

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael C. Farrar, Chairman
E. Roy Hawkens
Nicholas G. Trikouros

In the Matter of

DAVID GEISEN

Docket No. IA-05-052

ASLBP No. 06-845-01-EA

August 28, 2009

INITIAL DECISION

This proceeding concerns the validity of an Enforcement Order brought some time ago by the NRC Staff against David Geisen, a former employee of the Davis-Besse Nuclear Power Station (“Davis-Besse”), a pressurized water reactor (PWR) facility located in northwestern Ohio and operated by FirstEnergy Nuclear Operating Company (“FENOC” or “Licensee”). A majority of the Board¹ holds herein that the Staff failed to show by a preponderance of the evidence that Mr. Geisen engaged in the deliberate misrepresentation with which he was charged.

We therefore set aside the charges in the Enforcement Order as unsupported by the evidence. As a consequence, also set aside are the sanctions the Enforcement Order imposed against Mr. Geisen, including the five-year ban on his employment in the nuclear industry – a ban that, because it was made immediately effective, has been depriving him of the opportunity to pursue his chosen career.

¹ This Initial Decision (for which a Table of Contents appears on the next two pages) represents the views of Judges Farrar and Trikouros. Judge Hawkens dissents (see below p. 145).

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I. INTRODUCTION AND HISTORICAL BACKGROUND

In August of 2001, the NRC issued Bulletin 2001-01, requiring every PWR licensee, including Davis-Besse, to respond to information regarding a safety concern involving the potential for the cracking of nozzles penetrating the reactor vessel head. A symptom or indicator of such cracking was small boric acid deposits accumulating on the reactor vessel head. Davis-Besse had a history of large boric acid deposits from a less serious problem, i.e., leakage from certain flanges located well above the reactor vessel head.

FENOC made a series of written submissions to the NRC in response to this Bulletin. Based on the information FENOC initially provided, the NRC Staff threatened to shut down operations at Davis-Besse by December 31, 2001, to allow additional detailed plant inspections. FENOC therefore met with the NRC Staff on several occasions in October and November of 2001 to provide clarifying information requested by the Staff. After reviewing FENOC's submissions, the agency decided that Davis-Besse could continue to operate until its next refueling outage, scheduled for March of 2002.

During that refueling outage, an unprecedented, potentially dangerous corrosion cavity was discovered in the Davis-Besse reactor vessel head. This discovery led to a massive inquiry by the NRC Staff's Office of Investigations (OI).

One of the matters investigated by OI was whether FENOC as a company, or individual employees located at or responsible for the Davis-Besse facility, had failed to provide complete and accurate information to the NRC in the submissions responding to the NRC Bulletin and in associated communications. After a detailed inquiry into the entire episode, OI issued an internal report dated August 22, 2003,² concluding that FENOC's submissions in response to the Bulletin were materially incomplete and inaccurate and therefore in violation of 10 C.F.R. § 50.9(a).

² That report, documenting the results of OI's investigation, was identified as OI Report No. 3-2002-006.

On January 4, 2006, almost two and one half years after the OI report was completed, the NRC Staff issued an Enforcement Order against Mr. Geisen, several other individuals, and FENOC as a company. Insofar as Mr. Geisen was concerned, the Enforcement Order charged that, while employed at Davis-Besse, he had engaged in deliberate misconduct by contributing to the submission of information to the NRC that he knew was not complete or accurate in some material respect, in violation of 10 C.F.R. § 50.5(a)(2).³

As a result of these alleged violations, the NRC Staff barred Mr. Geisen, effective immediately, from involvement in all NRC-licensed activities for a period of five years. At that time, Mr. Geisen had been working, without apparent incident, for the preceding three years at the Kewaunee Nuclear Power Plant in Kewaunee, Wisconsin.

The Staff's Enforcement Order resulted in his loss of that employment. In February 2006, Mr. Geisen filed an answer to the Order and requested the expedited hearing to which NRC regulations entitled him.⁴ See 10 C.F.R. § 2.202(c)(1), providing that in such circumstances "a hearing will be conducted expeditiously, giving due consideration to the rights of the parties."

Moving parallel to the NRC's enforcement action, the United States Department of Justice (DOJ) was considering criminal charges against FENOC and several FENOC employees and contractors, including Mr. Geisen. On January 19, 2006, a federal grand jury for the Northern District of Ohio returned a five-count indictment against Mr. Geisen and two other FENOC employees/contractors, based on many of the same facts and issues as the underlying NRC Enforcement Order.⁵

³ Mr. Geisen's purported actions also were said to have placed the Licensee in violation of 10 C.F.R. § 50.9(a).

⁴ Answer and Demand for Expedited Hearing (Feb. 23, 2006). Mr. Geisen did not exercise the opportunity provided by 10 C.F.R. § 2.202(c)(2)(i) to challenge, apparently on limited grounds, the immediate effectiveness of the Enforcement Order.

⁵ In November of 2005, the Government had offered Mr. Geisen a deferred prosecution agreement that would have required him to admit knowledge of the falsity of the statements he had made. Mr. Geisen rejected that offer. Tr. at 1782-83.

Around that same time, FENOC entered into a settlement agreement with DOJ under which FENOC would pay a \$28 million penalty based on its conduct relating to the problems discovered at Davis-Besse, and would cooperate with the ongoing criminal administrative investigations.⁶ None of FENOC's officers were indicted; the other criminal indictments handed up were against Andrew Siemaszko, a former Davis-Besse systems engineer, and Rodney M. Cook, an outside contractor-consultant who had worked at Davis-Besse for many years.

As noted above, Mr. Geisen challenged the NRC Enforcement Order by requesting a hearing before this Board. Although agency regulations called for an "expedited hearing," the Staff, acting at the request of DOJ in an attempt to avoid an asserted potential conflict between the NRC enforcement proceeding and the criminal trial, sought a stay of this proceeding in March 2006.⁷ We denied the Staff's stay motion.⁸ That denial was upheld by the Commission.⁹

In October 2006, as the case was moving through pre-trial preparation, the Staff again sought, at DOJ's request, to stay the proceeding.¹⁰ The Board denied that request as well,¹¹ but on appeal, the Commission granted a stay pending the outcome of the criminal proceeding.¹²

In that criminal proceeding, a jury that had received a controversial "deliberate ignorance" or "willful blindness" instruction (see below pp. 33, 40) subsequently found Mr. Geisen guilty on three counts of the indictment, one of which (Count 4) involved the identical

⁶ Press Release, Department of Justice, First[E]nergy Nuclear Operating Company to Pay \$28 Million Relating to Operation of Davis-Besse Nuclear Power Station: Two Employees and a Contractor Indicted for Making False Statements to the Nuclear Regulatory Commission (Jan. 20, 2006).

⁷ NRC Staff Motion to Hold the Proceeding in Abeyance (Mar. 20, 2006).

⁸ David Geisen, LBP-06-13, 63 NRC 523 (2006).

⁹ David Geisen, CLI-06-19, 64 NRC 9 (2006).

¹⁰ NRC Staff Motion for Stay of Proceeding or in the Alternative for a Preclusion Order (Oct. 27, 2006).

¹¹ Licensing Board Order (Denying Government's Request to Stay Proceeding) (Jan. 12, 2007) (unpublished).

¹² David Geisen, CLI-07-06, 65 NRC 112 (2007).

FENOC document (the so-called “Serial Letter 2744”) that underlay an aspect of the Enforcement Order.¹³ In May of 2008, after denying a motion to set aside the verdict – in what he described as a “close” case¹⁴ – the trial judge declined to accept the prosecutor’s recommendation of a prison term and instead sentenced Mr. Geisen to three years probation, prohibiting him during that probationary period from employment in the nuclear power industry.¹⁵ The district court indicated, however, that if the NRC adjudication were to find in favor of Mr. Geisen, the court would be open to reconsidering the employment ban.¹⁶

In June of 2008, Mr. Geisen requested that the administrative hearing on the Staff’s Enforcement Order be reactivated.¹⁷ In response to the Board’s request,¹⁸ both parties filed briefs agreeing that, notwithstanding the pendency of Mr. Geisen’s appeal to the Sixth Circuit, the conviction and sentencing constituted an “outcome” of the criminal proceeding as the term was contemplated by the Commission in imposing, in CLI-06-19, a condition precedent for lifting the imposed stay.¹⁹ The Board agreed, and undertook an expedited implementation of the pre-trial phase.

¹³ The criminal indictment charged Mr. Geisen with five counts of knowingly and willfully concealing and covering up material facts, regarding the condition of Davis-Besse’s reactor vessel head and the nature and findings of previous inspections of the reactor vessel head, in: (1) documents and communications occurring between September 4, 2001, and February 16, 2002, generally; (2) Serial Letter 2735, October 17, 2001; (3) Serial Letter 2741, October 30, 2001; (4) Serial Letter 2744, October 30, 2001; and (5) Serial Letter 2745, November 1, 2001. Mr. Geisen was found guilty on Counts 1, 3, and 4, not guilty on Counts 2 and 5. Counts 3 and 5 of the indictment involved documents that had not been the subject of the NRC Enforcement Order. See, generally, Criminal Indictment.

¹⁴ United States v. Geisen, 2008 WL 1840759, at *1 (N.D. Ohio Apr. 22, 2008).

¹⁵ Judgment in United States v. Geisen, 2008 WL 612567, at *3 (N.D. Ohio May 2, 2008); see also Transcript from the Sentencing Hearing Before the Honorable David A. Katz at 19-20 [hereinafter Sentencing Tr.].

¹⁶ See Sentencing Tr. at 30.

¹⁷ Letter from Richard Hibey to the Licensing Board (June 24, 2008).

¹⁸ Licensing Board Order (Calling for Briefs) at 1 (June 30, 2008) (unpublished).

¹⁹ Brief of David C. Geisen in Response to Board’s Order Dated June 30, 2008 (July 7, 2008) [hereinafter Geisen Response to June 30 Order]; NRC Staff Response to Board’s Order Calling for Briefs (July 14, 2008).

The parties entered into a lengthy stipulation whose central feature was agreement that certain statements made by FENOC and Mr. Geisen were in fact false, but with no concession that Mr. Geisen knew of their falsity. See Staff Ex. 77. After the Board declined to grant at that juncture the Staff's collateral estoppel motion,²⁰ an evidentiary hearing was conducted from December 8 to 12, 2008, in the Board's Rockville, Maryland, hearing room. Both parties thereafter filed Proposed Findings of Fact and Conclusions of Law.²¹ We then held a post-trial oral argument on March 3, 2009. See Tr. at 2343-2484.

We move on from the foregoing background by setting out, in Part II below (pp. 9-19), a summary of relevant technical information that underlies the events brought before us by the Enforcement Order. We then provide an overview of our decision in Part III (pp. 20-28). Next we provide, in Part IV (pp. 29-53), an analysis of the basic legal principles that govern our decision, including key ones about the acquisition of knowledge and of the role of discretion in determining whether the collateral estoppel doctrine should apply here. Part V (pp. 54-119) includes a detailed analysis of the evidence and our resulting findings of fact.

A series of brief portions follow: Part VI (pp. 120-25) covers our analysis of the sanction imposed upon Mr. Geisen and the problems with the Enforcement Order having been made immediately effective; and Part VII (p. 126-44) contains a summary of our key findings; our general response to the Dissent; and our formal Conclusions of Law. We close, in Part VIII (p. 145), with our formal Order, which also indicates the time limits for any appeals that might be undertaken.

²⁰ NRC Staff Motion for Collateral Estoppel (Nov. 17, 2008) [hereinafter Collateral Estoppel Motion]; Opposition of David C. Geisen to NRC Staff's Motion for Collateral Estoppel (Nov. 26, 2008) [hereinafter Opposition to Collateral Estoppel Motion].

²¹ NRC Staff Proposed Findings of Fact and Conclusions of Law (Jan. 16, 2009) [hereinafter Staff Findings]; Post-Trial Brief of David Geisen with Proposed Findings of Fact and Conclusions of Law (Jan. 30, 2009) [hereinafter Geisen Findings]; NRC Staff's Reply to Mr. Geisen's Post-Trial Brief with Proposed Findings of Fact and Conclusions of Law (Feb. 5, 2009) [hereinafter Staff's Reply].

II. TECHNICAL INFORMATION

A. Davis-Besse Reactor Design

To create steam for electricity production, Davis-Besse employs a pressurized water reactor, with the reactor vessel, pressurizer, and steam generators located within a containment structure. Tr. at 836-37; Staff Ex. 2. The reactor coolant system contains boric acid in solution to help control the nuclear reaction taking place inside the reactor vessel. Tr. at 837, 846. The coolant, including the boric acid solution, is heated to approximately 600 degrees Fahrenheit and pressurized to approximately 2,150 pounds per square inch. Tr. at 846.

The top of the reactor vessel is a domed lid approximately 13 feet in diameter, referred to as the reactor vessel head. Tr. at 841. From the top of the reactor vessel head emerge a number of nozzles, which house the reactor control rods. Tr. at 839. These nozzles support the reactor control rod drive mechanisms (CRDMs). Staff Ex. 6; Tr. at 839.

There are a total of 69 nozzle penetrations on the reactor vessel head. Tr. at 840. Each such penetration is specifically numbered in a ring-like fashion beginning in the center of the head and proceeding in concentric circles outward. Tr. at 859-60. Thus, the higher numbered nozzles are on the periphery of the vessel head. Tr. at 860.

Above the head sits a horizontal layer of reflective metal insulation (approximately 2 inches thick) housed in a service structure, which serves to minimize the heat lost from the reactor coolant system. Staff Ex. 5; Tr. at 843.²² The top of each nozzle terminates above the insulation in a flange that supports the control rod drive mechanism housings. Each flange consists of a mechanical joint with a seal. If this seal leaks the borated reactor coolant system water could deposit itself above the insulation or on the reactor vessel head. Tr. at 848.²³

²² In other facilities, the insulation rests in contact with the reactor vessel head, not at some distance above it. Tr. at 1822; see also Staff Ex. 8 at 5.

²³ It does not take a large leak to produce fairly substantial deposits: the Staff's preliminary calculations demonstrated that a 0.001 gallon per minute leak would ultimately result in 15 pounds of boric acid build-up over an operating cycle. Tr. at 903.

The reactor vessel head itself is made of six-inch carbon steel. Tr. at 842. Because concentrated boric acid is corrosive to carbon steel (Tr. at 843), the reactor vessel, including the head, is protected internally by a corrosion barrier of stainless steel cladding (Tr. at 842).

The Davis-Besse reactor vessel head service structure contained a number of “mouseholes,” which are 5-inch by 7-inch cutouts in the service structure, each assigned a distinct number. Tr. at 843, 849, 859. The mouseholes provide access, primarily for inspection and cleaning purposes, to the outside of the reactor vessel head and to the area between the head and the insulation. Tr. at 844, 849.

B. Nozzle Cracking Issue

The CRDM nozzles are attached to the inside surface of the reactor vessel head with structural circumferential welds. The nozzles themselves, and the nickel-based alloy material used for the welds, are subject to cracking during reactor operation. Tr. at 847, 852. Such cracking typically manifests itself as a vertical, or axial, crack in the nozzles or as a crack at the weld location. Tr. at 852, 854. Although through-wall axial cracks leak, this was not of itself thought to present a major safety concern.

Such cracks in the reactor coolant pressure boundary allow the leaking borated coolant to enter the very narrow “interference fit” gap between the nozzle and the reactor head. This can have two consequences. The first, which was long-recognized and relatively-benign, occurs when pressure causes the borated solution to travel up the nozzle and, after flashing to steam as it reaches the external surface of the reactor vessel head, to deposit boric acid residue on that outer surface. Tr. at 852.

The other consequence involves a more threatening process, a process internal, rather than external, to the reactor vessel head. Specifically, the corrosive solution released by an axial crack, and thereby present in the gap between the nozzle and the head, can act upon the nozzle which it thus surrounds to generate a circumferential crack therein. Tr. at 852-53. If circumferential nozzle cracking occurs above the weld to the extent seen at another nuclear

facility (Oconee) and documented in the NRC Bulletin, or if cracking of the J-groove weld occurs, it has the potential to lead to the separation of the nozzle and the forceful ejection of the top of the nozzle, along with the control rod, from the top of the reactor vessel head. This would not only trigger a loss of coolant accident but would also decrease the degree of control of the core nuclear reaction. Tr. at 853.

Boric acid solution can also reach the outer surface of the reactor vessel head from a leaking flange. Tr. at 848, 857. As noted earlier, the top of each nozzle terminates in a flange located above the reactor vessel head and the insulation that supports the control rod drive mechanism housings. Tr. at 848. Each flange contains a mechanical joint with a seal. If this seal were to leak (not of itself a safety concern), the borated coolant can escape and deposit on the top of the insulation. Tr. at 848, 857. Occasionally, the leaking fluid will not remain above the insulation but will flow down the CRDM nozzle and deposit on the nearby part of the reactor vessel head. Because the solution is under pressure, spray from a larger flange leak could reach adjacent nozzles, thus depositing boric acid on larger areas of the reactor vessel head. Tr. at 848-49.

C. Inspections to Detect Nozzle Cracking

Inspections of the reactor vessel head, like many other maintenance activities inside the containment building at a nuclear power plant, can be conducted only while the reactor is shut down, typically during a refueling outage, or RFO. Davis-Besse operated on a two-year cycle, shutting down after that period to refuel. For ease of reference, Davis-Besse numbered its refueling outages consecutively, e.g., the 2002 refueling outage was "13RFO." Relevant to this proceeding, Davis-Besse performed and videotaped reactor vessel head inspections during 10RFO in 1996, 11RFO in 1998, and 12RFO in 2000. Staff Ex. 81 (DVD of 1996, 1998, and 2000 inspections).

During refueling, the top surface of a reactor vessel head is subject to visual inspection to identify leakage of reactor coolant containing the borated water solution. Tr. at 855. A leak in

the CRDM nozzles could result in the borated solution escaping at the interface where the CRDM nozzles penetrate the reactor vessel head. Tr. at 855. If there is such a leak, the borated solution will flash to steam where the nozzle penetrates the dome of the reactor vessel head (also known as the nozzle-to-head interface). Tr. at 855-56. This would leave behind deposits of boric acid, which would be characteristically white in color and, depending on their extent, have been described as “popcorn-like” deposits. Tr. at 856.

For the period in question, FENOC relied upon visual examinations to inspect the Davis-Besse reactor vessel head for evidence of leakage and also to support its Boric Acid Corrosion Control (BACC) Program. Tr. at 866. Davis-Besse employees performed visual inspections of the reactor vessel head by inserting a camera on a stick through the mouseholes in the service structure to view the nozzle-to-head interfaces. Tr. at 855-56, 867.

A monitor located outside the service structure provided the means for the person manipulating the camera to view the inspection in real-time. Tr. at 855. The “as-found” inspections conducted using this technique were often videotaped.

The method Davis-Besse used was affected by performance difficulties because the geometry of the domed head limited the range of access of a camera mounted rigidly on a stick. Those limitations in inspection technique precluded getting the camera in a position where the center-most nozzle penetrations could be viewed. Tr. at 855, 901. (Although, as we discuss later, the Staff did not prove that Mr. Geisen was aware of the full extent of this problem.)

The 1996 reactor vessel head inspection and cleaning during 10RFO was conducted by FENOC senior mechanical engineer for Design Basis Engineering, Prasoon Goyal. A different FENOC employee, Peter Mainhardt, a service water systems engineer for the Systems Engineering department, conducted the visual inspections for 11RFO in 1998. In 2000, for 12RFO, the visual inspections were performed by Andrew Siemaszko, who was also a systems engineer in Systems Engineering, and others (including contractors from Framatome). During these three refueling outages, Mr. Geisen had specific responsibilities in areas that were

completely unrelated to the reactor vessel head inspection and cleaning; therefore, he was not involved in any of these inspections. Tr. at 1539, 1541-42, 1545-46, 1558-60.

D. Issuance of NRC Bulletin 2001-01

Before issuing Bulletin 2001-01, the NRC had issued Information Notice 2001-05 on April 30, 2001, to alert all PWR licensees to the discovery of through-wall circumferential cracks at the Oconee nuclear power plant. Staff Ex. 29 at 1.²⁴ During an inspection at Oconee, that licensee had discovered nine degraded CRDM nozzles, which included through-wall circumferential cracks in two of the CRDM penetration nozzles and weldments. Staff Ex. 29 at 1. The Information Notice explained that the visual examination at Oconee identified the presence of small amounts of boric acid residue in the vicinity of the nine nozzles. Staff Ex. 29 at 1.

Prior to the Oconee discovery, nozzle cracking was thought to be almost exclusively axial and confined to the base materials. Tr. at 869. The Oconee findings were thus unexpected. Tr. at 869. In any event, corrosion on the reactor vessel head from boric acid deposits was not considered likely because the extremely high temperatures atop the head would result in a dry (and thus non-corrosive) environment.²⁵

Following the issuance of the Information Notice, another unit at Oconee identified circumferential cracking. Staff Ex. 8 at 3; Tr. at 1200. As a consequence, the NRC issued

²⁴ Information Notice 2001-05, Through-Wall Circumferential Cracking of Reactor Pressure Vessel Head Control Rod Drive Mechanism Penetration Nozzles at Oconee Nuclear Station, Unit 3 (Apr. 30, 2001) ("Information Notice"). Staff Ex. 29.

²⁵ Boric acid deposits on the surface of the reactor vessel head with no water source would dry out and not be a corrosion concern. The presence of such deposits on a head that averages 600 degrees Fahrenheit was therefore not expected to develop into a corrosive environment. Tr. at 1222.

Bulletin 2001-01,²⁶ addressed again to all PWR licensees, to express the agency's concern about the newly-discovered circumferential cracking at Oconee and to alert PWR licensees to what the NRC expected from them in addressing the situation. Tr. at 869. While axial cracks are relatively benign, a circumferential crack could propagate to a point where pressure inside the reactor could drive the affected nozzle out of the reactor vessel head and cause a loss of reactor coolant and an excursion in core reactivity. This event is one of the serious postulated accidents a plant must be designed to withstand; it thus receives careful study in the plant's safety analysis report.

The purpose of the Bulletin²⁷ was to generate an information-gathering exercise (with the goal of determining the status of every PWR plant) to cure NRC's lack of sufficient knowledge regarding the adequacy of previous inspections and to review whether future inspection plans were acceptable. Tr. at 1205; see also Tr. at 1220. This concern was paramount because, prior to Oconee, the consensus was that a nozzle that was leaking substantial quantities of boric acid would be readily detected and the underlying cause rectified. Tr. at 1208. Instead, the potentially significant cracks at Oconee left only very small boric acid deposits of about one cubic inch. Tr. at 1208. A significant concern was whether licensee inspections would be adequate to detect such small deposits. Tr. at 1210.

The Bulletin asked PWR licensees to rank each plant in one of three categories (high, moderate, or low) corresponding to the different degrees of susceptibility to this problem. Tr. at

²⁶ NRC Bulletin 2001-01, Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles ("Bulletin"). Staff Ex. 8. Bulletins are used by the NRC as a form of generic communication to the industry. Tr. at 1201. Unlike Information Notices, NRC Bulletins require responses by licensees. Tr. at 1201. The information the NRC receives in a Bulletin response is used on a plant-specific basis to determine if additional regulatory actions are needed by the NRC, either for the individual plant or for the industry as a whole. Tr. at 1202. At that point, NRC was issuing bulletins very infrequently: NRC Bulletin 2001-01 was the first of 2001, and was, in fact, the first bulletin that had been issued since 1997. Tr. at 1202-03.

²⁷ Prior to the issuance of the Bulletin, the NRC had held public meetings with the industry. The industry had exhibited a high interest in the issue and had evinced a desire to implement appropriate voluntary actions to forestall the imposition of NRC requirements. Tr. at 1203.

869. That susceptibility was based on the number of effective full power years (“EFPY”) of operation the plant was from reaching similar conditions to Oconee. Tr. at 870. For example, if a plant was within 5 EFPY of the Oconee service condition, it was to be placed into the “high susceptibility” category. Tr. at 870.²⁸ FENOC’s analysis categorized Davis-Besse as within 5 EFPY, thus making it a high-susceptibility plant.

In terms of remedy, the Bulletin stated that if the licensee did not plan to perform inspections before December 31, 2001, it was to “provide [its] basis for concluding that the regulatory requirements discussed in the Applicable Regulatory Requirements section will continue to be met until the inspections are performed.” Staff Ex. 8 at 12. The Bulletin did not specifically indicate, however, that licensees not satisfactorily meeting this requirement would be forced to shut down operations until more thorough inspections were completed.

Put another way, and as stated by one of the Staff’s witnesses at the hearing, the purpose of the Bulletin was to gather information; it was not to force licensee action (Tr. at 1217), but instead was to make the industry aware of methods for meeting the NRC’s expectations for future inspections (Tr. at 1254). The NRC wanted to solicit information about what licensees had done with regard to inspections, and to use that information to make regulatory decisions to prevent the type of problem discovered at Oconee.²⁹

²⁸ A plant could also be placed into that susceptibility category if it had actually experienced cracking or detected boric acid deposits. Staff Ex. 8 at 7; Tr. at 870.

²⁹ As a Staff witness explained, “the Bulletin [was] [for] gathering information. [NRC] want[ed] to find out what have licensees have done, what's the condition of their head, what are their inspection strategies going forward. This part of the Bulletin just lays out a logic path, if you will, that if you go back and review records and you find certain things, then here's a way that that information should be interpreted. We didn't want to restrict licensees from doing anything. We were just trying to figure out what information they have and what they're planning to do at this point.” Tr. at 1217.

E. Summary of Documents and Communications

The focus of this proceeding is on a series of written submissions provided to the NRC by FENOC and associated oral communications between FENOC personnel and the NRC Staff. The information in question was provided in response to NRC Bulletin 2001-01, described above. The parties agree that instead of providing complete and accurate information, FENOC's factual presentations to the NRC contained omissions and inaccuracies. Staff Ex. 77.

1. After its technical review, and before learning of any inaccuracies in FENOC's first submission (Serial Letter 2731), the NRC Staff found that submission to be inadequate to resolve the pending matters. As a result, it notified FENOC that Davis-Besse might be required to shut down operations by December 31, 2001 – two months earlier than the March 2002 date requested by FENOC to tie in with its scheduled refueling – in order to conduct additional inspections.

This notification triggered a series of phone calls, meetings, and supplemental submittals to the NRC in an effort by FENOC to provide the agency reasonable assurance that Davis-Besse could safely remain in operation until the plant's scheduled refueling outage in the spring of 2002.³⁰ The agency eventually consented to the three-month delay,³¹ for reasons that were left unexplained at our hearing.³² Summary information about the submissions to, or communications with, the agency that were the subject of the charges against Mr. Geisen is provided in **Table 1**, below.

³⁰ Enforcement Order at 2.

³¹ Id.

³² The Staff team assigned to the project urged that Davis-Besse be shut down at the end of 2001; the team was not advised as to precisely what process led to its being allowed to operate past that point, and why. Tr. at 1436-37 ("my personal belief was [] that we should not have allowed them to continue to operate . . . I cannot tell you why the NRR Office Director ultimately decided not to issue the order"); see also 1325-27, 1438.

Table 1
Submissions to or Communications with NRC

Date	Submission or Communication to NRC	Mr. Geisen's Involvement
9/4/01	Serial Letter 2731	Signed FENOC internal "Green Sheet" * 8/28/01; Signed Green Sheet* for Moffitt 8/30/01
10/3/01	Conference Call between FENOC and NRC Staff	Stated 100% of the head had been inspected for nozzle leakage except for 5-6 nozzles at the top of the head due to flange leakage.
10/11/01	FENOC Briefing of the Commissioner's Technical Assistants	Presented two slides related to prior reactor vessel head inspections that contained incorrect information.
10/17/01	Serial Letter 2735	Signed Green Sheet* 10/17/01; provided oversight of "nozzle by nozzle" table, and inserted footnote to nozzle table regarding 1996 (10RFO) inspection
10/30/01	Serial Letter 2744	Signed Green Sheet* 10/30/01; oversight of "nozzle by nozzle" table, and inserted footnote to nozzle table regarding 1996 (10RFO) inspection; wrote captions describing various photos taken from inspection videotapes
11/9/01	Advisory Committee on Reactor Safeguards (ACRS) Meeting	Answered question regarding the limitations of the 1998 (11RFO) and 2000 (12RFO) inspections

*Mr. Geisen was one of 16 signatories to the "Green Sheet" for each NRC submission. The others included eight at subordinate levels, three other plant managers at his level, three plant directors above his level, and the plant vice president. The Green Sheet instructions state that the "technical accuracy of a response to the NRC is the responsibility of the Director and Management individual assigned the action,"³³ which in no instance pointed to Mr. Geisen. Tr. at 1902-03.

2. Among the principal evidence advanced by the Staff, in its effort to demonstrate that Mr. Geisen was knowledgeable about the nozzle cracking issue discovered at Oconee prior to the submittal of Serial Letter 2731, was a series of documents ("trip reports") summarizing business trips taken by an engineer in his department, Prason Goyal. These documents – sent to Mr. Swim, with a copy to Mr. Geisen and several others – are summarized in **Table 2**, below.

³³ Staff Ex. 10 at 2, "Block 14" (emphasis added); see also Staff Ex. 12 at 2, "Block 14" and Staff Ex. 14 at 2, "Block 14."

**Table 2
Trip Reports**

Date	Author	Recipients	Content of Information Disclosed
1/30/01	Goyal	<u>To:</u> Swim, Supervisor <u>Cc:</u> Gallatin, Geisen, Hayes, Lang, LeBlanc, McDougall, Mominee	Impact of Oconee nozzle leakage identified during Oconee's last outage, including the detection of boric acid crystals on the reactor vessel head.
4/26/01	Goyal	<u>To:</u> Swim, Supervisor <u>Cc:</u> Campbell, Geisen, Lang, LeBlanc, McDougall, Myers, Mominee, Weakland	Industry response to circumferential cracking discovered at Oconee as indicated by boric acid deposits on the reactor vessel head during outage inspections.
7/12/01	Goyal	<u>To:</u> Swim, Supervisor <u>Cc:</u> Campbell, Geisen, Lang, LeBlanc, McLaughlin, McDougall, Myers, Mominee, Siemaszko, Weakland	Lessons learned from Oconee discovery, including that service structure access is needed for cleaning and inspection, that leaking nozzles produce very little boric acid, and that a clean head is needed to see leaking nozzle.
8/22/01	Goyal	<u>To:</u> Swim, Supervisor <u>Cc:</u> Campbell, Cunnings, Galetan, Geisen, Lang, LeBlanc, Lockwood, McLaughlin, Moffitt, Mominee	NRC public meeting on Bulletin 2001-01 to explain the agency's expectations for the bulletin response. Explained that the purpose of the Bulletin was to gather information to assess the potential safety significance and to determine if additional regulatory action was required.

3. To support its case that Mr. Geisen had knowledge that the Davis-Besse reactor vessel head inspections were impeded by geometric restrictions and boric acid deposits, the Staff entered into evidence certain information, including two condition reports and a photo,³⁴ all of which Mr. Geisen would have seen in 2000 during 12RFO (described in detail in our findings of fact below). It also presented a June 27, 2001 memorandum, prepared by Mr. Goyal, that was reviewed by Mr. Goyal's Supervisor, Mr. Swim, and approved by Mr. Geisen.

The Staff also submitted into evidence e-mail correspondence, again from Mr. Goyal, of which Mr. Geisen was one of the direct or a copied recipients. That e-mail correspondence is summarized in **Table 3**, below.

³⁴ See Staff Ex. 18; Staff Ex. 19; Staff Ex. 66.

Table 3
Summary of E-mail Correspondence from Goyal

Date	Recipients	Subject of E-mail	E-mail content
7/10/01	<u>To</u> : Siemaszko <u>Cc</u> : Cunnings, Swim, Geisen, Eshelman	Plant-specific data verification	Discussion of tables being created by the “industry” to collect plant specific data regarding visual inspections.
8/11/01	<u>To</u> : Swim, Geisen <u>Cc</u> : Wuokko	NRC Bulletin 2001-01 Circumferential Cracking of RV Head Penetration Nozzles	Summary of meeting held with Mr. Lockwood for identifying the actions required for completing the Bulletin response, including a commitment to conduct a 100% qualified visual examination of the head during 13RFO.
8/17/01	<u>To</u> : Fyfitch/Gray (Framatome) <u>Cc</u> : Wuokko, Geisen, Swim, Kennedy	NRC Bulletin	Directing Framatome to provide a response to certain parts of the Bulletin for Davis-Besse, including the commitment to perform a 100% visual inspection during 13RFO and to use 1998 for the crack growth model because that was when a “good head exam was done.”

Sorting through the implications and ramifications of the events and documents reflected in the foregoing three tables is a complicated endeavor, as appears in Part V of this Initial Decision. We first set out, however, in Part III, an overview of the decision that emerges from that endeavor.

III. OVERVIEW OF DECISION

We reviewed the evidence before us to determine whether to uphold the charges against Mr. Geisen contained in the Staff's Enforcement Order, which asserts that his contributions to FENOC's inaccurate and incomplete submissions to the NRC were made with a "deliberate" and "knowing" state of mind. See generally, Enforcement Order; see also 10 C.F.R. §§ 50.5(a), 50.9. We are thus called upon to determine Mr. Geisen's state of mind at the time FENOC filed the inaccurate submissions with the NRC, including the extent of Mr. Geisen's involvement in, and contribution to, those submissions. As the proponent of the Enforcement Order, the NRC Staff carries the burden of proof and must demonstrate by the preponderance of the evidence, the standard set forth by NRC precedent,³⁵ that the charges set forth in the Enforcement Order should be upheld.

The Board recognized early on that a jury verdict of guilty in the criminal case might, as a matter of law, collaterally estop Mr. Geisen from contesting any similar charges in the Enforcement Order pending before us. It has turned out, however, that the application here of the collateral estoppel principle is complicated by multiple factors (explained more fully below). The most substantial factor is the difference between the legal standard that governs here (under the terms of our regulations) and the more expansive standard that was applied in the criminal case (under the trial judge's instructions to the jury). We decline the application of collateral estoppel primarily because of this crucial difference between the two proceedings.

³⁵ One week prior to the hearing, the Board rejected Mr. Geisen's motion seeking to require that the Staff be put to a higher burden of proof by meeting a "clear and convincing" rather than "preponderance of the evidence" standard. With the precedents pointing so clearly to the appropriateness of the latter standard, the Board was unwilling to explore, on the eve of the hearing, the adoption of a standard that, while perhaps arguably supportable, would have certainly left in doubt the validity of any decision based thereon, and in any event would have been highly prejudicial to the Staff, whose counsel had by then nearly completed preparation of its case with the expectation that the preponderance of the evidence standard would apply. Our determination that the rules cannot be changed just before the start of a trial pre-sages another ruling we make herein, namely, that the rules cannot be changed after the trial is over. See below pp. 42-43.

On the merits, we have studied all the briefs and other filings, analyzed the documentary evidence we received and the oral testimony we heard, and taken demeanor credibility into account, in order to determine whether the Staff proved by a preponderance of the evidence that Mr. Geisen had knowledge, at the time these submissions were made, of the inaccuracies and omissions in the information, and whether Mr. Geisen deliberately concealed the truth. In plain language, we had to determine whether the Staff proved that Mr. Geisen lied, rather than that he was simply misinformed or mistaken.

Fundamental to our decision today is the concept that (contrary to a major assumption made by the Dissent) “knowledge” does not necessarily follow simply from previous exposure to individual facts. Instead, to have knowledge, an individual must have a current appreciation of those facts and of what those facts mean in the circumstances presented.

In the circumstance of this case, it is not just the absorption of the key facts that is in issue. Beyond knowing the existence of those facts, to be found liable for a knowing misrepresentation Mr. Geisen had to know of their significance. Crucial in this respect was that Mr. Geisen knew the Davis-Besse plant had always had a problem with leaking flanges, and had a general understanding that inspections were made more difficult – but not, in his mind, impossible – by the geometry of the head and its access ports. He also, for entirely valid and understandable reasons, believed – mistakenly, along with many others – that the reactor vessel head had been cleaned after the inspection in 2000, and this influenced some of what he represented to the NRC.

In sum, Mr. Geisen filtered incoming facts against this always limited, and sometimes mistaken, knowledge base, and was slow to recognize that the new facts that he did absorb heralded a new era of problems. But without such recognition, he did not attain the degree of “knowledge” sufficient to establish guilty misrepresentation – rather than innocent mistakenness fueled by disinformation coming from his co-workers and elsewhere within the company.

Thus, the question before us is not whether Mr. Geisen could have done a better job or should have known that – or should have taken steps to determine whether – the information being provided to the NRC was inaccurate or incorrect. Rather, the question was whether the Staff has proven that he had actual knowledge, at the time the submissions were made, that the information being provided was false and that he deliberately acted contrary to that knowledge.

Mr. Geisen persuasively argued and established that looking at the situation with the benefit of hindsight – as the NRC Staff did in formulating and defending its Enforcement Order – tends to introduce a biased perspective on the evidence. We have therefore taken some care to view the evidence in the situational context that existed when it was created, so as to avoid a “hindsight” mindset in trying to understand fully not only Mr. Geisen’s frame of mind, but also that of his superiors, his subordinates, and even the NRC regulators reviewing the information in question at that time.

Having done so, and viewing the evidence in light of the charges in the Enforcement Order and the content of FENOC’s submissions to the NRC, we find that the Staff did not prove the charges it brought against Mr. Geisen by a preponderance of the evidence, and thus failed to establish that he engaged in deliberate misconduct. The charges against him were not generalized in nature, but instead concerned specific pieces of information that Mr. Geisen, purportedly knowing of their inaccurate and incomplete nature, still concurred in submitting to the NRC. Insofar as Mr. Geisen was concerned, we find that FENOC’s submissions, although later stipulated to be false, were not contradictory to his then-understanding of the relevant situation and information. In making those determinations, it was crucial to our analysis of the evidence to recognize where hindsight could be prejudicial and context could be informative.

Much emphasis and focus were placed on FENOC’s first response to the Bulletin, and in that regard the Staff did not prove by a preponderance of the evidence that Mr. Geisen acted knowingly as to any erroneous information contained therein when, at the last minute, he merely concurred in the submittal of Serial Letter 2731. Mr. Geisen was not involved in the

development and preparation of that response, which was a 25-page single-spaced document responding to various technical issues requested by the Bulletin, with input provided by a number of personnel from various departments and coordinated by a contractor hired by the Regulatory Affairs Department for that specific purpose.

Moreover, some of the information contained in that submission, although later stipulated to be false, would not have appeared plainly inaccurate or incomplete to someone in Mr. Geisen's role, which was merely to sign the "Green Sheet" along with 15 others. Those 15 included not only four other plant managers at his level and three plant supervisors (some of whom had direct management responsibility for the reactor vessel head inspections), but also and more importantly, eight at a subordinate level, several of whom had been directly involved in the preparation of Serial Letter 2731 and personally involved in prior inspections of the reactor vessel head at Davis-Besse.

Furthermore, Mr. Geisen's department – Design Basis Engineering – was not responsible for the reactor vessel head inspections; therefore, and notwithstanding the Enforcement Order's specific reliance on this proposition,³⁶ he was also specifically *not* "the FENOC manager responsible for ensuring the completeness and accuracy" of the content in Serial Letter 2731 in this regard. See Staff Ex. 10 at 2, "Block 14" (emphasis added); see also Tr. at 1902-04.³⁷ Instead, we can discern from the evidence that he was being asked, in essence, only to sign off that nothing in the letter was inconsistent with his department's knowledge or policies.

The Board was not provided with any evidence that would connect Mr. Geisen to Serial Letter 2731 in any way prior to his signing the Green Sheet. Nor, based on what we learned at

³⁶ Enforcement Order at 7-8.

³⁷ The Systems Engineering Department was responsible for the reactor vessel head, including the inspections and cleanings of that part of the plant, and would therefore have been responsible for the technical information in Serial Letter 2731 in this regard. See Tr. at 1033 (inspections were performed by systems engineers); 1668 (Systems Engineering "owned the head").

the hearing, would we expect that any such evidence exists. Given Mr. Geisen's involvement in other pressing matters during the period of time that Serial Letter 2731 was being prepared, and given that its content did not involve matters that were his responsibility, there would be no plausible reason for him to have diverted his attention to the response at that time.

More specifically, the Bulletin was issued in August of 2001, when Mr. Geisen was preparing for two projects critical to the plant and to his career: (1) the INPO inspection scheduled for the next month, and (2) the upcoming outage which, although six months in the future, had attached to it imminent advance deadlines, requiring his department – Design Basis Engineering – to have all its plant modification packages in order, so that those charged with procuring the necessary equipment and services would have sufficient lead time to do so. This is why he saw Serial Letter 2731 only in its final version at the end of August, and why for the entire month of September he had nothing to do with the Bulletin response. This also fully explains why he did not view it as a top priority, while managing his in-box, to read or to focus on an assertedly key document – the so-called “Gibbs Report” addressed to his supervisor and affecting the work of a different department – that the Staff would charge him with knowledge of.

To further its position that Mr. Geisen was aware of the misrepresentations in Serial Letter 2731, the Staff put forward evidence that it claims establishes that Mr. Geisen had viewed videotapes of the past inspections at Davis-Besse as early as August of 2001. Specifically, the Staff introduced the typed version of abbreviated handwritten notes taken in March of 2002 by Jack Martin, reflecting a 20-minute interview of Mr. Geisen. Mr. Martin's notes – not intended to be a verbatim record of an interview that was being conducted for other purposes – state that Mr. Geisen told him that awareness that the reactor vessel head had not adequately been cleaned arose from “review[ing] the videos of the inspections while preparing for the NRC interactions in August, 2001.” Staff Ex. 63.

After hearing their testimony and observing their demeanor, we find that both Mr. Martin and Mr. Geisen were credible witnesses, and both of them presented (Mr. Geisen orally,

Mr. Martin through the document) what they reasonably believed were truthful accounts of what was said during the interview. We conclude, however, that Mr. Martin's abbreviated notes were understandably mistaken, as they contradict critical facts stipulated or proven to be true. On the evidence before us, it is clear that Mr. Geisen first became involved in the company's interactions with the NRC about the Bulletin at the beginning of October, 2001. Thus, the Board majority finds unequivocally that the Martin document can not serve to establish that Mr. Geisen viewed the past inspection videotapes in August of 2001. This is important, because not having seen those videotapes, he could not draw upon them to question the information being presented to the NRC.

As to that topic, Mr. Geisen had the general view that the information requested by the Bulletin was forward-looking, which is how the nuclear industry, including other employees at Davis-Besse, viewed the Bulletin at the time it was issued. In other words, as a Staff witness confirmed was appropriate, instead of reviewing the additional responses to the Bulletin as a means to prove the past inspections were "acceptable," he was focusing instead on where those inspections might have been lacking, providing a plan to the NRC as to how future inspections would meet future regulatory requirements for reactor vessel head inspections, and looking to results of new analyses to provide the assurances needed to keep the plant in operation. Mr. Geisen was assigned to oversee these new projects, and it was that effort that created in him the legitimacy of trying to persuade the NRC to allow the plant to keep operating until that time.

