Any e-mail that looks suspicious, has hidden issues buried between the lines, or has dual messages that may be in conflict with each other, must be investigated. Remember the Corrective Action Program. E-mail is not the correct way to document a potential issue. Every issue must see the light of day to ensure the issue receives the appropriate priority and documentation down through resolution. Management deserves the opportunity to resolve issues. Frustration must not be played out in the depths of e-mails between individuals. Management must be made aware of the situation and the actions taken.

Open discussion and resolution of issues is vital to a healthy safety conscious environment.

Confrontational issues must be dealt with in a swift and decisive manner. A small issue can seem very large and insurmountable if a confrontation is not properly addressed. It is not a perfect world and licensing personnel will need to deal with confrontation on occasion. Recognition of the issue and prompt action is extremely important. Barriers must be immediately removed to get back to a healthy dialogue. Do not be afraid to push back when necessary, but do so in a professional manner. Frustration builds when someone is left out of the dialogue. In the case of an NRC individual, lack of resolution will cause difficulty for that individual in dealing with their NRC management. Understand that NRC management is tasked with being cognizant and involved. When confrontation can not be easily resolved, elevate the issue in the management chain with the goal of obtaining awareness, insight and cooperation. The goal should be for all involved parties to be successful.

Emotions and anxiety can develop for some individuals and need to be re-channeled into resolving the issue. Analyze what is causing anxiety, fear or worry over an issue and then do something productive about the cause. Try to reach a comfort level and realize that action will progress to resolve the conflict causing such emotions. Do not let anxiety or emotions impact a person's health and the ability to sleep at night.

Consequences of Incomplete or Inaccurate Information

NRC requirements for completeness and accuracy must be enforced by the plant organization. What are the consequences if they are not and the NRC must take action?

The Enforcement Policy (Reference 5) introduction states:

While adequate protection is presumptively assured by compliance with NRC requirements, circumstances may arise where new information reveals that an unforeseen hazard exists or that there is a substantially greater potential for a known hazard to occur. In such situations, the NRC has the statutory authority to require licensee action above and beyond existing regulations to maintain the level of protection necessary to avoid undue risk to public health and safety.

The NRC also has the authority to exercise discretion to permit continued operations --despite the existence of a noncompliance -- where the noncompliance is not significant from a risk perspective and does not, in the particular circumstances, pose an undue risk to public health and safety. When noncompliance occurs, the NRC must evaluate the degree of risk posed by that noncompliance to determine if specific immediate action is required. Where needed to ensure adequate protection of public health and safety, the NRC may demand immediate licensee action, up to and including a shutdown or cessation of licensed activities.

Based on the NRC's evaluation of noncompliance, the appropriate action could include refraining from taking any action, taking specific enforcement action, issuing orders, or providing input to other regulatory actions or assessments, such as increased oversight (e.g., increased inspection). Since some requirements are more important to safety than others, the NRC endeavors to use a risk-informed approach when applying NRC resources to the oversight of licensed activities, including enforcement activities.

The primary purpose of the NRC's Enforcement Policy is to support the NRC's overall safety mission in protecting the public health and safety and the environment. Consistent with that purpose, the policy endeavors to:

- *Deter noncompliance by emphasizing the importance of compliance with NRC requirements, and*
- *Encourage prompt identification and prompt, comprehensive correction of violations of NRC requirements.*

Therefore, licensees, contractors, and their employees who do not achieve the high standard of compliance which the NRC expects will be subject to enforcement sanctions. Each enforcement action is dependent on the circumstances of the case. However, in no case will licensees who cannot achieve and maintain adequate levels of safety be permitted to continue to conduct licensed activities.

Summary:

In summary, the DBNPS event should be the source of heightened awareness and education for the licensing professional. The concepts discussed above are not new, but review and dedication to these concepts should help ensure accurate and complete information is provided the NRC.

- Be a champion of NRC regulations, plant Technical Specifications, licensing basis, plant programs and plant procedures that govern plant activities, regardless of the potential financial or business conflicts
- Be proactive in the role of liaison between the plant and the NRC
- Exercise due diligence when validating NRC communications
- Challenge subject matter experts to ensure information is complete and accurate
- Never take the attitude that the NRC does not need to know
- Use the Corrective Action Program as intended
- Never accept verbal acknowledgement that information is complete and accurate
- Ensure trustworthiness and integrity of the nuclear worker is beyond reproach
- Do not abuse e-mail, especially as a substitute to the Corrective Action Program
- Deal with confrontation in a swift and decisive manner

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- Channel emotions and anxiety into productive resolution of issues

It is paramount to the mission of the NRC to maintain information and communicate with the NRC in such a manner that all information is complete and accurate in all material respects to allow the NRC to complete their mission. It is the responsibility of the licensee and the role of the licensee's licensing and compliance personnel to work together to ensure the health and safety of the public and plant personnel is maintained. Effective, complete and accurate communication is required to ensure this vital goal, regardless of the potential financial or business impact.

References

1. Davis-Besse Nuclear Power Station Letter Serial Number 2731, September 4, 2001, Subject: Response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"
2. United States Nuclear Regulatory Commission Letter, December 4, 2001, Subject: Davis Besse Nuclear Power Station, Unit No. 1 – Response to Nuclear Regulatory Commission (NRC) Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles" (TAC No. MB2626)
3. United States Nuclear Regulatory Commission, Code of Federal Regulations, 10CFR50.5, "Deliberate Misconduct," [63 FR 1897, Jan 13, 1998] (On-line @ www.nrc.gov)
4. United States Nuclear Regulatory Commission, Code of Federal Regulations, 10CFR50.9, "Completeness and Accuracy of Information" [52 FR 49372, Dec. 31, 1987] (On-line @ www.nrc.gov)
5. United States Nuclear Regulatory Commission, "NRC Enforcement Policy," (On-line @ www.nrc.gov)