At the beginning of October, Mr. Geisen was suddenly tasked as a member of a response team to answer discrete questions posed by the NRC Staff in on-going discussions, questions that were not within his areas of expertise but about which he was more knowledgeable than other team members. The evidence establishes that he based his answers on information he then believed was sound, in that he knew it had been provided by others who had been, or still were, directly involved in the relevant activities. For example, the evidence

indicates that Mr. Geisen continually depended on information provided to him by Mr. Siemaszko, the seemingly most qualified individual at Davis-Besse regarding past inspections of the reactor vessel head. Yet the OI's detailed investigation into FENOC's Bulletin responses consistently labeled that information as false. (Mr. Siemaszko, whose appeal is also pending from a conviction by a federal criminal jury that did not receive the "willful blindness" instruction, has recently dropped his challenge to the NRC's Enforcement Order against him.³⁸)

From this perspective, the Staff did not advance evidence to demonstrate that Mr. Geisen knew the statements he made during the October 3 conference call or the October 11 meeting with the Commissioner's Technical Assistants were false. Then, when Mr. Geisen realized, after participating in one conference call and one in-person meeting with NRC officials, that information he was providing or had provided was erroneous, he made an immediate attempt to correct the errors. That attempt, pursued in accordance with company guidelines as to who is allowed to communicate with the NRC,³⁹ confirms for us the validity of Mr. Geisen's claim that he was not knowledgeable of the earlier mis-statements when they were made. What followed, although perhaps appearing to be a comedy – or rather, a tragedy – of errors, is fully explicable, not as continuing misconduct but as continuing misunderstanding, fueled by a continuing flow of misinformation.

Finally, the Staff did not provide sufficient evidence to support two critical points upon which the Staff and the Dissent rely heavily. First, the evidence does not demonstrate that Mr. Geisen knew that Davis-Besse's inspection method was incapable of viewing some of the nozzles on the reactor vessel head. Instead, Mr. Geisen testified that he understood that the method presented difficulties, but not that it was entirely ineffective in achieving its purposes.

³⁸ See Andrew Siemaszko, LBP-09-11, 70 NRC ___, ___ (2009) (slip op. at 1).

³⁹ The Staff's attempt to downgrade Mr. Geisen's corrective efforts because he followed company policy, rather than federal regulations, in the manner in which he presented those corrections was unavailing for purposes of our fact-finding in this proceeding. See Tr. at 1946-52.

Certainly, the evidence does not demonstrate that Mr. Geisen understood what turned out to be the fact, i.e., that up to 14% of the nozzles could not be viewed. See Dissent at 28. Second, the testimony presented at the hearing, from Mr. Geisen and others, confirmed that he believed that the boric acid deposits that had accumulated on the reactor vessel head, of which he was aware, were from flange leakage.

With an understanding that the above represented Mr. Geisen's mindset, the Board reviewed again the submissions to the NRC and did not find that they were inconsistent with these aspects of what Mr. Geisen believed, particularly in later submittals (i.e., Serial Letters 2735 and 2744). That any errors in those submissions were inadvertent is substantiated by their other aspects, which in both tabular and illustrative form provided an account of each nozzle as well as a summary of the number of nozzles that could not be viewed, specifically during the 1998 and 2000 inspections. It was not until an NRC Staff expert (Melvin Holmberg) was tasked with reviewing this information in great detail (taking 58 hours to do so) that the vast mischaracterizations in those submissions – prepared on the basis of information provided by persons other than Mr. Geisen – were revealed.

No evidence presented to the Board proved to us that Mr. Geisen was aware of the severity of the boric acid accumulations on the reactor vessel head. He testified that he knew there were boric acid deposits on the head (from flange leakage), he was aware that the then-current inspection method presented difficulties, and he knew that a new type of analysis – the so-called crack-growth model – would be a more reliable method for making a case to the NRC for allowing Davis-Besse to continue operating until its next rescheduled outage.

In this regard, and notwithstanding the extensive investigation that OI conducted of over thirty of Mr. Geisen's co-workers at Davis-Besse – a number of whom ended up cooperating with the Government – not a single one was put on the stand to testify that he had observed Mr. Geisen engage in any conduct during the period in question, or heard him utter any words during the NRC interactions (or any concessions after the discovery of the corrosion cavity), that

would have established a basis for finding that he had greater knowledge than he asserts that he had.

The presence of evidence of that nature would have spoken forcefully about the state of Mr. Geisen's knowledge. Its absence likewise speaks loudly – the investigation apparently did not reveal a single co-worker who, based on his observations of, or interactions with, Mr. Geisen, saw any conduct or heard any words that were incriminating.

In light of the legal principles that govern us (see Part IV, below) and the detailed findings we make (see Part V, below), we cannot adopt the NRC Staff's theory that Mr. Geisen had knowledge of the falsity of the statements for which he is charged and, in disregard of that knowledge, engaged in a wrongful attempt to deceive the NRC. We therefore set aside the Enforcement Order as unsupported by a preponderance of the evidence.

IV. GOVERNING LEGAL PRINCIPLES

A. Nature of Review and Burden of Proof

We review the NRC Staff's Enforcement Order de novo⁴⁰ and determine on the basis of the hearing record whether the charges are sustained and the sanction imposed is warranted.⁴¹ The NRC Staff's role at a hearing in an enforcement proceeding is "akin to that of a prosecutor," and it has the burden to prove its allegations "by a preponderance of the reliable, probative, and substantial evidence."⁴² In order to prevail, then, in establishing that Mr. Geisen's actions constituted a violation of 10 C.F.R. § 50.5(a)(2), the Staff was called upon to demonstrate by a preponderance of the evidence that he had actual knowledge of the information associated with his actions and that he deliberately acted contrary to that knowledge. 10 C.F.R. § 50.5(a)(2); see also Tr. at 2031; Tr. at 2028-29 (Staff confirms that "actual knowledge" is the standard to be applied in this case).

Mr. Geisen agreed to a joint stipulation of facts that the submissions to the NRC upon which the Enforcement Order was based were inaccurate and incomplete (and were material to the NRC's work). Thus, what remained for adjudication concerned Mr. Geisen's knowledge at the time the statements related to these submissions were provided, and, if he were found to have engaged in deliberate misconduct, the appropriateness of the sanction imposed.⁴³

Specifically, as has been seen in Table 1 above, the Enforcement Order charged that Mr. Geisen made the alleged false statements in three documents and during three conversations as follows:

- "Serial Letter 2731," September 4, 2001, FENOC initial response to the Bulletin;
- Conference Call, October 3, 2001, between FENOC personnel and NRC Staff;

⁴⁰ See Atlantic Research Corp., ALAB-594, 11 NRC 841, 849 (1980).

⁴¹ See Radiation Tech., Inc., ALAB-567, 10 NRC 533, 536 (1979).

⁴² Id. at 536-37, citing 5 U.S.C. § 556(d); see also Revisions to Procedures to Issue Orders; Deliberate Misconduct by Unlicensed Persons, 56 Fed. Reg. 40,644, 40,673 (Aug. 15, 1991).

⁴³ Collateral Estoppel Motion at 3.

- Meeting, October 11, 2001, with NRC Commissioners' Technical Assistants;
- "Serial Letter 2735," October 17, 2001, a supplement to FENOC's initial Bulletin Response;
- "Serial Letter 2744," October 30, 2001, an additional supplement to FENOC's initial Bulletin Response; and
- Meeting, November 9, 2001, response to question from Advisory Committee on Reactor Safeguards (ACRS).

We organize our detailed analysis and findings of fact (Section V.B) to evaluate the specifics of each such charge that the Staff lodged against Mr. Geisen.

B. Misconduct and Knowledge Standards

The Staff's Enforcement Order charges that Mr. Geisen violated 10 C.F.R. § 50.5(a)(2). That regulation provides that an employee of a licensee may not "deliberately submit to the NRC . . . information that [he] knows to be incomplete or inaccurate in some respect material to the NRC."⁴⁴

Deliberate misconduct within the meaning of this regulation refers to "an intentional act or omission" that the person "knows" would cause a licensee to be in violation of any rule. See 10 C.F.R. § 50.5(c)(1). In this regard, the Staff's practice is to determine that deliberate misconduct occurs only when a person is knowledgeable about information associated with his actions and willfully and deliberately acts in contradiction to that knowledge. Tr. at 2026. Thus, careless disregard in the execution of one's duties does not amount to deliberate misconduct or a violation of 10 C.F.R. § 50.5(a)(2). Tr. at 2027-29; see also Tr. at 2032 (a deliberate misconduct violation requires a deliberate action). Therefore, as the Staff interprets it, the

⁴⁴ Enforcement Order at 4, 14-15. The Order also found that Mr. Geisen's actions caused FENOC, the licensee, to violate 10 C.F.R. § 50.9.

element of “actual knowledge” must be present to sustain a charge of deliberate misconduct under the NRC’s regulations. See Tr. at 2028-29.

An inquiry into an individual’s “actual knowledge is entirely factual, requiring examination of the record.”⁴⁵ This is especially critical in this proceeding, where, as is common in others of this nature, the record is devoid of direct evidence to establish knowledge (e.g., a defendant’s admission, or documents drafted by the defendant that include representations entirely inconsistent with what he had written elsewhere), and instead is built upon circumstantial evidence alone. The issue then becomes the quality of circumstantial evidence sufficient to give rise to a finding that the person charged actually knew the information.⁴⁶

With this in mind, the evidence at the hearing confirmed the common-sense view that not every document, whether paper or electronic, processed by an individual in a position like Mr. Geisen’s gets the same level of attention. But, as the evidence here showed, the degree of attention paid to a document initially can later be a strong determinant of the extent to which a person can later recall the contents of, and therefore can be said to have “knowledge” of, that particular document.⁴⁷

Thus, an individual’s later recall of the contents of any document will turn on several factors, including (1) the effort, or lack thereof, that the worker put into its creation or application;

⁴⁵ Ziegler v. Connecticut General Life Ins. Co., 916 F.2d 548, 553 (9th Cir. 1990).

⁴⁶ Establishing a party’s actual knowledge requires showing more than that a party had a suspicion “that something was awry.” Brock v. Nellis, 809 F.2d 753, 755 (11th Cir. 1987). Thus, constructive knowledge (that is, knowledge of facts sufficient to prompt an inquiry which would have uncovered the misrepresentations) is not actual knowledge. Gluck v. Unisys Corp., 960 F.2d 1168, 1176 (3rd Cir. 1992); see also Radiology Center, S.C. v. Stifel, Nicolaus & Co., 919 F.2d 1216, 1222-23 (7th Cir. 1990) (district court erred in using constructive knowledge because the law required actual knowledge).

⁴⁷ This is in contrast to cases involving, for example, contracts or tax returns, where an individual is legally bound to know the contents of a document by the mere existence of his or her signature thereon. Cf. United States v. Olbres, 61 F.3d 967, 971 (1st Cir. 1995) (jury may infer that a taxpayer read his return and knew its contents from the bare fact that he signed it under penalty of perjury); Clyde A. Wilson Intern. Investigations, Inc. v. Travelers Ins. Co., 959 F.Supp. 756, 763 (S.D. Tex. 1997) (citing Upton v. Tribilcock, 91 U.S. 45, 50 (1875) (one who signs a contract is presumed to know its contents)).

(2) the need, or lack thereof, for the worker to have responded to the document in the course of employment; and (3) the significance, or lack thereof, of the information in the document to those tasks assigned to the worker that are viewed as having higher priority or greater significance than others.

Looked at another way, there are at least three levels of activity that might affect later recall. The highest recall involves a document that the worker either drafts initially or plays a significant role in redrafting or editing. Such documents, in common experience, are highly likely to become embedded in memory such that, when matters touching on them later arise, knowledge and recall follow naturally.

Next in the hierarchy would be documents that, although not created by the worker, ask that the worker respond to them or take action based upon them. Again, the level of thought necessary to perform those tasks tends to enhance later recall.

Lowest in the hierarchy are those documents that require only a “sign-off” or, even less, are just “FYI.” These, while of interest at the moment they are in front of a worker, are frequently processed in passing, and tend not to be subject to later recall at the level of those in the other categories. Similarly, the longer and more abstruse a document is, the less likely that any specific aspect of it will later be recalled.

Throughout the course of this decision, we evaluate documents that came before Mr. Geisen through this prism. The evidence as to a document’s genesis, audience, and purpose helped establish how significant those documents were to Mr. Geisen’s work and how

important – or likely – it was that he would absorb their contents so that he would remember them when addressing future matters.⁴⁸

C. Collateral Estoppel

On November 17, 2008, the Staff filed a motion requesting that the Board utilize the doctrine of collateral estoppel to apply the guilty verdict on the underlying facts of Count 4 in the criminal case to establish the validity of the Staff's parallel charge, and only that charge, that Mr. Geisen knowingly provided inaccurate and incomplete information to the NRC in Serial Letter 2744.⁴⁹ In this regard, the Staff notes that the Enforcement Order's charges relevant to Serial Letter 2744 turn upon facts identical to those underlying Count 4 of the criminal indictment.⁵⁰ No other count of the criminal indictment upon which Mr. Geisen was found guilty had a direct counterpart in the Staff's Enforcement Order.⁵¹

Prior to the Staff's submission of its collateral estoppel motion, counsel for Mr. Geisen communicated to the Staff his intent to contest such a motion on the ground that the trial judge in the criminal case gave the jury a "deliberate ignorance" instruction, which involved a "fundamentally different theory of [Mr. Geisen's] potential liability than the Staff's [Enforcement

⁴⁸ We found it instructive to recognize that if, independent of the principle just stated in the text, a person can be charged – as always, in *retrospect* – with knowledge of a particular sentence in a document he once saw, then looked at *prospectively* – i.e., at the time the document first came to his attention – he is subject to being later held accountable for every sentence in that document, and, for that matter, for every word in all the documents that ever came before him. For at the time he first examines a document, he has no inkling of what will later be viewed as a crucial fact that he will be held to have "known." This cannot be the rule, yet the Dissent never comes to grip with this analytical conundrum, preferring instead to rely on one version or another of the overly simplistic "he saw it, so he knew it."

⁴⁹ Collateral Estoppel Motion at 1.

⁵⁰ Collateral Estoppel Motion at 3, 6-7.

⁵¹ For example the indictment's Count 3, on which he was found guilty, involved Serial Letter 2741, not covered by the Enforcement Order. And certain charges in the Enforcement Order were not the subject of the criminal indictment. As to the charge in the Enforcement Order involving Serial Letter 2735, that was covered by the indictment's Count 2, of which Mr. Geisen was acquitted.

Order].” Tr. at 635; see also Tr. at 634-35, 691. On November 26, 2008, Mr. Geisen filed a response opposing the Staff’s motion on this ground, among others.⁵²

1. The Procedural Background

The Board recognized early on (Tr. at 354-55 (Nov. 14, 2006 Oral Argument)) that the collateral estoppel principle might have a bearing on the present case.⁵³ Specifically, we acknowledged the theory that the jury verdict of guilty in the criminal case could, as a matter of law, estop Mr. Geisen from contesting the merits of any of the charges in the Enforcement Order pending before us that mirrored the criminal charges on which he was found guilty. This would follow because the “beyond a reasonable doubt” standard of proof the Government (i.e., DOJ) had to meet in the criminal case was even higher than the “preponderance of the evidence” standard the Government (i.e., the NRC Staff) would have to meet in this administrative proceeding.

As we examined the matter with the aid of the parties, however, it became clear, well before the start of our hearing, that the application of the collateral estoppel principle would not be as simple as first envisioned. See, e.g., Tr. at 633-38. Its application became complicated by multiple factors, including (1) the fact that only one of the counts of the criminal indictment that had resulted in guilty verdicts had a counterpart charge in the Enforcement Order (see above notes 13, 51); (2) the difference between the substantive standards of guilt that govern here (under the terms of our regulations), and the more expansive standards that were applied in the criminal case (under the trial judge’s instructions to the jury); (3) the jury’s routine rendering of a general verdict in the criminal case, rather than of a special verdict that might have allowed us to isolate the influence of the expanded standard in the jury instructions (see Tr. at 691); and (4) the pendency of an appeal of the criminal conviction.

⁵² See Opposition to Collateral Estoppel Motion.

⁵³ See also Licensing Board Order (Calling for Briefs) at 2 (June 30, 2008) (unpublished) [hereinafter June 30 Order].

Against that background, especially because the reach of any collateral estoppel we might invoke would not cover the entire case, we chose not to make an advance ruling that would, rather than eliminate our evidentiary hearing, only limit its scope – we feared this could perhaps lead to inefficiencies and delays at the hearing as counsel sparred over whether particular pieces of evidence were barred by that scope ruling. See Tr. at 730. Instead, we took briefs on the issues surrounding the application of collateral estoppel, and carried those issues with the case for later resolution. These issues also became the subject of post-trial briefing and argument. See Tr. at 725, 730-31, 760; see also Tr. at 2393-98.⁵⁴

We now address the matter. As we explain, several factors prompt us to exercise our discretion not to apply the collateral estoppel principle to any of the issues before us.

2. The Nature of the Doctrine and the Role of Discretion

Collateral estoppel is a form of issue preclusion that prevents “the relitigation of issues of law or fact which have been finally adjudicated by a tribunal of competent jurisdiction in a proceeding involving the same parties or their privies.”⁵⁵ As a general matter, collateral estoppel may be applied in administrative adjudicatory proceedings.⁵⁶ In order to apply collateral estoppel and to preclude the relitigation of an issue, four factors must be present:

(1) the issue sought to be precluded must be the same as that involved in the prior action; (2) that issue must have been actually litigated; (3) it must have

⁵⁴ The entire evolution of the collateral estoppel debate can be found in the following documents and discussions: June 30 Order; NRC Staff Response to the Board's Order (July 7, 2008); Brief of David C. Geisen in Response to Board's Order Dated June 30, 2008 (July 7, 2008); Tr. at 633-38 (Pre-trial Conference Call, July 21, 2008); Tr. at 690-92, 701-06, 716-17, 724,26 (Pre-trial Conference Call, Oct. 23, 2008); Staff Motion for Collateral Estoppel (Nov. 17, 2008); Opposition to Collateral Estoppel Motion; Tr. at 745-47 (Pre-trial Conference Call, Nov. 26, 2008); Tr. at 760-61 (Pre-trial Conference Call, Dec. 4, 2008); Tr. at 2028 (Evidentiary Hearing, Dec. 12, 2008); NRC Staff Response to Board Questions (Jan. 30, 2009); David Geisen's Response to the Board's Questions (Feb. 9, 2009); Tr. at 2393-98, 2433-36 (Post-hearing Oral Argument, Mar. 3, 2009).

⁵⁵ Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 561 (1977).

⁵⁶ Id. at 562-63.

been determined by a valid and final judgment; and (4) the determination must have been essential to the prior judgment.⁵⁷

For our purposes, the first of these factors is the crucial one: collateral estoppel applies only if an issue determined in the criminal proceeding is identical to one in front of us.⁵⁸

Even where all of the factors are met, however, the application of collateral estoppel by the subsequent tribunal is to some degree a discretionary matter.⁵⁹ Thus, we are given some leeway to consider the existence of other considerations that could outweigh the jurisprudential reasons for applying the doctrine.⁶⁰

There are three such considerations before us that provide ample reason not to apply the doctrine to preclude re-litigation here of the Government's charges concerning Serial Letter 2744 (which contains the only charges that are the "same" as those on which Mr. Geisen was

⁵⁷ Houston Lighting & Power Co. (South Texas Project, Units 1 and 2), LBP-02-20, 6 NRC 563, 566 (1979), aff'd ALAB-575, 11 NRC 14 (1980).

⁵⁸ In applying collateral estoppel principles, the question is not whether the subsequent tribunal believes that the prior tribunal correctly decided the issue at hand; rather, if all factors of the doctrine are met, collateral estoppel comes into play. See Davis-Besse, ALAB-378, 5 NRC at 563-64 and n.7; see also Private Fuel Storage (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 173 (2002).

⁵⁹ See Parklane Hosiery Co. v. Shore, 439 U.S. 322, 331 (1979), granting courts (and by extension administrative tribunals) *broad discretion* to determine when collateral estoppel should be applied, at least (1) when, as here, it is sought to be used offensively (i.e., against a defendant), and particularly (2) where the doctrine could be applied only in a one-way direction in that the non-movant would not have been able to use the doctrine had he prevailed in the previous litigation (which was exactly Mr. Geisen's situation, for he could not have used a verdict of "not guilty" in the criminal case to estop the Staff here, given the Government's higher standard of proof – beyond a reasonable doubt v. by a preponderance of the evidence – in the criminal case).

⁶⁰ Private Fuel Storage, LBP-02-20, 56 NRC at 182 ("an exception to this customary practice occurs when broad public policy considerations or special public interest factors are involved such that an agency's need for flexibility outweighs the reasons underlying this repose doctrine so as to favor relitigation of a particular issue"); Davis-Besse, 5 NRC at 563 n.7 (making clear that "overriding competing policy considerations" can provide discretion to "withhold the application of collateral estoppel," but noting that no such considerations had been shown to exist there). In sharp contrast to that situation, here the delay factor's crucial role in blocking the fair administration of justice is both a public policy consideration and a special public interest factor virtually requiring that we find the flexibility to avoid further delay, which as we explain herein we have attempted to do.

found guilty in the criminal case⁶¹). Those considerations are: (1) the pendency of the appeal of the criminal court judgment; (2) the questions over the equivalence of the “knowledge” standard that governed the jury to the standard applicable in this administrative proceeding; and (3) the possibility that the jury verdict was internally inconsistent.

3. The Discretionary Factors

a. The Pendency of the Appeal

Ordinarily, as the Dissent points out, the pendency of an appeal need not preclude reliance upon the lower court’s decision being appealed to estop relitigation of the same matter in another forum.⁶² Under that generally useful view, the potentially duplicative and unnecessary litigation in the second forum does not take place while the appeal is pending, but if the appeal later proves successful – thus invalidating the original judgment upon which collateral estoppel had been based – then the litigation in the second forum is allowed to proceed.⁶³

There might be many circumstances in which such an efficient approach would be entirely workable, and acceptable to both parties, if the estoppel ruling covered the whole case and neither party was hurt by the ensuing trial delay. But that is not the only way to proceed,

⁶¹ Although, as we see it, the Dissent treats the case as though it were otherwise, the Enforcement Order’s six charges against Mr. Geisen involved specified activities, and the state of his knowledge must be addressed that way, not in generalized fashion.

⁶² Southern Pacific Communication Co. v. American Tel. & Tel. Co., 740 F.2d 1011, 1018 (D.C. Cir. 1984) (collateral estoppel may be applied even while judgment is pending on appeal), citing Huron Holding Corp. v. Lincoln Mine Operating Co., 312 U.S. 183, 189 (1941).

⁶³ Davis-Besse, ALAB-378, 5 NRC at 563. The Dissent’s suggestion (at 5-6) that the pendency of an appeal has no effect on a judgment’s finality might be true as far as it goes, but in the collateral estoppel context the question is not as simple as the Dissent would have it. As the Dissent (at 6 n.5) suggests, if the appeal is successful, the party against whom the principle had been invoked could then apply for appropriate relief. The Dissent does not mention in that regard the delay that would thus have ensued, although avoiding such delay would seem crucial to the sound administration of justice in a proceeding in which lengthy delay (in obtaining review of the charges) is already at the heart of a controversy concerning the immediate effectiveness of the sanction imposed (see Part VI.B, below).

and – in view of the already problematic delay factor (see below pp. 38, 39, and Part VI) – it seemed clearly not the way to proceed here.

A different approach would emerge from heeding the D.C. Circuit’s warning that “care should be taken in dealing with judgments that are final, but still subject to direct review,” so as to avoid “the risks of denying relief on the basis of a judgment that is subsequently overturned.”⁶⁴ To avoid those risks, the knowledgeable commentators Wright & Miller recommend that a court inclined to apply collateral estoppel based on a judgment that is subject to appeal may want to avoid the question by staying the case pending the appeal.⁶⁵

In the matter before us, neither approach would do justice in the circumstances, where the five-year employment ban has inexorably been having its impact on Mr. Geisen while the wheels of justice grind. The standard approach, had we adopted it before trial, would have had us bar the relitigation of the narrow issue in question, conduct the trial with limited scope, render a decision, and – if the appeal were later successful – re-open the matter to allow Mr. Geisen to present evidence on the previously barred matter.⁶⁶ Under the Wright & Miller approach, we would have stayed the case entirely.

As may be seen, under either approach the one constant would be further delay, delay that would work to Mr. Geisen's disadvantage. Once again, he has been banned from pursuing his career since January 4, 2006, so within 16 months he will have served his entire five-year

⁶⁴ Martin v. Malhoyt, 830 F.2d 237, 264 (D.C. Cir. 1987).

⁶⁵ See 18A Fed. Proc. & Prac. Juris. 2d, § 4433.

⁶⁶ Because we conducted the trial subject to the motion, we would now have to – if we agreed with the Staff’s motion – sort through the evidence to determine which of it should not be considered, then render a decision on the remaining evidence on the other charges, which decision would accompany a conclusion that the Staff case on Serial Letter 2744 was established by collateral estoppel. Had we instead applied the doctrine last fall and conducted our hearing as one of limited scope so as not to be relitigating the matters that the Staff sought to preclude (even though the correctness of the prior resolution was on appeal), we would have faced two problems. Not only would scope issues then have plagued us in determining the admissibility of evidence related to the intertwined communications and charges before us, but we would also have run the risk, if the pending appeal were successful, of later having to reconsider and relitigate some of what had already transpired before us.

punishment. Every additional unnecessary delay brings more to the fore the maxim “justice delayed is justice denied.” This matter needs to be finally decided before it becomes any more moot than it now is. Hence, a powerful discretionary factor points us toward the most practical remedy: eschew collateral estoppel, look at the facts *de novo*, and render one decision that conclusively covers the entire case.

In contrast, the Dissent’s approach (at n.5) to resolving the problem presented by the pending appeal of the criminal conviction elevates legal theory over practical considerations.⁶⁷ The Dissent’s approach would add more delay to a case in which the burden of that delay – and of all the delays that have gone before – has been inequitably borne by one party, and one party alone, namely, through Mr. Geisen’s long-standing inability to obtain a ruling on whether he can return to his chosen career.

By ignoring this factor, the Dissent is even able to say (*id.*) – as though it were true – that there are “no ‘overriding’ public policy consideration[s]” that dictate against the application of collateral estoppel.⁶⁸ But, as promised above (pp. 36-37), we discuss at length in this Section three such considerations. Further delay in the resolution of a person’s right to work is what was at stake in this respect here, which is why there is such irony in the Dissent’s notion (*id.*) that it is the Majority’s views that would generate “corrosive disrespect” for adjudicatory tribunals.

In sum, the desirability of avoiding any further delay in our reaching a final merits determination is the key discretionary factor counseling non-reliance upon the collateral estoppel principle (even if that doctrine otherwise appeared applicable), based on a judgment subject to a pending appeal that has not yet been set for oral argument and is thus unlikely to

⁶⁷ This same elevation of legal theory over practical realities affects the validity of the Dissent’s lengthy analysis (at 12-14) of “deliberate ignorance” as a proxy for knowledge. Whether or not that analysis can withstand scrutiny, it has no place in a case like this one, where the fact pattern simply does not bring the proxy theory into play.

⁶⁸ See also, Dissent at 19, asserting that “no countervailing interest militates against” application of collateral estoppel.

be decided in the short term. The use of discretion also plays a role in determining whether the doctrine would apply at all, the subject to which we now turn.

b. The Differences in the Respective “Knowledge” Standards

The complexity of the issues and facts underlying both the Staff’s Enforcement Order and the jury verdict in the criminal case raises at least a question as to whether the issues essential to the prior judgment are the same as those before us. As we see it, the law regarding “knowledge” applied in the criminal case was not the same as the law we are to apply here. The Dissent disagrees. While we think the question not even a close one, the existence of any question at all would cause us to invoke our discretion not to preclude full litigation of the charges pending before us.

The jury’s guilty verdict in the criminal case came after it received a set of instructions that included a “deliberate ignorance” theory. Specifically, the district court instructed the jury that it could convict Mr. Geisen of the charges if it found he had deliberately ignored the potential for falsity in the statements provided in the submissions and presentations to the NRC.⁶⁹

In presenting its motion, the Staff flatly and unmistakably conceded that the “deliberate ignorance” theory is not embraced within the “deliberate misconduct” standard that governs our

⁶⁹ “Next, I want to explain something about proving a defendant’s knowledge. No one can avoid responsibility for a crime by deliberately ignoring the obvious. If you are convinced that a defendant deliberately ignored a high probability that the submissions and presentations to the NRC concealed material facts or included false statements, then you may find that he knew that the submissions and presentations to the NRC concealed material facts or included false statements. But to find this, you must be convinced beyond a reasonable doubt that the defendant was aware of a high probability that the submissions and presentations to the NRC [concealed] material facts . . . or included false statements and that the defendant deliberately closed his eyes to what was obvious. Carelessness, or negligence, or foolishness on his part is not the same as knowledge and is not enough to convict.” Transcript of Record, U.S. v. Geisen, DOCKET NO. 3:06-CR-712 at 2239-39 [hereinafter Crim. Tr.].

proceedings.⁷⁰ As to the merits of this test, the Staff never wavered from this concession.⁷¹ It would seem to follow inexorably that we would have to refrain from adopting the collateral estoppel doctrine here because the "deliberate ignorance" instruction is more favorable to the Government than is the NRC regulatory standard.⁷² But two reasons why the existence of this difference is not determinative are being urged upon us, the first by the Dissent, the second by the Staff.

i. The Dissent's Reasoning

As we read the Dissent, it articulates a belief that the deliberate ignorance instruction, properly understood, is essentially no different from the deliberate misconduct standard.⁷³ In support of this position, the Dissent presents authorities that assertedly stand for that proposition. Whatever may be said of that proposition ordinarily, this hearing before us was guided by the Staff's concession to the opposite effect in its moving papers. To counter that compelling point, the Dissent argues that the Staff changed that position at the end of the case.

The Staff's Unchanged Position. On that latter score, at the post-trial oral argument, the Staff was asked a series of questions concerning whether the judicial and agency "knowledge" standards were essentially the same, ostensibly for purposes of collateral estoppel (as we shall

⁷⁰ See Collateral Estoppel Motion at 23 ("Staff acknowledges that the 6th Circuit deliberate ignorance instruction does not meet the NRC's deliberate misconduct standard, and instead would be classified as careless disregard.").

⁷¹ See, e.g., Tr. at 2028-29. The Dissent's late-developing disagreement with the Staff as to the law applicable to the merits of this case, while perhaps interesting to explore in future matters, is entirely irrelevant here, given the theory on which the charges were based and tried.

⁷² See Collateral Estoppel Motion at 23.

⁷³ The reader should not be lulled into thinking that this controversy about the definition of "knowledge" is relevant only to the application of collateral estoppel. As we see it, the Dissent's view of the law concerning the attribution of knowledge for collateral estoppel purposes gets carried over into its evaluation of the merits of the Staff's charges. This approach – albeit rejected by the Staff as impermissible here – appears to underlie the Dissent's evaluation of the evidence and its attribution to Mr. Geisen of culpable "knowledge" about the details of the communications that came to him. This seems to us to be the actualization of the same danger the courts have warned about – i.e., that the concept of "should have known" will improperly influence the fact-finder's determinations on "actual knowledge."

see, there is a danger here, if that view were to be accepted, of having it at least implicitly affect as well the “knowledge” standard that governs the merits of the case, a danger to which the Dissent’s reasoning appears to have fallen victim⁷⁴). The Staff commendably did not take that opportunity to change its position (see Tr. at 2396-98), having previously not done so either at the evidentiary hearing or in its post-hearing written response to the Board’s written questions.⁷⁵ The Staff disavowed any notion of reliance upon a theory that deliberate ignorance is the equivalent of deliberate misrepresentation.⁷⁶

In light of what the Staff wrote and said, reflected in the record references above, we disagree with the Dissent’s interpreting the Staff’s steadfast oral and written refusal to agree with its analysis as an endorsement thereof. Perhaps it is because the Staff declined the invitation in diplomatic and guarded fashion,⁷⁷ that the Dissent asserts that the Staff did change its position. See Dissent at 17-18.

The Dissent then goes on to use that last-minute (asserted) changed position to bolster its collateral estoppel analysis. Id. at 19. In other words, even though it seems plain to us that the Staff would not concede that it had changed its position, the Dissent asserts that the Staff

⁷⁴ We could have devoted far less attention to this matter had it affected only the application of collateral estoppel, given the nature of the Staff’s concessions here which, once again, coming from the “prosecutor,” cannot be undone by a Board, post-hearing, to the detriment of the person contesting the charges. The reason we discuss the matter at such length is to avoid having the Dissent’s theories about the “knowledge” standard improperly carry over to influence analysis of the merits.

⁷⁵ NRC Staff Response to Board Questions at 1-4 (Jan. 30, 2009) [hereinafter Staff Response to Questions]; see also Licensing Board Order (Concerning Oral Argument) at 1-2 (Feb. 25, 2009).

⁷⁶ We note that the Staff did not “waive” that position. See Dissent at 17. Instead, upon full consideration, the Staff disavowed that position throughout, including at the very end. See below note 78.

⁷⁷ See, e.g., Tr. at 2397, which reads:

JUDGE HAWKENS: So you are disavowing the applicability of collateral estoppel to the deliberate ignorance theory or you are not taking a position on it?

MS. SEXTON: We’re not taking a position. We’re saying that instead of trying to equate both theories to each other just look at the facts and in this case the facts point to actual knowledge.

has indeed taken a changed position, proceeds to uphold that illusory position, and then relies upon it to reach a result with which we disagree.

Before we address the merits of the Dissent's legal analysis, we note that, as far as the merits of the case are concerned, even if the Staff had changed its position, it would have come too late to be allowable: the debate about the nature of the Staff's position on the respective agency and judicial standards regarding knowledge came after all the evidence had been adduced. Thus, even had the Staff been inclined to change its position on the merits of the "knowledge" standard that controls this case, it would have been too late to do so, because that change – broadening the standard under which Mr. Geisen could be held liable here – would have sufficiently altered the theory of the case to have been unfair to Mr. Geisen, whose evidentiary presentations had been tailored to the Staff's original theory (see above note 35, regarding the consistency of this approach).⁷⁸

⁷⁸ In contrast, Mr. Geisen did shift his position at one point, but very early on. Specifically, he gave a short-lived indication, upon the expiration of the stay and the resurrection of this proceeding, that the criminal verdict had foreclosed our considering questions of "guilt," leaving us to consider only the matter of "sanctions." See Geisen Response to June 30 Order at 4. As we explored that matter during the prehearing phase, however, it became clear that the guilt/sanctions dichotomy was a false one (Tr. at 631-32), and that even if the collateral estoppel doctrine were broadly applicable in theory, there were serious and complex questions about how it could and should be applied in practice (Tr. at 633). At the same time, Mr. Geisen developed a theory, based on the expansive nature of the criminal trial's jury instructions, about why collateral estoppel was not applicable at all. See generally, Opposition to Collateral Estoppel Motion.

The Board and the parties wrestled with these questions, which eventually led to the Staff and Mr. Geisen negotiating a long, detailed and complex stipulation of facts to govern our proceeding. Staff Ex. 77. At no point in that lengthy process did the Staff object to the evolution that had transpired in Mr. Geisen's thinking and theories, and the entire trial preparation and presentation were conducted upon the premise that, apart from the stipulation, the Staff had to establish by evidence – not by collateral estoppel – all the elements of its case. Tr. at 687.

To be sure, the Staff continued to press – in essence in the alternative – for the application of collateral estoppel to establish particular elements of its case. Tr. at 2395. In doing so, however, it specifically and unmistakably acknowledged that the agency's regulatory test for "knowledge" was not as expansive as the one that, by way of the jury instructions, had governed the criminal case. Collateral Estoppel Motion at 23. The Staff's alternative arguments essentially became that (1) we should apply collateral estoppel because it was plain the jury had based its verdict on actual knowledge; and (2) quite apart from collateral estoppel, the Staff had by its evidence proven actual knowledge in our proceeding. Tr. at 2397.

That acknowledgement of the existence and applicability of the more limited “knowledge” standard here guided both parties in their presentation of evidence, including cross-examination, and also guided the Board’s questioning.⁷⁹ In that regard, for reasons that were repeatedly explained but need not be rehearsed here (see generally above note 66), the Board carried the Staff motion regarding collateral estoppel with the case, thinking that would be a more efficient way to proceed without affecting either party’s procedural rights or substantive presentations.

The Dissent’s Asserted Authorities. On the merits, the Dissent makes what appears to be an eloquent case in support of the position it believes the Staff adopted. The authorities it cites do not, however, take account of the holdings of a number of courts that have addressed the practicalities, not just the theories, of the situation. Their holdings serve as a reminder of why Justice Holmes said that “the life of the law has not been logic, it has been experience.”⁸⁰

In this regard, the Dissent labors to establish that the “willful blindness” or “deliberate ignorance” corollary simply explains a way of acquiring the “knowledge” upon which accountability is based, and thus does not expand on the agency requirement that such knowledge exist for a violation to be found. There are two major problems with this reasoning.

⁷⁹ The Dissent expresses (at n. 11) a misplaced belief that a Staff decision at or after the close of the hearing to change its litigating position on the central substantive legal issue in the case – the one to which all its evidence had been tied – would not have come too late. In support of that belief, the Dissent relies, incorrectly, on the proposition that Mr. Geisen had been given the opportunity to respond to the Staff’s position at each juncture. To be sure, Mr. Geisen has been given the opportunity to respond on the *collateral estoppel* question every time it was considered – but the related *substantive knowledge* issue that can so dramatically affect the merits (see above notes 73, 74) arose after the trial had been concluded; and unfairness would arise were it allowed now to control when the shaping of the evidence at trial involved a different “knowledge” standard. This is why we noted earlier at such length that the “knowledge” issue is not just a matter that affects collateral estoppel – it goes to the entire case. The Staff knows that, which is why in the final analysis (NRC Staff Response to Board Questions at 2-4) it stated what it believed the two cases were about so simply and elegantly, without any reliance upon the Dissent’s late-breaking theory, which the Staff concedes is inconsistent with our regulations.

⁸⁰ Oliver Wendell Holmes, Jr., The Common Law 1 (1881).

In the first place, the instruction given by the district court has its place, and thus sees frequent usage in drug possession cases where the defendant purports not to know, for example, what is in the package someone asked him to deliver in secretive fashion.⁸¹ Where the fact pattern is not of that or of an analogous nature, however, a number of courts have held that giving that instruction creates a serious danger of misleading the jury (see below).⁸²

On this point, the Dissent points to the warning jurors are also routinely given (and were given here) that the added instruction is not intended to allow them to base guilt on negligence or carelessness. Indeed, there is a Sixth Circuit decision indicating that the warning is sufficient to legitimize the instruction.⁸³

That reasoning ignores, however, that the risk of confusion is compounded in a case where there is no evidence presented that fits the “willful blindness/deliberate disregard” fact pattern.⁸⁴ We cannot speak to the precise nature of the evidence that was before the district court jury, but we can say there was no such evidence put before us, and presumably the Government’s presentations in the two proceedings were not greatly dissimilar.

⁸¹ See, e.g., United States v. Heredia, 483 F.3d 913 (9th Cir. 2007) (en banc) (defendant found driving car with strong scent used to mask marijuana odor); United States v. Asubike, 564 F.3d 59 (1st Cir. 2009) (defendant in possession of briefcase full of heroin); United States v. Orij-Nwosu, 549 F.3d 1005 (5th Cir. 2008) (defendant in possession of heavy suitcase containing concealed canisters of cocaine); United States v. Wilson, 503 F.3d 195 (2nd Cir. 2007) (defendant made residence available for manufacture and distribution of illegal drugs).

⁸² The Sixth Circuit “harmless error” cases upon which the Dissent relies (at 17) – to support its view that the controversial instruction is commonly used – actually prove two other, more crucial points: the Sixth Circuit is increasingly focusing on (1) problems caused when (as here) the evidence does not support the use of the deliberate ignorance charge (United States v. Ross, 502 F.3d 521, 528 (2007)); and (2) the difference (which the Dissent labors to establish does not exist) between deliberate ignorance and actual knowledge (United States v. Rayborn, 491 F.3d 513, 521 (2007)).

⁸³ See United States v. Mari, 47 F.3d 782, 785 (6th Cir. 1995).

⁸⁴ The Dissent’s reliance (at 15-16) on the warning the district court included in its jury instructions is misplaced for two reasons. The first, once again, is that its legal analysis to the effect that the warning “forecloses the possibility” of a problem ignores the practical impact the “deliberate ignorance” instruction might have had here. The second is that the Dissent does not come to grips with the more recent Sixth Circuit ruling calling the legal theory into question in particular cases.

Be that as it may, the second problem is even more compelling: independent of the state of the record, a number of other courts, including the Sixth Circuit at a later date, have expressly cautioned against the use of the expansive instruction, even with the warning attached, because of its *per se* risk of instilling confusion.⁸⁵ We are of course in no position, and have no authority, to express a direct opinion on the legitimacy of the jury verdict and whether it was a product of such confusion as those courts warned about. We can observe, however, that we were informed that the jury provided comments to counsel post-trial indicating that the “deliberate ignorance” instruction had led them to believe that Mr. Geisen “should have done” a better job.⁸⁶

Of course, sorting that out for purposes of whether the conviction can stand is, again, a matter for the Sixth Circuit on direct appeal.⁸⁷ But even if such possible deficiencies are not of

⁸⁵ See, e.g., United States v. Springer, 262 Fed.Appx. 703, 706 (6th Cir. 2008) (“[s]uch an instruction should be used with caution to avoid the possibility that the jury convict on the lesser standard that the defendant should have known his conduct was illegal.”) (emphasis in original), citing United States v. Rivera, 926 F.2d 1564, 1571 (11th Cir. 1991) (danger of “such an instruction in an inappropriate case is that juries will convict on a basis akin to a standard of negligence”); see also United States v. Barnhart, 979 F.2d 647, 652 (8th Cir. 1992) (“despite the instruction’s cautionary disclaimer, there is a possibility that the jury will be led to employ a negligence standard and convict a defendant on [an] impermissible ground.”), and see id. at 651 (instruction can “reliev[e] the government of its constitutional obligation to prove the defendant’s knowledge beyond a reasonable doubt”) (internal quotations omitted); United States v. Wofford, 560 F.3d 341, 352 (5th Cir. 2009) (“[w]here the mens rea required for conviction is that the defendant act “knowingly” or “willfully,” a deliberate ignorance instruction creates a risk that the jury might convict for negligence or stupidity, i.e., that the defendant should have been aware of the illegal conduct); United States v. Wasserson, 418 F.3d 225, 237 (3rd Cir. 2005) (instruction must be tailored to “avoid the implication that a defendant may be convicted simply because he or she should have known of the facts of which he or she was unaware”).

⁸⁶ See Opposition to Collateral Estoppel Motion at 4 n.1; Defendant’s Memorandum in Aid of Sentencing at 11, United States v. Geisen, No. 3:06CR712 (N.D. Ohio 2008).

⁸⁷ The fact that all members of the Board agree that the issue of jury confusion “is a matter for the Sixth Circuit on direct appeal” (Dissent at n.9) does not eliminate the existence or alter the impact of the three public policy considerations that, individually and in total, give us the discretion not to apply collateral estoppel here: (1) there is a colorable appeal pending; (2) there is at least a serious issue as to whether the same “knowledge” standard was applied in both cases; and (3) there is an issue about jury confusion that is within our discretion to consider, for collateral estoppel purpose, even if it proves insufficient to upset the verdict on the merits.

sufficient weight to warrant a reversal there, the existence of all these questions nonetheless appears sufficiently colorable, indeed weighty, to provide another discretionary reason not to apply collateral estoppel principles to preclude litigation of the similar matter pending in our forum.⁸⁸

On that score, given the extensive concern federal courts have exhibited (see above note 85) over the legitimacy of the expanded instruction,⁸⁹ we believe that its use in the criminal case – when it is not embraced by our regulations – makes the two proceedings sufficiently different that the ruling in the one cannot be binding in the other.⁹⁰ And, even if application of collateral estoppel were permissible in these circumstances, it would not be required, and we

⁸⁸ The central flaw in the Dissent’s deliberate ignorance theory is that it operates in the academic or theoretical world. Thus, the Dissent (at 13) inexorably conflates deliberate ignorance and actual knowledge, notwithstanding the practical differences between the two concepts that have led to judicial recognition of their confusion-inducing potential. Because of this acknowledged risk of confusion, little stock can be put in the Dissent’s glib but insubstantial assurance (at 12 n.7) of what the jury was “well aware” of.

⁸⁹ The Dissent’s reliance (at 12) upon the Model Penal Code’s definition of “knowledge,” and (at 14) upon a modest mention in a Supreme Court footnote (Leary v. United States, 395 U.S. 6, 46 n. 93 (1969)), to confer legitimacy on its position is misguided. To be sure, that Code indicates that “knowledge is established if a person is aware of a high probability of its existence,” but this is followed immediately by the exception “unless he actually believes that it does not exist.” This exception, seemingly highly relevant to the facts before us, was not included in the instructions to the criminal court jury, but the Dissent – which throughout presents a number of highly controversial thoughts as though they were incontestable propositions – dismisses (at 12) the absence from the jury instruction of this important Model Penal Code exception as “not altering the conclusion.” That ipse dixit ignores that the assertedly inconsequential exception would appear, instead, to be at the heart of the controversy that was before the district court.

⁹⁰ Once again, this is not a case in which an alleged drug runner disclaims knowledge of what is in the package he is delivering, and a finding of a “high probability” that he knew would fit the fact pattern, while any disclaimer would be inherently lacking in credibility. Instead, the entire basis of the defense here was that, upon close analysis, it can be established that Mr. Geisen “actually believe[d] that” the information he was submitting was true. See Model Penal Code above note 89. Either he knew it was false, or he believed it was true – on the evidence presented, “high probability” had nothing to do with it and thus should not be employed in our decision-making process. See U.S. v. Barnhart, 979 F.2d at 652 (indicating “there is no doubt that there was evidence of either actual knowledge or no knowledge on [the defendant’s] part,” but dismissing other evidentiary theories relating to deliberate ignorance). The Staff essentially acknowledges as much; its argument is that collateral estoppel applies for a different reason (and that if it does not, the evidence presented to us supports its assertion that Mr. Geisen had actual knowledge). See above note 77.

would exercise our discretion not to apply it here – again, to win on direct appeal, Mr. Geisen might need to show that the expanded instruction actually tainted the jury verdict, while he need here only raise a legitimate concern that it did so (see also, similarly, the discussion of the possibility of an inconsistency in the jury verdict, discussed below). Taking our guidance from the decisions cited above, we have a sufficient degree of such concern that, if all we had before us were the Dissent’s theories, we would decline to rely upon collateral estoppel to foreclose litigation of the similar matters before us.⁹¹

ii. The Staff’s Argument

The Staff has a different reason why the doctrine might nonetheless still be useful here. Its argument is essentially that there was sufficient evidence for the jury in the criminal trial to have convicted on the deliberate misconduct standard (without falling back on the deliberate ignorance corollary), and that we should recognize that to be the case.⁹² Were we to do so, goes the argument, collateral estoppel would preclude Mr. Geisen from having the opportunity to contest here any like charges to which the same standard applied.

The Staff’s argument may be legitimate in theory but it does not work in practice. It might have worked had the jury rendered, rather than the usual general verdict it announced, a

⁹¹ The Dissent’s discussion of waiver attempts to work around the Staff’s refusal to adopt the Dissent’s expanded concept of “knowledge” that the Staff believes is not embraced by the agency’s governing regulations. By citing a number of judicial decisions indicating that courts have the discretion to overlook waiver of the assertion of collateral estoppel principles, the Dissent appears to be asserting (at 17-21) that the Staff merely “waived” reliance on the “deliberate ignorance” theory. Once again, the Staff did not inadvertently waive this theory – it deliberately and steadfastly, from beginning to end, disclaimed this theory as legally impermissible on the merits.

⁹² This Staff position points up the one valid conclusion – a very important one – that can be drawn from the Dissent’s reliance on the deliberate ignorance corollary. Specifically, the Dissent would not have to rely on the deliberate ignorance theory if it had real confidence in its belief that the Staff had proven that Mr. Geisen in fact had actual knowledge. The Staff says that is what its case is about, but the Dissent apparently does not believe to a high probability that the Staff succeeded in its proof.

special verdict indicating in some fashion the legal theory it applied to reach any findings of guilt. But the jury was not asked to provide any “special or particularized findings . . .” of that nature.⁹³

Accordingly, it is not apparent on the face of the verdict whether the jury found that Mr. Geisen knowingly concealed information from the NRC in submissions and presentations, or whether the jury went in another direction based on the deliberate ignorance instruction (or, for that matter, whether – as indicated in the post-trial meetings with counsel – it convicted on an impermissible “should have known” theory). Had there been a special verdict, our task in applying the Staff’s theory might have been an easy one. But with the jury not being asked to render such a verdict, the Board has insufficient guidance available from which to determine whether the jury conviction was premised on Mr. Geisen having had actual knowledge, or on Mr. Geisen having been deliberately ignorant. The prior conclusion would support a finding of deliberate misconduct under our regulations; the latter would not, as the Staff conceded.⁹⁴

We would, therefore, be left to conduct our own analysis to determine if the Staff’s theory can be applied here. In a less complex case, it might be a matter of only minor difficulty to ferret out that, in light of the evidence presented, a jury verdict could be clearly read as embracing one, but not another, of the prosecution’s theories. But this is not a simple case, and the threads of evidence that make up the story of the nature of Mr. Geisen’s involvement and knowledge are difficult to follow. We have studied them for a long time in order to reach our judgment. The jury had much less time to do the same; without a special verdict to guide us, we would not deign to interpret the jury’s thinking.⁹⁵

⁹³ Collateral Estoppel Motion at 8; cf. Fed. R. Civ. P. 49.

⁹⁴ See Collateral Estoppel Motion at 23.

⁹⁵ Like us, courts have been reluctant to take on such a task. See, e.g., Barnhart, 979 F.2d at 653 (refusing to indulge in the Government’s view as to what was “obviously one plausible interpretation of the jury’s thought processes” when “on the other hand” there was another theory as to what “the jury may have found,” and thus holding that because, inter alia, of “the risks associated with an improperly tendered willful blindness instruction,” erroneous use of the instruction – in a case where the evidence did not support it – was not harmless error beyond a reasonable doubt). It is one thing, on a motion to set aside a verdict, to examine a record to

In short, the fact that the original judgment is subject to alternative interpretations provides reason to exercise our discretion not to apply collateral estoppel. The Staff argues that such a challenge is easily overcome by our conducting a realistic and rational examination of the record in the criminal case to determine whether a reasonable jury could have grounded its verdict on any basis other than that asserted by the Staff as having been the controlling issue.⁹⁶ Using this approach, the Staff maintains that the Board will find "no rational evidence to support a different finding," and therefore, collateral estoppel should apply.⁹⁷

We do not agree. For the Board to determine that the jury's verdict was based on Mr. Geisen knowingly providing materially inaccurate and incomplete information to the NRC in Serial Letter 2744 (Count 4) would require us to perform a thorough examination of the evidence underlying the Government's case in the criminal trial. But performing such a duplicative examination is precisely what application of collateral estoppel is intended to prevent. If we must re-examine the issue one way or another, it makes more sense to do it on the evidence presented to us than on the evidence presented elsewhere.

There are other reasons to reject the Staff's position that we should be able to determine, or at least intuit, that there was ample evidence for the jury to have found Mr. Geisen guilty on the deliberate misconduct standard. In the first place, as appears from our discussion of the merits below, we do not believe that the evidence before us shows that the Government

determine whether, taking everything in the light most favorable to the government, there was sufficient evidence upon which a reasonable jury could have based a conviction; it is an entirely different matter to conclude affirmatively – for harmless error or collateral estoppel purposes, looking at the evidence from the perspective of the defendant opposing the doctrine's application – and without speculating, that a jury must have adopted one of two competing theories.

⁹⁶ See Collateral Estoppel Motion at 11 (citing Otherson v. Dep't of Just., Immigr. & Naturalization Serv., 711 F.2d 267, 274 (D.C. Cir. 1983). In accordance with Otherson, to determine whether to apply collateral estoppel to a general verdict, a trial judge is to "examine[] the record of the prior trial in detail to see if the [jury] might have disbelieved some aspects of the acts charged" Otherson, 711 F.2d at 274.

⁹⁷ Collateral Estoppel Motion at 11.

(here, the NRC Staff) met that substantive standard as to Serial Letter 2744, even under the relaxed procedural standard of “preponderance of the evidence.”

Second, there is some question about whether the guilty verdicts delivered by the jury were based on inconsistent and conflicting findings. We discuss that now, as the third factor which causes us to determine that collateral estoppel would be inappropriate here.

c. The Possibility of an Internally Inconsistent Jury Verdict

The Staff posits that the jury convicted Mr. Geisen on all counts that contained charges relating to knowledge acquired after October 17, 2001 (the date of the submittal of Serial Letter 2735, about which the jury acquitted Mr. Geisen).⁹⁸ This would explain the Indictment’s Count 3, involving Serial Letter 2741 submitted to the NRC on October 30, 2001; it would do as well for Count 4, with the jury’s theory for that count being that Mr. Geisen was found to have knowingly provided the information, stipulated by the parties to be incorrect and inaccurate, in Serial Letter 2744, which was also submitted to the NRC on October 30, 2001. See Staff Ex. 13.

But the jury acquitted Mr. Geisen on Count 5, which alleged that Mr. Geisen knowingly made a false statement through the submission of Serial Letter 2745, which was submitted to the NRC just a day after the two earlier submittals, i.e., on November 1, 2001. See Criminal Indictment at 14. Serial Letter 2745 included language nearly identical to that contained in the earlier Serial Letter 2744 that formed the basis for Count 4 of the indictment, upon which Mr. Geisen was convicted. See id. at 14.

The Staff avers that these facially inconsistent verdicts are easily reconciled, upon review of the evidence advanced by the Government at trial, owing to the placement of the inaccurate statement in Serial Letter 2745 in such a location that the jury was likely to attribute

⁹⁸ Id. at 19. The Dissent concedes (at 10) that the jury was not convinced “beyond a reasonable doubt” of the state of Mr. Geisen’s knowledge “prior to October 17, 2001.” We can certainly understand that, since we are not convinced to even a preponderance of the evidence of the state of his knowledge before or after that date.

the statement as “something other than a factual assertion.”⁹⁹ But we have no basis in the record to determine whether or not that postulate is supported. Instead, the possibility that the jury reached inconsistent verdicts offers another reason not to apply collateral estoppel here.¹⁰⁰

The Dissent asserts that the acquittal on Count 5 can be explained by the district court’s refusal to let DOJ present key evidence related to that count. The Dissent even says (at 9), as though it signifies something important, that it must take as true the Staff’s “undisputed representation” to that effect. But the Dissent reads far too much into the Staff’s representation about the limitations placed on what the prosecution could present. For, consistent with what the Staff fairly represented, the only evidence that DOJ was precluded from introducing on this score involved the potential health and safety consequences of the threatened nuclear plant accident to the populace, information that the court thought might be prejudicial in inflaming the jury and was not probative of the matters before the court¹⁰¹ – or to us. Thus, the Dissent’s reliance on the Staff’s “unopposed representation” about the rejected evidence implies that far more significance should be attributed to the excluded material than it will bear.

In sum, none of that material is probative of the key matter: what did Mr. Geisen know about the central subject of Serial Letter 2745? As to the indictment’s Count 5, the jury must have concluded “not enough.” But it had reached the opposite conclusion about essentially the same material that underlay an earlier count.¹⁰² It is of course not for us, but rather for the Sixth Circuit, to determine whether those two verdicts are necessarily inconsistent. For our purposes,

⁹⁹ Collateral Estoppel Motion at 20.

¹⁰⁰ The Dissent’s suggestion (at 9) in this regard that one tribunal should not “blithely” conclude that another tribunal’s jury acted irrationally is of a piece with the Dissent’s insistence that we are required to presume that juries follow the instructions they are given. These propositions may well be true as a general matter, but the presumption embodied in them becomes less credible and less compelling in circumstances where a number of Courts of Appeals have warned against giving certain instructions because of their inherent tendency to sow confusion.

¹⁰¹ See United States v. Geisen, 2007 WL 1452729, at *1 (N.D. Ohio May 15, 2007).

¹⁰² Thus, the Dissent is wrong to assert (at 10) that “there is no question” that the jury necessarily made a particular factual determination, because that conclusion disregards the other portion of the jury verdict that per se calls that “unquestionable” result into question.

the colorable possibility that an inconsistent verdict was rendered provides us another discretionary reason not to use the collateral estoppel doctrine to foreclose Mr. Geisen's opportunity to litigate the substance of a count of the indictment insofar as it appears before us in a counterpart charge in the Enforcement Order.

Each of the three factors discussed above, standing alone, provides sufficient grounds to eschew collateral estoppel in the circumstances of this case. Taken together, they virtually mandate that we exercise our discretion along those lines.¹⁰³

The Staff disavowed the applicability here of the expansive standard used in the criminal case and by the Dissent. Thus, whatever may be said of the merits of that standard, it has no place here, either for purposes of invoking collateral estoppel or for evaluating Mr. Geisen's conduct.

Put another way, the Staff brings the charges that frame our review of enforcement orders. Boards should not be in the position of upholding Staff enforcement orders on legal theories that (1) the Staff did not and does not embrace and (2) in any event do not fit the circumstances of the case before them. With the collateral estoppel principle inapplicable, our job is just this: to ascertain whether the Staff has presented evidentiary facts that fit the legal theories it did advance and thus has demonstrated that Mr. Geisen engaged in the misconduct charged in the Enforcement Order. We now turn to that question.

¹⁰³ The Dissent (at 19) places a theoretical concern about the "corrosive disrespect" that allegedly stems from relitigation, above Mr. Geisen's intensely practical – but assertedly "insubstantial" – interest in that re-litigation. But we have already seen that there are several factors that militate against viewing his interest as insubstantial, including the serious question – which the Dissent dismisses out of hand (at 20) – about whether Mr. Geisen had a "full and fair opportunity to litigate" the very same issue in the criminal proceeding, where he was saddled with the deliberate ignorance theory which even the Staff says has no place here.

V. DETAILED ANALYSIS AND FINDINGS OF FACT

In this part of our decision, we provide the factual detail underlying the Board majority's decision in this case. We first provide, in Section A, a very brief recitation of the identity and roles of the witnesses whose live and transcribed testimony came before us. Section B provides a detailed account of our findings as to what the evidence establishes, and does not establish, regarding each of the six charges and related events; those findings form the basis for the Summary of Findings in Part VII.B, and lead to some of the Conclusions of Law that follow in Part VII.C.

A. Witnesses

In support of the charges alleged in its Enforcement Order, the Staff (1) presented the live testimony of four individuals and (2) submitted excerpts from transcripts of the testimony of two other individuals that was given during Mr. Geisen's criminal case. The live witnesses at our hearing were: Melvin Homberg, a Reactor Inspector for the NRC in Region III, Tr. at 832; Allen Hiser, a Branch Chief for the NRC in the Steam Generator Tube Integrity and Chemical Engineering Branch of the Office of Nuclear Reactor Regulation (Tr. at 1196); Prasoon Goyal, a former Senior Mechanical Engineer at Davis-Besse (Tr. at 1018); and John Martin, a former Regional Administrator for the NRC and current owner of an engineering and consulting company that focuses on nuclear safety issues (Tr. at 1472-73). Transcripts of previously-presented testimony came from Stephen Moffitt, former Technical Services Director in the Engineering Department of Davis-Besse, a role that made him Mr. Geisen's supervisor (Staff Ex. 70, 74 at 1196); and Gregory Gibbs, former owner of Piedmont Management & Technical Services, Inc., which provided consulting services primarily to nuclear plants in the Midwest (Staff Ex. 44, 75 at 815).

The Staff also called Kenneth O'Brien, an NRC Region III Enforcement Officer involved in the development and issuance of the enforcement action against Mr. Geisen, as a witness to testify about the sanctions imposed as a result of the Enforcement Order. Tr. at 2009. At the

Board's request, the Staff additionally called James Leuhman, former Deputy Director for the Office of Enforcement, to provide historical information concerning the imposition of sanctions in other enforcement actions. Tr. at 2250-51.

The defense presented Mr. Geisen as a witness, Tr. at 1535. Under an agreement between the parties, the Staff's cross-examination of Mr. Geisen was not limited to the subjects covered in his direct testimony, but included as well subjects of inquiry the Staff would have elicited on direct had it presented him as its own ("hostile") witness. See Tr. at 749-50, 1396.

B. Findings of Fact

The inaccuracies and misrepresentations in FENOC's responses to the Bulletin and related correspondence were primarily associated with the condition of the reactor vessel head as viewed during prior inspections. Specifically, the Staff asserted that the prior reactor vessel head inspections were hindered by limitations that were not disclosed by FENOC in its submissions or representations to the NRC.

First, the geometry of the reactor vessel head limited the inspections: the domed-shape head did not allow the rigid stick used to hold the camera to have straight-line access from the mouseholes to the nozzles at the top of the head. Thus, the camera was unable to view the entire area of interest.

Second, the inspections were hindered by the presence of boric acid deposits on the reactor vessel head.¹⁰⁴ Each of the inspections from 1996 to 2000 revealed such accumulations in increasing amounts.¹⁰⁵ Davis-Besse employees associated this boric acid accumulation, however, not with cracks at the head-nozzle interface, but with the plant's history of leaks in the flanges at the top of the nozzles (independent of the head-nozzle interface) that are often the

¹⁰⁴ When leaked coolant contacts the extremely hot reactor vessel head, the water flashes to steam, leaving behind boric acid deposits.

¹⁰⁵ Among its supporting exhibits, the Staff presented inspection videos. During the hearing, the Staff showed the Board portions of the 1996 as-found inspection, the 2000 as-found inspection, and the 2000 cleaning video. Staff Ex. 81; see also Tr. at 825.

source of these types of deposits. During the Davis-Besse refueling outage in 2000 (12RFO), FENOC scheduled maintenance in a full-scale effort to fix the leaking flanges and to clean the reactor vessel head to rid it of all existing boric acid deposits.

FENOC failed to disclose much of this information, and the extent of the boric acid accumulation, in its submittals to the NRC. After the corrosion cavity was discovered at Davis-Besse during the 2002 refueling stage, both the NRC and the DOJ held FENOC accountable for these incomplete and inaccurate submittals, with the two agencies fining the company approximately \$5 million and \$28 million, respectively.

As already indicated, however, this case requires us to focus on the conduct and knowledge of Mr. Geisen, not those of FENOC. Accordingly, our findings of fact focus on Mr. Geisen's activities and understanding leading up to, and involved in, the events in question.

1. FENOC's Initial Response to Bulletin 2001-01 (Serial Letter 2731)

a. Mr. Geisen's Involvement in Serial Letter 2731 (September 4, 2001)

FENOC's initial response to the Bulletin (Serial Letter 2731) was drafted by a group of engineers whose efforts were coordinated by Rodney Cook, a contractor working with the Licensing Group (also referred to as "Regulatory Affairs") whose services were engaged for this purpose. Tr. at 1123-24. Mr. Geisen was not a member of Mr. Cook's team and was not involved in drafting Serial Letter 2731. Tr. at 1123; Staff Ex. 71 at 1861; Staff Ex. 74 at 1276.

Prasoon Goyal, Andrew Siemaszko, and Rodney Cook were assigned to draft a response to item "1.d" of the Bulletin, which requested a description of the plant's previous nozzle and reactor vessel head inspections during the past four years, including a description of any limitations, structural or otherwise, on those inspections. Staff Ex. 8; Tr. at 1124.

Mr. Goyal, a Senior Mechanical Engineer, was a plant expert on reactor vessel head nozzle circumferential cracking issues. Tr. at 1595; Staff Ex. 75 at 1273. He was a member of the B&W Owner's Group Materials Committee, which dealt with nozzle cracking issues. Tr. at 1018-19. He was involved in conducting the reactor vessel head inspection during 10RFO in

1996. Tr. at 1023. He also reviewed and disposed of a condition report related to the 11RFO head inspection in 1998, which was performed by Peter Mainhardt. Tr. at 1061-64. On both occasions, he was not yet under Mr. Geisen's supervision (see below note 118).

Mr. Siemaszko, an engineer in the Systems Engineering group (which Mr. Geisen was neither part of nor responsible for), participated in the inspection and cleaning of the reactor vessel head in 2000. Staff Ex. 18, 19. At the time the Bulletin was issued and Serial Letter 2731 was prepared and submitted, Mr. Siemaszko was the FENOC employee with primary responsibility for the reactor vessel head. Tr. at 1692.

The FENOC team that was assembled to respond to the Bulletin exchanged multiple versions of potential responses and developed specific language for inclusion in Serial Letter 2731. Geisen Ex. 1-11. The evidence presented at the hearing established that Mr. Geisen did not receive relevant e-mail correspondence concerning, or review drafts of, Serial Letter 2731, nor was he included in any discussions regarding either the development or the accuracy of the language included in those drafts. See Geisen Ex. 1-11; Tr. at 1129-30, 1636-38.

In addition, at the time the initial Bulletin response was being prepared, Mr. Geisen was completely preoccupied with significant managerial responsibilities unrelated to the Bulletin. These included (1) implementation of a comprehensive design basis engineering department improvement program; (2) an upcoming (September 2001) Institute of Nuclear Power Operations (INPO) re-evaluation that was extremely important not only to the company in terms of safety but also to Mr. Geisen in terms of job performance rating (as reflected in admonitions from his vice president, Mr. Campbell) (Tr. at 1621-29);¹⁰⁶ and (3) oversight of modification

¹⁰⁶ The Board takes official notice of the importance with which INPO evaluations are viewed in the nuclear industry. INPO was established following the March 1979 accident at the Three Mile Island nuclear power plant, to "work to help the nuclear industry achieve the highest levels of safety and reliability" through what is in essence a peer review process seeking to spread "best practices" in the industry to all plants. See <http://www.inpo.info/AboutUs.htm> (accessed May 28, 2009). Mr. Geisen also testified that the outcome of the INPO evaluation in September was dispositive on whether he maintained employment at Davis-Besse. See Tr. at 1623 ("We either did well in that INPO evaluation in August or I was going to be out of a job.").

preparations that needed to be completed soon in order to meet the deadline of six months prior to the upcoming refueling outage scheduled for March of 2002 (13RFO) (Tr. at 1621-29; Staff Ex. 71 at 1860-61). These three areas of responsibility placed enormous pressure on Mr. Geisen and were consuming all of his time and effort through the summer of 2001. With so much dependent upon his success in these areas, there would have to have been an urgent reason for him to divert his attention from these matters. Thus, it is not surprising that he was not a participant in the activities associated with the development of Serial Letter 2731 by another department. See Tr. at 1123.

Indeed, it would have been unexpected for him to be extensively involved in an activity that was relatively unimportant to him at that time. The significance of Serial Letter 2731's development has appeared only in hindsight. Another department was properly handling the responsibility, including the hiring of a contractor to manage the effort. Mr. Geisen's direct involvement was not necessary or expected at that time, so it would certainly have been unanticipated for him to decide arbitrarily to take such an active role.

The evidence presented to the Board established that Mr. Geisen's first involvement with Serial Letter 2731 occurred on August 28, 2001. On that date, he read a final draft of the 25-page document for the so-called "Green Sheet" review (i.e., the internal review and approval process employed by FENOC at Davis-Besse). Tr. at 1638. The Green Sheet for Serial Letter 2731 contained 16 approval signatures including three other plant managers, eight employees at a subordinate level, three plant directors, and the plant vice president. See Staff Ex. 10.

Mr. Geisen signed the Green Sheet for Serial Letter 2731 twice, first as Manager for Design Basis Engineering, on August 28, 2001 (the day it first came to his attention); and then on behalf of his supervisor, FENOC Technical Services Director at Davis-Besse, Steven Moffitt, on August 30, 2001. Tr. at 1639; see Staff Ex. 10. Before Mr. Geisen signed the Green Sheet in his own capacity, he reconciled the information in the document with his own knowledge (limited as it was) and verified that the appropriate individual contributors had signed off on the

document. Tr. at 1639-40; Staff Ex. 71 at 1861-62. Prior to signing the Green Sheet on behalf of Mr. Moffitt, Mr. Geisen verified that the appropriate other managers reporting to Mr. Moffitt had reviewed and approved the document. Tr. at 1640. Without any evidence directly linking Mr. Geisen to the development of Serial Letter 2731, we cannot reasonably attribute to Mr. Geisen more knowledge than the engineers, supervisor, and manager directly responsible for the work in question who had all previously signed the Green Sheet.

Under the Green Sheet internal review process, and contrary to the erroneously stated premise that underlay the Enforcement Order (at 7) and is carried forward by the Dissent (at 46 and n. 35), Mr. Geisen was not “the” manager responsible for the letter’s technical accuracy (see above p. 17).¹⁰⁷ In any event, Mr. Geisen testified that, on both occasions when he signed the Green Sheet, he did not have any sense that Serial Letter 2731 contained inaccurate, misleading, or unfounded information. Tr. at 1640-41. Nothing before us provides any basis for disbelieving him, as we now explain.

b. Mr. Geisen’s General Awareness of Bulletin Issues

Mr. Geisen started employment with Davis-Besse in 1988 as a systems engineer in the Mechanical Systems Group. Tr. at 1539. From 1988 to 1994, he had primary responsibility for the reactor coolant pumps and containment spray and air cooling system. Tr. at 1536, 1539. In 1994, Mr. Geisen entered a two-year Senior Reactor Operator training program to become a qualified supervisor of reactor operators. Tr. at 1539-40. Following his training, Mr. Geisen was promoted within Systems Engineering and became a supervisor in the Electrical and Controls Group. Tr. at 1540-41. Mr. Geisen then became Manager for Design Basis Engineering in March of 2000. Tr. at 1548.

¹⁰⁷ During the criminal trial, Mr. Geisen testified that as a signatory in the Design Basis Engineering Department he was “part of management” and willingly conceded that he thought himself responsible for the technical accuracy of the portion that covered that department’s work. Staff Ex. 71 at 1971. Mr. Geisen testified that this obligated him to satisfy himself that the information was accurate. Id.

The Dissent begins with the proposition that Mr. Geisen's tenure in the nuclear industry and in various training and supervisory roles demonstrate his broad knowledge and experience in the operation and management of nuclear power plants. Dissent at 22.¹⁰⁸ Notably, however, in his various roles at Davis-Besse in the twelve years between 1988 and 2000, Mr. Geisen's responsibilities did not involve him in work associated with the reactor vessel head or related systems. Tr. at 1541, 1546, 1560. Accordingly, although he may have had general knowledge about these matters, he was not an expert on the specific details related to the reactor vessel head, i.e., he never personally performed an inspection or cleaning of the reactor vessel head, nor was he directly responsible for the planning or outcome of these tasks.

As is standard in the industry, the reactor vessel head inspections and cleanings at Davis-Besse are performed during scheduled refueling outages, which occurred there at two-year intervals. During the refueling outages in 1996, 1998, and 2000, Mr. Geisen's basic responsibilities at Davis-Besse were entirely unrelated to the reactor vessel head. Rather, prior to his promotion as Manager for the Design Basis Engineering Department at Davis-Besse in 2000, Mr. Geisen's responsibilities were related to the plant's reactor coolant pumps, which remained his primary focus during the 1996 and 1998 refueling outages. Tr. at 1539, 1541-42, 1545-46.

Mr. Geisen was the Manager for Design Basis Engineering during the 2000 refueling outage, and as such his attention was focused on ensuring timely implementation of scheduled modifications. Tr. at 1558-60. The schedule for the 2000 refueling outage did not include any

¹⁰⁸ The Dissent goes to great lengths (at 22) to recite Mr. Geisen's work history, presumably to establish (at 23) that his "education and experience rendered him eminently capable of recognizing and understanding safety information." No one, including Mr. Geisen, disagrees. But the question before us is a different one – did he focus on the particular portions of the wave of information that washed over his desk that, in retrospect, turned out to be crucial? The Dissent says (at 24) that not to hold him to knowledge of all that information is to "attribute[] profound negligence to Mr. Geisen." Whether or not looking at the situation that way could be justified on the evidence (a question not before us), that way certainly has more evidence to support it than does attributing deliberate misrepresentation to him.

planned modifications related to the inspection or cleaning of the reactor vessel head. Tr. at 1560.

During the second half of the 2000 refueling outage, Mr. Geisen took on additional duties when he relieved one of his subordinates, Theo Swim (Mr. Goyal's direct supervisor), as the engineering point-of-contact in Outage Central. Tr. at 1560, 62. During his time in Outage Central, Mr. Geisen's responsibility was to address engineering issues that developed during the outage. His role was to identify the issue, to assign the appropriate individual to address the issue, to contact the appropriate group, and to keep the schedule on track. Tr. at 1562-63.

While in Outage Central, Mr. Geisen reviewed two condition reports prepared by Mr. Siemaszko describing, inter alia, the "large [] lava-like" deposits of boron that had accumulated on top of the insulation and the reactor vessel head. Tr. at 1571-72.¹⁰⁹ Mr. Geisen viewed these two Condition Reports as addressing boric acid accumulation on the reactor vessel head that occurred, not from cracks at the nozzle-head interface, but as a result of leaking flanges above the insulation, a historically well-known problem at Davis-Besse that was not viewed with particular alarm. Tr. at 1573.¹¹⁰

Mr. Siemaszko designated one of the condition reports, CR2000-1037, as a "mode restraint," a condition requiring an engineering evaluation to determine if any outage-related work was needed prior to putting the reactor back into power operation. Tr. at 1573.

Mr. Geisen reviewed CR2000-1037 and determined that the reactor vessel head required cleaning. Tr. at 1573-74, 1834. Mr. Geisen noted that a work order for cleaning of the reactor vessel head was already scheduled during the Outage, and therefore signed an addendum to the report removing the mode restraint because – until addressed – the existence of the work

¹⁰⁹ Condition Reports are generated in response to the identification of a problem at the plant. Tr. at 1022. Specifically, Mr. Geisen reviewed CR2000-0782 (Staff Ex. 19) and CR2000-1027 (Staff Ex. 18). Tr. at 1571-72.

¹¹⁰ Contrary to the Dissent's suggestion (at 26 n.18), the Staff presented no evidence to indicate that Mr. Geisen knew of the difference between the types of boric acid deposits or of what they signified.

order itself prevents reactor start-up. Tr. at 1578. According to Mr. Geisen's judgment, this closed the matter. Tr. at 1578-79.

During one of his shifts in Outage Central, Mr. Geisen also participated in a brief discussion regarding the permissibility of an alternate cleaning method for the reactor vessel head when Mr. Siemaszko reported that his initial cleaning effort had been unsuccessful. Tr. at 1565-69. Although recognizing the possible shortcomings of this technique, the engineers in Outage Central, including Mr. Geisen, reached a consensus and authorized the use of hot water to clean the reactor vessel head. According to Mr. Geisen, he believed, based upon information he received, that this technique had successfully cleaned the reactor vessel head. Tr. at 1585-86.

One major source of Mr. Geisen's belief that the reactor vessel head had been cleaned was a one-to-two page newsletter update, "Outage Insider," that was posted daily at Davis-Besse during scheduled outages in an effort to keep all employees up-to-date regarding major events occurring during that period. Tr. at 1586.¹¹¹ Mr. Geisen stated that it was his practice to read the Outage Insiders daily as they were issued. Tr. at 1587. It was also clear from the nature of these communications, and the expectation at Davis-Besse, that all employees would read the Outage Insider when they were distributed, and that the information contained therein would leave behind a vivid impression. Tr. at 1586-87.

On April 29, 2000, the 29th day of 12RFO, the Outage Insider featured a "human interest" story commending Mr. Siemaszko for successfully cleaning the reactor vessel head at Davis-Besse, an effort characterized as "challenging" and "difficult." Geisen Ex. 18; Tr. at 1587. Moreover, that Outage Insider explained that, when Mr. Siemaszko joined Davis-Besse just one

¹¹¹ The Outage Insiders were transmitted to all employees at Davis-Besse during an outage, "in an effort to try to keep everybody on the site in the loop . . . [by communicating] the activities that were completed usually within the last 24 hours or that [were] big ones scheduled for that day. . . ." Tr. at 1586.

year prior, he had “set a personal goal to resolve [the] dilemma” posed by boric acid build-up on the reactor vessel head. Geisen Ex. 18.

Mr. Geisen stated that this formed not only his belief, but that of all the employees at Davis-Besse, that the entire reactor vessel head had been cleaned. Tr. at 1586. Again, with that matter thought to be closed with a clean reactor vessel head, the lack of actual head-cleaning success cannot – without more than was shown in our hearing – be considered part of Mr. Geisen’s knowledge base prior to the submittal of Serial Letter 2731.¹¹²

The Staff also refers to evidence that during the 2000 refueling outage, Mr. Geisen saw detailed descriptions of the large boric acid deposits in condition reports, as well as an “as-found” photograph of the reactor vessel head prior to the cleaning, that showed what Mr. Geisen believed to be flange leakage flowing in a lava-like fashion from some mouseholes at the bottom of the reactor vessel head. Tr. at 1569. The Staff elicited testimony from various witnesses that this photograph, referred to during the hearing as the “Red Photo,” should have caused the engineers at Davis-Besse to be “alarmed” that the color signified rusting and that there was thus a safety issue developing in the reactor vessel head area. Tr. at 1289, 1521. Moreover, the Staff’s experts stated that one need not be an expert in inspection or nozzle cracking to recognize from the discoloration that a rusting process was ongoing in some fashion. Tr. at 1521.

¹¹² The Dissent’s focus (at 31) on another aspect of the Outage Insider article misses the main point. The striking part of that article – which, Mr. Martin confirmed, pervaded thinking around the plant well into the future – indeed, the very reason it was published, was its highlighting of Mr. Siemaszko’s signal achievement (had it been true) of getting the head cleaned. But the Dissent never mentions this feature.

Thus, the Dissent rings hollow when it later asserts (at 57) that a tribunal should not ignore that “individual pieces of evidence, insufficient in themselves to prove a point, may in cumulation prove it.” As seen in this example, ignoring dramatic evidence that shaped everyone’s mindset in a “knowledge” case does not cumulate evidence, it distorts it. For our part, we have indeed cumulated the impact of the individual pieces of evidence. But, as is true in mathematics as well, the cumulation of individual pieces of evidence that each establish nothing about the critical issue yields nothing upon which to support the Enforcement Order.

Evidence was provided, however, that, along with Mr. Geisen, the NRC Resident Inspector at Davis-Besse was also privy to viewing both the “Red Photo” and the condition reports during the refueling outage in 2000.¹¹³ We mention this not to suggest that it establishes any type of dereliction of duty on the part of the Staff or its personnel, but instead because it illustrates, yet again, the benefit that hindsight can have on how evidence is analyzed. Geisen Ex. 28.

On that point, following the discovery of the reactor vessel head corrosion, anyone viewing the “Red Photo” – as we did during the hearing – would instinctively appreciate the warning that it should have conveyed.¹¹⁴ Mr. Geisen testified, however, that, when he saw the “Red Photo” during the 2000 refueling outage, it did not create any alarm or strike him as a warning that any pressure boundary leakage issue existed. Tr. at 1570. As noted above, confirming the legitimacy of his (non-)reaction, the Davis-Besse Resident Inspector also reviewed the condition reports and saw the “Red Photo” during the 2000 refueling outage, yet did not recognize the significance of the boric acid corrosion.

That the Resident Inspector saw the “Red Photo” at the same time as Mr. Geisen serves to establish that other trained minds were not alarmed; thus, we cannot fairly infer that Mr. Geisen must have known of its ramifications, when others did not. Of greater import,

¹¹³ See Geisen Ex. 27 at 3, 12, an Office of the Inspector General Semiannual Report to Congress, wherein the NRC disclosed that “Region III managers, while planning inspection activities for the Davis-Besse 12 RFO, reviewed NRC inspection reports which documented recurring boric acid leakage and also received numerous accounts of boric acid leakage and corrosion from the onsite resident inspectors.” Id. at 12. Specifically, the “Senior Resident Inspector and Resident Inspector . . . reviewed Davis-Besse CR 2000-0782 [which contained the “Red Photo”] during 12 RFO . . . [but] . . . these inspectors did not recognize the significance of the boric acid corrosion described in the condition report.” Id. (emphasis added).

Moreover, the Semiannual Report also stated that “OIG found that Region III inspection staff – the NRC staff with regulatory oversight of Davis-Besse – did not relay the information depicted in the condition report to Region III managers [and] . . . there was ineffective communication among Region III managers concerning boric acid leakage and corrosion at Davis-Besse.” Id. at 3.

¹¹⁴ Mr. Geisen testified that, with the benefit of hindsight, he now believes he should have been more alarmed by the photograph. Tr. at 1569; Staff Ex. 71 at 1833; Staff Ex. 79 at 54-55.

everyone in the industry believed, prior to the incident at Davis-Besse, that corrosion of the reactor vessel head while the reactor was operating was not likely because the extremely high temperatures would cause any water on the head to flash to steam, removing the opportunity for a corrosive environment. In other words, no one was open to entertaining any potential for corrosion. It would have taken a significant departure from the thought prevailing at that time to have evoked any major concern regarding potential reactor vessel head corrosion, as that was outside the realm of established experience. Tr. at 1222.

In any event, it is a fact that at least one key Staff official was no better at diagnosing the disastrous potential of what was seen than was Mr. Geisen.¹¹⁵ This is especially notable when considering Dr. Hiser's testimony that if the Resident Inspector had seen the Red Photo he would have hoped that the situation would have been flagged and reported to Headquarters as soon as it was seen. Tr. at 1291. We are unwilling to impute to Mr. Geisen knowledge that the Staff was unable to derive for itself (and the absence of which led, as far as we were advised, to no consequences for individual Staff employees).

Again, however, even if Mr. Geisen had recalled the Red Photo as alerting him to the condition of the reactor vessel head from the 2000 outage, the information in Serial Letter 2731 does not on its face appear to contrast so significantly with that knowledge that it would catch the attention of one whose role in that letter was so minimal. Mr. Geisen is not being charged with failing to identify a corrosion issue as illustrated in the Red Photo. He is charged with deliberately providing incomplete and inaccurate information by signing the Green Sheet review for Serial Letter 2731. See below pp. 77-78. The evidence does not support Mr. Geisen's culpability in this respect.

¹¹⁵ Along those lines, no internal agency sanctions were taken by the Staff against the Resident Inspector. Geisen Ex. 28. If the failure to recognize the "Red Photo" as a significant issue concerning the condition of the reactor vessel head was viewed as an understandable lapse by Staff personnel, it is seemingly inconsistent for the Staff to try to impute that knowledge to Mr. Geisen for the purpose of charging him with deliberate misrepresentation.

As Manager of Design Basis Engineering (his final position at Davis-Besse, see above p. 58), Mr. Geisen supervised five groups that encompassed 42 employees. Tr. at 1550. These groups were responsible for a wide range of issues including, inter alia, nuclear calculations, mechanical design, electrical and instrumentation design, plant computer engineering, and engineering procurement. Tr. at 1549-54. These areas are quite broad and far removed from reactor vessel head inspections.

Coincident with being named Design Basis Engineering Manager, Mr. Geisen was also made a member of the nuclear utility industry's B&W Steering Committee. Tr. at 1590. That Steering Committee received input from its working groups and evaluated project proposals and funding needs for the fleet of B&W reactors. Tr. at 1021, 1590. Issues came before the Steering Committee regarding circumferential nozzle cracking and specific information about Oconee and other nuclear power plants in late 2000 and early 2001. Tr. at 1591-93. Mr. Geisen's involvement with the Steering Committee did not expose him to any specific knowledge about Davis-Besse's past inspection and cleaning history. Tr. at 1593.

Mr. Geisen also joined FENOC's Corrective Action Review Board (CARB) when he became Design Basis Manager. Tr. at 1544. The CARB reviewed condition reports submitted by plant engineers. Tr. at 1022. During the hearing, the Staff presented extensive testimony about a condition report written by Mr. Goyal after he had conducted the 1996 inspection (PCAQR 96-551, Staff Ex. 16) and a condition report written by Mr. Mainhardt after he conducted the 1998 inspection (CR 98-0767, Staff Ex. 17). Neither of these condition reports came before the CARB after Mr. Geisen joined the Board in 2000, and Mr. Geisen did not see either report before the crucial discoveries in the spring of 2002. This being so, we had no evidence before us that he had knowledge of them before the targeted communications in the fall of 2001. Tr. at 1544-45.

Finally, Mr. Geisen's managerial position involved him as a member of FENOC's Project Review Group (PRG). Tr. at 1557. The PRG is a manager-level group that reviewed and prioritized proposed company projects to recommend appropriate funding for them. Tr. at 1556. The Staff presented extensive testimony about a repeatedly-proposed modification to cut larger access holes in the service structure to facilitate improved reactor vessel head inspections and cleanings. Staff Ex. 72; Tr. at 1054-1060. This evidence included the introduction of minutes from a PRG meeting in which the proposed modification was discussed and delayed. Staff Ex. 72; Tr. at 1054-1060.

The PRG discussion of the modification had no bearing on Mr. Geisen's state of mind. The meeting in question pre-dated Mr. Geisen's tenure as a member; accordingly, neither at that meeting nor – as far as the evidence shows – at any other time was he involved in discussions regarding the proposed modification. Staff Ex. 72; Tr. at 1058, 1556.

The modification request, pending for a decade, had its genesis long before Mr. Geisen had any involvement in PRG or the implementation of such a modification. Tr. at 1058, 1556. He did not become aware of the modification request until he became the manager of Design Basis Engineering in 2000. Tr. at 1557. At that time, Mr. Geisen stated that his department was working on approximately 70 modifications; not one of the modifications was related to the inspection or cleaning of the reactor vessel head. Tr. at 1560. He also understood that the modification request was never cancelled, but was instead continuously rescheduled for later refueling outages. Tr. at 1619. Although the modification request was of great importance to Mr. Goyal, he never "pressed" Mr. Geisen about the issue and Mr. Geisen was not aware that Mr. Goyal had been talking to others at Davis-Besse about the request. Tr. at 1861.

c. Mr. Geisen's Receipt of Various Communications

The Staff argues that Mr. Geisen's receipt of various e-mails, trip reports, and memoranda in the nine months prior to the issuance of the Bulletin demonstrates that he "knew" representations made in Serial Letter 2731 were false. We do not agree.

In his role as Manager of Design Basis Engineering, Mr. Geisen demanded trip reports from engineers in his reporting chain.¹¹⁶ More routinely, he also received between 15 and 40 e-mails per day (i.e., some 3,600 to 9,600 e-mails per year), with approximately one-third of those coming from people who reported directly to him. Tr. at 1596.¹¹⁷

It was Mr. Geisen's practice to read his e-mails. Tr. at 1867. It was also his practice not to reply to an e-mail that was merely providing information, rather than requesting any action or response. Tr. at 1867.

Because of the volume of e-mails he received, Mr. Geisen imposed on his employees a policy that, if an e-mail or memorandum had particular urgency or importance, it was to be marked "Action Needed," or "Action Requested," or to indicate in some other fashion the need for his response or action. Tr. at 1596. Without such an indication, Mr. Geisen would assume that the document was sent for informational purposes only. This was particularly the case when an e-mail was sent to him marked as an "FYI." Tr. at 1596.

In the nine-month period prior to the NRC's issuance of the Bulletin, one of the employees Mr. Geisen indirectly oversaw, Mr. Goyal,¹¹⁸ attended meetings and participated in

¹¹⁶ As was the case elsewhere at Davis-Besse, employees within Design Basis Engineering were required to fill out a trip report following work travel to preserve any salient points learned as a result of the trip. Mr. Geisen's oft-used maxim for his subordinates was along the lines of "We're not funding nuclear tourism. If you're going to go on a trip, we want you to get some value out of it and bring that back." Tr. at 1599. The policy within the group was that expense reports were not paid until a trip report was submitted. Each submittal was distributed in a specified fashion. Foremost, the trip report was to be submitted to the employee's supervisor, who had the responsibility of reviewing the "lessons learned" and passing along that information to the respective groups. Tr. at 1599. As the higher-tier manager of a group, Mr. Geisen was also listed on the standard distribution to receive a copy of trip reports from the employees who worked in the chain of command under him.

¹¹⁷ The Dissent emphasizes (at 40 n.29) with respect to this volume of e-mails that Mr. Geisen "read them all, regardless of whether he was the principal recipient or a copied recipient," but the testimony to that effect does not establish that Mr. Geisen retained each bit of information contained in every piece of electronic correspondence – and thus does not, without more, establish his later "knowledge" of such information.

¹¹⁸ When Mr. Geisen became Manager of Design Basis Engineering, Mr. Goyal was a design engineer working under Mr. Swim, the supervisor of the mechanical design group. Tr. at 1554-55. Mr. Geisen had had no prior interactions with Mr. Goyal. Tr. at 1555.

industry discussions regarding the issue of circumferential cracking of CRDM nozzles. Tr. at 1595. He sent e-mails and trip reports to Mr. Swim, his direct supervisor, or to Mr. Siemaszko, the Systems Engineer assigned to the reactor vessel head, regarding those meetings and discussions. Staff Ex. 21-24, 28, 30, 32-33. Mr. Geisen was among others who received electronic copies of the e-mails and trip reports, but was never their primary recipient. These e-mails and memoranda were spaced weeks apart – eight communications over a nine month period – and reflected working-level details in which Mr. Geisen was not directly involved.¹¹⁹ Staff Ex. 21-24, 28, 30, 32-33. See also Table 2 and Table 3 above pp. 18, 19.

Mr. Goyal also wrote a four-page memorandum, dated June 27, 2001, entitled “Mode 5 Reactor Vessel Head Inspection Recommendation.” Staff Ex. 31. This memorandum was reviewed by Mr. Goyal’s supervisor, Mr. Swim, and then ratified by Mr. Geisen. Staff Ex. 31; Tr. at 1099.¹²⁰

The Staff places great reliance upon a section of that memorandum to support its position that Mr. Geisen had the requisite knowledge needed to understand, two months later, the inaccuracies in Serial Letter 2731. Specifically, it points to a paragraph on the second page of that document indicating that “[l]arge boron leakage from CRDM flange was observed” and that “this leakage did not permit the detailed inspection of CRDM nozzles.” Staff Ex. 31 at 2.

¹¹⁹ The documents upon which the Staff relied were e-mails and trip reports from Mr. Goyal reporting his work on the B&W Steering Committee. These included reports on four business trips between January and August of 2001, and three e-mails designating Mr. Geisen as a courtesy copy recipient between June and August of 2001.

¹²⁰ The June 27, 2001 Memorandum provided an engineering evaluation of the internally-generated pre-Bulletin question as to whether Davis-Besse would be well-advised to perform a visual head inspection prior to December 31, 2001, if it had to shut down for any reason, or whether it would be appropriate even in such a circumstance to wait until the next planned outage (13RFO in March of 2002). See Staff Ex. 31 at 1; see also Tr. at 1101. The engineering evaluation determined that “[n]o catastrophic failures [were] anticipated in delaying the head inspection from [December 31, 2001] to 13RFO.” Staff Ex. 31 at 3. Mr. Goyal prepared the evaluation under Mr. Swim’s supervision; Mr. Geisen had no involvement in its preparation. Tr. at 1103.

Mr. Goyal testified, however, that Mr. Geisen had no involvement in the preparation of that memorandum. Tr. at 1103. And neither that memorandum nor the e-mails or trip reports indicated to Mr. Geisen that action was needed by him on the matters covered or that the items were urgent or alarming. Staff Ex. 21-24, 28, 30, 32-33. The direct and uncontradicted evidence from Mr. Goyal – who was fully cooperating with the Government as part of his deferred prosecution agreement – was that he never spoke to Mr. Geisen about any of the documents¹²¹ and that Mr. Geisen never responded to this memorandum, or for that matter, to any of Mr. Goyal's e-mails or trip reports. Tr. at 1076, 1112, 1597, 1600, 1602, 1610, 1613.

A simple explanation for the lack of follow-up activity is that the areas covered by the contents of these documents – reactor vessel head cleaning and inspections, nozzle cracking, and the findings at Oconee – were not directly related to Mr. Geisen's core duties as Manager of Design Basis Engineering, which included various groups ranging from nuclear calculations to engineering procurement as discussed above. See Tr. at 1549-53. As far as the evidence shows, the documents did no more for Mr. Geisen than simply to confirm his general understanding of the past history of flange leakage at Davis-Besse and of the challenges facing engineers conducting inspections and cleanings of the reactor vessel head at the plant. Tr. at 1608, 1610, 1614-16, 1634-35. It is not surprising that a manager of 42 people, all performing

¹²¹ For example, another portion of the June 27 memo, given to Mr. Geisen to ratify, contained false information Mr. Swim had insisted Mr. Goyal include (see below p. 72). Mr. Geisen was not advised of this situation. See, e.g., Tr. at 1169:

JUDGE FARRAR: and then you also did not go to Mr. Geisen and say, "I need your help, Mr. Big Boss. I just signed something that's not true."

[MR. GOYAL]: Right. I did not go to Mr. Geisen.

JUDGE FARRAR: So when Mr. Geisen got this he had no way, and since you hadn't talked to him about [it] he had no way of knowing from the documents that this problem existed.

[MR. GOYAL]: Right.

JUDGE FARRAR: There was nothing to alert him later that same day that he shouldn't sign this because of the problem you just talked about. He didn't know about that problem.

[MR. GOYAL]: Right.

various engineering functions and continually sending emails and reports, would months later fail to retain and to recall specific sentences from, or details of, any one particular document that was not related to the focus of his own endeavors or otherwise clothed with some urgency.

To the extent that the documents reflected the work of one of the engineers in his chain of command, it is consistent with his general approach to communications that Mr. Geisen understood – absent any request for action or for some other response – the documents to be informational in nature, and not communications seeking action on his part. Tr. at 1596. There is no evidence to establish that these various documents naturally created any state of mind that was contradicted by the information Mr. Geisen saw during his Green Sheet review of Serial Letter 2731.

For example, Mr. Goyal's e-mails and trip reports primarily concerned the information from the Oconee incident (Staff Ex. 21-24, 28, 30, 33), information that was much the same as Mr. Geisen received through briefings provided to the nuclear industry's B&W Steering Committee. Tr. at 1600. Therefore, according to Mr. Geisen, he understood that Oconee had found small deposits resembling "popcorn" and that the Oconee engineers believed their having made this discovery was due, in part, to the fact that Oconee had a clean reactor vessel head. Tr. at 1600. Taken in context, the Information in Serial Letter 2731 does not suggest that Davis-Besse's reactor vessel head was in a comparable condition to Oconee's. Staff Ex. 9. Serial Letter 2731 does not state that the reactor vessel head was in a "pristine" or even "clean" condition, which was arguably necessary for a good inspection in accordance with the Bulletin. See Staff Ex. 9. Rather, Serial Letter 2731 disclosed that boric acid accumulations were located on the reactor vessel head at Davis-Besse both in 1998 and 2000. Staff Ex. 9 at 2-3.

Mr. Goyal's e-mails, trip reports, and memoranda also referenced boric acid deposits discovered at Davis-Besse reported as attributable to flange leakage. Staff Ex. 32, 39. Mr. Geisen was generally familiar with these findings, based on the discussions of flange

leakage and the need for a special head-cleaning effort during his shifts in Outage Central in 2000. Tr. at 1569.

Mr. Geisen also testified that he understood that the reactor vessel head had been cleaned successfully at that time and that the flanges that caused the boric acid deposits had been repaired. We credit this testimony, based on two independent sources.

The first is the headline story in the Outage Insider, already mentioned above. The second source is found in the same portion of Mr. Goyal's June 27, 2001 memorandum upon which the Staff relied. There, Mr. Goyal advised unequivocally that the problems he was discussing had been solved:

During 12th RFO at Davis-Besse (DB) the Reactor Vessel head inspection was performed in accordance with boron inspection walkdown as required by GL-88-05 and GL 97-01. Large boron leakage from a CRDM flange was observed. This leakage did not permit the detailed inspection of CRDM nozzles. The flange was repaired and the head was cleaned.

Staff Ex. 31 (emphasis added).

Mr. Goyal disclosed during his testimony that he included this statement, which he knew to be false, at the request of his supervisor, Mr. Swim. Tr. at 1104-07. Indeed, at the direction of Mr. Swim, Mr. Goyal changed the honest language he had written despite knowing that the resulting language was incorrect. Tr. at 1106. Mr. Swim, the alleged prime mover, was not prosecuted, nor was he the subject of any NRC enforcement action.

We credit the testimony of Mr. Goyal – who was prosecuted, and entered into a deferred prosecution agreement, for this offense – that Mr. Geisen, unlike Mr. Swim, was not aware that the June 27 Memorandum's conclusion that the reactor vessel head had been cleaned was a misrepresentation. Tr. at 1107. Given its consistency with the knowledge he had previously gathered from the Outage Insider's report of the "success" of the cleaning method he had a hand in authorizing, then to the extent he focused at all on the Memorandum, Mr. Geisen understandably would have taken that conclusion at face value.

As a source of Mr. Geisen's knowledge, the Staff also relied upon Mr. Goyal's August 17, 2001 e-mail to Steven Fyitch at Framatome, on which Mr. Geisen was a courtesy copy recipient. Staff Ex. 39. In that e-mail, Mr. Goyal asked "[i]s it possible to go back to 1998 that is when a good head exam was done with no nozzle leakage. (meaning not taking any credit for 2000 inspection)." Staff Ex. 39. Mr. Geisen testified that he had no recollection of talking to Mr. Goyal about this e-mail (Tr. at 1634), but explained the sentence would have told him the 2000 inspection was affected by flange leakage (a fact known to Mr. Geisen) and that the 1998 inspection was "good," i.e., not affected by flange leakage (Tr. at 1634).

Neither of those statements contradicted Mr. Geisen's general understanding as of that date. More importantly, neither contradicted information Mr. Geisen later reviewed in Serial Letter 2731. See Staff Ex. 9 at 3 ("April 2000 Inspection Results (12RFO) . . . Inspection of the reactor vessel head/nozzles area indicated some accumulation of boric acid deposits.").

d. Mr. Geisen's Interview with John Martin

In the final analysis, the key element that both the Staff and the Dissent point to as establishing Mr. Geisen's knowledge is the following. The Staff claims that Mr. Geisen viewed videotapes of the past reactor vessel head inspections as early as August of 2001, and thus would have from the beginning – and throughout the interactions with the NRC – been aware of the deficiencies therein. The sole support for that assertion is a document assertedly reflecting John Martin's interview of Mr. Geisen in the last week of March 2002, soon after the discovery of the corrosion cavity. Staff Ex. 63; Tr. at 1475.

Mr. Martin was a nuclear industry consultant, and past high-ranking NRC official, who was hired by FENOC to conduct an evaluation of management and organizational issues at Davis-Besse following the March 2002 discovery of the corrosion cavity in the reactor vessel head. Tr. at 1474-75. Mr. Martin's review was not intended to be a formal investigation. Tr. at 1491. Instead, it was a survey focused on identifying those individuals who knew boric acid deposits were left on the reactor vessel head after the refueling outage in 2000. Tr. at 1481,

1491. The focus was not on FENOC's Bulletin responses, representations in those responses, or any individual's review of the videotapes. Tr. at 1481, 1489. Mr. Martin interviewed approximately 15 people over a one week period and had no present recollection of his interview of Mr. Geisen independent of the document reflecting the notes he took during the interview. Tr. at 1478, 1480.¹²²

Mr. Martin handwrote his notes during all the interviews, and had no intent that his notes would provide a verbatim transcript. Tr. at 1484. After the interviews were completed, Mr. Martin gave his handwritten notes to a Davis-Besse secretary for typing. Tr. at 1484. The original handwritten notes of Mr. Geisen's interview are no longer available. Tr. at 1494-95. Mr. Martin testified that he had no recollection of what followed in that regard upon the secretary providing him with the typed version of his notes. Tr. at 1485; see also Tr. at 1502-03.

The typed notes from the interview contain typographical errors, as Mr. Martin acknowledged. Tr. at 1503. Mr. Martin also acknowledged that his handwriting was sometimes difficult to read, even for him. Tr. at 1503. Indeed, the two-sentence paragraph of interest in this proceeding contains two errors. The paragraph, dealing with the subject of when Mr. Geisen learned that the reactor vessel head had not been cleaned, reads:

I know became aware of it in reviewing the videos of the inspections while preparing for the NRC interactions in August, 2001. At that point, I was disappointed but not worded since we all had a conviction that there wasn't a problem with boric acid corrosion on a 600 F Head.

¹²² We share the Dissent's description (Dissent at 41) of Mr. Martin as a "most credible witness." But that statement does not support the conclusion one might otherwise infer from it. For, as all recognize, on the witness stand Mr. Martin was able to recall nothing of the interview other than that he attempted to have his notes accurately reflect what had been said, a good-faith effort that we credit. His inherent credibility cannot negate the innocent error he made in rendering a written account of the interview.

Staff Ex. 63 (errors in italics). Whether or not these errors are of themselves consequential,¹²³ for present purposes they serve to signify that the document is, on that ground alone, not a perfect rendition of the interview.

More significantly, Mr. Geisen was not provided an opportunity to review the typed notes because Mr. Martin did not have a need to follow up with Mr. Geisen after the interview. Tr. at 1491. Therefore, Mr. Geisen had no occasion to clarify either the accuracy or meaning of “preparing for the NRC interactions in August 2001” in Mr. Martin’s notes, or that phrase’s chronological or causal connection with what preceded it. Tr. at 1494.

On that score, apart from the Martin document, no other evidence was provided that Mr. Geisen had any “interactions” with the NRC until the teleconference on October 3, 2001, or was “preparing” for them at any point until the alarm that was sounded on September 28, 2001 (see below pp. 87, 88). This is not surprising, for as seen above Mr. Geisen was preoccupied through August of 2001 with preparations for the INPO audit and the design modification packages for the upcoming outage, such that he had no involvement in the drafting of Serial Letter 2731. Tr. at 1623-25; Staff Ex. 71 at 1860-61.

Confirming that view, Mr. Goyal – again, motivated and committed by his agreement with the Government to provide honest testimony – testified that systems engineers held the inspection videotapes, and that Mr. Geisen did not ask Mr. Goyal about viewing the tapes in August of 2001. Tr. at 1160-61. Indeed, no evidence exists to establish any physical connection between Mr. Geisen and any reactor vessel head inspection videotapes until mid-October of 2001. No one testified that they saw Mr. Geisen reviewing videotapes. No one testified that a surrogate asked for the videotapes at the request of Mr. Geisen. It is highly unlikely that Mr. Geisen could have acquired the videotapes, which were under the control of

¹²³ Obviously, “worded” should be “worried,” and can naturally be attributed to the typist’s misreading of Mr. Martin’s handwritten notes. The missing pronoun between the words “know” and “became” is more problematic, as is the substance of the entire first sentence.

the Systems Engineering Department (not Design Basis Engineering, which was Mr. Geisen's Department), reviewed the videotapes, and returned the tapes without alerting a single witness to that effect.

In this same vein, no reason was even suggested as to why Mr. Geisen might have first undertaken, then hidden, such an activity at that time, since none of the subsequent critical events had yet transpired. To further support this, Mr. Moffitt testified that the "re-review" of the inspection videotapes referenced in Serial Letter 2731 was not a reference to any actions previously conducted by Mr. Geisen. Staff Ex. 74 at 1281.

The Board notes that OI had an opportunity to clarify this issue close in time to the Martin-Geisen interview. In October of 2002, OI agents interviewed Mr. Martin and, two weeks later, Mr. Geisen. Tr. at 2175; Staff Ex. 79. OI had the Martin document at the point of the latter interview. Geisen Ex. 24; Tr. at 2176-77. Presumably, recollections of the conversation were fresher in the minds of Mr. Martin and Mr. Geisen then, seven months after the conversation, than in December of 2008, six-and-a-half years after the conversation. The agents chose, however, not to ask either Mr. Martin or Mr. Geisen about the conversation (Tr. at 1702-03), and thus the Martin document became a key piece of evidence both for triggering and for defending the Enforcement Order against Mr. Geisen.

Although their versions of events and of the interview seem to be at odds, there is a simple, and natural, way to reconcile the seemingly competing "truths" Messrs. Geisen and Martin presented, and to do so in a fashion that is consistent with our view that both proved to be highly credible. What might – indeed, must – have occurred was that Mr. Martin took Mr. Geisen's description of the company's interaction with the NRC in August, 2001, as indicating that Mr. Geisen had been personally involved at that time. This could have transpired through Mr. Geisen's (1) use of the word "we" in describing what the company was doing (a usage that a reader of the Transcript can readily discern was commonplace for him), or his (2) telling the story of the company's August interactions as a prelude to what he later did, or as a

way of relating his later viewing of the videos (see the events of November 8, 2001, recounted below) back to the earlier events that triggered the need to do so.

However it transpired, it would be easy for someone not attempting to take verbatim notes to conflate different parts of Mr. Geisen's narrative and to record in his notes – all in good faith – a version that reflects fragments of what was said but combines them in a mistaken or misleading fashion. In many instances, such an error might be inconsequential; in others, it might be caught upon review. Here, the erroneous report – based on what the interviewer genuinely thought he heard – was neither corrected nor inconsequential.

The upshot is this: whether the missing pronoun should have been “I” or “we,” there is a perfectly rational, indeed commonplace, explanation for why the Martin document reads as it does. But the document is irrefutably inconsistent with the body of other evidence about Mr. Geisen's activities in August of 2001, and thus can carry no weight, notwithstanding the inherent credibility of its author. We find that Mr. Martin simply conflated various elements of the Geisen interview, none of which involved a matter concerned with the essential purposes of that interview.¹²⁴

e. Findings of Fact Regarding Serial Letter 2731

The Staff's Enforcement Order asserts that Serial Letter 2731 was materially incomplete and inaccurate in that it: (1) mischaracterized the boric acid accumulation on the reactor vessel head in 2000; (2) failed to include information indicating that the licensee's access to the bare metal head of the reactor was impeded by significant boric acid deposits in both 11RFO (1998) and 12RFO (2000); (3) failed to disclose that the boric acid deposits were not limited to the area beneath the CRDM flanges; and (4) failed to indicate that the boric acid deposits were so

¹²⁴ Shorthand renditions can be useful, but in this instance we find that not to be the case: Mr. Martin's good-faith effort compressed the substance of the interview at the cost of losing its meaning on a matter that later proved crucial.

significant that not all nozzles on the reactor vessel head could be inspected.¹²⁵ Mr. Geisen was charged with concurring in this submittal to the NRC notwithstanding that he was aware of these materially incomplete and inaccurate statements. Enforcement Order at 8-9.

The Staff introduced documents and testimony to support its claim that Mr. Geisen had personal knowledge about the actual limitations on head inspections through the receipt of information from multiple sources on many occasions. Specifically, the Staff argues that Mr. Geisen knew that the top of the reactor vessel head was not visible or accessible through Davis-Besse's "camera-on-a-stick" inspection technique because the geometric constrictions prevented a full head inspection, and that significant boric acid deposits also impeded Davis-Besse's ability to perform adequate nozzle inspections. Staff Proposed Findings at 25, 50; see also Staff Reply at 3-4.

The Staff maintains that information regarding these limitations was presented to Mr. Geisen in numerous reports and other correspondence that Mr. Geisen testified that he read. Staff Reply at 4. In that regard, the Staff points to Mr. Goyal's e-mails, trip reports, and memoranda as noting the difficulty of completing inspections and cleanings through the existing

¹²⁵ The Dissent (at 48) wrongly asserts that Serial Letter 2731 also "falsely reported that a qualified visual inspection during the 13th RFO 'will not be compromised due to any pre-existing boric acid crystal deposits.'" The parties did not stipulate to any such purported inaccuracy in Serial Letter 2731 (Staff Ex. 77); and the Enforcement Order does not charge Mr. Geisen with any misrepresentation in this regard (Enforcement Order at 8-9).

mouseholes and advocated cutting access holes in the service structure. Staff Ex. 33, 36.¹²⁶ All this, argues the Staff, provided evidence that Mr. Geisen therefore “knew” the configuration of the head precluded a complete inspection and cleaning.

On this point, the Dissent notes on more than one occasion (at 23 n.14, 57) that Mr. Geisen “read, carefully reviewed, discussed, or approved” a particular document. Only once does the Dissent claim that he “wrote” it, and never does the Dissent assert that he acted upon, or even reacted to, a particular document. Nonetheless, the Staff argument that is accepted in the Dissent is that there is “an abundant amount of evidence” supporting the conclusion that Mr. Geisen was aware that Davis-Besse’s inspection technique precluded the view of nozzles towards the top of the reactor vessel head. Staff Findings at 29; Dissent at 22. To the contrary, Mr. Geisen understood that past inspections had been completed, notwithstanding the challenges presented by the structural configuration of the reactor vessel head. For example, Mr. Goyal communicated this message when he reported in his August 17, 2001 e-mail that Davis-Besse conducted a good inspection in 1998. Staff Ex. 39.

Mr. Geisen acknowledged that he knew the inspection technique had its difficulties, but he was not aware that it physically precluded the ability to view all of the nozzles. Tr. at 1616 (he did not have a sense that there were parts of the head that were entirely inaccessible, just

¹²⁶ The Staff also points to the “Outage Insider,” which stated:

Due to a history of leaking Control Rod Drive Mechanism (CRDM) flanges on the Reactor Head, boric acid has built up in this area. Access to this area is very difficult due to the construction of the Service Structure surrounding the area. Geisen Ex. 18; see also Staff Findings at 27 and Dissent at 24.

This excerpt simply verifies what Mr. Geisen stated was his prior knowledge of the condition of the reactor vessel head: (1) there was a history of leaking flanges (Tr. at 1569-70); (2) boric acid had built up at the top of the head from these leaking flanges (Tr. at 1573); and (3) access to the reactor vessel head through the mouseholes presented challenges making cleaning and inspection difficult (Tr. at 1848, 1970).

More importantly, the topic of this particular Outage Insider was a commendation to Mr. Siemaszko for the successful cleaning of the reactor vessel head, thus establishing Mr. Geisen’s belief that the head had been cleaned during 12RFO in 2000. Geisen Ex. 18.

that “you couldn’t get up and around like you wanted to”).¹²⁷ At no time did Mr. Geisen concede that he was aware that the camera-on-a-stick inspection technique prevented an inspection of the entire reactor vessel head. Instead, Mr. Geisen explained that he “has since come to understand that [the method] was a huge impediment,” but that in 2000 he was not certain that a rigid stick was used to mount the camera and believed that a “boroscope-type camera”¹²⁸ was used instead, affording much greater flexibility. Tr. at 1939.

What seems to be the Dissent’s most compelling reference to the testimony of record involves its abbreviated reference (at 32) to a brief exchange between Staff counsel and Mr. Geisen. Indeed, this seems to be the sole direct testimony upon which the Dissent relies to demonstrate that Mr. Geisen *knew* the camera-on-a-stick method physically precluded the ability to view all the nozzles. But the brief exchange elliptically quoted does not convey a valid picture of Mr. Geisen’s testimony, which stemmed from an exchange about the use of the crack growth rate model (Tr. at 1955).

To begin with, Mr. Geisen’s counsel had objected to a question in this line of inquiry as having previously been “asked and answered” and “been over . . . three or four times.” See Tr. at 1957. We do not pause here to analyze the answers provided earlier, upon which the Dissent does not rely, but do point out that the Staff’s question as propounded related, only and simply, to the modification request initially generated in 1994 and carried forward from that time.

The question initially asked whether Mr. Geisen “knew that the reason for th[at] modification request was because they couldn’t inspect the entire head. Correct?” Tr. at 1957, lines 12-14. The question was then re-stated as “whether that modification . . . was there

¹²⁷ The Dissent erroneously concludes (at 30 n.21) that Mr. Geisen “conceded he was aware that these impediments prevented a full head inspection” when all Mr. Geisen stated was that he knew the methods impeded the inspection. Further, the Dissent’s reliance (id.) upon the not “even a viable option” remark is taken entirely out of context (see below note 131).

¹²⁸ Mr. Geisen described a “boroscope” (also sometimes called a “borescope” or other similar names) as a more flexible device that is controlled by a joystick that would allow the camera to be moved around the reactor vessel head. Tr. at 1940.

because you couldn't access the entire head through the weep holes." Tr. at 1958, lines 3-5. Mr. Geisen interjected a "no" answer as the Board was considering his counsel's objection. Tr. at 1958, lines 7-11. After being granted some leeway, the Staff re-asked a series of questions, ending with the first of the two questions to which the Dissent refers, namely (Tr. at 1958 line 25 to 1959 line 4):

[Y]ou knew the access holes were being requested in that modification because they couldn't get to the entire head using a camera on a stick through a weep hole. Isn't that correct?

After Mr. Geisen answered "correct," the Staff asked the next question, which was (Tr. at 1959, lines 6-7):

So you knew that it was not possible to see 100 per cent of the head in 1996. Isn't that correct?

Mr. Geisen's answer was a narrow one (Tr. at 1959, lines 9-10):

I would say that's correct the way that's worded.

Given his previous "no" answer and his emphasis on the "way it was worded," we are not as comfortable as is the Dissent (at 33) in adding interpretative elliptical qualifiers to the question as worded. That question did not include the qualifying words "by using the camera-on-a-stick technique" that the Dissent inserted. Given that Mr. Geisen's response was that he "would say that was correct the way that's worded," precision is critical, because there exists throughout the hearing record Mr. Geisen's repetitive and uncontroverted testimony to a different effect, namely that he was unaware that the camera-on-a-stick technique did not just present difficulties but actually was inadequate to provide a view of all the nozzles. See above pp. 78-80.

Furthermore, Mr. Geisen was copied on an August 17, 2001 e-mail wherein Mr. Goyal represented to Framatome that Davis-Besse "will be performing a 100% qualified visual examination in the next outage in April 2002." Staff Ex. 39. This same representation was

made by Mr. Goyal to Mr. Swim a week prior to that in an August 11, 2001 e-mail.¹²⁹ Staff Ex. 36 (“It was agreed that the response will include a commitment to perform a 100% qualified visual examination of all the nozzles during 13thRFO.”). Had he focused on these e-mails, the information would not have been surprising or noteworthy, for Mr. Geisen was aware that arrangements had been made to secure a “rover” for use in the upcoming inspection to overcome the structural and geometrical challenges. Tr. at 1613-16; Staff Ex. 71 at 1854.¹³⁰

This knowledge formed the basis for Mr. Geisen’s understanding of the language in Serial Letter 2731 regarding FENOC’s plans for the 2002 inspections at Davis-Besse. The “rover” also obviated the need, according to Mr. Geisen, for Davis-Besse to perform the long-delayed modification request for larger access holes in the service structure. Tr. at 1880.¹³¹ (The plans to use the rover, it turns out, provide what might be the best evidence of Mr. Geisen’s belief that the head had been successfully cleaned. The rover’s magnetic wheels can operate only when in contact with the bare metal of the head. Tr. at 1617. Unless Mr. Geisen had procured the rover to provide a cover story for the future lying he expected to do in response to an inquiry that did not yet exist on a matter that was not within his responsibility, the

¹²⁹ The August 11 e-mail also stated that Mr. Siemaszko was requesting three large access holes be cut in the service structure to ease with cleaning of the reactor vessel head. Mr. Geisen stated that this would have informed him that Mr. Siemaszko was requesting this modification “to make it easier to do the viewing and cleaning” (Tr. at 1872), but not, as the Staff (Staff Findings at 28) and the Dissent (at 31) portray, that the modification was necessary because the reactor vessel head could not otherwise be fully inspected and cleaned (Tr. at 1872).

¹³⁰ During a side-bar conversation at a B&W Owners Group meeting, Mr. Geisen discussed with a representative from another plant a new technology for doing visual inspections, i.e., use of a robotic rover. Mr. Geisen then funded, out of Design Basis Engineering’s budget, a rover for Systems Engineering’s use during 13RFO in 2002. Tr. at 1614.

¹³¹ Seen in this light, Mr. Geisen’s testimony that he did not “view the camera-on-a-stick as even a viable option anymore” (Tr. at 1880), does not support the negative inference concerning Mr. Geisen’s attitude that the Staff and the Dissent would draw from it. Instead, it is simply the product of, and consistent with, his testimony that the future inspection of the reactor vessel head planned for the 13RFO in 2002 included the use of the “rover,” a new and better option to use in place of the earlier technique.

proactive steps he took to procure a rover speak definitively, for they make sense only if he held the view that the head had been cleaned.)

Moreover, the issues discussed in the e-mails, trip reports, and memoranda largely served only to confirm Mr. Geisen's general understanding of the past history of flange leakage at Davis-Besse. Mr. Geisen testified to the "technical arrogance" instilled in employees at the plant regarding the boric acid deposits originating only from leaking flanges. Staff Ex. 79 at 77.¹³² The consistent understanding he presented was that flange leakage precluded the view of several nozzles on the top of the reactor vessel head.¹³³ More importantly, the conclusions Mr. Geisen reasonably took from the documents and his understanding of the condition of the head were not contradicted by statements provided in Serial Letter 2731, which stated that there was some accumulation of boric acid deposits on the top of the reactor vessel head. Tr. at 1743-44 (Mr. Geisen testified that his understanding was that there was "some boron on the top of the head . . . that prevented [the view] of some of the nozzles" but not that "the entire head was coated and you couldn't inspect anything").

It bears re-emphasis that the Bulletin embodied simply an information-gathering exercise to assess the nature of the PWR licensees' prior inspections so as to enable the NRC to consider regulatory changes going forward to prevent situations like those that had developed at Oconee. The Bulletin did not specifically require licensees to conduct inspections in a particular way, but instead provided guidance as to the type of visual inspections the NRC thought would

¹³² Mr. Holmberg testified that at the time it was not unreasonable for Davis-Besse employees to have believed the source of the build-up was from flange leakage. Tr. at 906 ("everyone believed that was the source"). In hindsight, Mr. Holmberg agrees it is now known that the build-up could not have come exclusively from a source above the reactor vessel head. Tr. at 906.

¹³³ The Dissent accuses Mr. Geisen (at 48 n.36) with knowing the falsity of the statements in Serial Letter 2731 that there was "[n]o visible evidence of nozzle leakage" and that the boric acid deposits were "not indicative of nozzle leakage," because any review could not definitively attribute those deposits to flange leakage. Mr. Geisen consistently – and credibly both from a substantive and a demeanor standpoint – testified, however, that the mindset at Davis-Besse at that time was that these deposits were indeed caused by flange leakage.

be adequate to ensure safety measures were met, particularly for high susceptibility plants. Tr. at 1227. Therefore, although it would have gone a long way toward demonstrating thorough compliance with the Bulletin, Davis-Besse was not required to perform a qualified visual inspection in order to meet the purpose and needs of the Bulletin.¹³⁴

With regard to past inspections at Davis-Besse, FENOC's initial response to the Bulletin failed, as indicated by the Enforcement Order (at 8), to state that access to the bare metal head was impeded by significant boric acid deposits in both 11RFO (1998) and 12RFO (2000). Serial Letter 2731 did report, however, under the results of the 1998 inspection, that "visual inspection showed an uneven layer of boric acid deposits . . . [with] lumps of boron, with the color varying from brown to white," and in 2000, "some accumulation of boric acid deposits" were found on the reactor vessel head and nozzles. Staff Ex. 9 at 3. The observed boric acid on the reactor vessel head for both inspections was attributed to leaking flanges. See id. The description of the inspection results, as provided in Serial Letter 2731, would inform any technically-educated reader that a bare metal inspection was not fully accomplished during either the 1998 or 2000 inspections.¹³⁵

¹³⁴ The Bulletin states that plants placed into the high susceptibility category were encouraged to perform a 100% qualified visual examination of the reactor vessel head nozzles. Staff Ex. 8 at 8 ("a qualified volumetric examination of 100% of the VHP nozzles . . . may be appropriate"). Moreover, Mr. Geisen's understanding that the 1998 and 2000 inspections would not have been considered a "qualified visual inspection" signifies nothing in the context of what the Bulletin was seeking or what the charges against him allege. Cf. Dissent at 27.

¹³⁵ The Dissent incorrectly states (at 48) that Serial Letter 2731 "falsely implied that Davis-Besse performed a full 'bare metal' inspection" during 11RFO and 12RFO. In fact, Serial Letter 2731 states that the "scope of the visual inspection was to inspect the bare metal RPV head area that was accessible through the weep holes." Staff Ex. 9, Attachment 1, at 2. This statement does not imply that a "full bare metal inspection" was conducted. At most, this statement indicates that the inspection was conducted to view the portion of the bare metal head that was accessible.

Prior to our hearing, Mr. Geisen conceded that information in Serial Letter 2731 proved to be inaccurate and incomplete. Staff Ex. 77 at 3-4.¹³⁶ But that does not negate the impact of the information, referred to earlier herein, that formed the basis for Mr. Geisen's understanding of the language in Serial Letter 2731 at the time it came before him for a brief "Green Sheet" approval. Nor does it address his approach: Mr. Geisen testified that he, as well as others in the industry, viewed the Bulletin as simply calling for evaluating details of past industry inspections to determine those methods that might not have been "quite right" and to look ahead to determine "what are we going to do as an industry changing our criteria going forward." Tr. at 1825-26. Therefore, Mr. Geisen's general view was that the information requested by the Bulletin, including possible limitations on inspection of the reactor vessel head,¹³⁷ was forward looking. Tr. at 1826-27.¹³⁸

¹³⁶ The Dissent starts by emphasizing (at 1) its view that Mr. Geisen "*concedes*" that the information "he" provided to the NRC between September and November 2001 was materially incomplete and inaccurate. To be sure, Mr. Geisen does concede that the information FENOC submitted was of that quality. But no one familiar with this record should find that Mr. Geisen "submitted" anything in September, given (1) his last-minute, minuscule role in reviewing Serial Letter 2731, and (2) the Dissent's inability to find him responsible for anything more than failing to catch an omission (at 46-47) in a 25-page document prepared by others without his input.

¹³⁷ In terms of those limitations, Mr. Geisen explained that, rather than trying to hide anything about the close working quarters between the head and the insulation, he had viewed the insulation as not impeding access to the reactor vessel head because Davis-Besse's set-up of the insulation provided some space above the head, unlike the situation at some other plants (see above note 22) where the insulation rested directly on the head. Tr. at 1824.

¹³⁸ We disagree entirely with the Dissent's discounting (at 44 n. 33) of this fact on the basis of Mr. Geisen's having testified that he read the Bulletin "from front to back" (Tr. at 1823). In the context in which Mr. Geisen said that – where the Staff's questions were focusing on particular portions of the Bulletin – and in light of what else he said in the same breath, it was clear to us that what Mr. Geisen meant was that when he read the Bulletin initially, he simply went from front to back without focusing -- as he was being called upon to do at the hearing – on the meaning and significance of particular aspects. The Dissent's reading of "front to back" as though it meant "thoroughly from cover to cover" may be a permissible one on the words alone, but does not reflect the context in and demeanor with which the words were spoken, and what else was said at the same time. See Tr. at 1823. Thus, once again, the Dissent adopts the interpretation that suggests that when a person reads a document, all of it is retained, even if the reading of it was unfocused. As we observed his testimony, what Mr. Geisen was saying was that – consistent with the knowledge hierarchy (p. 32, above) – he saw more in the Bulletin when focusing on a particular section for a particular purpose, than when he read it as a whole to gain general familiarity with it.

With the foregoing in mind, we find that the evidence does not establish that Mr. Geisen, as a mere last-minute reviewer of a 25-page technical response to the Bulletin, had the requisite knowledge to recognize the inaccuracies or incomplete statements provided in Serial Letter 2731. Moreover, seven other management level reviewers, including the supervisor and manager of the actual department that performed the reactor vessel head inspections, also signed the Green Sheet for Serial Letter 2731. No evidence has been provided to indicate that Mr. Geisen would have had greater knowledge than these technically responsible individuals.

The evidence presented by the Staff, and summarized above, demonstrates that, at the time Mr. Geisen signed off on Serial Letter 2731, he had only a general, not a particularized, understanding of issues relevant to the information provided to the NRC in response to the Bulletin. On that score, we make the following specific findings:

- Mr. Geisen was not the expert at Davis-Besse on the subject of reactor vessel head inspections or cleaning, nor had he been involved in any earlier resolutions of those issues. Mr. Geisen was not personally involved in the inspections or cleanings in 1996 or 1998, and his involvement in 2000 was limited.
- Although Mr. Geisen was aware that the configuration of the head and service structure presented some obstacles to cleaning, he viewed these methods as imposing restrictions, not as rendering parts of the reactor vessel head entirely inaccessible. Tr. at 1616; see also Tr. at 1822-23.
- Mr. Geisen understood that Davis-Besse had a history of flange leakage resulting in boric acid accumulation on the reactor vessel head, but he also understood that the flanges had been thoroughly repaired and the boric acid deposits had been cleaned to allow for an inspection, via use of an automated “rover” during the refueling outage in March of 2002, that could be compared to a bare metal baseline. He also believed that the 2000 cleaning effort had been successful

through the use of pressurized hot water, a step that would have had to have occurred for the rover's magnetic wheels to function.

- Mr. Geisen also understood that engineers from Systems Engineering (e.g., Mr. Siemaszko), and from his own group (e.g., Prason Goyal), were involved in working on the relevant issues, and he had placed confidence in their efforts. Notwithstanding the misrepresentations they made within the company, at that time he had no reason not to believe them.

2. October 3, 2001 Teleconference

a. Mr. Geisen's Statements During October 3 Teleconference

Based on the evidence presented, Mr. Geisen's first substantive participation in FENOC's submittals to the NRC took place during a conference call that occurred on Wednesday, October 3, 2001, and that was preceded by one or more planning sessions. This participation was triggered by an assignment he received Friday, September 28, 2001.

A month earlier (a couple of days after Mr. Geisen signed the Green Sheet for Serial Letter 2731 as Design Basis Engineering Manager), Mr. Goyal had sent an August 30, 2001 e-mail to Mr. Siemaszko, Mark McLaughlin, Rodney Cook, and Dale Miller that included the sentence "[w]e do not say anywhere in our response to the bulletin that inspection thru the mouse holes creates an impediment for 100% visual examination. (management need to know this)." Staff Ex. 42. Mr. Goyal did not copy Mr. Geisen on this e-mail, nor did he speak with Mr. Geisen about this concern. Tr. at 1169-70, 1644.¹³⁹ This further confirms that, as those

¹³⁹ The Board asked Mr. Goyal on several occasions whether he had ever gotten replies to his memos or ever followed up with the recipients. For example, one exchange went as follows:

JUDGE FARRAR: You had told them by sending them a copy?

[MR. GOYAL]: Sending this e-mail, not verbally communicating.

JUDGE FARRAR: [] Did you ever hear back from any of these people?

[MR. GOYAL]: No.

This was typical of the fate of Mr. Goyal's written communications.

within the company recognized, there was no significant role being played by Mr. Geisen to that point.

This finding is fully explicable in terms of Mr. Geisen's duties. It bears repeating that during the month of September, Mr. Geisen's time and attention had been split between (1) the INPO evaluation and (2) the preparation of design modifications for the next refueling outage. Tr. at 1623-25, 1646; Staff Ex. 71 at 1860-61.

Mr. Geisen's first significant involvement in relation to the Bulletin occurred on Friday, September 28, 2001. Tr. at 1644. On that date, Guy Campbell, Vice President of Davis-Besse, learned that his superior, FENOC's Chief Nuclear Officer, Bob Saunders, had received a telephone call from Brian Sheron, NRC's Associate Director of Project Licensing and Technical Analysis and a key figure in reviewing bulletin responses, expressing the NRC Staff's view that Davis-Besse might need to shut down operations by year's end. Tr. at 1645; Staff 46. Mr. Campbell pulled David Lockwood, FENOC's Director of Regulatory Affairs, and Mr. Moffitt, Director of Technical Services, out of the INPO-audit exit meeting, at which Mr. Geisen was also in attendance, to discuss the call. Tr. at 1670. Mr. Moffitt returned to the meeting and designated his subordinate, Mr. Geisen, to get involved in the shutdown threat in his stead because Mr. Moffitt was the peer evaluator for INPO and was required to complete his responsibilities for the INPO debriefing. Tr. at 1644-45, 1670-71.

Mr. Lockwood arranged an October 3, 2001 conference call with the NRC to determine the basis for the agency's concern. Tr. at 1645; see also Staff Ex. 51, 52; Tr. at 1647. Mr. Geisen did not have a defined role for that call, but attended meetings of upwards of a dozen people held in preparation for the call and reviewed documents related thereto. Tr. at 1646-47. Mr. Geisen testified in that regard that, although he did not "own" the reactor vessel head issues, there was no one there to speak up for those who did, so he said he "would take care of it." Tr. at 1667-68.

At the time of the call, FENOC was unaware of which portion of Serial Letter 2731 had been found deficient, nor was the company aware what subject had triggered the NRC Staff's concerns. Tr. at 1668. FENOC's attempts during the conference call to explore the reasons underlying the NRC Staff's conclusion about the possible shutdown of Davis-Besse were met with the response that such information was "predecisional," and therefore could not be disclosed. Tr. at 1666.

In the course of the company's preparation for this call, Mr. Geisen reviewed Serial Letter 2731. Tr. at 1647. Mr. Geisen testified that, during that review, nothing in the letter caught his attention or struck him as untrue. Tr. at 1647.

The content of the letter supports the veracity of his testimony. For example, the letter included a report that "Framatome . . . performed a 100% video inspection of CRDM flanges above the insulation" in April 2000 and identified five leaking CRDM flanges. Staff Ex. 9 at 3. It also reported that some boric acid deposits were located beneath the leaking flanges on the reactor vessel head. Staff Ex. 9 at 3. Finally, it stated that recent review of the videotapes of that inspection "re-confirm[ed]" that the indications of boron leakage were thus not similar to the indications at Oconee and were not indicative of nozzle leakage. Staff Ex. 9 at 3.

Moreover, the evidence did not show that, in the preparation meetings that Mr. Geisen attended, any other participants – some of whom, including those from Framatome, were in far better position than he to know the underlying facts – expressed any concern about Serial Letter 2731's accuracy. Tr. at 1647-48. Agendas and notes from those preparation meetings also reflect that Mr. Goyal – who had authored the note that was critical of Serial Letter 2731 but was not sent to Mr. Geisen – was in attendance for some of the meetings. Staff Ex. 47, 48.

So was someone else who knew more about the shortcomings than did Mr. Geisen: a handwritten note on a page titled "Discussion Agenda" reads "concerned that we don't have a frame by frame review. Why not? If NRC comes or sees our tapes we are wide open." Staff Ex. 47 at 1259. The significance of the seemingly-damaging "wide-open" admission was apparently

never explored, much less determined, during the OI investigation. Upon our inquiring at the hearing, Staff Counsel represented that they did not know who the author of that note was. Tr. at 1660-61.

Later, after consultation with OI personnel, Staff counsel reported that the note had been written by Dale Miller, who was the Davis-Besse Regulatory Affairs Supervisor (and who managed Mr. Cook, the contractor who had coordinated the preparation of Serial Letter 2731). Mr. Miller was not in Mr. Geisen's department. Tr. at 1800.¹⁴⁰

Mr. Geisen had no recollection of hearing such a concern about what the tapes would reveal articulated at the preparation meetings he attended. He testified that such a statement would have caught his attention because it would have communicated that Davis-Besse had problems of which he was unaware. Tr. at 1651-52. No evidence contradicted this testimony.

The meeting agendas the Staff put into evidence reflect discussions of the reactor vessel head inspections and cleanings in 1998 and 2000. Staff Ex. 47. The names associated with the discussions of those efforts do not include Mr. Geisen; instead, they are "McLaughlin/Siemaszko." Mr. McLaughlin worked for the Life Cycle Management Group and was the engineer in charge of preparations for the upcoming refueling outage. Tr. at 1603, 1668. Mr. Siemaszko worked for the Systems Engineering Group and had performed the 2000 inspection and cleaning. Staff Ex. 18, 19. Neither of these individuals worked under Mr. Geisen in the Design Basis Engineering Department.

¹⁴⁰ Remarkably, the Board learned nothing more from the Staff about this seemingly important – and seemingly chargeable – handwritten note. Based on other evidence, Mr. Miller had been the subject of an NRC enforcement order banning him, effective immediately, from all work in the regulated industry for five years. After Mr. Miller requested a hearing to challenge that order, the NRC Staff entered into a settlement agreement with him that was approved on September 29, 2006, by a Licensing Board with the same makeup as this Board. That agreement released Mr. Miller from any further punishment or liability in exchange for his making two presentations in which he was to convey to a large group of individuals in the regulated industry both his personal experiences and the lessons he learned. Dale L. Miller, LBP-06-21, 64 NRC 219 (2006). Whether an awareness of the "wide-open" handwritten note would have altered the Staff's, or our, view of the situation is no longer a matter for adjudication or analysis.

The teleconference itself was held on October 3, 2001. According to Mr. Miller's notes of the call, Mr. Geisen stated that in 2000 Davis-Besse conducted a 100% inspection of the reactor vessel head except for some areas near the center of the head that were precluded from inspection due to flange leakage. Staff Ex. 51; see also Staff Ex. 52 (meeting notes state that "100% of the reactor vessel head was inspected which included the CRD housing to head interfaces However, for 5-6 nozzles near the center of the head, boric acid from CRD flange leakage precluded definitive conclusions that the CRD nozzle welds were not leaking."). Mr. Geisen testified that he has no present recollection of making such comments but stipulated before the hearing that he has no reason to doubt the accuracy of Mr. Miller's notes.¹⁴¹ Tr. at 1652. Based on Mr. Miller's handwritten note, discussed above and unknown to OI, it seems that Mr. Miller knew that this was incorrect, yet he did not volunteer a correction during the October 3 conference call.

By way of further explanation, Mr. Geisen testified that, although he has no reason to doubt that the notes from the conference call reflect what was said, he does not recall the context under which they were provided to the NRC nor is he aware of the nature of the question that probed for such a response. Tr. at 1910-12. Mr. Geisen also explained that, if he had spoken the words "100% inspection except for 5 or 6 nozzles," his intention would have been to communicate that Davis-Besse had attempted to conduct a whole head, rather than a sample-type, inspection. Tr. at 1667.

b. Findings of Fact Regarding October 3 Teleconference Statements

The Staff's Enforcement Order asserted that the information communicated by Mr. Geisen in the October 3, 2001 conference call was materially incomplete and inaccurate in

¹⁴¹ There was no other indication that Mr. Geisen was accountable for the purported statement made to the NRC during the October 3, 2001 teleconference than Mr. Miller's denotation of Mr. Geisen's initials in the appropriate location in his notes. Dr. Hiser and Mr. Holmberg testified that they did not recall who at Davis-Besse made the statement during the conference call. Tr. at 944-45, 1249.

that Davis-Besse did not conduct a 100% inspection of the reactor vessel head during 12RFO due to “significant boric acid accumulations on the head” obscuring the view of “a significant number of nozzles.” Enforcement Order at 9-10.

Given the stipulation, we accept Mr. Miller’s attribution of the comments to Mr. Geisen as correct. But this does not serve to sustain the Staff’s charge, for it is clear that Mr. Geisen did not say that Davis-Besse’s employees had seen every nozzle during the 2000 inspection. Conforming to the knowledge summarized above, Mr. Geisen generally knew that Davis-Besse had a history of flange leakage and that several nozzles (i.e., five or six) were obscured from visual inspection. Tr. at 1745.

Confirming this, Mr. Moffitt, who participated on the teleconference, testified that Mr. Geisen “absolutely” did not say the entire head and all of the nozzles had been inspected, and knows this because he would have known such a statement to be incorrect. Staff Ex. 74 at 1284. The Staff evidence is to the same effect: notes taken by Allen Hiser and Melvin Holmberg during the call reflect that the speaker said that there was boric acid interference on five to six nozzles. Staff Ex. 52.¹⁴² We also note that Framatome, the company responsible for having conducted the inspection in 2000, had three representatives on the conference call. Staff Ex. 50. Mr. Geisen would have expected, as would we, that one of the Framatome representatives would have corrected Mr. Geisen if he had mistakenly characterized the inspections with which they were intimately familiar. Tr. at 1665. And again, Mr. Miller did not volunteer the information that he had regarding the videotapes based on his handwritten notes.

Although Mr. Geisen testified that he did not recall reviewing any other documentation in preparation for the conference call other than Serial Letter 2731, the Staff argues that

¹⁴² On direct, Dr. Hiser testified that Davis-Besse reported that 100% of the head was inspected, which he took to mean the entire head was observed. Tr. at 1245-46. His own notes, however, read “100% inspection of head” followed immediately by the line “boric acid interferences on some nozzles – 5-6 nozzles.” Staff Ex. 52. Given the more complete content of his contemporaneous notes, we place more reliance on those notes than upon his more limited present testimonial recollection.

Mr. Geisen's purported sources of knowledge for what he said on the conference call could not have been Serial Letter 2731 and the interactions cited above, because they do not support what was stated on the call. In the face of this, Mr. Geisen was unable to cite any basis for his statement that there had been an attempt to inspect 100% of the reactor vessel head. Tr. at 1920-21. In particular, Mr. Geisen could not identify language in Serial Letter 2731 to support this statement. Tr. at 1920-21. Mr. Geisen did point out, however, that he had participated in preparation meetings for the conference call, specifically meetings held on October 2, 2001 (Tr. at 1915), and explained that he could have drawn upon discussions that took place during this preparation meeting in formulating and supporting such a statement (Tr. at 1919). No further evidence was provided by either party to substantiate or to undermine Mr. Geisen's memory of these events.

We have no better evidence as to the nature of the discussions during the preparatory meetings, nor is there in the record a list of participants in that meeting. All we are left with is that Mr. Geisen is unable to explain now the specific basis for a general statement he does not recall making then. This is too slim a reed to support the allegation that Mr. Geisen knowingly concealed information from the NRC, particularly in view of Mr. Miller's actions, and the lack of involvement by the knowledgeable Framatome staff, all of whom were likely involved in the preparation meetings for the conference call with the NRC Staff.

Against this background, we believe Mr. Geisen when he says that he relayed information he understood, at that time, to be true. Tr. at 1709. Mr. Geisen had no independent recollection of other information concerning prior inspections at Davis-Besse – for which he had no responsibility, exercised no oversight, and conducted no analysis – other than his review of Serial Letter 2731 and interactions associated with preparations for the conference call.

Also brought into issue on this score by the Staff and the Dissent is Mr. Geisen's purported receipt of a report prepared by Mr. Gibbs (the "Gibbs Report") on September 14, 2001. See Staff Findings at 51-52; Staff Reply at 6-8; Dissent at 50 n.37. The Gibbs Report

was prepared by the former owner of Piedmont Management & Technical Services, Inc., who was hired by Mr. Moffitt to assist Mark McLaughlin in preparation efforts for the 13RFO planned for 2002. Staff Ex. 75 at 816.

The Staff maintains that, after having read the Gibbs Report, Mr. Geisen would have been informed that “information FENOC provided to the NRC regarding head inspections was not accurate and incomplete.” Staff Reply at 7. Even more forcefully, the Dissent asserts that the Gibbs Report made a key observation, i.e., that FENOC had “incorrectly represented” in Serial Letter 2731 that “the top head visual inspections would not be compromised [in the 13th RFO] due to any pre-existing boric acid crystal deposits.”¹⁴³ Dissent at 50 n.37 (citing Staff Ex. 44 at 1).

The Gibbs Report does not, however, indicate in any clear fashion that the material it quotes from Serial Letter 2731 was, as the Dissent puts it, an “incorrect representation.” In fact, it appears to go to some lengths to obscure that fact. To that end, the Gibbs Report diplomatically indicates, under point number 1, that:

CRDM Inspection and Repair Project team members are not in agreement concerning the need to proceed with cutting access holes in the Reactor Service Structure at the start of 13RFO. Some see this as a contingency action for which all preparations should be in place and implemented only if required. It is noted that on completion of 12RFO, the Reactor Vessel head did have boric acid crystal deposits of considerable depth left in the center top area of the head, since cleaning of this area at that time was not successful in removing all the deposits (partly due to limited access).

Davis-Besse stated in its response to NRC Bulletin 2001-01 that the top head visual inspections would not be compromised due to any pre-existing boric acid crystal deposits. Given previous experience in removing boric acid deposits from the head, the likely need to remove these deposits at the center top head by mechanical means, the severely restricted access allowed by the service structure mouse holes for mechanical cleaning, the industry experience of Duke Power that clearly emphasizes the need for good access to the head for cleaning and inspection and the NRC commitments and inspection requirements for the visual inspection, the most prudent course of action to avoid outage delays would be to access holes in the Reactor Service Structure as soon as possible in 13RFO.

¹⁴³ We note that the Dissent’s reference (at 50 n.37) to the importance of the Gibbs Report appears to be misplaced. The reference places emphasis on a section of Serial Letter 2731 that is not brought into issue by the Enforcement Order.

Staff Ex. 44 at 1. As may be seen, the letter leaves any connection among the three key passages¹⁴⁴ for the careful reader to draw.¹⁴⁵ There was no reason for Mr. Geisen to be such a careful reader at the time, as the matters covered in it were only peripherally related to his responsibilities as Manager of Design Basis Engineering. Tr. at 1890, 1892-93.

The only information in the Gibbs Report that was arguably different from that reported in Serial Letter 2731 was that the reactor vessel head had not been cleaned during the 12RFO in 2000. The other points raised would, in many ways, have simply reiterated points Mr. Geisen already acknowledged: (1) that the mouseholes restricted (but not necessarily prohibited) access to the reactor vessel head for cleaning and inspections; and (2) that boric acid deposits were found in the center top area of the reactor vessel head. Of most importance, the Gibbs Report does not advise Mr. McLaughlin, and others, in direct terms that statements in Serial Letter 2731 were false and misleading (regardless of what a careful reader could otherwise discern).

It is also not clear at what point in time Mr. Geisen read the Gibbs Report. The Staff suggests that Mr. Geisen would have read the September 14 Gibbs Report prior to the October 3, 2001 conference call. Mr. Geisen noted that the Gibbs Report would have been placed on his desk in the middle of the September 2001 INPO evaluation, so he would have been preoccupied and not likely to have read the Gibbs Report during that time. Tr. at 1893-94. The Staff points out that even if Mr. Geisen had been distracted by the INPO evaluation, that event ended on Friday, September 28, 2001, which the Staff says was “well before” the Wednesday, October 3 conference call. Staff Findings at 52. With only two business days

¹⁴⁴ Those three passages are the last sentence in the first paragraph, the first sentence in the second paragraph, and the last clause (beginning with “the most prudent course”) in the second paragraph.

¹⁴⁵ Mr. Gibbs himself testified that “he never drew a conclusion about what [Serial Letter 2731] said,” because that was “not clear to him.” He did agree that notwithstanding his belief, “I guess you could draw a conclusion that [statements in Serial letter 2731] potentially were misleading.” Staff Ex. 75 at 842-44. Compare the more limited quotation that appears at Dissent at 50 n.37.

intervening, and much for Mr. Geisen to catch up on following the distraction of the INPO audit and his other pressing assignment, we cannot – in the absence of evidence – presume that he immediately focused on the Gibbs Report before the call.¹⁴⁶

In that regard, no evidence was presented that Mr. Geisen actually read the Gibbs Report immediately after it was left on his desk, or soon thereafter, or even at any time before the October 3 call. The report, the creation of which had been assigned by Mr. Moffitt, was addressed to Mr. McLaughlin. On that score, the Staff introduced testimony from the criminal trial in which Mr. Gibbs stated that he left a copy on Mr. Geisen's desk as a courtesy because certain activities discussed in the report involved Mr. Geisen's department. Staff Ex. 44; Tr. at 1890.¹⁴⁷

Other than leaving a courtesy copy, there was no follow-up with Mr. Geisen about the report or its content. Moreover, Mr. Geisen testified during his criminal trial that he did not learn that the reactor vessel head had not been successfully cleaned during the 12RFO until "sometime in October of 2001 . . . after the meeting on the 3rd of October," which indicates an additional likelihood that Mr. Geisen had not focused on the implications of the Gibbs Report prior to obtaining this information. Staff Ex. 71 at 1833-34. His lack of knowledge, shared by

¹⁴⁶ Mr. Geisen explained to us the manner in which he attempted to respond to all the difficulties he encountered in managing his in-box during that time period. Tr. at 1899. Nothing in that explanation indicated that Mr. Geisen's system would have led him to give high priority to the Gibbs Report.

¹⁴⁷ Once again ignoring the practicalities of the workplace in favor of legal theories (this time using, apparently, the rules regarding formal service of process), the Dissent (at 39 n.27) treats leaving a document on someone's desk as establishing – for a fact – that "on" that date the person thereby "received notice" of the document's contents. This approach would be startling enough if there were no other evidence on the matter. But here there was explicit evidence from Mr. Geisen about (1) the difficulties of managing his inbox during that extremely busy period and (2) the reasons why he would not have treated the reading of that document as a high priority.

many others, of the incompleteness of the 12RFO reactor vessel head cleaning was supported by the testimony of Mr. Martin, who expressed “surprise” at this widespread misinformation.¹⁴⁸

Based on the foregoing, the majority finds that there is no evidence that Mr. Geisen had learned anything new prior to the October 3, 2001 conference call beyond what he knew when he signed off on Serial Letter 2731. His statements during the call were consistent with the information he believed at the time to be true.

3. October 11, 2001 Meeting with Commissioners’ Technical Assistants

a. Assignments After October 3 Teleconference

Following the October 3, 2001 teleconference, Mr. Geisen became more involved in the relevant events when he was charged with overseeing two new tasks to which the company had committed during the conference call. Tr. at 1690. The first was the development of a “crack growth rate” model to be performed by Davis-Besse’s probabilistic risk assessment expert, Kenneth Byrd. Tr. at 1690-91. The second was the development of a “nozzle-by-nozzle” table characterizing the scope of past inspections. Tr. at 1692. Construction of that table was assigned to Mr. Siemaszko, an engineer who was not in Mr. Geisen’s Design Basis Engineering department, but who had primary responsibility for (“owned”) the reactor vessel head, and who had performed the 12RFO reactor vessel head inspection and cleaning and was therefore in possession of the past inspection information. Tr. at 1692-94.

Mr. Geisen met with Mr. Siemaszko to review his methodology for conducting that task at some point in the period between making the assignment and October 11. Tr. at 1694. The meeting occurred at Mr. Siemaszko's desk and lasted for approximately one hour. Tr. at 1694, 1696.

¹⁴⁸ See Tr. at 1482-83, where Mr. Martin indicated that Mr. Geisen “. . . was not aware that boric acid had been left on the head. . . . And [he] thought that was interesting also that at least [Mr. Geisen], along with a lot of other people thought that the head had been cleaned, but it hadn’t. He didn’t know that until 2001 sometime.” This continuing confusion might well have been attributable to the continuing influence of the Outage Insider’s incorrect headline story (see above pp. 62-63).

Prior to that meeting, Mr. Siemaszko had the inspection videotapes transferred to DVD format because he had encountered difficulty capturing clear stop-action images from the original format without having lines or other disturbances in the picture. Tr. at 1694-95. The digital format allowed Mr. Siemaszko to move through the file frame-by-frame with more clarity. Tr. at 1695.

During the meeting, Mr. Siemaszko showed Mr. Geisen still-frames of the digitized videotapes and explained his methodology for determining nozzle conditions as needed for the Bulletin's purposes. Tr. at 1696-97. This meeting in early October was the first time Mr. Geisen viewed portions of the past inspection videotapes. Tr. at 1696. According to Mr. Geisen's uncontradicted testimony, and contrary to the Dissent's speculation (see below pp. 139-40), at no time during the meeting with Mr. Geisen did Mr. Siemaszko play the video in running fashion (the manner in which the Staff played the tapes for the Board during the evidentiary hearing). Tr. at 1697.

Mr. Siemaszko explained to Mr. Geisen that his overall approach involved looking to see whether the downhill side of a nozzle was clear of any popcorn-type deposits in order to declare the nozzle acceptable from an interface cracking perspective. Tr. at 1698. For some nozzles, Mr. Siemaszko told Mr. Geisen he had to look at a nozzle from multiple perspectives to get a good angle or view. Tr. at 1698. Mr. Siemaszko showed Mr. Geisen some photos depicting nozzles with boron accumulated on the uphill side of the nozzle. Tr. at 1699. For those nozzles, Mr. Siemaszko explained that he would look to see if the deposits appeared to have fallen from above and come to rest on the nozzle (i.e., they represented leakage from flanges above the insulation), or whether the deposits were piled up on the nozzle (i.e., they represented leakage from nozzles or other sources). Tr. at 1699. Mr. Siemaszko told Mr. Geisen that he also looked for streaks on the nozzles or stalactites on the mirror insulation as a further way to determine if there was evidence that the boric acid had come from a source above the reactor vessel head. Tr. at 1699.

Mr. Geisen does not know from which prior inspections the still frames he viewed came, but assumes they were from 1998 and 2000, given that the meeting occurred before Mr. Siemaszko began to look at 1996 inspections for the table. Tr. at 1697. He did not see anything during that meeting resembling the portions of the 2000 inspection videotape (exhibited by the Staff during the evidentiary hearing) where the camera was running into large piles of boron. Tr. at 1700. Based upon their one-hour meeting, Mr. Geisen was satisfied with Mr. Siemaszko's methodology. Tr. at 1700.

The wisdom of that assessment is not before us as part of any Staff charges, but in any event no evidence established it to be illegitimate under the standards applicable when it was made. During the agency's investigatory phase, and at the request of OI and the Department of Justice, Staff witness Melvin Holmberg spent 58 hours reviewing the Davis-Besse inspection videotapes from 1996, 1998, and 2000, and making determinations about whether nozzles were viewable and in a condition sufficient to be determined not to be leaking. Tr. at 892.¹⁴⁹ In this effort, Mr. Holmberg employed a standard he had recently developed for the purpose of the present litigation. Tr. at 951. Regarding evidence of leakage, that standard followed criteria established in an EPRI document that had not been issued until either 2002 or 2003 (i.e., after the time in which Mr. Siemaszko conducted his review). Tr. at 952-53. Mr. Holmberg conceded that the standard he employed was different from the one FENOC utilized in making its determinations to be presented to the NRC in response to the Bulletin. Tr. at 953-55.

As to the FENOC standard, Mr. Siemaszko's methodology was shown to comport with the understanding of Staff witness, Dr. Hiser, of what was acceptable at the time the challenged communications were occurring, although falling short of the standard Mr. Holmberg later

¹⁴⁹ Mr. Holmberg appeared especially well-qualified for the tasks about which he testified. He has worked for the NRC for 15 years and has been a reactor inspector since 1995. Tr. at 831-32. The certification process to become a reactor inspector involved 2,000 hours of training and hands-on experience, and Mr. Holmberg has conducted more than a dozen reactor vessel head inspections. Tr. at 834, 948-49.

devised. In August of 2002, Dr. Hiser was interviewed by the OI and asked about his understanding of FENOC's representations in the October 3, 2001 teleconference regarding prior inspections of the nozzles:

Question: On the nozzles excluding the five or six that may have had interferences, when you were told that they have done an inspection of the other nozzles, do you interpret that as a 360 degree inspection.

Answer: I would have expected at that point in time that we would not have been as detailed as 360 degrees, but I think the intent of the discussion would have been that it would have provided a sufficient coverage to effectively clear the nozzle. They did not say 360 degrees, but at least it would have been sufficient familiarity with what was observed at each nozzle to say there was no leakage there. As an example, I would have expected at the minimum that the observed area would have been what's called the downhill side of the nozzle, which is if the nozzle is cut into a curved part of the head, that would be the part that has the lowest elevation.

Geisen Ex. 20; Tr. at 1408-1410. There is no ground, then, to criticize Mr. Geisen for relying upon Mr. Siemaszko's similar approach to form his knowledge base.

b. Mr. Geisen's Role During October 11 Meeting with Technical Assistants

After the October 3, 2001 conference call, at Mr. Campbell's direction, Mr. Lockwood arranged a meeting with the NRC Commissioners' Technical Assistants on October 11, 2001. Tr. at 1703. The FENOC employees attending the meeting were Mr. Campbell, Mr. Moffitt, Mr. Lockwood, and Mr. Geisen. Staff Ex. 55. Mr. Fyitch from Framatome also attended as part of the FENOC team. Staff Ex. 55.

At the October 11 meeting, the FENOC team delivered information to the Technical Assistants through a Powerpoint slide presentation. Tr. at 1703-04; Staff Ex. 55. The slides were prepared the night before the meeting by Mr. Campbell, Mr. Moffitt, Mr. Lockwood,

Mr. Geisen, Gerry Wolf and Ken Byrd.¹⁵⁰ Presumably, each of these individuals agreed with the accuracy of the information in all of the Powerpoint slides. Tr. at 1704, 1725. During the meeting, Mr. Geisen spoke to two of the presentation slides, which contained statements regarding Davis-Besse's past inspections. Staff Ex. 55.

Mr. Geisen indicated that the basis for his belief in the accuracy of those statements was his review of Serial Letter 2731 in preparation for the October 3, 2001 teleconference, as well as discussions with others involved in the development of the slides the night before. Tr. at 1925-26. As previously noted, prior to the October 11, 2001 meeting, Mr. Geisen had also participated in the October 2, 2001 preparation sessions (Tr. at 1647-52), and had met with Mr. Siemaszko to review Mr. Siemaszko's methodology (Tr. at 1694-99).

The first slide Mr. Geisen presented was entitled "Davis-Besse's NRC Bulletin Response," and included the following statements: "Conducted and recorded video inspections of the head during 11RFO (April 1998) and 12RFO (April 2000)" and "No head penetration leakage was identified." Staff Ex. 55. The second slide, entitled "Facts," represented that "All CRDM penetrations were verified to be free from "popcorn" type deposits using video recordings from 11RFO or 12RFO." Staff Ex. 55.

c. Mr. Geisen's Effort to Avoid and to Correct Errors

The original text of the slide entitled "Facts" stated "All CRDM penetrations were verified to be free from 'popcorn' type deposits using video recordings from 11RFO and 12RFO." Tr. at 1722 (emphasis added). By changing the word "and" to "or," Mr. Geisen conformed the sentence to what he understood on October 11, 2001. Tr. at 1723; Staff Ex. 71 at 1918. At that time, Mr. Geisen believed the use of the word "and" suggested that either inspection could stand on its own, which was not true because Davis-Besse was using videotape footage from both outages to come to this conclusion. Tr. at 1723. Mr. Moffitt testified he believed the change

¹⁵⁰ Mr. Wolf worked in Regulatory Affairs with Mr. Lockwood (Tr. at 1726), and Mr. Byrd was the engineer assigned to manage the creation of the crack-growth model (Tr. at 1690-91).

was suggested by Mr. Geisen because the original wording could lead someone to believe the 2000 inspection was better than it actually was. Staff Ex. 74 at 1291-92.

At some point between the October 11, 2001 meeting and the submission of Serial Letter 2735 (FENOC's supplemental response to the Bulletin) on October 17, 2001, Mr. Siemaszko presented Mr. Geisen with the preliminary results of the nozzle-by-nozzle table. Tr. at 1720. Upon reviewing the table, Mr. Geisen realized that the information therein could not be reconciled with the information the FENOC team had provided to the Commissioners' Technical Assistants. Tr. at 1945-46.

Mr. Geisen promptly informed Mr. Moffitt that they had provided inaccurate information to the Commissioners' Technical Assistants that needed to be corrected. Tr. at 1721, 1946.

Mr. Geisen believed this was the "genesis" of Serial Letter 2735, which was to correct the inaccurate information Mr. Geisen and others on the FENOC team had provided to the Technical Assistants on October 11, 2001. Tr. at 1721, 1946.

Mr. Moffitt testified at the criminal trial that when Mr. Geisen reported the error, Mr. Geisen was very disappointed in the mistake. Staff Ex. 74 at 1293-94. Mr. Moffitt also testified that he did not sense that Mr. Geisen was trying to cover up the mistake or to conceal it from the NRC. Staff Ex. 74 at 1293-94.

During cross-examination of Mr. Geisen, the Staff's questioning suggested it held the view that, rather than informing Mr. Moffitt and the company's Regulatory Affairs officials of the error and asking them to rectify it, Mr. Geisen should have himself placed a telephone call to the Technical Assistants, as appears may be called for by NRC regulations. See Tr. at 1946-52; 10 C.F.R. § 50.9. The evidence establishes that Mr. Geisen did not follow that course (if he even knew it existed), but instead followed FENOC protocols by reporting the mistake to his superiors

and participating in creating FENOC's corrective submission, which took place within six days of the discovery of the new information.¹⁵¹

We do not fault an employee at Mr. Geisen's level for, in such circumstances, following his company's procedures, rather than federal regulations. The important point for our purposes is that he took prompt action, within his normal sphere of influence, to get the error corrected.¹⁵²

d. Findings of Fact Regarding October 11 Meeting Representations

The Staff's Enforcement Order found that FENOC's presentation to the Commissioners' Technical Assistants was materially incomplete and inaccurate for failing to state that the boric acid accumulation on the reactor vessel head was so significant that not all nozzles could be visually inspected. Mr. Geisen was said to be accountable for lacking a basis for the slides he presented stating "no visible evidence of RPV penetration nozzle leakage was detected." Enforcement Order at 11.

The Staff asserts that Mr. Geisen knew these representations were false because he knew it was impossible to view all of the nozzles during 11RFO and 12RFO, or to verify they were free from popcorn-type deposits, for two reasons: (1) the camera-on-a-stick inspection method used by Davis-Besse did not allow a full head inspection, and (2) a significant number of nozzles were obscured by significant boric acid deposits. Staff Findings at 60-61.

¹⁵¹ The Dissent falls short of the mark in attempting (at 53 n.40) to discount Mr. Geisen's efforts to correct false information. Mr. Geisen thought he had acquired the corrected information, and he saw to it that this new information was included in the followup submission. That the followup submission "nowhere acknowledges that [he had earlier] provided . . . false information" – i.e., does not admit that FENOC's earlier submission was false – would in most regulated industries have been a decision made by company counsel or other personnel with overall responsibility for communications with the Government, and would not be the province of someone in Mr. Geisen's position.

¹⁵² If that effort had failed, and Mr. Geisen were to have learned that FENOC had not tried to correct the inaccuracies, he – and eventually we – would have had to address what obligations that situation would have placed upon him. That situation did not transpire, however, for after Mr. Geisen followed company protocol and notified the appropriate employees at Davis-Besse, then, to his knowledge, the inaccuracies were corrected with the submittal of Serial Letter 2735.

As we discussed above, we have concluded the evidence does not show that Mr. Geisen was aware that Davis-Besse's inspection method prevented the inspection of all nozzles atop the reactor vessel head. Moreover, Mr. Geisen was persuaded, as were many others at Davis-Besse, that the boric acid deposits were exclusively from flange leakage – a problem verified by Framatome in prior inspections.

Of equal import, there is no evidence that anyone else on the FENOC team conveyed to Mr. Geisen during the course of preparing slides and planning the presentation that the information was incorrect. Others in the room plainly knew more than Mr. Geisen on these matters. Tr. at 1725. The evidence demonstrates that the FENOC managers worked as a team the night before to prepare the presentation, and therefore, without any evidence that Mr. Geisen was informed of any inaccuracies in any of the information stated in the two slides in question, we are unable to find that that information is contradictory to the general understanding he had then of the facts at hand.

Moreover, the evidence also demonstrates that (1) when Mr. Geisen received the nozzle-by-nozzle table from Mr. Siemaszko after this meeting with the NRC, he realized then – for the first time – that the information he had presented was inaccurate; and that (2) he promptly brought this to the attention of his management. To disclose this information, FENOC management decided to include information in Serial Letter 2735, which was filed on October 17, 2001 (i.e., within six days of the meeting) and included Mr. Siemaszko's completed nozzle-by-nozzle table, documenting his determinations of the 1998 and 2000 inspections.

We also note that the Staff official most responsible for the Enforcement Order testified that he had been unaware, before that Order was issued, of any efforts by Mr. Geisen to correct the filing of mistaken information, and that such efforts, if known, "would definitely [be] take[n] into consideration as a part of [his] recommendation." Tr. at 2061-64. He agreed that a failure to follow precise procedures in pursuing those corrections would not change what the correction

effort itself “would indicate . . . to us about what this fellow does when he knows something [was wrongly submitted].” Tr. at 2064-65.

This important testimony confirms the view of the evidence that we had already reached. Accordingly, we therefore find that Mr. Geisen is not to be held responsible for knowingly representing the inaccuracies provided in the two October 11 slides.

4. Supplement to FENOC’s Initial Bulletin Response (Serial Letter 2735)

a. Mr. Geisen’s Involvement in Serial Letter 2735 (October 17, 2001)

FENOC submitted Serial Letter 2735 to the NRC on October 17, 2001. See Staff Ex. 11. That Serial Letter contained information requested by the NRC in the October 3, 2001 teleconference, including the nozzle-by-nozzle table and the initial results of the crack growth rate analysis. See Staff Ex. 11, Attachment 1 at 2-3. Specifically, Serial Letter 2735 reported that, during 1996, 65 of 69 nozzles were inspected; in 1998, 50 of 69 nozzles were inspected; and, in 2000, 45 of 69 nozzles were inspected. Staff Ex. 11. Serial Letter 2735 also included information Mr. Geisen believed corrected the inaccurate statements the FENOC team had delivered to the NRC during the October 11, 2001 meeting with the Commissioners’ Technical Assistants. Tr. at 1951.

Mr. Geisen testified that he was not surprised that Mr. Siemaszko’s nozzle-by-nozzle review led to more detailed results. Tr. at 1727. Furthermore, with Mr. Siemaszko having made no effort to hide that his nozzle-by-nozzle table yielded different results than he had initially reported, Mr. Geisen had further support for his trust in Mr. Siemaszko. Tr. at 1728.

Mr. Geisen’s reaction was a permissible one. To put it in perspective, Dr. Hiser was advised of the differing results at nearly the same time. On October 3, 2001, FENOC informed Dr. Hiser that the 2000 inspection involved a 100% inspection of the reactor vessel head except for five or six nozzles that were obscured by boric acid deposits; and on October 17, 2001, Serial Letter 2735 reported that the same inspection viewed only 45 of 69 nozzles. Tr. at 1247; Staff Ex. 11 at 5. Dr. Hiser testified that – rather than viewing this change as evidence of

deception – he believed FENOC was gathering more information to clarify data. Tr. at 1372-73 (“I thought it was a good engineering effort to validate the information that had been provided previously.”).

Mr. Geisen participated in the development and review of Serial Letter 2735. Tr. at 1952. He signed the Green Sheet for 2735, after Mr. Siemaszko, Mr. Goyal, and Mr. McLaughlin, among others. Staff Ex. 12. Serial Letter 2735 contains a section titled “Previous Inspection Results.” Staff Ex. 11 at 5. In that section, the Serial Letter reports:

The inspection performed during the 10th, 11th, and 12th Refueling Outage . . . consisted of a whole head visual inspection of the RPV [reactor vessel] head in accordance with the [Davis-Besse] Boric Acid Control Program pursuant to Generic Letter 88-05 . . . During 10RFO, 65 of 69 nozzles were viewed, during 11RFO 50 of 69 nozzles were viewed, and during 12RFO 45 of 69 nozzles were viewed.

Staff Ex. 11 at 5.

As it turned out, the information presented in Serial Letter 2735 was also flawed in that significantly fewer nozzles were viewed during the prior inspections than were represented in the submittal.¹⁵³ Mr. Geisen testified without contradiction, however, that he approved its submission to the NRC believing it was accurate. We were provided with no evidence to support a finding to the contrary or to discredit Mr. Geisen’s testimony in this regard.

b. Findings of Fact Regarding Serial Letter 2735

The Staff’s Enforcement Order asserted in general terms that Serial Letter 2735 was materially incomplete and inaccurate in that FENOC did not view the stated number of reactor

¹⁵³ The inaccurate and incomplete statements were not discovered by the NRC Staff until Mr. Holmberg completed his detailed review of the inspection videos in the spring of 2002 after the corrosion cavity had been discovered. Mr. Holmberg testified that he spent 58 hours to review the videotapes of the prior inspections to make his determinations. Tr. at 947. He also testified that he used a new method to make his determinations that was not standard at the time Mr. Siemaszko would have conducted his review for the nozzle-by-nozzle table. Tr. at 951; see also above pp. 99-100.

vessel nozzles during the referenced outages noted in the response. The Enforcement Order itself, however, is not explicit about the details of the charge.

Be that as it may, the Stipulation between the parties clarifies that the inaccurate and incomplete information related to the number of nozzles that were claimed to have been viewed for each outage, i.e., 65 of 69 nozzles in 10RFO, 50 of 69 nozzles in 11RFO, and 45 of 69 nozzles in 12RFO. The Stipulation indicates that “significantly fewer nozzle penetrations were viewed during that inspection.” Staff 77 at 7. It is not clear, however, that the Enforcement Order was referring specifically to this portion of Serial Letter 2735. Mr. Geisen was charged to have been aware that Serial Letter 2735 was materially incomplete and inaccurate, but concurred in the response, thus allowing it to be submitted to the NRC. Enforcement Order at 12.

The parties stipulated that several aspects of Serial Letter 2735 were inaccurate and incomplete; the parties did not stipulate, however, that it was inaccurate to say that a “whole head inspection” was completed. See Staff Ex. 77 at 7-8. The Staff argues that the plain meaning of the phrase “whole head inspection” was that every part of the reactor vessel head had been seen. Staff Proposed Findings at 66.

We acknowledge the definitive-sounding character of this language but note that, for each of the numerous instances in which FENOC reported that a “100% inspection” or “whole head inspection” or “entire head inspection” was conducted,¹⁵⁴ that phrase was modified by presentation of phraseology setting forth the exceptions or qualifiers. Although these characterizations do not appear to be the optimal approach for conveying the notion that, for example, “an attempt to perform a 100% inspection did not succeed, because views of 5-6 nozzles were precluded,” the approach used – awkward though its syntax may be – was a consistent one that does not appear, in its totality, intended to deceive, or to conceal the truth

¹⁵⁴ See Staff Ex. 11 at 2, 10; Staff Ex. 13 at 2, 8; see also Staff Ex. 52.

from, the NRC. For example, on October 3, 2001, Mr. Geisen's "100% inspection" comment contained the caveat "except for 5 or 6 nozzles precluded by flange leakage." Staff Ex. 51, 52. Likewise, Serial Letter 2735 reported a "whole head visual inspection" and that "the entire head was inspected" in 2000 but qualified those statements with the report that, in 2000, "45 of 69 nozzles were viewed." Staff Ex. 11 at 2.

Serial Letter 2735 also included Mr. Siemaszko's nozzle-by-nozzle table, which partially served to support the statements provided regarding the number of nozzles viewed during each inspection. Staff Ex. 11. Included as a footnote to the table was a note Mr. Geisen drafted stating that, "In 1996 during 10RFO, the entire reactor vessel head was inspected. Since the video was void of head orientation narration, each specific nozzle view could not be correlated." Staff Ex. 11 at 10; see also Tr. at 1952.

Mr. Geisen testified that the footnote was based upon Mr. Siemaszko's statement to Mr. Geisen that there was no head orientation on the 1996 inspection videotape. Tr. at 1952. The Staff suggests Mr. Geisen knew that to be false, and elicited testimony, both from Mr. Holmberg (Tr. at 908-17) and Mr. Goyal (Tr. at 1027-29), describing the verbal head orientation cues that were on the 1996 inspection videotape viewed at the hearing. Staff Ex. 81. The Staff posits Mr. Geisen knew the 1996 inspection videotapes had an audio narration because he viewed portions of the 1996 inspection tape in August and early October of 2001. Staff Proposed Findings at 69.

No evidence was, however, presented – aside from the non-probative Martin document (see Section V.C.1.d above) – to substantiate the Staff's claim that Mr. Geisen had seen the inspection video in August. Nor did a viewing take place during Mr. Geisen's meeting with Mr. Siemaszko, where Mr. Siemaszko demonstrated his methodology for creating the nozzle-by-nozzle table using only the still-frame digital images (see above Section V.C.3.a).

Indeed, Dr. Hiser was not able to recall whether he heard any sound during his viewing of the 1996 inspection videotape at NRC Headquarters on November 8, 2001 (see Section

V.C.6.a, below). Tr. at 1363. Likewise, no evidence was presented to refute Mr. Geisen's testimony that Mr. Siemaszko informed him – untruthfully – that the 1996 inspection videotape was devoid of any audio narration. Tr. at 1952. Therefore, the Staff did not provide probative evidence that Mr. Geisen included the footnote with the knowledge that the videotapes did have audio narration, nor did we receive any evidence to refute Mr. Geisen's testimony that he believed the information provided to him by Mr. Siemaszko was true.

Although not identified as a misrepresentation for which Mr. Geisen was charged in the Enforcement Order, both the Staff and the Dissent note that Serial Letter 2735 reported that the inspections performed for 10, 11, and 12 RFO were done in accordance with the BACC Program, which they argue Mr. Geisen would have known was inaccurate. See Staff Findings at 67; Dissent at 55. Mr. Geisen received training with Davis-Besse's BACC Program prior to entering 12RFO in 2000. Staff Ex. 79 at 40. He testified that he was therefore aware that, to comply with the BACC Program, a bare metal head inspection would require removal of boron sufficiently enough to evaluate the bare metal. Tr. at 1939. Thus, the Staff argues that Mr. Geisen would have known this statement in Serial Letter 2735 to be inaccurate because deposits on the head would have prevented such an inspection. Staff Findings at 67-68; see also Dissent at 55.

The inspections performed during 10, 11, and 12RFO at Davis-Besse were not bare metal head inspections. But Mr. Geisen did not represent the contrary. Importantly, Serial Letter 2735 also reported that a fair number of nozzles were not visually inspected, particularly during 11RFO and 12RFO, where up to 35% of the nozzles were not viewed. Staff Ex. 11, Attachment 1 at 2-3. Moreover, Serial Letter 2735 provided head maps on which the 11 and 12RFO inspection findings were depicted, including an illustration of the area on the reactor vessel head where substantial boric acid accumulations were observed. Staff Ex. 11, Attachment 3. The recorded boric acid deposits on the reactor vessel head for all three inspections were attributed to leaking flanges. Staff Ex. 11, Attachment 1 at 3. The description

of the inspection results, and the illustrative head maps, would inform any technically-educated reader that a statement that the inspection was conducted in accordance with the BACC Program was meant as an indication of how the company proceeded, rather than as an indication that a bare metal inspection was fully accomplished.

Accordingly, without evidence to the contrary, we cannot find that Mr. Geisen had the requisite knowledge to recognize that the information provided in Serial Letter 2735 was inaccurate. As previously stated, the Staff charges Mr. Geisen with knowing that the number of nozzles that Serial Letter 2735 stated were viewed for each outage was significantly greater than the actual number of nozzles that could be viewed. The Staff was not aware, however, of these inaccuracies until Mr. Holmberg completed his extensive (58-hour) review of the videotapes for prior inspections– using a methodology he stated was different than that used by Mr. Siemaszko – in the spring of 2002. In fact, Serial Letter 2735 did disclose to the NRC Staff that boric acid accumulations disabled the view of a substantial portion of the reactor vessel head. The Staff provided no evidence, however, to prove that Mr. Geisen knew the severity of those deposits or that the number of viewable nozzles during prior inspections was significantly less than that reported.

5. Additional Supplement to Initial Bulletin Response (Serial Letter 2744)

a. Mr. Geisen's Involvement in Serial Letter 2744 (October 30, 2001)

FENOC submitted Serial Letter 2744 to the NRC on October 30, 2001. Staff Ex. 13. It included photographic images of the 1996, 1998, and 2000 reactor vessel head inspections that had been extracted from the inspection videotapes for the respective years. Several images were accompanied by a descriptive caption. Staff Ex. 13. Serial Letter 2744 also included the nearly identical nozzle-by-nozzle table and reactor vessel head map diagrams that FENOC had presented in Serial Letter 2735. Tr. at 1750.

The images were provided to the NRC as a means of documenting the inspections for the Staff. Tr. at 1749. For this purpose, Mr. Geisen requested that Mr. Siemaszko provide

representative photos of the images Mr. Siemaszko viewed when he performed the evaluation for the nozzle-by-nozzle table. Tr. at 1749. All of the images included in Serial Letter 2744 were those provided to Mr. Geisen by Mr. Siemaszko in response to this request. Tr. at 1749-50. Mr. Geisen did not provide the titles to the images identifying each nozzle, but he drafted descriptive captions for several images. Mr. Geisen stated that he based the information in those captions upon his conversations with Mr. Siemaszko. Tr. at 1749-52. No evidence was presented to suggest that Mr. Geisen omitted images showing extensive boric acid accumulations on the reactor vessel head. In fact, some of the images included in Serial Letter 2744 did provide images of boron accumulation built up around nozzles. Staff Ex. 13; see also Staff Ex. 80.

b. Findings of Fact Regarding Serial Letter 2744

The Staff's Enforcement Order asserted that Serial Letter 2744 was materially incomplete and inaccurate in that the photographic images of the reactor vessel head nozzles and the accompanying labels were not consistent with the actual reactor vessel head conditions or with the nozzles portrayed in the photographs. Specifically, the Enforcement Order noted that images of the significant boric acid accumulations present on the reactor vessel head were omitted, and that many of the nozzle images were mislabeled or mere copies of other images with the labels changed. The Enforcement Order asserted what Mr. Geisen confirmed at the hearing, that he provided captions for several images based on his understanding of the reactor vessel head inspections and his discussions with Mr. Siemaszko, but it also charges that Mr. Geisen was aware that the information contained in Serial Letter 2744 was incomplete and inaccurate and still concurred in the response. Enforcement Order at 13; see also Tr. at 1749.

The parties have stipulated that the information in Serial Letter 2744 misrepresented the condition of the reactor vessel head by omitting images available in the inspection videotape that show large boric acid deposits, consequently hiding what the Staff suggests were true

conditions of the reactor vessel head during these inspections. Thus, Mr. Geisen was charged with providing the Staff with Serial Letter 2744 knowing of the inaccuracies contained therein.

Although the parties stipulated to the purported inaccuracies, no evidence was presented suggesting that Mr. Geisen knowingly omitted photographs showing extensive boric acid accumulations on the reactor vessel head. There is no probative evidence before us to establish that, at that juncture, he had yet seen the videotapes. Thus, it was natural for him to take what was given him by Mr. Siemaszko – whom he did not directly supervise and whom he had no reason not to place trust in or reliance upon.

Moreover, some of the photographs included in Serial Letter 2744 did show nozzles with boric acid accumulations. In those instances, Mr. Geisen included captions explaining Mr. Siemaszko's methodology for concluding the deposits were not from leaking nozzles. While Mr. Siemaszko's methodology proved to be flawed, again no evidence was provided showing Mr. Geisen was aware that the analysis and the information were flawed and therefore that he had been deliberately inaccurate.¹⁵⁵

6. ACRS Meeting and Related Events

a. Mr. Geisen's Role in November 8, 2001 Video Session for NRC Staff

A public meeting requiring FENOC's attendance was scheduled for the morning of November 8, 2001, at NRC Headquarters in Rockville, Maryland, to tie in with an ACRS meeting scheduled for the following day. Tr. at 1757. Mr. Geisen did not travel to Rockville until early on November 8, one day later than the other individuals on the FENOC team, who had gathered

¹⁵⁵ Context is again significant with regard to the Staff's imputation of knowledge to Mr. Geisen that he knowingly presented inaccurate information. Serial Letter 2744 included methodologies and statements that were clearly flawed and inaccurate; review by the NRC Staffers would, however, have exposed those deficiencies. For example, the admission that boric acid had accumulated on the reactor vessel head would indicate clearly to the NRC Staff that a pristine head could not have been viewed. Additionally, the Bulletin specifically stated that boric acid deposits were not to be credited to leakage from other sources if those deposits could mask the popcorn-type deposits created by control rod drive nozzle cracking. Neither of these conditions was withheld by FENOC in Serial Letter 2744, and yet the NRC Staffers reviewing the submission were not alarmed by its contents.

the day before to prepare to attend the public meeting. Tr. at 1759. When he arrived, he was informed by Mr. Lockwood that he had been selected by his colleagues to bring the videotapes of the prior inspections to NRC Headquarters that evening to show them to assembled members of the NRC Staff. Tr. at 1758.

The meeting to show the videotapes had been scheduled by Mr. Lockwood the prior evening, without any advance notice to Mr. Geisen. Tr. at 1758-59. There was no evidence provided that Mr. Geisen expressed any reluctance to present the tapes to the Staff. Such reluctance, had it existed, might have been an indication that he had seen the videotapes; in contrast, his willingness to present the inspection videotapes could be taken as an indicator, or even as compelling proof, that he was unaware of their contents.

In any event, the inspection videotapes were provided to Mr. Geisen between late morning and mid-day, and he was scheduled to present them to the NRC Staff at a 5:30 p.m. meeting. Tr. at 1758-59. Mr. Geisen testified that he was given a stack of six or so VHS cassettes that, based on the labels provided on the videotapes, depicted the inspections from 1996, 1998, and 2000. Tr. at 1759. Prior to the 5:30 p.m. meeting, Mr. Geisen was attending meetings with Dr. Hiser and others from the NRC Staff, providing little to no opportunity for Mr. Geisen to review the videotapes in advance. Tr. at 1361; see also Staff Ex. 79 at 1932; Tr. at 1295.

At some time after 5:30 p.m., Mr. Geisen met with a number of Staff personnel, including Dr. Hiser, and began showing them the inspection videotapes. Mr. Geisen was the only representative from FENOC at the meeting; all of the other participants in the meeting were NRC Staff. Tr. at 1296. The session occurred at NRC Headquarters, in a room that Mr. Geisen had not had unaccompanied access to prior to the start of the meeting. Tr. at 1363. Mr. Geisen showed the videotapes on a television and VCR with which he had no opportunity to gain any prior familiarity. Tr. at 1364. Dr. Hiser, who was present at this meeting, recalls viewing

portions of the 1996 and 1998 inspection videotapes. Tr. at 1295. Dr. Hiser testified that Mr. Geisen did not show any of the 2000 inspection to the Staff. Tr. at 1301.

Mr. Geisen placed the first videotape into the VCR and hit the play button. Tr. at 1316. At times, he fast-forwarded or rewound through the tape, sometimes at the Staff's direction. Tr. at 1316, 1362. At no point did Mr. Geisen refuse to stop, rewind, or forward the videotape at the Staff's request. Tr. at 1362. When Mr. Geisen rewound or fast-forwarded the tape, the images remained on the screen in a faster backward or forward motion, but remained viewable by the Staff; at no time did the television screen go blank. Tr. at 1362-63.

Notably, Dr. Hiser did not recall that Mr. Geisen displayed any suspicious behavior during the meeting. Nor did he have the impression that Mr. Geisen came to the meeting with an agenda not to show the NRC Staff parts of the videotapes or deliberately to withhold anything from the NRC. Tr. at 1363, 1365-66.

Dr. Hiser testified that on November 8, 2001, he and the other Staff members watched the 1996 videotape for approximately 30 minutes. Tr. at 1317. Not so coincidentally, the 1996 as-found inspection videotape the Staff played at the hearing had a total running time of just over 28 minutes. Staff Ex. 81. Dr. Hiser stated that the 1996 videotape showed "relatively benign conditions, not a lot of boron on the head . . . boron in various places, but . . . clearly not a significant problem." Tr. at 1300.¹⁵⁶

Following the viewing of the 1996 inspection, Mr. Geisen played the 1998 inspection videotapes for those present. Tr. at 1364. Dr. Hiser testified that the portions of the 1998 videotape he saw during that meeting clearly showed more boric acid on the reactor vessel

¹⁵⁶ Dr. Hiser also testified that there were portions of the 1996 inspection he did not see during the November 8, 2001 session. Those portions are not concentrated at the beginning or end of the tape, but instead are spread throughout the tape. For example, Dr. Hiser testified that he did not see portions of the tape located at 2:24 and 15:14 but might have seen the portion at 5:25. Tr. at 1414-15.

head than the prior inspection, making it harder to see the nozzle interfaces (Tr. at 1324), but he also emphasized that it was “nothing that would really raise a lot of concerns” (Tr. at 1300).

According to Mr. Geisen, Staff personnel present at the meeting were inquiring as to how individual nozzles had been determined to be “leakers” or “non-leakers.” Tr. at 1762; see also Tr. at 1431. Mr. Geisen recalled (1) telling the Staff that he was unable to answer their questions and (2) offering to have Mr. Siemaszko visit the NRC at some future date to explain how those judgment calls were made. Tr. at 1762-63.

Although Dr. Hiser did not recall that specific statement, he did recall that Mr. Siemaszko was at a public meeting with the NRC discussing the 2000 inspection shortly thereafter. Tr. at 1431. Mr. Geisen confirmed that Mr. Siemaszko visited NRC Headquarters one week after the November 8, 2001 meeting to address the NRC’s questions that Mr. Geisen had been unable to answer. Tr. at 1765.

Regardless, the Enforcement Order does not charge Mr. Geisen with any misconduct at the November 8, 2001 videotape session. Indeed, that session is not even mentioned in the Enforcement Order.

In our view, the conclusions that might be drawn from that session cut the other way. Indulging in the assumption that he had earlier viewed the videotapes (by crediting the Staff’s view of the Martin document), we would begin our analysis convinced that Mr. Geisen viewed the videotapes in August of 2001. The impact of that viewing would be considerable – both for establishing his interest in and concern about the matter early on, and for the knowledge it would establish – for, as one of Mr. Geisen’s colleagues later noted about these videotapes, “if the NRC saw the tapes, we would be wide open.” See Staff Ex. 47 at 1259; see also, above pp. 89-90.

Against that background, we would then have to believe that whenever Mr. Geisen made, or joined with others at FENOC in making, a submission that has since been stipulated to be false, he did so knowing that any government official who might later view the videotapes

would have clear evidence of his misconduct. Then, despite that knowledge, he – without protest – accepted an assignment, on very short notice, to be the lone FENOC employee presenting the videotapes to an after-hours roomful of Staff officials, a showing that he would have had to think – on the assumptions we are now indulging – could expose all his prevarications. Nothing in the evidence, or in Mr. Geisen’s demeanor, would lend credence to this chain of events.

b. Mr. Geisen’s Response at November 9, 2001 ACRS Meeting

On November 9, 2001, Mr. Geisen and other FENOC managers met with the NRC’s Advisory Committee on Reactor Safeguards (ACRS) to discuss Davis-Besse’s crack growth rate model and to present information on potential circumferential cracking of the Davis-Besse reactor vessel head nozzles. Staff Ex. 77 at 10; Tr. at 1757.

During the ACRS meeting, Mr. Moffitt made a presentation regarding Davis-Besse’s crack growth analysis. During that presentation, Mr. Geisen – who was not scheduled to appear formally – responded to a question from Vice Chairman Bonaca. Referring to a representation that the 1998 and 2000 inspections had been limited, Dr. Bonaca asked “what was the extent of the inspection?” Staff Ex. 59. Mr. Geisen responded by stating:

I’ll talk to that. What we did is recognize – this is Dave Geisen. With regard to these inspections, recognize that they were not done looking for this particular phenomenon. They were looking for other things. The two inspections done in 1998 and 2000 were really looking for the impact of boric acid leakage from leaky flanges that we had subsequently repaired and what was the impact to that. So the view that we got from those was in many cases some of the drives you couldn’t even get a good view of. There were many cases, the camera angle was looking upwards because it was looking at the structural material of the service structure on top of the head. When we looked at the 1996 data, you got more of a downward look at these nozzles because we were specifically following around a vacuum and problem that was looking for head wastage as a result of the boron being deposited on the head. So what really comes down to it, the best video we have on this goes all the way back to 1996.

Staff Ex. 59 at 397-98 (emphasis added).

The context of this response is instructive. The subject was the crack growth analysis, which was being conducted to justify the plant's operation beyond December 31, 2001, by demonstrating that a developing crack would not propagate in a manner that could result in ejection of a nozzle by that time. Tr. at 1881-82. Mr. Moffitt had been explaining to the ACRS that the analysis assumed that a crack would grow from a starting point when no nozzle cracking was present. This would be determined by an inspection that provided assurance that no indications of nozzle leakage were present. Tr. at 1882. Therefore, the validity of the crack growth analysis depended on starting with a good reactor vessel head inspection. The adequacy of the inspection used as a baseline was therefore essential to the crack growth analysis.

Mr. Geisen testified that the intent of his explanation to the ACRS was to communicate that during the 1998 and 2000 inspections, the videotapes were not made for the purpose of looking for circumferential cracking and that as a result Davis-Besse did not have a good view of many of the nozzles. Tr. at 1771. His comments were based upon his understanding of what Mr. Siemaszko discovered during his review and communicated during their brief meeting. Tr. at 1787-88. Mr. Geisen denied that his intent was to mislead the ACRS about the content of the inspection videotapes (Tr. at 1771), but rather to focus on 1996 as the appropriate starting date for the crack growth analysis.

c. Findings of Fact Regarding November 9 ACRS Meeting Statements

The Staff's Enforcement Order asserted that the information provided by FENOC and Mr. Geisen at the ACRS meeting was materially incomplete and inaccurate in that each of the videotapes was helpful in understanding: (1) the significant boron accumulations present at the start of each outage, (2) the clear impediments to conducting a 100% inspection of the reactor vessel head, and (3) the difficulty FENOC encountered in its attempts to fully clean the reactor vessel head of boron or to complete a comprehensive inspection of the reactor vessel nozzles. Enforcement Order at 13.

The Staff charges that Mr. Geisen knew that all inspections of the reactor vessel head were conducted to view the condition of the head, and that Mr. Geisen's response to the ACRS was incomplete because he knew that the only reason the 1996 inspection was used for the crack growth model was because the later inspections were obscured by significant boron deposits. The Staff therefore charged Mr. Geisen with knowingly providing this purportedly incomplete information to the NRC.

The Staff's assertions regarding Mr. Geisen's statements are not substantiated by the evidence. To the extent that Mr. Geisen's message is that the 1996 videotape provided the best view of the nozzles available for use in making the crack growth model calculations, the evidence indicates that a review of the videotapes would prove this true.¹⁵⁷ Of more import, Mr. Geisen could have concealed the true condition of the reactor vessel head during the prior inspections only if he was aware of the full contents of the 1998 and 2000 videotapes at the time the statements were made. We have found no evidence to prove that Mr. Geisen had seen those videotapes at any point prior to his participation in a video session before the NRC Staff on the previous evening, November 8, 2001.

We believe that Mr. Geisen's intent was to explain to the ACRS that the videotapes of the 1998 and 2000 inspections were not made for the purpose of looking for circumferential cracking, and that, as a result, these videotapes did not provide a thorough view of many of the nozzles. Mr. Geisen's comments were based on his understanding of what had been communicated to him by Mr. Siemaszko regarding the nature of the inspections on the videotapes. Given the lack of context and clarity of the evidence regarding the ACRS meeting, we cannot conclude that Mr. Geisen's comments, made ad lib in response to a question, even if proven inaccurate for one purpose, were made with the intent to deceive this agency. They were accurate for the purpose offered. It is commonplace in such situations – when a person

¹⁵⁷ Staff witness Holmberg testified that the 1996 inspection was the most systematic inspection and had the best coverage. Tr. at 951.

speaking is not on the agenda but is interjecting for a limited purpose – to provide relatively constricted answers, given the setting and the other business waiting to be conducted, rather than to elaborate on all aspects of the background from which the question emanates, as might be done in a different setting.

The foregoing provides a detailed account of our findings on the principal matters before us. To the extent warranted, we have dealt with the arguments included in the Staff's post-hearing papers explicitly or implicitly. To the extent that any of the Staff's arguments are not addressed herein, it is either because we have determined that a response to them is unnecessary to our decision or because, in rejecting them, we simply intend to rely upon the reasoning reflected in the post-hearing briefs of Mr. Geisen, which we adopt to that extent.

VI. SANCTIONS

As has been seen, our decision today sets aside the charges the Staff brought against Mr. Geisen, the Staff having failed to establish the validity of those charges by a preponderance of the evidence. In light of this determination, all sanctions the Enforcement Order imposed against him – including the five-year ban on employment in the nuclear industry – must be set aside.¹⁵⁸ The circumstances of the case require, however, that a bit more be said.

A. Sanctions if Order Had Been Sustained

Ordinarily, had the charges against Mr. Geisen been established, we would have found little reason to disturb the five-year employment ban. The nuclear regulatory system depends upon the agency being able to depend upon applicants and licensees, and their employees, not to submit information that they know to be false. For the decisions of the agency's dedicated regulators to be effective in protecting the public health and safety, there is no room for the submission of falsified information.

Here, violation of that principle cost the company dearly in monetary terms. Likewise, had we found that Mr. Geisen had been part of that overall wrongful enterprise, a five-year ban would have seemed appropriate in several contexts: (1) in terms of his deserving it; (2) in light

¹⁵⁸ Our Order makes our decision immediately effective, so that – as far as we are concerned – Mr. Geisen may seek employment in the nuclear industry forthwith. In that regard, we considered but rejected the notion of temporarily staying the impact of our decision, so as to allow the Staff time – if it chooses to appeal our decision to the Commission – to seek from the Commission a longer stay, e.g., a stay pending the outcome of such an appeal. We do not take such action for two reasons: (1) we should not, because to do so would be inconsistent with our view that Mr. Geisen has already unjustly suffered the impact of the employment ban; and (2) we need not, because for now Mr. Geisen is in any event barred by the district court's sentence from seeking such employment, and the Staff should thus have ample time to seek a stay from the Commission before our decision has any practical impact.

of its consistency with other enforcement measures taken through the years;¹⁵⁹ and (3) in view of its deterrent effect in plainly advising other nuclear industry workers of the standards by which their own future conduct will be judged, and the consequences for not meeting those standards.

In that regard, we do not disagree with the Staff's theory that the appropriateness of the five-year ban would not depend upon our upholding all of the several charges and then imposing a multi-year ban on a sort of "one year for each violation" approach. To the contrary, as discussed in a colloquy with Staff counsel (Tr. at 2400), a single charge, if serious enough, could itself justify a five-year ban.

In any event, had we upheld one or more charges and found them serious enough, we would likely not have disagreed in principle with the Dissent's reasoning as to the legitimacy, at the time it was imposed, of the five-year ban the Staff attached to its Enforcement Order. Although we do not necessarily endorse everything the Dissent says on that score, our agreement with the general result allows us to leave unaddressed the particulars of most matters the Dissent covers.¹⁶⁰

That does not, however, end the matter. One of the key factors in establishing the length of a potential ban is whether the subject has taken responsibility for his actions and expressed the appropriate remorse. On this point, the Staff tells us – and the Dissent (at 52-53) agrees – that because Mr. Geisen did not admit to his guilt, this factor weighed against him in

¹⁵⁹ The Board inquired of an experienced and knowledgeable Staff Witness, James Leuhman, who was testifying at our request, about historical information on all other enforcement cases wherein individuals were prohibited from NRC licensed activities for five years or more. Tr. at 2252-53. The Board appreciates Mr. Leuhman's thereupon supplying us with a report thoroughly outlining this information and demonstrating that, over the past 15 years, approximately 50 individuals have received bans of five year or more. See Staff Findings, Attachment 1.

¹⁶⁰ Some indication that the length of the ban should be reduced, even if the charges were to be upheld, stems from the recognition, at trial, that the Staff officials responsible for the Enforcement Order had been unaware of the efforts Mr. Geisen made to correct the filing of mistaken information, efforts that if known "would definitely [be] take[n] into consideration." See above p. 105. This factor, coupled with the Staff's and the Dissent's focus on the activities after October 17, 2001 (i.e., on just the last two, seemingly less serious charges) could yield an employment ban of somewhat shorter duration were misconduct limited only to that timeframe.

setting the length of the employment ban. Moreover, having heard Mr. Geisen's testimony, the key Staff witness on the sanctions issue, Kenneth O'Brien of Region III, who had the lead role in the original enforcement decision, now asserts that Mr. Geisen's continuing refusal to admit his guilt exacerbates the weight of this factor (Tr. at 2119). Not only that, but the Staff presentation – pointing to the provision of the Order (at 15) that requires Mr. Geisen to seek Staff approval to return to the regulated industry once the employment ban expires – suggested that the Staff might be planning to take that factor into account in determining whether to authorize such a step.

If this is the Staff's position, we reject it entirely. We observed Mr. Geisen, throughout his testimony, engage in searching self-examination and confirm what he has said from the beginning of the investigation, namely, that in retrospect he wishes he had done far more to uncover the problems with FENOC's submissions and to address the entire matter much more aggressively. As we have seen, his agonizing admission of what he "should have done" does not prove the deliberate misconduct charges against him; but what it does do is at least eliminate the negative aspects the Staff would see in the "taking responsibility" and "expressing regret" factors – and to some degree turn them into positive attributes that count in his favor.

In view of the outcome we have reached in the entire case, we could stop there on this issue but for the Staff's potential threat that this factor may be used against Mr. Geisen were he to seek to return to the regulated industry. Accordingly, we additionally rule that the evidence the Staff presented provides no basis for using the "pre-approval" aspect of the Order to block any such return by Mr. Geisen. Of course, if any evidence emerges between now and then that would call for a further ban on Mr. Geisen's employment in the regulated industry, the Staff is free to issue another Enforcement Order to that effect.

B. Problems with Order Having Been Immediately Effective

As indicated above, the nuclear regulatory system depends upon the agency being able to rely upon applicants and licensees, and their employees, not to submit information that they

know to be false. In order for the decisions of the agency's dedicated regulators to be effective in protecting the public health and safety, there is no room for the submission of falsified information.

In line with our comments above, anyone who would willfully provide falsified information on a reactor safety matter should bear in mind that a five-year ban may well be the result, both in light of its consistency with other enforcement measures taken through the years,¹⁶¹ and for its deterrent effect, advising other nuclear industry workers of the standards by which their own future conduct will be judged.

Our problem with the sanction on Mr. Geisen is not that it would necessarily have been too long (had the charges been sustained), but that it was unnecessarily felt too soon, i.e., it was made immediately effective. We fully appreciate the need to insure that those who by their conduct have shown they cannot be trusted to operate a nuclear power plant are removed from a position in which they can harm the public health and safety. We likewise appreciate that there will be instances in which such steps must be taken immediately.¹⁶² In our judgment, however, this type of immediately-effective deprivation of the legally-acknowledged right to pursue one's livelihood¹⁶³ should not be imposed without the Staff having substantial reason to do so.

To be sure, the agency's procedural regulations provide two measures that might be seen as alleviating the risk of what occurred here. The first¹⁶⁴ is the chance to challenge the

¹⁶¹ See above pp. 120-21.

¹⁶² We of course do not dispute the fundamental consideration upon which the Commission relied in adopting the immediately-effective regulations – that the agency must have room to ban immediately malefactors whose continued presence in the workplace causes an immediate threat to the public health and safety. See Revisions to Procedures to issue Orders: Challenges to Orders that Are Made Immediately Effective, 57 Fed. Reg. 20,194, 20,195 (May 12, 1992).

¹⁶³ See David Geisen, LBP-06-13, 63 NRC at 547.

¹⁶⁴ 10 C.F.R. § 2.202(c)(2)(i).

immediate effectiveness (an opportunity not taken), the second¹⁶⁵ is the promise of an expedited hearing (a promise not honored).

As to the first, counsel for Mr. Geisen made the decision to forgo a hearing request on the immediate effectiveness of the Order, which we assume was because they anticipated an expeditious hearing on all of the charges and believed that it would be a better venue, given the complexity of the case and the reality that the loss of Mr. Geisen's employment had already occurred. That was a perfectly understandable approach in light of what anyone would have thought could be accomplished there simply by reading – without the benefit of the hindsight we now have – the severe limitations that the text of the regulation appears to place on the scope of that hearing.

As to the second, they had a misplaced belief that the promised expedited hearing opportunity would be provided. The reasons that promise went unfulfilled need not be rehearsed here. It suffices to say it is simply not justified to tell a suspected malefactor of any sort that a penalty of five years duration will be immediately imposed but that no hearing on the legitimacy of that penalty will be held until nearly three years of that penalty has already elapsed.

In any event, the Board did not receive a satisfactory explanation for the agency's action, on the one hand, in allowing Mr. Geisen to work in the nuclear industry for the two and a half years that the enforcement process dragged on after the lengthy OI investigation had been completed, and, on the other hand, making his subsequent ban from the industry immediately effective. To be sure, there are times when a ban must be imposed immediately, and those were discussed at our hearing. But we were provided no reason why that had to be done here, several years late – which likely explains why the Enforcement Order ritualistically advanced (at 15) the “need to protect the health and safety of the public” without even attempting to explain in

¹⁶⁵ 10 C.F.R. § 2.202(c)(1).

concrete terms how that important value might come into play in Mr. Geisen's situation. Mr. O'Brien's testimony shed little additional light on that matter.

In licensing cases, prospective intervenors are called upon to spell out their views in great detail just to get a contention heard. Should not the Staff have to explain, in advance and in some detail, why a nuclear industry worker's career must be destroyed before he is given a chance to be heard before an independent adjudicator?

At this point, the respective views of the members of the Board majority diverge. Judge Trikouros believes that, given our lack of authority now to remedy the situation (where much of the ban has already been served), we should rest with briefly calling the matter to the Commission's attention. Judge Farrar believes that, given what the record before us reveals, the picture needs to be painted more clearly for the Commission, so that it, or any other institution that may be in a position to provide a remedy, might be able to prevent such a miscarriage of justice in the future.

To avoid any further delay, Judge Farrar is joining Judge Trikouros in issuing these limited views today, and will supply his additional views on the subject in the near future. The Board majority thus simply asks the Commission to explore how this result – in which the subject of an Order endured nearly three quarters of a five-year ban from his chosen career before being exonerated, and is left without apparent remedy – could have been avoided while the public interest was still protected.

VII. SUMMARY CONCLUSIONS

We present in Section A of this Part a summary of the key findings that drove our decision.¹⁶⁶ Then, in Section B, we express in general terms our thematic disagreements with, and responses to, the views express in the Dissent. Finally, in Section C, we set out the formal Conclusions of Law that follow from our analysis of applicable law and from the facts found.

A. Summary of Findings

1. The documentary evidence does not prove that Mr. Geisen acted “knowingly”

Mr. Geisen is a highly educated individual who had broad knowledge and experience in the operation and management of nuclear power plants. Mr. Geisen was not, however, the expert at Davis-Besse on the subject of reactor vessel head inspections or cleaning, nor had he participated in any earlier actions of that nature.

The ability to grasp the import of the information contained in the initial Bulletin response (Serial Letter 2731) – and, more significantly, to achieve the level of knowledge needed to identify the extent of the inaccuracies and incompleteness in that response – called for not only a particular understanding of the reactor vessel head, but also an awareness of specific details relating to the actual cleaning and inspection activities that had occurred during the prior refueling outages. Mr. Geisen’s involvement in various groups (i.e., the Steering Committee, the CARB, or the PRG) did not expose him to any specific knowledge about Davis-Besse’s past inspection and cleaning history (nor did the training he received to qualify to serve as a naval officer and as senior reactor operator, or to become familiar with the BACC program).

Mr. Geisen never performed an inspection or cleaning of the reactor vessel head, nor was he directly responsible for the planning or outcome of these tasks. Specifically, Mr. Geisen was not personally involved in the inspections or cleanings in 1996 or 1998, and his involvement

¹⁶⁶ The failure to include in this Section any fact previously found should not be deemed as diminishing the intrinsic importance of any such fact. And if any fact is set out within this Section for the first time, its presence here shall be deemed to make it as significant as if it had been stated earlier.

in 2000 was limited to his time spent in Outage Central, a time which, it turns out, imbued him with long-lasting disinformation shared by others at the plant.

Specifically, while in Outage Central, Mr. Geisen played an important role in a decision to use a novel cleaning technique on the reactor vessel head. He soon “learned” (incorrectly) from the plant’s daily communication on the progress of the outage – the “Outage Insider,” to which not only he but many plant personnel naturally paid great heed – that the reactor vessel head had successfully been cleaned.¹⁶⁷ This “news” was of great significance to him (in that, if true as he believed, it demonstrated that that the decision he had helped guide had been a good one). Accordingly, the mindset thus created stayed with him (and others) a long time, as Mr. Martin later confirmed.

Mr. Geisen also understood that engineers from Systems Engineering (i.e., Mr. Siemaszko), and from his own department (i.e., Mr. Goyal), were involved in working specifically on the reactor vessel head cleanings and inspections, and he understandably placed confidence in their efforts. Notwithstanding the misrepresentations they were later realized to have made, he had no reason, at the times relevant here, to mistrust them. Also, Mr. Geisen understood that there were management personnel within the Systems Engineering Department who had direct technical and managerial responsibility for the work associated with the reactor vessel head (and who signed the Green Sheet for Serial Letter 2731 and later submissions).

¹⁶⁷ The Staff’s attempt (Tr. at 1892-93) to get Mr. Geisen to agree that later he would naturally have paid as much attention to another report (issued in mid-September, 2001), relevant not to his work but to the work of a colleague, at a time when he was working 12 hours a day on two important matters, fell far short of the mark. The fact that Mr. Geisen’s supervisor was interested in the latter report does not make the two situations in any way analogous, when the matter was not within his own purview.

a. Mr. Geisen's knowledge of boric acid accumulation on the reactor vessel head did not contradict information provided to the NRC

The evidence presented established that Mr. Geisen understood that (1) Davis-Besse had a history of flange leakage resulting in boric acid accumulation on the reactor vessel head and a recurring need to repair those flanges, but that (2) in 2000 a more permanent type of flange repair had been made. Coupling this information with his (mistaken, but justified) belief that the reactor head had been cleaned of boric acid deposits in 2000, his mindset – in terms of the forward-looking aspects of the Bulletin which he thought were paramount – was that an inspection could be conducted during the upcoming refueling outage in March of 2002 to evaluate any deposits that might be present compared to a bare metal baseline.

Mr. Geisen's receipt of the various communications upon which the Staff relied to imbue him with chargeable knowledge included trip reports and e-mails from Mr. Goyal. These included four reports between January and August of 2001 regarding business trips, and three e-mails between June and August of 2001 which designated Mr. Geisen as a courtesy copy recipient. The communications also included one memorandum (prepared by Mr. Goyal, signed by his supervisor, Mr. Swim, and ratified by Mr. Geisen) providing an engineering evaluation resulting in an internal company determination that delaying a reactor vessel head inspection until 13RFO (in 2002) would not result in any catastrophic failures.

These documents and communications did not stand out amidst the large number of documents Mr. Geisen received during this timeframe in the ordinary course of business as Manager of Design Basis Engineering. Neither Mr. Goyal's memorandum, nor the e-mails or trip reports, indicated to Mr. Geisen either that action was needed by him on the matters covered or that those matters were urgent or alarming. The evidence also established that Mr. Goyal never spoke to Mr. Geisen about any of the documents and that Mr. Geisen never responded to any of Mr. Goyal's e-mails or trip reports. Given a lack of evidence regarding his involvement in, or response to them, Mr. Geisen's mere receipt of these communications does

not allow us to impute to him absorption and appreciation of their contents such that he can be held accountable for later retained “knowledge” of them.

Moreover, the state of mind naturally created by these various documents was not contradicted by the information Mr. Geisen saw during his Green Sheet review of FENOC’s initial Bulletin response, Serial Letter 2731, regarding boric acid deposits accumulated on the reactor vessel head from ongoing flange leakage. That submission to the NRC does not state that at the last inspection the reactor vessel head was in a “pristine” or even “clean” condition, which was arguably necessary for a good inspection in accordance with the Bulletin (and notably, also the BACC program). Rather, Serial Letter 2731 indeed disclosed that boric acid accumulations were located on the reactor vessel head at Davis-Besse in both 1998 and 2000, which was consistent with Mr. Geisen’s mindset.

b. Mr. Geisen did not know the degree of the limitations imposed by the camera-on-a-stick inspection technique

Although Mr. Geisen was aware that the configuration of the reactor vessel head and service structure presented some obstacles to cleaning, he viewed these methods as restricting the viewing of certain nozzles, not as prohibiting such viewing. The several aforementioned communications from Mr. Goyal supported his perception that the camera-on-a-stick inspection technique created challenges, but not insurmountable ones.

Mr. Goyal’s e-mails, trip reports, and memoranda noted the difficulty of completing inspections and cleanings through the existing mouse holes, and advocated cutting access holes in the service structure. These communications also represented, however, that past inspections and cleanings had been completed, notwithstanding the challenges presented by the structural configuration of the reactor vessel head. At no time during the investigation or trial did Mr. Geisen concede that he was aware that the camera-on-a-stick inspection technique prevented an inspection of the entire reactor vessel head, and no evidence was presented that he ever spoke or acted differently in the workplace.

In any event, Mr. Geisen had taken pro-active steps to procure a “rover,” an automated device, to conduct the inspections in the future, and for this reason was no longer especially concerned about the limitations of the previous method (which provided the context for his statement that he viewed the former method as “no longer viable”). In that regard, he had arranged – long before the Bulletin was issued – a mutual assistance agreement with another nuclear power plant to loan each other their respective rovers if the need arose, an agreement that would have made no sense had he thought the reactor vessel head had not been cleaned, for the rover’s magnetic wheels could operate only when in contact with bare metal.

2. Mr. Geisen did not view videotapes of past inspections (other than still-frames selectively shown to him) prior to November 8, 2001

A last-minute meeting was arranged at the NRC on November 8, 2001, for FENOC to show the NRC Staff videotapes of reactor vessel head inspections conducted during the 1996, 1998, and 2000 refueling outages. Mr. Geisen was selected by his colleagues the night before (in his absence) to handle this task. Based on the evidence presented, we cannot find that Mr. Geisen previously saw the videotapes of these past inspections.

The Staff provided no convincing evidence to the contrary. On that score, the Martin document – never provided to Mr. Geisen, either by Mr. Martin or by OI investigators, for a check on its accuracy – must yield to the highly probative evidence before us conclusively establishing that Mr. Geisen was not involved in interactions with the NRC in August of 2001. Indeed, he was entirely occupied at the time with two other projects with major safety-enhancement and career-determinative implications, and thus would have had no reason then to become involved at all, much less to view the videotapes.

To be sure, in October of 2001, Mr. Geisen was shown still-frames of the videotapes digitized by Mr. Siemaszko that were used to prepare the nozzle-by-nozzle table and to provide the photographic images included with Serial Letter 2744. Mr. Geisen had a one-hour meeting with Mr. Siemaszko to go over the methodology being used to create the nozzle-by-nozzle table

and to make determinations regarding the condition of each nozzle. The evidence presented does not support a finding that Mr. Geisen was exposed even to portions of the past inspection videotapes prior to his meeting with Mr. Siemaszko. And at no time during the meeting with Mr. Geisen did Mr. Siemaszko play the video in running fashion. Instead, Mr. Siemaszko called up still frames to illustrate, perhaps misleadingly, how he was evaluating the status of each nozzle.

Finally, Mr. Geisen's lack of hesitation to show the videotapes to NRC Staff personnel during the November 8 meeting, in conjunction with the testimony by Staff witnesses that he neither displayed any suspicious behavior during the meeting nor appeared to have come to the meeting with the intent to deliberately withhold anything from the NRC, makes entirely implausible the assertion that he had seen the videotapes earlier. Had he previously seen them, and had he previously knowingly submitted false information, then an awareness of what those tapes would display to the NRC Staff would have had him convinced that, by showing the tapes, he would be providing clear evidence of his misconduct. There was nothing in Mr. Geisen's demeanor in a full day on the witness stand before us, or for that matter in the entire week he was present for his hearing, that would lend credence to such a theory (a theory under which, his counsel correctly observed (Tr. at 2329), would have required him to perform like "the greatest riverboat gambler" ever). This further substantiates his assertion that he did not view anything but selected still frames of the videotapes of prior inspections until the November 8, 2001 meeting.

3. The evidence is fully consistent with Mr. Geisen's recounting of his state of mind and compels a finding in his favor

A theme about the nature of the evidence related to Mr. Geisen's knowledge runs through this proceeding. Specifically, we were told by the Staff in essence that, in the absence of direct testimony by Mr. Geisen and of incriminating documents authored by him, the state of

his knowledge can be established – as would be the case in many instances where state of mind is crucial – only by circumstantial evidence.

We do not dispute that circumstantial evidence can be compelling. That principle should not, however, be allowed to obscure a salient observation, namely, that notwithstanding the extensive investigation that OI conducted of over thirty of Mr. Geisen's co-workers at Davis-Besse – a number of whom ended up cooperating with the Government – not a single one was put on the stand to testify that he had observed Mr. Geisen engage in any conduct during the period in question, or heard him utter any words during the NRC interactions (or any concessions after the discovery of the corrosion cavity), that would have established a basis for finding that he had greater knowledge than he asserts that he had.¹⁶⁸

The presence of evidence of that nature would have spoken forcefully about the state of Mr. Geisen's knowledge. Its absence likewise speaks loudly – the investigation apparently did not reveal a single co-worker who, based on his observations of, or interactions with, Mr. Geisen, saw any conduct or heard any words that were incriminating. Direct evidence can come from many sources – and the failure to find it in Mr. Geisen's words on the witness

¹⁶⁸ The one who did take the stand, Mr. Goyal, proved precisely the opposite. Mr. Goyal, who had been the subject of both civil enforcement and criminal indictment for falsifying a document at his supervisor's insistence, had been treated leniently by both DOJ and the NRC in return for his truthful cooperation in the investigation, and thus had every motivation to tell the truth, which his demeanor indicated he was doing. He sent a number of written communications to Mr. Geisen that in retrospect look alarming but which had no such explicit indicia accompanying them. Mr. Goyal repeatedly confirmed that he had never heard back from Mr. Geisen on those matters and had never sought him out to warn him of the possible severity of the underlying problems. See, eg., Tr. at 1076, 1112, 1119, 1169-70.

stand¹⁶⁹ does not minimize the significance of also not finding it anywhere in the reports of his co-workers, either in investigatory interviews or as courtroom witnesses (before us or in the parallel criminal proceeding).

Nonetheless, it is fully understandable why the Staff investigation would, at its outset, have focused on Mr. Geisen as a likely source of the falsified information. Notwithstanding his lack of prior involvement, or expertise, in the inspections of the reactor vessel head, Mr. Geisen was thrust into an increasingly visible role as the FENOC/NRC interactions moved along. Indeed, because there were times when he served as the company spokesman, Staff officials dealing with the company's responses could naturally have come to the conclusion that he was the company expert and was therefore fully knowledgeable about the many subjects under discussion.

Mr. Geisen did not make it a focus of his presentations to point out his lack of extensive background on the subjects at hand. Thus, it is not surprising that when FENOC's submissions were found to have been falsified, the investigators chose to focus on Mr. Geisen. But as is seen herein, the conclusions the investigation reached, on evidence that turned out not to be as it first seemed, did not reflect the state of Mr. Geisen's knowledge at the time submissions and representations were made.

Our determination that the evidence did not demonstrate that Mr. Geisen had the requisite knowledge while participating in statements that proved to be false finds further support in his prompt efforts to set the record straight when he received later information that

¹⁶⁹ The Board Chairman exhibited some impatience at the hearing with what was perceived as Staff counsel's inordinate focus on what Staff officials were thinking at critical times, rather than on Mr. Geisen's state of mind (see, e.g., Tr. at 1037-38, 1043, 1222). As it turned out, the problem was not lack of focus but lack of evidence. Of course, such evidence might have been generated through cross-examination of Mr. Geisen, but we found – from both the demeanor and substance of his testimony – that he provided fully credible and believable explanations for why he believed what he did, and why his submissions to the NRC comported with those beliefs, until he found that he had been misinformed, at which time he insisted on supplying corrections.

cast an earlier statement into doubt. His earnest and sincere efforts to see to it that the error was rectified speak loudly as to his commitment to the truth.

This case is not about FENOC or its other employees. It is about David Geisen. But it is not about whether he could, or even should, have performed his job differently in the fall of 2001. In hindsight, he should have, and he has conceded this point. Dating back to his interview in October of 2002 with the NRC Office of Investigations, Mr. Geisen has been consistently critical of his own performance. Mr. Geisen even testified as to his “tunnel vision.”

That all may be, but it does not establish the validity of the charges before us. Instead, we find that, notwithstanding some superficial appearances, the Staff has not proven that Mr. Geisen deliberately provided inaccurate or incomplete information to this agency. Despite the commendable effort that Staff Counsel, drawing upon an abundance of circumstantial evidence, has put into supporting the underlying charges of the Enforcement Order, its key arguments are, upon analysis and as explained herein, unable to withstand scrutiny. Stated most simply, based on our appreciation of the key facts before us, the Staff did not carry its burden to establish that Mr. Geisen engaged in deliberate misconduct.

B. Response to Dissent

As has been seen, the facts of this case are complex, and take some effort to describe fully. But once those facts are wholly understood, the case becomes a simple one to decide. See our Overview, Part III (pp. 20-28), and our Summary, Section A immediately above.

In that same vein, we have already dealt, throughout the more than 90 pages contained in Parts IV and V, with those of our disagreements with the dissent that are complex to explain. In this brief Section, we address the dissent’s problematic themes in more simple terms.

For its ultimate support, the dissent relies upon two of the same shaky evidentiary pillars as did the Staff’s Enforcement Order, as well as three jurisprudential pillars of its own making.

All five pillars, and much of what makes the case against Mr. Geisen seem strong on superficial review, collapse upon detailed analysis.

1. The first evidentiary pillar is Serial Letter 2731, the 25-page response to the Bulletin, that uncontroverted evidence establishes Mr. Geisen had nothing to do with until he signed off on it just prior to its submittal. It was written by, discussed among, and commented upon by numerous other FENOC employees at a time when Mr. Geisen was otherwise occupied. Nonetheless, the Dissent makes the same error (at n.35) as did the Staff's Enforcement Order (at 7) in charging Mr. Geisen as the FENOC manager responsible for ensuring the technical accuracy of the document in accordance with FENOC's "Green Sheet" internal review process.

But as the Green Sheet itself reveals, the lead responsibility for technical accuracy regarding prior inspections of the reactor vessel head belonged not to Mr. Geisen and his department, but to other personnel in another department entirely. To be sure, Mr. Geisen acknowledged that in his role within the company he viewed it as his responsibility to check for technical accuracy insofar as he was aware of matters contained therein. Staff Ex. 71 at 1971. On that score, however, Mr. Geisen had played no role whatsoever in the letter's creation, and had not been involved in any of the prior reactor vessel head inspections to which it referred, other than to authorize a special cleaning method that he believed had been successful. Ignoring these simple facts, the Dissent would, as the Staff, charge him with knowledge of the errors in Serial Letter 2731's contents.

2. The second evidentiary pillar is the typed document created from Mr. Martin's handwritten notes. The Dissent again makes the same error (at 41) as did the Enforcement Order (at 6) in crediting an abbreviated, even cryptic, portion of those notes as demonstrating beyond question that Mr. Geisen viewed the crucial videotapes shortly after the Bulletin was received. All the other evidence in the case demonstrates not only that such viewing did not occur, but also that there would have been no reason or occasion for it to occur.

What that means is simple and understandable – Mr. Martin’s good-faith attempt to capture in abbreviated notes what had been told him in a 20-minute interview missed the mark, not because he intended that to occur, but because he confused or conflated what had been said. But the Dissent says (at 41) that because Mr. Martin was a credible witness, the typed version of his notes carries the day, even though his only testimony to us was essentially that he had no recollection whatsoever of the interview.

Thus, the Dissent views all the rest of what transpired in the critical interval (the period between the beginning of October and the early part of November) through the same distorted lens as did the Staff’s Enforcement Order, i.e., with the belief that Mr. Geisen had, early on, studied the supposedly crucially-revealing inspection videotapes and had authored the seminally-misrepresenting Bulletin response. Building on these unshakeable but unjustifiable beliefs results in flawed analyses of everything that happened later, leading the Staff to take away a man’s career – and the Dissent now to find no injustice therein.

In contrast, we begin by finding that Mr. Geisen had no early involvement with the videotapes or with the initial letter. It is then understandable that he was saddled with limited information and a narrow mindset as he carried out what became his role in the subsequent chain of events that led to the charges against him. But the Dissent views the foundational evidence as probative, rather than faulty, and this taints its view of everything that comes after.

Even alerted to this problem, only a careful reader would discern that the Dissent’s powerful writing style masks weak evidentiary support. The Dissent appears persuasive; it uses adverbial advocacy to apparent great effect,¹⁷⁰ and is couched in elegant language and subtle syllogisms. But the Dissent’s operative theme throughout is essentially what led it to its

¹⁷⁰ See, e.g., Dissent at 23 (“highly knowledgeable member”); 31 n.22 (“acted in patent derogation”); 42 (forcefully [] confirmed Mr. Geisen’s already existing knowledge”); 42 (“overwhelming volume of persuasive evidence”).

conclusions regarding Mr. Geisen's knowledge about Serial Letter 2731 – concerning underlying documents, “he saw it once, therefore he knew it always.” But the legal world recognizes what the practical world teaches – recall depends upon involvement.

3. The first jurisprudential pillar that collapses under the weight of the Dissent is its tendency to draw unwarranted conclusions and even to engage in raw speculation. Thus, when the dissent makes an effort to tie pieces of information to the charges against Mr. Geisen,¹⁷¹ it too often relies on leaps of language to bridge an impassable chasm between the facts at hand (about Mr. Geisen's having encountered a document in passing) and the conclusion it postulates (about his having recalled its contents in perpetuity). We need not burden this summary with a detailed response to each such instance; rather, we simply list in the margin the

¹⁷¹ While we deal in this decision with the precise charges the Staff brought, the Dissent on more than one occasion seems to find Mr. Geisen culpable on grounds not charged in the Enforcement Order. See, e.g., Dissent at 48 (asserting that Serial Letter 2731 falsely implied that a full “bare metal” inspection was performed during 11RFO and 12RFO in compliance with the BACC Program, which Mr. Geisen purportedly would have known not to be true); at 48 (asserting that Serial Letter 2731 falsely reported that a qualified visual inspection during 13RFO would not be compromised due to pre-existing boric acid deposits, which Mr. Geisen knew was false because the head had not been cleaned during 12RFO); at 50 (asserting that during the October 3 conference call Mr. Geisen represented, with no basis, that Davis-Besse had an 80% confidence level in its conclusion from the 12RFO inspection that boric acid deposits were not from nozzle leakage); and at 54 (pointing to the statement in Serial Letter 2735 that the head was cleaned during 12RFO, asserting that this suggests a qualified visual inspection could be done during 13RFO and that Mr. Geisen would have known this to be false).

places in the Dissent where the presence of persuasive rhetoric obscures a lack of careful reasoning.¹⁷²

At other times, a careful reading of the Dissent reveals missing links, that is, supposed connections that do not exist in the record. For example, the Dissent can be seen to equate knowledge of the existence of a problem with knowledge of the severity of that problem. Those two forms of knowledge are not necessarily co-extensive.

In this vein, the Dissent constantly paints as background to the overall picture that Mr. Geisen "knew" that there was boric acid on the reactor vessel head, especially during 12RFO – which links to the Red Photo, the condition reports, and the reactor vessel head needing to be cleaned. But Mr. Geisen never submitted information inconsistent with the limited knowledge he gained from these sources. The only FENOC submittal that facially mischaracterizes the severity of the boric acid buildup is Serial Letter 2731 (which cannot be held against Mr. Geisen), but even that submittal states that there were accumulations on the reactor vessel head from flange leakage in both 1998 and 2000. And on the October 3 conference call, Mr. Geisen again stated that nozzles could not be viewed because of flange leakage (although he wrongly believed that only five or six nozzles were obscured by deposits).

¹⁷² The most prominent examples of what in effect are ipse dixits of this nature in the Dissent are the following:

(1) at 39 n.27: asserting that a report by Mr. Gibbs dated September 14, 2001, resulted in Mr. Geisen "once again receive[ing] notice" on that date "that the head had not been successfully cleaned." But the evidence showed that, because of the press of the INPO audit, Mr. Geisen did not see the report, if at all, until later in the month and even then did not focus on it, as it did not affect his responsibilities at that time.

(2) at 40: in reviewing a document concerning future inspection opportunities, Mr. Geisen is said by the Dissent to have "understood that . . . deposits prevented the detailed inspection of CRDM nozzles," rather than that those deposits – by then believed to have been cleaned away – "had hindered" a previous inspection in 2000 (but not in 1998).

Similarly, serial letters 2735 and 2744 clearly indicate that large portions of the reactor vessel head could not be inspected: they both indicate, in tables and text, the number of nozzles that were viewed and supply as well a map of the reactor vessel head for each inspection, indicating large surface areas where boric acid accumulations blocked inspections. Even if Mr. Geisen can be held accountable for those statements, they are, to the extent untrue at all, consistent with the degree or extent of his knowledge.

In other words, none of this establishes that Mr. Geisen knew the severity of the issue. Looking at those submittals without the benefit of hindsight, and simply with the information that there were boric acid deposits on the reactor vessel head from flange leakage, a reviewer would not find the inaccuracies in those submittals to be apparent or obvious.

A troublesome aspect of the Dissent involves the occasions in which finding of facts gives way to speculating about presumptions. Thus, the Dissent speculates (at 41) that, when meeting with Mr. Siemaszko, Mr. Geisen “would then have reviewed closely all three inspection videos,” leaving to plain inference that he would have watched them in running fashion and thus would have been aware of their shortcomings when making later presentations to the NRC. This is not only rank speculation, but also is made all the more objectionable by its failure to consider the uncontroverted record facts that describe the meeting in terms that undeniably paint an entirely different picture: Mr. Geisen went to the meeting to check on Mr. Siemaszko’s approach to a project assigned to him, at that point had no reason to distrust his co-worker (who was the company expert on the matter at hand), and simply observed the still frames that were shown to him as illustrative of Mr. Siemaszko’s approach to the project at hand.

In these circumstances, the Dissent’s broad speculation (scarcely necessary if the Martin document, with its recounting about watching the tapes in August, was able to withstand scrutiny) would have the reader believe – contrary to the undisputed facts – that Mr. Geisen had the tapes played for him in running fashion in early October, a viewing that would have tainted

his conduct over the next month. Such unjustified speculation is not only generally forbidden but is also specifically inharmonious with the facts that emerged at the hearing.¹⁷³

Nonetheless, as rhetoric, such speculation appears to persuade, and that is its danger; fortunately, as reasoning, it fails to pass, and that is its redemption.¹⁷⁴ Upon careful analysis, the same may be said of the Dissent as a whole.

4. The second of the Dissent's jurisprudential pillars that cannot withstand scrutiny involves its inordinate focus on legal theories to the virtual exclusion of practical realities, particularly in its collateral estoppel analysis regarding the jury instruction. See generally above pp. 44-45. One such example is its insistence (at 8) that the jury "necessarily" made certain factual determinations about which there was nothing "ambiguous," which illustrates the importance the Dissent places on abstract theory. Its views might carry the day in other situations, but cannot do so here in the face of the practical realities of what jurors said in the post-trial interviews (which Mr. Geisen's counsel participated and about which they have informed us). See above note 86 and accompanying text. See also Dissent at 9, which ignores

¹⁷³ Another, albeit perhaps less dramatic, example of speculation upon which the Dissent depends occurs at 53: "one might reasonably assume [Mr. Geisen] would have subjected the letter to meticulous review, accepting nothing less than scrupulous accuracy." This speculation is compounded when the Dissent asserts, once again in contravention of the Green Sheet review process, that "Mr. Geisen vouched for the technical accuracy of the letter" and that he did so "knowing" (without any explanation of the basis of that knowledge) "it contained material inaccuracies." If we were permitted to speculate, we might wonder why a person insisting that a corrective letter be sent to the NRC would then deliberately falsify the information in that letter. Rather than speculate in that fashion, we point to the evidence – Mr. Geisen again relied upon the findings put forward by Mr. Siemaszko, whom he did not then view as untrustworthy.

¹⁷⁴ Other misleading aspects of the Dissent are less significant, but should be noted and corrected here. For example, the Dissent mentions frequently (e.g., Dissent at 46) that Mr. Geisen's motivation was to persuade the NRC, leaving it open to the reader to infer that was an illegitimate objective. Along those lines, the Dissent later implies (at 58-59) that this tactic was successful, in that Davis-Besse was permitted to stay in operation. As we have already seen (see above note 32), the Staff team assigned to the project was not lulled into reaching, or otherwise induced to reach, that conclusion. The team's recommendation that the plant be shut down was overruled at a higher level, for reasons not made known to us. See Tr. at 1325-27, 1436-37, 1438. Moreover, Mr. Geisen's efforts were premised, not on the results of the past inspections on which he was not well informed, but on the new crack-growth analysis rate whose development he was overseeing.

the impact of those interviews in asserting that we have "uncritically attribute[d] irrational behavior to" the jury, when what we have in essence done – with some thought, analysis and awareness – is simply to recognize the very natural course of their behavior when faced with a potentially or demonstrably confusing instruction.

This case – both the merits of the Enforcement Order and the verdict of the criminal trial – have much more to do with fact-finding related to human nature than with analytical research related to legal theories. But the Dissent continually ignores this aspect of the case, noting (at 12 n.7) what the jury "was well aware of," and putting forward again (at 11), for example, its view of what the jury "necessarily found" with no regard for the explicit post-trial interviews, much less for the implicit and inherent unknown of how a particular jury reached a specific verdict. The Dissent compounds its mistake in this regard when (at 12) it again claims to know, "*as a matter of law*," precisely what the jury "concluded," and when (at 14-15) it expresses the belief, contrary to what many courts have said, that the warning to the jury "forecloses the possibility" of any problem or confusion.

It is not just the Dissent's analysis of the jury's purported thinking that suffers from this flaw. It puts theory ahead of practice in suggesting how to handle, for collateral estoppel purposes, the pendency of the appeal, when it ignores the delay its approach would do to Mr. Geisen's intensely practical interests (see above pp. 38-39). It goes even further when it appears to import legal doctrines concerning the service of process to rule that Mr. Geisen necessarily had "notice" of the contents of a document on the very day it was left on his desk in the midst of an extraordinarily busy period in his work life (see above pp. 95-97).

5. The third problematic jurisprudential pillar, and perhaps the most inappropriate viewpoint expressed in the Dissent, is its repeated accusation (at 17 n.10, 19-20) that the Staff is "wrong" or "mistaken" in its legal theories. A careful analysis in the proper case might perhaps show the dissent to be correct in the legal theories it espouses. But, again, as judges, it is not our charge to try a case that might have been brought. We are here instead to assess

whether the Staff, as the equivalent of a prosecutor, has proven the case that it did bring – on factual charges and legal theories several years in development – that a nuclear industry worker violated the agency’s regulations and should therefore be deprived of his career.¹⁷⁵

Perhaps other charges could have been brought (as DOJ decided to do) and other theories could have been advanced. But it should be beyond needing a citation of authority for us to point out the obvious – those subjects against whom the power of Government is brought in the form of charges of criminal or civil wrongdoing are entitled to know the nature of the charges against them, so that they can prepare to meet those charges.¹⁷⁶ While amendments of initial charges may often be appropriate,¹⁷⁷ that is never allowed, we would assume, after a trial has been concluded, unless a new trial is offered as a part thereof.

But here the Dissent states repeatedly that the Staff got it wrong, and proceeds to propound the legal theories upon which, it believes, the Staff should have proceeded. There is no other way to say it – this is wrong as to Mr. Geisen’s rights, and it is wrong as to a judge’s role.

¹⁷⁵ That the Staff is not just a "party" here, but is the "prosecutor," makes irrelevant the Dissent's claim (at 20) that "[n]either this Board, nor the Commission, is constrained in the resolution of legal issues by a party's misunderstanding of the law." We may or may not be so constrained, but we are constrained from altering the nature of charges that the Staff freely decided to bring in the form presented to us.

¹⁷⁶ As to criminal matters, see the Sixth Amendment, guaranteeing that a person "be informed of the nature and cause of the accusation." U.S. Const. amend. VI. As to civil matters brought by the Government, see United States v. Florida East Coast Ry. Co., which states that "[t]he right to a hearing embraces not only the right to present evidence, but also a reasonable opportunity to know the claims of the opposing party and to meet them." 410 U.S. 224, 243 (1973) (internal citations omitted), citing Morgan v. United States, 304 U.S. 1, 18-19 (1938).

¹⁷⁷ We pause to note, without elaboration, what everyone familiar with Commission jurisprudence knows, namely, that potential Intervenors in licensing cases must surmount many hurdles, even early on, if they seek to amend their "contentions," the vehicle by which they advance their theories and claims in an attempt to launch a proceeding. The later they try to do amend, the harder it is. The notion that the legal theories underlying potentially career-ending charges of wrongdoing against an individual can nonetheless be altered after a trial is concluded would, we would think, not only impermissible as a matter of due process but would be anathema to the Commission’s normal jurisprudence.

C. Conclusions of Law

The Licensing Board has considered all the material presented by the parties on Mr. Geisen's challenge to the Staff's Enforcement Order of January 4, 2006. Based upon our analysis of the entire evidentiary record that was amassed, including the Stipulation of Facts; the proposed findings of fact and conclusions of law that were submitted by the parties; the parties' other motions and briefs, and their oral and written arguments; and in accordance with the views set out herein – which we believe are in accordance with applicable law and supported by a preponderance of the reliable, material and probative evidence in the record – the Board majority has decided the matters in controversy concerning the Enforcement Order and reaches the following legal conclusions:

1. The NRC Staff has the burden of proof to establish all the elements necessary to support the Enforcement Order.
2. Our review of that Enforcement Order is conducted on a de novo basis.
3. The NRC Staff acknowledged throughout our proceeding that the instructions given the jury in the parallel federal court criminal case of United States v. Geisen presented a more expansive theory upon which to find knowledge than do the NRC's regulations; accordingly, Mr. Geisen's defense to the NRC Staff's presentation of its case was tailored to the less expansive theory.
4. In attempting to support the Enforcement Order, the NRC Staff can place no reliance on the jury verdict in the parallel federal court criminal case of United States v. Geisen, for in all the circumstances the doctrine of collateral estoppel is either (1) inapplicable here, or (2) if applicable, is not required to be applied, and – having found good reasons why it would be unjust or unjustified to apply it – we have exercised our discretion not to apply it.

5. The NRC Staff has not carried its burden of proof to demonstrate by a preponderance of the evidence that Mr. Geisen committed the knowing misrepresentations alleged in the Enforcement Order's several charges against him.
6. Had the NRC Staff established that Mr. Geisen had committed those knowing misrepresentations, the length of the ban imposed by the Enforcement Order (but not its immediate effectiveness) would initially have been justified, in principle, by the nature of that misconduct.
7. Nothing in the evidence presented, in particular that concerning the importance of taking responsibility and expressing regret, supports the utilization of the portion of the Staff's Enforcement Order that would allow the Staff to prohibit Mr. Geisen's return to the regulated industry after the employment ban is lifted (or expires). Accordingly, in the absence of new developments, utilization of that part of the Order for that purpose is prohibited. The Staff is, of course, free to issue a new Enforcement Order against Mr. Geisen, before or after his return to the regulated industry, if further developments warrant.

VIII. ORDER

For the reasons stated in this Initial Decision, the Enforcement Order of January 4, 2006, directed to David Geisen is hereby SET ASIDE. Subject to the terms of the judgment in the criminal case, Mr. Geisen is free to seek employment in the nuclear industry forthwith.

Pursuant to 10 C.F.R. § 2.1210(a), this decision will constitute final agency action on the Enforcement Order 40 days after its issuance unless: (1) a party files a petition for Commission review within 15 days after service of this decision (10 C.F.R. §§ 2.341(b)(1), 2.1212), or within any extended period of time granted by the Commission for "good cause" shown (10 C.F.R. § 2.307(a)); or (2) the Commission, in its discretion, determines that review is warranted (10 C.F.R. § 2.1210(a)(3)). Unless otherwise authorized by law, a party who wishes to seek judicial review of this decision must first seek Commission review (10 C.F.R. § 2.1212).

It is so ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD*
/RA/

Michael C. Farrar, Chairman**
ADMINISTRATIVE JUDGE
/RA/

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 28, 2009

* Judge Hawkens does not subscribe to the above opinion; his dissenting views appear on the following pages.

** As noted at the conclusion of Part VI (above p. 125), Judge Farrar will in the near future be filing additional views on the "immediate effectiveness" aspect of the Enforcement Order, which will appear in the bound "NRC Issuances" immediately after this Order and before the Dissent. The Board majority is following this course because it does not wish to have the creation of those views, which will not alter the nature of the essential judgments herein, to be the source of further delay in the issuance of this Initial Decision.

Copies of this Initial Decision and of the Dissenting Opinion were sent this date by e-mail transmission to counsel for Mr. Geisen and for the NRC Staff.

Dissenting Opinion of Judge E. Roy Hawkens

This enforcement proceeding raises two issues: (1) whether, as charged in the January 2006 Enforcement Order, Mr. Geisen knowingly provided the NRC Staff with information regarding the Davis-Besse reactor vessel head that was not complete or accurate in material respects; and (2) whether the five-year sanction imposed by the Enforcement Order is reasonable. Contrary to the Majority Decision, I believe both issues should be resolved in the affirmative.

Regarding the first issue, Mr. Geisen *concedes* that information he provided to the NRC between September and November 2001 was materially incomplete and inaccurate. He argues, however, that he did not *know* the information was materially incomplete and inaccurate when it was provided to the NRC. I am constrained to reject Mr. Geisen's argument for two alternative reasons. First, in my judgment, Mr. Geisen's criminal conviction for *knowingly* providing the NRC with materially incomplete and inaccurate information precludes him, pursuant to the collateral estoppel doctrine, from re-litigating the issue of whether he had the requisite knowledge (*infra* Part I). Second, even if the doctrine of collateral estoppel does not apply, I believe the NRC Staff showed by a preponderance of the evidence that Mr. Geisen had the requisite knowledge (*infra* Part II).

Regarding the second issue, given the gravity and circumstances of Mr. Geisen's offense, I conclude the five-year sanction was reasonable and should be sustained (*infra* Part III).

I therefore respectfully dissent from the Majority Decision.

I. THE COLLATERAL ESTOPPEL DOCTRINE ESTABLISHES THAT MR. GEISEN KNOWINGLY PROVIDED THE NRC WITH MATERIALLY FALSE INFORMATION

A. The Four Elements For Applying Collateral Estoppel Are Satisfied

The collateral estoppel doctrine “precludes the re-litigation of issues of law or fact which have been finally adjudicated by a tribunal of competent jurisdiction in a proceeding involving the same parties or their privies” (Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 561 (1977)). The doctrine is grounded on “considerations of economy of judicial time and [the] public policy favoring the establishment of certainty in legal relations” (Comm’r of Internal Revenue v. Sunnen, 333 U.S. 591, 597 (1948)). The doctrine also promotes the compelling public interest in “preserving the acceptability of judicial dispute resolution against the corrosive disrespect that would follow if the same matter were twice litigated to inconsistent results” (Clements v. Airport Auth. Of Washoe County, 69 F.3d 321, 330 (9th Cir. 1995) (quoting 18 Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, Federal Practice and Procedure § 4403 (2d ed. 1987)). Accord Gilbert v. Ferry, 413 F.3d 578, 580 (6th Cir. 2005) (“purposes of collateral estoppel are to shield litigants (and the judicial system) from the burden of re-litigating identical issues and to avoid inconsistent results”).

The following four elements must be satisfied before a tribunal may apply collateral estoppel:

- i. the precise issue raised in the present case must have been raised and actually litigated in the prior proceeding;
- ii. determination of the issue must have been necessary to the outcome of the prior proceeding;
- iii. the party against whom estoppel is sought (or its privy) must have had a full opportunity to litigate the issue in the prior proceeding; and
- iv. the prior proceeding must have resulted in a final judgment on the merits.

See Hamilton's Bogarts, Inc. v. Michigan, 501 F.3d 644, 650 (6th Cir. 2007); accord Houston Lighting & Power Co. (South Texas Project, Units 1 and 2), LBP-79-27, 10 NRC 563, 566 (1979), aff'd, ALAB-575, 11 NRC 14 (1980).

The NRC Staff argues that Mr. Geisen's conviction in October 2007 in the U.S. District Court for the Northern District of Ohio for "knowingly" providing materially incomplete and inaccurate information to the NRC Staff triggers the collateral estoppel doctrine and precludes him from now arguing that he did not "knowingly" provide the NRC with materially incomplete and inaccurate information in Davis-Besse's Serial Letter 2744 of October 2001. I agree.

By way of background, on January 4, 2006, the NRC issued an immediately effective Enforcement Order that barred Mr. Geisen from engaging in NRC-licensed activities for five years. See Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately) (Jan. 4, 2006) [hereinafter Enforcement Order]. This sanction was based on the NRC's conclusion (id. at 6) that between September and November 2001 Mr. Geisen knowingly provided the NRC with written and oral information regarding the Davis-Besse reactor pressure vessel head that was materially incomplete and inaccurate, in violation of 10 C.F.R. § 50.5(a)(2).¹

Shortly thereafter, on January 19, 2006, a Grand Jury in the Northern District of Ohio returned a five-count criminal indictment against Mr. Geisen. Like the Enforcement Order, the indictment charged that between September and November 2001 Mr. Geisen knowingly provided the NRC with written and oral information regarding the Davis-Besse reactor pressure vessel head that was materially incomplete and inaccurate. See Attachment 1 to NRC Staff Motion for Collateral Estoppel (Nov. 17, 2008).

¹ Section 50.5(a)(2) proscribes a person from "[d]eliberately submit[ting] to the NRC . . . information that the person . . . knows to be incomplete or inaccurate in some respect material to the NRC" (10 C.F.R. § 50.5(a)(2)).

The criminal charges against Mr. Geisen were tried before a jury in October 2007. Mr. Geisen did not dispute that the information submitted to the NRC regarding the Davis-Besse reactor vessel head was materially incomplete and inaccurate. Nor did he dispute that he received and read numerous e-mails, correspondence, and other documents that arguably put him on notice that the information submitted to the NRC was materially incomplete and inaccurate. Rather, he argued he did not pay sufficient attention to those communications and, in any event, he did not then construe them in a way that gave him knowledge.

The trial lasted eleven days. During the recitation of jury instructions, the district court (Judge David A. Katz) explained that “the term ‘knowingly and willfully’ requires proof that the defendant made a statement or caused a statement to be made, with the knowledge that it was false with the intent to deceive” (Criminal Trial Transcript [hereinafter Trial Tr.] at 2236, United States v. Geisen, No. 3:06CR712 (N.D. Ohio)). The district court also granted the prosecution’s request to give the jury a “deliberate ignorance” instruction. Pursuant to that instruction, the jury was instructed it could find that Mr. Geisen had knowledge if it were “convinced [beyond a reasonable doubt] that [he] deliberately ignored a high probability that the submissions and presentations to the NRC concealed material facts or included false statements” (Trial Tr. at 2238).

On October 30, 2007, the jury rendered a general verdict² finding Mr. Geisen guilty of three of the five counts. First, the jury found him guilty of Count 1, which charged that Mr. Geisen between September 4, 2001 and November 14, 2001 “did knowingly and willfully conceal and cover up, and cause to be concealed and covered up, . . . material facts . . . [concerning] the condition of Davis-Besse’s reactor vessel head, and the nature and findings of

² As relevant here, a general verdict is one where the jury renders a conviction without distinguishing the theory on which the conviction is based. In contrast, a special verdict is one where the jury answers specific questions submitted to it, thus enabling the court to determine the theory underlying the conviction. See Fed. R. Civ. P. 49.

previous inspections of the reactor vessel head” (Attachment 1 to NRC Staff Motion for Collateral Estoppel at 6). Second, the jury found Mr. Geisen guilty of Count 3, which charged that he “did knowingly and willfully make, use, and cause others to make and use a false writing, that is, a letter to the Nuclear Regulatory Commission identified as Serial Letter 2741 [dated October 30, 2001], knowing that it contained . . . material statements, which were fraudulent,” concerning the Davis-Besse reactor vessel head (*id.* at 11).³ Finally, the jury found Mr. Geisen guilty of Count 4, which charged that he “did knowingly and willfully make, use, and cause others to make and use a false writing, that is, a letter to the Nuclear Regulatory Commission identified as Serial Letter 2744 [dated October 30, 2001], knowing that it contained . . . material statements, which were fraudulent,” concerning the Davis-Besse reactor vessel head (*id.* at 12).⁴

Mr. Geisen has appealed his conviction to the U.S. Court of Appeals for the Sixth Circuit (*United States v. Geisen*, No. 08-3655 (6th Cir.)), and his appeal is pending.

I agree with the NRC Staff that Mr. Geisen’s conviction on Counts 1, 3, and 4 for “knowingly” providing the NRC with materially incomplete and inaccurate information satisfies the four elements for applying collateral estoppel, thus precluding him from now arguing that he

³ Although Serial Letter 2741 was not referenced in the Enforcement Order, materially false statements contained in that Serial Letter are identical to materially false statements contained in Serial Letter 2744, which was referenced in the Indictment (Count 4) and the Enforcement Order. See NRC Staff Exh. 77 at 9-10.

⁴ The jury did *not* convict Mr. Geisen on the following two Counts: (1) Count 2, which charged that Mr. Geisen “did knowingly and willfully make [and] use . . . a false writing, that is, a letter to the [NRC] identified as Serial Letter 2735 [dated October 17, 2001]” (Attachment 1 to NRC Staff Motion for Collateral Estoppel at 10); and (2) Count 5, which charged that Mr. Geisen “did knowingly and willfully cause others to make and use a false writing, that is, a letter to the [NRC] identified as Serial Letter 2745 [dated November 1, 2001]” (*id.* at 14). The NRC Staff explains (*infra* Part I.B.1) that the jury’s verdict means it found the evidence showed beyond a reasonable doubt that, subsequent to October 17, Mr. Geisen knew his representations to the NRC were materially incomplete or inaccurate.

did not “knowingly” provide the NRC with materially incomplete and inaccurate information in Serial Letter 2744.

First, the precise issue raised in the instant case – i.e., whether Mr. Geisen “knowingly” provided the NRC with information that was materially incomplete and inaccurate – was raised and actually litigated in the criminal trial. The jury found Mr. Geisen guilty of “knowingly” providing materially incomplete and inaccurate information to the NRC (Trial Tr. at 2569).

The second element for applying collateral estoppel is likewise satisfied, because the jury’s determination that Mr. Geisen “knowingly” provided the NRC with materially incomplete and inaccurate information was necessary to the outcome of the criminal trial. As indicated in the indictment (Attachment 1 to NRC Staff Motion for Collateral Estoppel), “knowledge” was a necessary element for each of the charged offenses and, accordingly, Mr. Geisen could not have been convicted absent the jury’s determination that he acted with “knowledge.”

The third element is also satisfied. Mr. Geisen not only had a full opportunity at the eleven-day criminal trial to litigate whether he had the requisite knowledge, he fully availed himself of that opportunity. Mr. Geisen was represented by experienced attorneys who skillfully and zealously – albeit unsuccessfully – endeavored to cast doubt on the Government’s claim that Mr. Geisen acted with knowledge. See, e.g., NRC Staff Exh. 71 (transcript of Mr. Geisen’s testimony at criminal trial); Trial Tr. at 2426-63 (transcript of closing argument at Mr. Geisen’s criminal trial).

Finally, the fourth element for applying collateral estoppel is satisfied because Mr. Geisen’s criminal trial resulted in a final judgment on the merits. That Mr. Geisen has appealed his conviction to the U.S. Court of Appeals for the Sixth Circuit does not alter this conclusion. In the collateral estoppel context, “[t]he law is well settled that the pendency of an appeal has no effect on the finality or binding effect of a trial court’s holding” (Pharmacia & Upjohn Co. v.

Mylan Pharmaceuticals, Inc., 170 F.3d 1373, 1381 (Fed. Cir. 1999) (quoting SSIH Equip. S.A. v. U.S. Int'l Trade Comm'n, 718 F.2d 365, 370 (Fed. Cir. 1983)).⁵

In sum, the collateral estoppel doctrine applies here and mandates the conclusion that Mr. Geisen “knowingly” provided materially incomplete and inaccurate information to the NRC. Indeed, because the standard of proof is much higher in a criminal proceeding (beyond a reasonable doubt) than in this administrative enforcement proceeding (preponderance of the evidence), Mr. Geisen’s criminal conviction a fortiori compels the conclusion here that he had knowledge.

⁵ This is not to say that the outcome of an appeal of a judgment underlying the application of collateral estoppel is irrelevant to the doctrine’s application. For example, if a tribunal were to render an adverse ruling against a party based exclusively on the collateral estoppel doctrine, and if the underlying judgment on which the tribunal relied were subsequently reversed in a manner that cast doubt on the tribunal’s application of collateral estoppel, the party against whom collateral estoppel had been applied would be entitled to file a timely motion with the tribunal seeking appropriate relief in light of the new, appellate development. See Davis-Besse, ALAB-378, 5 NRC at 560-61.

The Majority Decision relies on the pendency of Mr. Geisen’s criminal appeal as a basis to refrain, as a matter of discretion, from applying collateral estoppel (pp. 37-40). This is error. Where, as here, the four elements for applying collateral estoppel are satisfied, and no “overriding” public policy consideration dictates against its application, this Board should not withhold the application of collateral estoppel as a discretionary matter. See Davis-Besse, ALAB-378, 5 NRC at 563 n.7. The Majority Decision’s contrary conclusion subverts the “public policy favoring establishment of certainty in legal relations” (Sunnen, 333 U.S. at 597), and it generates “corrosive disrespect” for adjudicative tribunals where, as here, the identical issue is “twice litigated to inconsistent results” (Clements, 69 F.3d at 330). The Majority Decision attempts to justify its exercise of discretion by arguing that its decision will end the delays that have “been inequitably borne . . . through Mr. Geisen’s long-standing inability to obtain a ruling on whether he can return to his chosen career” (p. 39). The Majority ignores that Mr. Geisen had a remedy for promptly challenging the immediately effective aspect of the Enforcement Order, but he elected not to avail himself of that remedy (infra note 45). He was then convicted of a crime that is identical to a charge in the Enforcement Order which, at the least, provides “substantial assurance that the [Enforcement Order was] not baseless or unwarranted” (FDIC v. Mallen, 486 U.S. 230, 240 (1988)). Under these circumstances, the Majority’s characterization of the delays borne by Mr. Geisen as *inequitable* is not tenable. In any event, equity is not served, nor is discretion permissibly exercised, by a collateral estoppel analysis that, like the Majority’s analysis, fails to adhere to governing legal principles and case law.

B. Mr. Geisen's Arguments Against Applying Collateral Estoppel Lack Merit

Mr. Geisen argues that collateral estoppel does not apply here for two independent reasons: (1) the jury rendered inconsistent verdicts on the issue of knowledge; and (2) the jury might have convicted him based on a deliberate ignorance theory, and if it did, the verdict did not include a knowledge component that satisfies the NRC's regulatory standard in 10 C.F.R. § 50.5(a)(2). Neither argument has merit.

1. The Jury Did Not Render Inconsistent Verdicts Mr. Geisen argues that the collateral estoppel doctrine does not apply here, because the jury rendered inconsistent verdicts regarding whether he had knowledge, and collateral estoppel cannot be applied in light of this inconsistency. More specifically, Mr. Geisen points out that the jury acquitted him on Count 5, which charged that he "knowingly" made a false statement through the submission of Serial Letter 2745, which included the assertion that "during 10 RFO, in spring of 1996, the entire head was visible so 100% of the CRDM nozzles were inspected with the exception of four nozzles in the center of the head." See Opposition of David C. Geisen to NRC Staff's Motion for Collateral Estoppel at 3 (Nov. 26, 2008) [hereinafter Geisen Nov. 2008 Opposition]. The language of this charge, for which he was acquitted, was identical to language used in earlier Serial Letters that formed the basis of charges in Counts 3 and 4 for which he was convicted. Mr. Geisen argues that the jury's decision to acquit on Count 5 but to convict on Counts 3 and 4 cannot be rationally reconciled, and the jury's irrational resolution of this issue cannot provide the basis for collateral estoppel (id. at 3-4).

Contrary to Mr. Geisen's understanding, there is no irrationality or inconsistency in the verdicts rendered by the jury.

At the outset, it must be emphasized that the jury – insofar as it found Mr. Geisen guilty on Counts 1, 3, and 4 – necessarily made a factual determination that Mr. Geisen "knowingly" provided the NRC Staff with information that was materially incomplete and inaccurate. There is

nothing ambiguous about that conclusion, and the jury's decision to acquit Mr. Geisen on Count 5 must be considered in that light.

So considered, the jury's verdicts are easily reconciled. Serial Letter 2745 contained Davis-Besse's probabilistic risk assessment, which apprised the NRC Staff of the risk significance of possible undetected CRDM nozzle cracks that could lead to loss-of-coolant accidents, core damage, and radioactive release. Because the NRC Staff made the undisputed representation to this Board that the district court restricted the prosecution from presenting evidence or argument to the jury explaining the basis of Serial Letter 2745 (NRC Staff Motion for Collateral Estoppel at 20), it might reasonably be concluded that the jury felt it did not have enough evidence to satisfy the reasonable doubt standard for rendering a guilty verdict on Count 5. Additionally, the statement in Serial Letter 2745 that contained the materially incomplete and inaccurate information was located under the heading "Assumptions," so it might reasonably be concluded that the jury did not treat the statement as a factual assertion that would warrant a conviction. Either of these reasons standing alone, and certainly both of them considered together, demonstrates the error of Mr. Geisen's assertion that the jury rendered irrational or inconsistent verdicts that preclude the application of collateral estoppel.

To be sure, it is possible for a jury to render verdicts that *cannot* be reconciled, and in such a case, "principles of collateral estoppel – which are predicated on the assumption that the jury acted rationally and found certain facts in reaching its verdict – are no longer useful" (United States v. Powell, 469 U.S. 57, 68 (1984)). But a tribunal ought not blithely conclude that a jury acted irrationally. An approach that uncritically attributed irrational behavior to a jury would fly in the face of a fundamental tenet of our jury system that assumes the jury complies with the instructions provided by the trial court. See United States v. Mari, 47 F.3d 782, 785 (6th Cir. 1995). Moreover, such an approach would be in tension with the principle that a tribunal, when considering the applicability of collateral estoppel, may not look behind the

decision to determine “whether its findings of fact and conclusions of law were well founded” (Davis-Besse, ALAB-378, 5 NRC at 562).

Here, there is no question that the NRC Staff (the party moving for collateral estoppel) established that the jury – insofar as it found Mr. Geisen guilty on Counts 1, 3, and 4 – necessarily made a factual determination that would bar a retrial on the issue of knowledge. That the jury acquitted Mr. Geisen on Count 5 does not impugn that conclusion, because the acquittal may reasonably be reconciled with the convictions.

The jury’s decision to acquit Mr. Geisen on Count 2 can likewise be reconciled with its decision to convict him on Counts 1, 3, and 4. The verdicts can reasonably be understood to mean that the jury was not convinced beyond a reasonable doubt that Mr. Geisen knew, *prior to October 17, 2001*, that the representations he was making to the NRC contained information that was materially incomplete or inaccurate. Rather, the “evidence presented at trial showed a crescendo of knowledge attributable to Mr. Geisen” such that a reasonable juror would have found that, *subsequent to October 17, 2001*, he *knew* his representations to the NRC contained information that was materially incomplete or inaccurate (NRC Staff Motion for Collateral Estoppel at 20-21).

2. A Conviction Based On Deliberate Ignorance Is Not A Bar To Collateral Estoppel Mr. Geisen also argues that the collateral estoppel doctrine does not apply here because the district court gave the jury a “deliberate ignorance” instruction that, he claims, permitted the jury to convict him for negligence, not knowledge.⁶ Because the jury rendered a general verdict (see supra note 2) that might have been based on either a “knowledge” theory or

⁶ Courts employ several phrases interchangeably with “deliberate ignorance,” including “willful blindness” and “deliberate shutting of the eyes.” See Jonathan L. Marcus, Model Penal Code Section 2.02(7) and Willful Blindness, 102 Yale L.J. 2231, 2257 n.2 (1993). The district court here employed the phrase “deliberate ignorance,” which is likewise used in the Sixth Circuit Criminal Pattern Jury Instructions, ch. 2.09.

a “deliberate ignorance” theory, Mr. Geisen argues that the Board cannot be certain the jury necessarily found he acted with knowledge and, accordingly, he is not precluded by collateral estoppel from re-litigating whether he acted knowingly (Geisen Nov. 2008 Opposition at 5).

Mr. Geisen’s argument reflects a fundamental misunderstanding of the “deliberate ignorance” theory. To the extent the jury convicted Mr. Geisen based on deliberate ignorance, it necessarily found he acted knowingly, not negligently.

In this regard, it is important to recognize that “knowledge” is an essential element of each Count in the Indictment (Attachment 1 to NRC Staff Motion for Collateral Estoppel). The district court emphasized this point in its instructions to the jury, advising them that: (1) a conviction on any Count required a finding that Mr. Geisen acted “knowingly and willfully” (Trial Tr. at 2333, 2335); and (2) the term “knowingly and willfully” required proof beyond a reasonable doubt that Mr. Geisen caused the false statement to be made “with the knowledge it was false and with the intent to deceive” (e.g., Trial Tr. at 2334).

Stating that it “want[ed] to explain something about proving a defendant’s knowledge” (Trial Tr. at 2338), the district court instructed the jury on “deliberate ignorance” as follows:

No one can avoid responsibility for a crime by deliberately ignoring the obvious. If you are convinced that a defendant deliberately ignored a high probability that the submissions and presentations to the NRC concealed material facts or included false statements, then you may find that he knew that the submissions and presentations to the NRC concealed material facts or included false statements But to find this, you must be convinced beyond a reasonable doubt that the defendant was aware of a high probability that the submissions and presentations to the NRC concealed material facts or included false statements and that the defendant deliberately closed his eyes to what was obvious. Carelessness, or negligence, or foolishness on his part is not the same as knowledge and is not enough to convict.

Trial Tr. at 2338-39.⁷

⁷ Notably, the district court instructed the jury that if Mr. Geisen acted in “good faith,” he was not guilty of criminal conduct (Trial Tr. at 2238). The district court explained:

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Based on the above instruction, if the jury found Mr. Geisen was “deliberately ignorant,” the conviction was – *as a matter of law* – based on a finding that Mr. Geisen had “knowledge.” Restated, if Mr. Geisen was convicted for “deliberate ignorance,” the jury concluded the evidence showed beyond a reasonable doubt that Mr. Geisen had *knowledge* of a “high probability that the submissions and presentations to the NRC concealed material facts or included false statements” (Trial Tr. at 2339) and he thus acted *knowingly*. See United States v. Heredia, 483 F.3d 913, 922 n.13 (9th Cir. 2007) (en banc) (deliberate ignorance “is tantamount to knowledge”); United States v. Guerrero, 114 F.3d 332, 344 n.12 (1st Cir. 1997) (same).

The conclusion that a finding of “deliberate ignorance” is a proxy for a finding of “knowledge” is supported by the definition of “knowledge” in the Model Penal Code, which has guided the Supreme Court in determining the intended scope of the word “knowing” in the criminal context. See, e.g., Leary v. United States, 395 U.S. 6, 46 n.93 (1969). The definition of knowledge in the Model Penal Code states that “[w]hen knowledge of the existence of a particular fact is an element of an offense, such *knowledge is established if a person is aware of a high probability of its existence*, unless he actually believes that it does not exist” (ibid.) (quoting Model Penal Code § 2.02(7) (1962) (emphasis added)). That the deliberate ignorance instruction, unlike the Model Penal Code definition of knowledge, does not contain the phrase “unless [the defendant] actually believes [the fact] does not exist,” does not alter the conclusion

⁷(...continued)

A person who acts . . . on a belief of an opinion honestly held is not punishable under this statute merely because the belief or opinion turns out to be inaccurate, incorrect, or wrong. An honest mistake in judgment or an honest error in management does not rise to the level of criminal conduct [T]he term good faith . . . encompasses, among other things, a belief or opinion honestly held The burden of proving good faith does not rest with the defendants because the defendants do not have any obligation to prove anything in this case.

Trial Tr. at 2337-38. Thus, the jury was well-aware it must acquit if it believed Mr. Geisen’s actions were the result of an honest mistake in judgment or an honest error in management.

that a finding of deliberate ignorance is equivalent to a finding of knowledge, because the deliberate ignorance theory “focuses on defendant’s actual beliefs and actions” (Heredia, 483 F.3d at 919 n.6). Thus, a defendant who actually believes a fact does *not* exist despite a high probability of its existence would not be guilty of deliberate ignorance pursuant to either the good faith belief exception (supra note 7) or the “[c]arelessness, or negligence, or foolishness” exceptions (Trial Tr. at 2339), which were both explained in the jury instructions.

Although the Majority Decision disagrees with the above analysis (p. 47 n.89), it errs in rejecting it, because it is an analysis that is (1) guided by Supreme Court precedent and the Model Penal Code, and (2) mandated by the plain language of the jury instructions.

Thus, for purposes of applying collateral estoppel here, it matters not if the jury concluded Mr. Geisen had actual knowledge to a one-hundred-percent certainty, or if it concluded pursuant to the deliberate ignorance theory that he had knowledge to a high probability of certainty. Consistent with Supreme Court precedent (Leary, 395 U.S. at 46 n.93) and the Model Penal Code, either conclusion means the jury found he acted “knowingly” – that is, he acted “with the knowledge [the representations were] false” (Trial Tr. at 2334), which satisfies the element of knowledge the NRC Staff must show in this proceeding and precludes Mr. Geisen from re-litigating the issue of knowledge.⁸

⁸ As the en banc Ninth Circuit recently explained in Heredia, the “deliberate ignorance instruction defines when an individual has sufficient information so that he can be deemed to ‘know’ something” (483 F.3d at 920 n.10) – namely, when the evidence shows beyond a reasonable doubt that the individual had knowledge of a critical fact to a high probability of certainty. To be sure, the knowledge component of the deliberate ignorance theory is slightly less than knowledge to a one-hundred-percent certainty in that the defendant “does not take the final step to confirm that knowledge” (ibid.), or the prosecutor’s case is based on circumstantial evidence that precludes establishing defendant’s knowledge to a one-hundred-percent certainty (United States v. Carney, 387 F.3d 436, 449 (6th Cir. 2004). This difference, however, does not alter the fact that deliberate ignorance in the criminal context is “tantamount to knowledge” (483 F.3d at 922 n.13), and is sufficient to satisfy the requirement for knowledge in the instant case. The Majority Decision’s contrary view cannot be reconciled with Supreme Court precedent or the Model Penal Code, both of which recognize that a person has

(continued...)

Mr. Geisen's assertion that a conviction based on deliberate ignorance could have been based on negligence rather than knowledge is negated by the district court's instruction to the jury that "[c]arelessness, or negligence, or foolishness on [Mr. Geisen's] part is not the same as knowledge and is not enough to convict" (Trial Tr. at 2339; see also supra note 7). The Sixth Circuit repeatedly has recognized that the plain language of the Sixth Circuit Pattern Jury Instruction on deliberate ignorance (which the district court gave in this case) "forecloses the possibility" that a jury will "convict on the basis of negligence" (United States v. Mari, 47 F.3d 782, 785 (6th Cir. 1995)). As the en banc Ninth Circuit stated, a "jury is presumed to follow the instructions given to it, and we see no reason to fear that juries will be less able to do so when trying to sort out a criminal defendant's state of mind than any other issue" (Heredia, 483 F.3d at 923) (internal citation omitted). See also id. at 924 ("Recklessness or negligence never comes into play [in the deliberate ignorance instruction], and there is little reason to suspect that juries will import these concepts . . . into their deliberations.").

More fundamentally, deliberate ignorance is "categorically different from negligence or recklessness" (Heredia, 483 F.3d at 918 n.4). A deliberately ignorant defendant is one who was aware of the high probability of a critical fact, but deliberately ignored that probability. In sharp contrast, a reckless defendant "is one who merely knew of a substantial and unjustifiable risk that his conduct was criminal; [and] a negligent defendant is one who should have had similar suspicions but, in fact, did not" (ibid.). Deliberate ignorance thus is materially different from negligence and recklessness, because the latter two theories "require[] a consciousness of something far less than . . . probability" (Jonathan L. Marcus, Model Penal Code Section 2.02(7) and Willful Blindness, 102 Yale L.J. 2231, 2239 (1993)).

⁸(...continued)
knowledge if he or she "is aware of a high probability of its existence, unless he [or she] actually believes that it does not exist" (Leary, 395 U.S. at 46 n.93) (quoting Model Penal Code § 2.02(7) (1962)).

Nor is there merit to Mr. Geisen's assertion that a conviction for deliberate ignorance is effectively a conviction for careless disregard which, he argues, would not satisfy the intentional component of the NRC's "deliberate misconduct" standard. See David Geisen's Response to the Board's Questions at 6-7 (Feb. 9, 2009). First, this assertion disregards the district court's instruction that the jury could not convict Mr. Geisen of acting knowingly based on deliberate ignorance if it found his actions resulted from "[c]arelessness, or negligence, or foolishness" (Trial Tr. at 2339). Second, and in any event, a deliberately ignorant defendant deliberately engages in misconduct *despite* knowing to a "high probability" of certainty that the action is wrongful (ibid.); in other words, although the defendant is deemed to know the critical facts underlying the misconduct, he or she "deliberately ignor[es]" those facts and proceeds to act wrongfully (Trial Tr. at 2338). As the en banc Ninth Circuit held, a conviction based on deliberate ignorance requires a finding that a defendant acted deliberately, and a "deliberate action is one that is '[i]ntentional; premeditated; fully considered'" (Heredia, 483 F.3d at 920) (quoting Black's Law Dictionary 459 (8th ed. 2004)). A conviction based on deliberate ignorance thus satisfies the intentional component of the NRC's deliberate misconduct standard.

The Majority Decision observes that the deliberate ignorance instruction has its most frequent usage in drug possession cases, where the defendant purports not to know, for example, what is in a package the defendant has been asked to deliver (p. 45). The Majority Decision suggests that exporting the instruction to non-drug cases, as was done in Mr. Geisen's criminal proceeding, is ill-advised and may create a serious danger of confusing the jury (ibid.). The Majority's concern is insubstantial. First, deliberate ignorance "is tantamount to knowledge" (Heredia, 483 F.3d at 922 n.13), a principal distinction being that courts generally refer to *actual* knowledge as knowledge derived from direct evidence, whereas knowledge based on the deliberate ignorance theory is derived from circumstantial evidence. See Carney, 387 F.3d at

449 (“if direct proof existed [of the defendant’s guilt] . . . , no need for any ‘deliberate ignorance’ instruction would have arisen”); see also Jonathan L. Marcus, Model Penal Code Section 2.02(7) and Willful Blindness, 102 Yale L.J. 2231, 2239 n.40 (1993). Thus, where – as in Mr. Geisen’s criminal proceeding – the prosecution must rely on circumstantial evidence to establish a defendant’s knowledge, the use of a deliberate ignorance instruction is unexceptional and entirely proper. Indeed, contrary to the Majority’s intimation, the deliberate ignorance instruction is given in myriad non-drug cases. See, e.g., United States v. Ross, 502 F.3d 521 (6th Cir. 2007) (bank fraud); United States v. Rayborn, 491 F.3d 513 (6th Cir. 2007) (mail fraud, wire fraud, and money laundering); United States v. Beaty, 245 F.3d 617 (6th Cir. 2001) (illegal gambling business); United States v. Monus, 128 F.3d 376 (6th Cir. 1998) (fraud, money laundering, and conspiracy). In any event, for present purposes, this Board is *required* to conclude the jury understood the trial court’s instructions and rendered well-founded findings of fact in compliance with those instructions. See, e.g., Heredia, 483 F.3d at 923-24; Mari, 47 F.3d at 785; Davis-Besse, ALAB-378, 5 NRC at 562. As the Majority Decision correctly observes, whether jury confusion was a problem in Mr. Geisen’s criminal proceeding is “a matter for the Sixth Circuit on direct appeal” (p. 46).⁹

⁹ The Majority Decision errs in suggesting (p. 46) that subsequent Sixth Circuit precedent undermines the court’s holding in Mari that the deliberate ignorance instruction is sufficient to “foreclose[] the possibility” of error due to jury confusion (47 F.3d at 785). The Sixth Circuit cases listed above in text all cite Mari with approval. The single Sixth Circuit case cited by the Majority Decision (p. 46 n.85) is unreported, fails even to mention Mari, and – as a panel decision as opposed to an en banc decision – cannot overturn Mari’s holding in any event. In short, the decision in Mari regarding the adequacy and effectiveness of the deliberate ignorance instruction is binding precedent that will govern the Sixth Circuit’s resolution of Mr. Geisen’s criminal appeal, and it should likewise guide this Board in our resolution of this case. The Majority Decision’s contrary view is legal error.

C. Waiver Does Not Foreclose The Application Of Collateral Estoppel

Before ending the discussion on collateral estoppel, it is necessary to consider if – because the NRC Staff ultimately declined to take a position on whether collateral estoppel would apply to a conviction based on deliberate ignorance – the principle of waiver operates to foreclose applying collateral estoppel if the jury convicted Mr. Geisen based on deliberate ignorance. Although Mr. Geisen did not advance a waiver argument (see David Geisen’s Response to the Board’s Questions at 7 n.4 (Feb. 9, 2009)), I address it in the interest of analytical completeness. I conclude, based on compelling case law, that waiver does not foreclose the application of collateral estoppel.

Preliminarily, I note that during the course of this proceeding, the NRC Staff changed its position regarding the applicability of collateral estoppel to the deliberate ignorance theory. Prior to the evidentiary hearing, the Staff took the position that the level of knowledge necessary to show deliberate misconduct pursuant to 10 C.F.R. § 50.5(a)(2) materially exceeds the level of knowledge necessary for a criminal conviction under the deliberate ignorance theory and, accordingly, collateral estoppel would *not* apply if the jury – in rendering a general verdict (supra note 2) – convicted Mr. Geisen based on a finding of deliberate ignorance (NRC Staff Motion for Collateral Estoppel at 23). The Staff nevertheless urged this Board to apply collateral estoppel because, according to the Staff, this Board could reasonably conclude the jury convicted Mr. Geisen based on a finding of actual knowledge, not on a finding of deliberate ignorance.¹⁰

¹⁰ For the reasons discussed supra Part I.B.2, the NRC Staff was wrong as a matter of law in its belief that the knowledge component under section 50.5(a)(2) is materially different than the knowledge component for a criminal conviction under the deliberate ignorance theory. Knowledge based on deliberate ignorance (i.e., knowledge to a high degree of probability) is “tantamount to [actual] knowledge” (Heredia, 483 F.3d at 922 n.13) – they are two sides of the same coin, with the deliberate ignorance theory generally being used to establish a defendant’s knowledge in cases where the prosecutor’s case is based on circumstantial evidence that may not establish actual knowledge to a one-hundred-percent certainty (Carney, 387 F.3d at 449). Thus, ironically, had the NRC Staff advanced a collateral estoppel argument
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After the evidentiary hearing, this Board entertained further briefing and oral argument on collateral estoppel. At that juncture, the NRC Staff changed its position. It refrained from arguing that collateral estoppel would not apply to a conviction based on deliberate ignorance, arguing that because the record in the criminal case pointed to a conviction based on actual knowledge, the issue of whether collateral estoppel would apply to a conviction based on deliberate ignorance was “academic” and need not be addressed (Enforcement Proceeding Tr. at 2397). On that point, the record is clear: the Staff ultimately declined to take a position on whether collateral estoppel would apply to a conviction based on the deliberate ignorance theory.¹¹

¹⁰(...continued)

based on deliberate ignorance, that argument would have been identical to the Staff’s collateral estoppel argument based on actual knowledge, which the parties fully briefed and argued.

¹¹ During oral argument on March 3, 2009, in response to the Board’s question “are you disavowing the applicability of collateral estoppel to the deliberate ignorance theory, or are you not taking a position,” the NRC Staff answered “[w]e’re not taking a position” (Enforcement Proceeding Tr. at 2397). Under further questioning from the Board, the NRC Staff confirmed that, in this case, it was “unwilling to take a position” on the applicability of collateral estoppel to the deliberate ignorance theory (*id.* at 2398). See also NRC Staff Response to Board Questions at 3 (Jan. 30, 2009) (“Because the application of collateral estoppel is premised upon a review of the factual record, it is not possible to definitively answer the question of whether collateral estoppel under the deliberate ignorance instruction can be applied to this proceeding. However, the Board need not reach that question since the evidence at the criminal trial unequivocally established that Mr. Geisen had [actual] knowledge . . . and that a reasonable jury would have so based its verdict.”).

As shown by the above record excerpts, the Majority Decision fails fairly to characterize the record when it avers (pp. 41-44) the NRC Staff did not ultimately decline to take a position on the applicability of collateral estoppel to the deliberate ignorance theory. Nor is there merit to the Majority Decision’s assertion that “even if the Staff had changed its position [and declined to take a position regarding the applicability of collateral estoppel to deliberate ignorance], it would have come too late to be allowable” (p. 43). As the Majority Decision acknowledges, issues relating to collateral estoppel were “the subject of post-trial briefing and argument” (p. 35). Because this issue remained alive and subject to critical evaluation by the Board and the parties throughout this proceeding, the NRC Staff’s decision to shift its position after the evidentiary hearing was not out of time. Finally, there is no merit to the Majority Decision’s assertion that allowing the Staff to change its position on this legal issue after the evidentiary hearing would “be unfair to Mr. Geisen, whose evidentiary presentations had been tailored to the Staff’s

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My waiver analysis is based on the Staff's final litigation position – or, more precisely – its litigation *non-position* regarding collateral estoppel. As is now shown, the NRC Staff's refusal to take a position on the applicability of collateral estoppel to deliberate ignorance does not trigger the principle of waiver to foreclose applying collateral estoppel here.

In Clements v. Airport Auth. of Washoe County, 69 F.3d 321, 329-30 (9th Cir. 1995), the Ninth Circuit held that a party's failure to advance a collateral estoppel argument does not perforce trigger the waiver principle, thus precluding a tribunal from applying collateral estoppel. Rather, a tribunal retains discretion to overlook waiver in the collateral estoppel context, and its exercise of discretion should be based on a balancing of the relevant public and private interests (*ibid.*). Accord Gilbert v. Ferry, 413 F.3d 578, 580 (6th Cir. 2005) (Sixth Circuit cites Clements with approval and exercises discretion to overlook waiver in collateral estoppel context). Applying that approach here, on one side of the scale is the compelling public interest in “preserving the acceptability of judicial dispute resolution against the corrosive disrespect that would follow if the same matter were twice litigated to inconsistent results” (Clements, 69 F.3d at 330) (quoting 18 Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, Federal Practice and Procedure § 4403 (2d ed. 1987)). The private interest on the other side of the scale is the prejudice a litigant would suffer by being barred from re-litigating the relevant issue

¹¹(...continued)

original theory” (p. 43). In this regard, the Majority Decision states that the “entire basis” of Mr. Geisen's defense was to establish he “actually believe[d] that” the information he was submitting was true” (p. 47 n.90). In other words, Mr. Geisen's evidentiary presentations were tailored to undermining the Staff's effort to show he *knew* the information submitted to the NRC was materially incomplete and inaccurate. Of course, this was also the entire basis of Mr. Geisen's defense at his criminal proceeding, and the jury rejected it. In any event, the determinative point is that because deliberate ignorance “is tantamount to knowledge” (Heredia, 483 F.3d at 922 n.13), Mr. Geisen's defense for purposes of applying collateral estoppel was unaffected by the Staff's post-trial decision to refrain from taking a position on the *legal* issue as to the applicability of collateral estoppel to the deliberate ignorance theory. Mr. Geisen therefore cannot legitimately claim that the Staff's changed position works an unfairness, and – to his credit – he did not advance such an argument.

– an interest that is insubstantial here, where Mr. Geisen had a “full and fair opportunity to actually litigate the issue [in the criminal proceeding] and did in fact litigate it” (ibid.).

Because Mr. Geisen fully litigated the issue of knowledge in the criminal proceeding (supra Parts I.A and I.B), he has no legitimate basis to claim he will be unfairly prejudiced by the application of collateral estoppel. Accordingly, the principle of waiver may be overlooked here, because a surpassing public interest favors applying collateral estoppel, and no countervailing interest militates against its application.

Even if – as the Majority Decision incorrectly contends – the NRC Staff had affirmatively argued throughout this proceeding that collateral estoppel would not apply if Mr. Geisen’s conviction had been grounded on the deliberate ignorance theory, this Board would not have been precluded from concluding that Mr. Geisen is collaterally estopped from re-litigating the issue of knowledge. This is so because: (1) the NRC Staff consistently argued that collateral estoppel applies if Mr. Geisen’s conviction was based on a finding of knowledge; and (2) the legal issue of whether the jury convicted him based on a finding of knowledge was fully briefed, including the issue of whether deliberate ignorance is a proxy for knowledge. Neither this Board, nor the Commission, is constrained in the resolution of legal issues by a party’s misunderstanding of the law, provided the opposing party is not unfairly prejudiced. Hence, the NRC Staff’s erroneous understanding of the knowledge component of the deliberate ignorance theory (see supra note 10), which in turn shaped the Staff’s erroneous argument that the knowledge component of the deliberate ignorance theory did not satisfy the knowledge component of the Commission’s deliberate misconduct standard, did not preclude this Board from concluding, based on its analysis of relevant precedent, that Mr. Geisen’s conviction (regardless of the underlying theory) was grounded on a finding of knowledge. From that conclusion, it follows – as a matter of law – that collateral estoppel precludes Mr. Geisen from re-litigating the issue of knowledge in this case.

The Majority Decision's concern (pp. 53 n.103, 142 n.176) that applying collateral estoppel here will unfairly prejudice Mr. Geisen and improperly alter the nature of the charges in the Enforcement Order is insubstantial. As shown above, the conclusion that the knowledge component of the deliberate ignorance theory is the functional equivalent of actual knowledge is consistent with Supreme Court precedent, the Model Penal Code, and the plain language of the jury instructions. The Majority Decision's dramatic declaration that this Dissent weaves a legal theory that is "wrong as to Mr. Geisen's rights, and . . . is wrong as to a judge's role" (p. 142) is thus an empty pronouncement, "full of sound and fury, signifying nothing" (William Shakespeare, Macbeth act 5, sc. 5).

II. ALTERNATIVELY, A PREPONDERANCE OF RECORD EVIDENCE SHOWS THAT MR. GEISEN KNOWINGLY PROVIDED THE NRC WITH MATERIALLY FALSE INFORMATION

Even if the collateral estoppel doctrine did not apply, I would sustain the charge in the Enforcement Order, because a preponderance of the evidence shows Mr. Geisen acted knowingly when he provided the NRC with materially incomplete and inaccurate information regarding the scope and efficacy of the Davis-Besse nozzle inspections. That Mr. Geisen had such knowledge is based on an abundance of record evidence that Mr. Geisen concedes he read, closely reviewed, discussed, or approved.¹²

Before reviewing that evidence, it is instructive to examine Mr. Geisen's background, which reveals he is a highly educated individual who, at all relevant times, had broad knowledge and experience in the operation and management of nuclear power plants.

¹² Although the knowledge component of the NRC's "deliberate misconduct" standard would be satisfied by an evidentiary showing that Mr. Geisen had knowledge to a high probability of certainty (see *supra* Part I.B.2), I find the NRC Staff showed by a preponderance of the evidence that Mr. Geisen had knowledge to a one-hundred-percent certainty (see *infra* Parts II.B and II.C).

Upon graduating from Marquette University in 1982 with a degree in Civil Engineering, Mr. Geisen was commissioned as a Naval Officer and selected for the Naval Nuclear Power Program (Enforcement Proceeding Tr. [hereinafter Tr.] at 1536). He was on active duty for six years, serving on a nuclear-powered submarine for four of those years (Tr. at 1536, 1538).

When he left the Navy in 1988, Mr. Geisen began work at Davis-Besse as a systems engineer in the Mechanical Systems group, where from 1988 to 1994 he had primary responsibility for the reactor coolant pumps and also had responsibility for certain containment-related components (Tr. at 1536, 1539).

From 1994 to 1996, Mr. Geisen was in the Senior Reactor Operation (SRO) program, training to become a reactor operator supervisor (Tr. at 1539-40). During that training, he learned “how the plant operates system by system . . . learning how to operate the plant and going through all the evolutions of basically becoming a control room operator” (Tr. at 1539-40).¹³

From 1996 to 2000, Mr. Geisen served as a Davis-Besse supervisor in the Electrical and Controls Group within Systems Engineering (Tr. at 1540).

In March 2000, Mr. Geisen became the Davis-Besse Design Basis Engineering Manager, which required him to manage about 42 employees in the following five subgroups: nuclear engineering, mechanical design, instrumentation and electrical design, procurement engineering, and computer systems engineering (Tr. at 1548-53). At the same time, Mr. Geisen became a member of the Davis-Besse Project Review Group (PRG), which is a manager-level group that reviews, prioritizes, and recommends funding for proposed projects (Tr. at 1556-57). Mr. Geisen also became a member of the Davis-Besse Babcock & Wilcox Owner’s Group (B&WOG) Steering Committee, which reviews input from various B&WOG working groups and

¹³ In 1995, Mr. Geisen earned a Masters Degree in Business Administration from Bowling Green State University (Tr. at 1537).

makes recommendations to the B&WOG Executive Committee regarding the priority and funding of projects proposed by the working groups (Tr. at 1021, 1590).

During Davis-Besse's 12th refueling outage (RFO), which occurred in the Spring of 2000, Mr. Geisen served for about two and one-half weeks as the engineering representative in Outage Central, where he acted as the point-of-contact for all engineering matters relating to the outage (Tr. at 1560-62). Prior to Davis-Besse entering its 12th RFO, Mr. Geisen received continuing training on the Boric Acid Corrosion Control (BACC) Program (see Staff Exh. 79 at 11-12, 40-41; Tr. at 1939), so he knew that if Davis-Besse represented it could view the reactor vessel head using the BACC Program, that meant it had "remove[d] the boron at least sufficiently enough to evaluate the base metal" (Tr. at 1939). Accord ibid. (Mr. Geisen acknowledges an inspection performed pursuant to the BACC Program means the inspector is "able to access [the] bare metal of the reactor vessel head.").

In short, the record shows Mr. Geisen was a highly knowledgeable member of the Davis-Besse managerial team. His education and experience rendered him eminently capable of recognizing and understanding safety-sensitive information.¹⁴

Mr. Geisen nevertheless argues he was unaware the information he submitted to the NRC between September and November 2001 was materially incomplete and inaccurate. The Majority Decision accepts this argument, rendering a conclusion that, in my view, attributes profound negligence to Mr. Geisen. I do not believe the record supports that conclusion.

¹⁴ The Majority Decision incorrectly asserts that during the 1996, 1998, and 2000 RFOs, "Mr. Geisen's responsibilities at Davis-Besse were entirely unrelated to the reactor vessel head" (p. 60). In fact, Mr. Geisen's collateral duties as the Davis-Besse Design Basis Engineering Manager in the Spring of 2000 (infra Part II.B.1), as well as his duties while serving in Outage Central during the 2000 RFO (infra Part II.B.2), included dealing with engineering issues related to the reactor vessel head (Tr. at 1562-63). In any event, Mr. Geisen is charged with knowingly providing the NRC with materially incomplete and inaccurate information in the Fall of 2001. That he had such knowledge is based on an overwhelming amount of record evidence that Mr. Geisen concedes he read, closely reviewed, discussed, or approved in 2000 and 2001. See infra Parts II.B.1 and II.B.2.

Rather, as shown below, I believe a preponderance of the evidence supports the conclusion that Mr Geisen had the requisite knowledge to support the charge in the Enforcement Order because: (1) he *knew* Davis-Besse had an obligation to provide safety-sensitive information to the NRC regarding recent nozzle inspections, including a description of any limitations on accessibility that would impede visual inspections (*infra* Part II.A); (2) he *knew* the ability to inspect the nozzles visually was impeded due to Davis-Besse's inspection technique *and* due to substantial boron deposits on the reactor head (*infra* Parts II.B.1 and II.B.2); and (3) he nevertheless *knowingly* provided the NRC with material misrepresentations relating to inspection impediments and inspection results, because providing complete and accurate information regarding the inspections would have jeopardized Davis-Besse's ability to continue operating without interruption until its next scheduled RFO in Spring 2002 (*infra* Part II.C). The charge in the Enforcement Order should therefore be sustained.¹⁵

A. Mr. Geisen Knew The August 2001 NRC Bulletin Required Davis-Besse To Submit Safety-Sensitive Information Regarding The Scope And Efficacy Of Past Nozzle Inspections

On August 3, 2001, the NRC sent Bulletin 2001-01 to all holders of operating licenses for pressurized water nuclear power reactors (PWRs), including Davis-Besse. Notably, this was the first Bulletin issued by the NRC since 1997 (Tr. at 1203). Mr. Geisen acknowledged the NRC's issuance of a Bulletin is a "significant event[]" (Tr. at 1813). He confirmed he "read the Bulletin from front to back" (Tr. at 1823) because, given its safety significance, he felt obliged to

¹⁵ Mr. Geisen concedes he provided the NRC with information that was materially incomplete and inaccurate (*see* NRC Staff Exh. 77). The sole issue here – as in his criminal trial – is whether he *knew* the information was materially incomplete and inaccurate at the time it was submitted to the NRC.

“become knowledgeable about” it (Tr. at 1813; accord, e.g., Tr. at 1878 (Mr. Geisen acknowledges he “understood what the Bulletin was asking”)).¹⁶

The Bulletin was triggered by the recent discovery at Oconee Nuclear Station Unit 2 of circumferential cracking in control rod drive mechanism (CRDM) nozzles, which “raised concerns about the potential safety implications and prevalence of cracking in [vessel head penetration (VHP)] nozzles in [other plants]” (NRC Staff Exh. 8 at 1). Circumferential cracking in these nozzles creates a grave safety concern due to the “potential for rapidly propagating failure of CRDM nozzles and control rod ejection, causing a loss-of-coolant accident” (id. at 6).¹⁷

The discovery at Oconee revealed that a significant nozzle crack can develop and propagate with very little evidence of boric acid – as little as about one cubic inch (Tr. at 1208). The Bulletin advised licensees that the “presence of circumferential cracking at [Oconee], where only a small amount of boric acid residue indicated a problem, calls into question the adequacy of current visual examinations for detecting either axial or circumferential cracking in VHP nozzles” (NRC Staff Exh. 8 at 4).

Accordingly, the purpose of the Bulletin was to determine the status of CRDM nozzle inspections in every PWR plant, because the NRC did not have sufficient knowledge of the adequacy of previous or prospective inspections (Tr. at 1205). The Bulletin expressed special concern about whether licensees’ past nozzle inspections were impeded in any way that might impair the ability to detect small boric acid deposits that would be indicative of nozzle leakage

¹⁶ Bulletins are the most significant of the NRC Staff’s generic communications. They require responses from the licensees, and the NRC Staff evaluates each response to determine whether regulatory action is needed for the individual plant or for the industry (Tr. at 1201, 1202).

¹⁷ There is no question that Mr. Geisen understood the severe risk to safety posed by the circumferential cracking of a nozzle. As he testified, this type of crack “obviously creates a huge safety concern from the standpoint that you’ve got this potential for a [loss-of-coolant accident]” (Tr. at 1811).

evidencing circumferential cracking (Tr. at 1210). The Bulletin stated: “This is especially significant if prior existing boric acid deposits on the RPV head mask the identification of new deposits. Also, the presence of insulation on the RPV or other impediments might restrict an effective visual examination” (NRC Staff Exh. 8 at 4). The Bulletin therefore directed use of the following conservative approach for conducting nozzle inspections: “[B]oric acid deposits that cannot be dispositioned as coming from another source should be considered, as a conservative assumption, to be from VHP nozzles” (NRC Staff Exh. 8 at 4).

Thus, absent an ability to conclude definitively that a boric acid deposit was attributable to a source other than nozzle leakage, the licensee should assume the deposit was caused by a leaking nozzle and take appropriate corrective action.¹⁸ Pursuant to this conservative approach, a licensee could not conclude that a known leaking flange was responsible for a boric acid deposit near a nozzle, and thus rule out the possibility of nozzle leakage, because flange leakage and nozzle leakage might exist simultaneously, and the former might mask the latter. See NRC Staff Exh. 8 at 7 (“An inability to provide assurance of a detectable residual deposit or to discriminate prior existing boric acid deposits caused by non-safety-significant sources from boric acid deposits caused by CRDM nozzle cracking could limit the effectiveness of visual examinations.”). Hence, whenever boric acid deposits were found, further action would be required to identify the source.¹⁹

¹⁸ Boric acid deposits from a source other than a leaking nozzle – for example, from a leaking flange – tend to be light, snowflake-like deposits with low density that do not adhere to the vessel head and, thus, could be vacuumed or blown away with low pressure air (Tr. at 1212-14, 1457). The Bulletin contemplated that boric acid deposits lacking these characteristics – e.g., deposits that were popcorn-like, or heavy, or non-white, or dense, or that adhered to the head – would trigger further action, such as volumetric examinations. See Tr. at 1211-12.

¹⁹ As the Bulletin emphasized, “[o]ne aspect of conducting effective visual examinations that is common to all PWR plants is the need to successfully distinguish boric acid deposits originating with VHP nozzle cracking from deposits that are attributable to other sources” (NRC Staff Exh. 8 at 5). Because significant circumferential cracking may be revealed
(continued...)

The Bulletin classified plants in three different categories based on their susceptibility to circumferential cracking – high, moderate, and low – and each category imposed different requirements (NRC Staff Exh. 8 at 7-8; Tr. at 869-70). For plants, like Davis-Besse, in the high susceptibility category, licensees were required to perform a “qualified visual examination of 100% of the VHP nozzles” to look for evidence of leakage that might be attributable to nozzle cracking (NRC Staff Exh. 8 at 8; see also NRC Staff Exh. 9 at 1; Tr. at 1206). The Bulletin admonished that:

the effectiveness of the qualified visual examination should not be compromised by the presence of insulation, existing deposits on the RPV head, or other factors that could interfere with the detection of leakage. Absent the use of a qualified visual examination, a qualified volumetric examination of 100% of the VHP nozzles (with a demonstrated capability to reliably detect cracking on the OD of a VHP nozzle) may be appropriate to provide evidence of the structural integrity of the VHP nozzles.

NRC Staff Exh. 8 at 8.

A “qualified visual examination” has two requirements (NRC Staff Exh. 8 at 8; Tr. at 1227): (1) the ability to view the nozzle-to-head interface on the reactor head to detect the existence of small boric acid deposits; and (2) a gap analysis that demonstrates a sufficient gap between the nozzle and the vessel head so a nozzle leak (if one existed) would manifest itself by depositing boric acid on the head. If either requirement was not satisfied, the inspection of a nozzle would not properly be characterized as a qualified examination, because it would not suffice to demonstrate the absence of nozzle leakage. See Tr. at 1230.

The Bulletin required licensees to provide to the NRC Staff within thirty days:

¹⁹(...continued)
by the “presence of relatively small amounts of boric acid deposits . . . [there is an increased] need for more effective inspection methods to detect the presence of degradation in CRDM nozzles before the nozzle integrity is compromised” (id. at 6). The NRC Staff’s expert, Dr. Allen Hiser, testified that the conservative approach to addressing this concern was to assume all nozzles had leaks until you could verify each nozzle had a clean visual examination (Tr. at 1452).

a description of the VHP nozzle and RPV head inspections (type, scope, qualification requirements, and acceptance criteria) that have been performed at your plant(s) in the past 4 years, and the findings. *Include a description of any limitations (insulation or other impediments) to accessibility of the bare metal of the RPV head for visual examinations.*

NRC Staff Exh. 8 at 11 (emphasis added). Mr. Geisen testified he understood the Bulletin as requiring licensees to inspect each nozzle “on a per joint basis, and you’re trying to get a full 360-degree view of every single nozzle” (Tr. at 1820-22; see also Tr. at 1977). Further, he testified he knew that “neither one of [Davis-Besse’s] previous two inspections [in 1998 and 2000] would have met that qualification” (Tr. at 1821; see also Tr. at 1992).

Finally, the Bulletin stated that if the licensee had not recently performed a qualified visual examination, it must perform one before December 31, 2001 or “provide [its] basis for concluding that the regulatory requirements . . . will continue to be met until the inspections are performed” (NRC Staff Exh. 8 at 12).

B. Mr. Geisen Knew That Davis-Besse’s Performance Of Past Nozzle Inspections Was Impeded By Its Inspection Technique And By Significant Boron Deposits

The Enforcement Order charges Mr. Geisen with knowingly providing the NRC with materially incomplete and inaccurate information between September and November 2001 relating to the scope and efficacy of Davis-Besse’s recent nozzle inspections (Enforcement Order at 14). In particular, Mr. Geisen is charged with falsely representing that Davis-Besse visually inspected all of the reactor head nozzles, that these inspections revealed no nozzle had leakage evidencing nozzle cracking and, accordingly, that Davis-Besse need not shut down by December 31, 2001 to further examine its nozzles for circumferential cracking (*id.* at 8-14). Contrary to Mr. Geisen’s assertion, the record shows he was well aware that Davis-Besse could not truthfully represent that its nozzle inspections sufficed to rule out nozzle cracking, because he *knew* the following impediments prevented Davis-Besse from visually inspecting all the nozzles in compliance with the Bulletin: (1) Davis-Besse employed a camera-on-a-stick

inspection technique, which prevented access to at least nine of the reactor's sixty-nine nozzles (i.e., 14% of the nozzles); and (2) Davis-Besse's reactor head had significant and extensive boric acid deposits, which would have masked evidence of nozzle leakage for a substantial additional number of nozzles.²⁰

1. Mr. Geisen Knew That Davis-Besse's Camera-On-A-Stick Inspection Technique Prevented Inspecting Nozzles At The Top Of The Head Davis-Besse conducted visual inspections of the nozzles using a camera attached to the end of a rigid pole inserted at the bottom of the head through small openings called "mouse holes" (Tr. at 855-56, 867, 898-99). Due to the curved reactor vessel head and the limited access allowed by the small mouse holes, the camera-on-a-stick inspection technique did not allow the inspector to point the camera downward to view the nozzle-to-head interface for the nozzles on the top of the head (Tr. at 899-901). Hence, the camera-on-a-stick inspection technique prevented Davis-Besse from inspecting, at a minimum, the nine nozzles at the top of the reactor head. See Tr. at 899-901; NRC Staff Exh. 69 (pictorial representation of nozzles that could not be viewed in 1996 using the camera-on-a-stick inspection technique). Additionally, insulation located about two inches above the head hindered the ability to inspect the top nozzles (Tr. at 1822).

An abundant amount of evidence supports the conclusion that Mr. Geisen was aware that the camera-on-a-stick inspection technique used at Davis-Besse significantly impeded the performance of nozzle inspections of the type contemplated by the August 2001 Bulletin.²¹ As

²⁰ The 69 nozzles on the reactor head are arranged essentially as four concentric rings of 68 nozzles surrounding a central nozzle (NRC Staff Exh. 7). The outer (first) ring has 24 nozzles, the second ring has 20 nozzles, the third ring has 16 nozzles, and the fourth ring has 8 nozzles (ibid.).

²¹ Mr. Geisen conceded he was aware these impediments prevented a full head inspection (Tr. at 1616, 1822-23, 1959, 1970). Indeed, he testified that after receiving the August 2001 Bulletin he "didn't view the camera on a stick as even a viable option anymore . . . [because it] was too difficult to get the camera to the top of the head" (Tr. at 1880).

early as 1994, a Davis-Besse modification request sought to cut large access holes in the service structure to allow greater access to the head (NRC Staff Exh. 16 at 166). This modification was necessary because – as reported by the individual who conducted the 1996 head inspection during the 10th RFO – the “extent of the inspection was limited to approximately 50 to 60% of the head area because of the restrictions imposed by the location and size of the mouse holes” (*id.* at 160; *accord* Tr. at 1031). The need for the modification was reiterated in 1997 by Davis-Besse supervisory officials, who recognized the need to “enlarge the inspection holes to permit inspection of . . . the CRDM nozzle penetrations of the head. Additionally, holes will be needed for access to the upper part of the head” (NRC Staff Exh. 16 at 163). The limited accessibility not only prevented inspection of a significant portion of the head using the camera-on-a-stick inspection technique, it prevented removal of all the boric acid deposits (as will be discussed in greater detail *infra* Part II.B.2). *See* NRC Staff Exh. 16 at 155, 157, 160; NRC Staff Exh. 79 at 183. The modification request was approved in 1998 and scheduled to be implemented in 2002 during the 13th RFO (NRC Staff Exh. 16 at 166).²²

²² Davis-Besse officials delayed implementing the modification until 2002, because they believed the risk of damage to the head or the nozzles was acceptably low (*e.g.*, NRC Staff Exh. 16 at 154, 156, 166). Unfortunately, this belief became an unshakable mind-set among Davis-Besse managers, including Mr. Geisen. *See, e.g.*, NRC Staff Exh. 31 at 3; NRC Staff Exh. 63; NRC Staff Exh. 71 at 1982. Notably, Mr. Geisen testified that, in retrospect, he believes Davis-Besse employees suffered from “technical arrogance” insofar as they attributed boric acid deposits solely to flange leakage and tended to ignore that the deposits may also be attributable to another source, such as nozzle cracking (NRC Staff Exh. 79 at 77). Of course, by ignoring that boric acid deposits might be attributable to nozzle cracking, Mr. Geisen acted in patent derogation of the NRC Bulletin (NRC Staff Exh. 8 at 4, 8, 11), a document he conceded he read in its entirety and understood (Tr. at 1823, 1878).

The Majority Decision appears to excuse Mr. Geisen’s material misrepresentations to the extent they represented a “mindset at Davis-Besse . . . that these deposits were indeed caused by flange leakage” (p. 83 n.133). But the fact that Mr. Geisen was convinced that the deposits were caused by flange leakage does not give him license – in disregard of the explicit directions in the NRC Bulletin – to provide the NRC with materially incomplete and inaccurate information regarding the scope and efficacy of the Davis-Besse nozzle inspections.

In 2000, Mr. Geisen became aware of this scheduled modification for two reasons: (1) as Design Basis Engineering Manager, he had responsibility for this modification (Tr. at 1801, 1802-03); and (2) as a member of the PRG, he periodically reviewed the modification schedule (Tr. at 1557). Mr. Geisen testified he knew the modification was necessary because “they couldn’t get to the entire head using a camera on a stick through a [mouse] hole” (Tr. at 1959).

Mr. Geisen’s knowledge that access to the top of the reactor head was limited was reinforced by an April 29, 2000 issue of the Davis-Besse newsletter (Geisen Exh. 18), which addressed the difficulty in accessing and cleaning boric acid deposits at the top of the reactor head. The newsletter stated in pertinent part: “Due to a history of leaking Control Rod Drive Mechanism (CRDM) flanges on the Reactor Head, boric acid has built up in this area. Access to this area is very difficult due to the construction of the Service Structure surrounding the area” (*ibid.*). Mr. Geisen testified that it was his practice to read the newsletter the same day it issued (Tr. at 1587, 1847), and he understood this newsletter to state that access to the top of the vessel head was hindered by the mouse holes as well as the service structure (Tr. at 1848).

Mr. Geisen’s knowledge of the head inspection impediments was further reinforced by a memorandum dated July 12, 2001, which he received from one of his subordinates, Mr. Goyal, containing lessons learned for Davis-Besse regarding the performance of nozzle inspections (NRC Staff. Exh. 33).²³ One of the lessons identified in the memorandum (*id.* at 1) was that “[s]ervice structure access is needed in order to clean and inspect the head. (Note Davis-Besse does not have service structure holes).” Significantly, Mr. Geisen testified that this lesson would not have been new information to him (Tr. at 1860). He also testified he had taken steps to

²³ This memorandum was characterized as a “trip report.” Pursuant to company policy, an employee who wished to be paid for travel expenses following a business trip was required to submit a trip report describing the trip’s business-related goals and achievements (Tr. at 1076-77). Mr. Geisen testified he received about three to four trip reports each month, and it was his practice to read all of them (Tr. at 1600).

purchase a robotic rover for the 13th RFO to replace the camera-on-a-stick technique which, he said, would have obviated the need for the service structure access holes (Tr. at 1614-16). This demonstrates he was aware of the limitations posed by Davis-Besse's inspection technique of inserting a camera on a stick through the mouse holes.

On August 11, 2001, Mr. Geisen received an e-mail from Mr. Goyal detailing a meeting he attended to discuss the steps to be taken for preparing Davis-Besse's response to the NRC Bulletin (NRC Staff Exh. 36). The e-mail states: "It was pointed out that we can not clean our head thr[ough] the mouse holes and Andrew Siemaszko is requesting 3 large holes be cut in the Service Structure for viewing and cleaning" (*ibid.*). Mr Geisen testified that he already knew about the request for cutting additional access holes in the Service Structure (Tr. at 1633), and this e-mail told him that with the mouse holes that were currently in place "[Davis-Besse was not] able to get enough access to clean the head" (Tr. at 1879). In other words, this e-mail informed Mr. Geisen, once again, that the Davis-Besse reactor head could *not* be fully cleaned – and thus *had not previously* been fully cleaned – through the existing mouse holes. Moreover, Mr. Geisen acknowledged that, after receipt of this e-mail and in light of the NRC Bulletin, he "knew" Davis-Besse's camera-on-a-stick inspection method "was no longer an option" because "[i]t was too difficult to get the camera up to the top of the head" through the existing mouse holes (Tr. 1879-80). Mr. Geisen thus correctly acknowledged that the August 11 e-mail was a "warning" that Davis Besse's inspection technique created an impediment to compliance with the NRC Bulletin (Tr. at 1874).

The foregoing evidence reveals that Mr. Geisen *knew* Davis-Besse's camera-on-a-stick inspection technique – which was employed during the 10th, 11th, and 12th RFOs – impeded effective nozzle inspections and, indeed, precluded the ability to inspect the nine nozzles at the top of the head (see Tr. at 899; supra note 21). He thus *knew* that at least 14% of the nozzles had not been inspected. Cf. NRC Staff Exh. 16 at 160 (modification request, which was under

Mr. Geisen's cognizance, states that head inspection is "limited to approximately 50 to 60% of the head area because of the restrictions imposed by the location and size of the mouse holes"); accord Tr. at 1031.

The Majority Decision erroneously states that Mr. Geisen "was not aware that [the camera-on-a-stick inspection technique] physically precluded the ability to view all the nozzles" (p. 79). This statement is explicitly contradicted by Mr. Geisen's own testimony:

Question: [Y]ou knew the access holes were being requested in that modification because they couldn't get to the entire head using a camera on a stick through a weep hole. Isn't that correct?

Mr. Geisen: Correct.

Question: So you knew that it was not possible to see 100 percent of the head in 1996 [using the camera-on-a-stick technique]. Isn't that correct?

Mr. Geisen: I would say that's correct the way that's worded.

Tr. at 1959.

The Majority Decision's attempt to dismiss the above incriminating testimony is unpersuasive and unavailing (pp. 80-81). The above questions and answers went to the heart of a critical issue in this case. It is not plausible to conclude that Mr. Geisen misunderstood the questions or was unaware of the consequence of his answers. Nor is it plausible to conclude that Mr. Geisen's answers can be interpreted in any manner except that he "*knew* the access holes were being requested" because Davis-Besse "couldn't get to the entire head using a camera on a stick through a weep hole," and he "*knew* that it was not possible to see 100 percent of the head in 1996" using the camera-on-a-stick inspection technique (Tr. at 1959). The Majority Decision's contrary conclusion is clear error.

Nor is there merit to the Majority Decision's suggestion that Mr. Geisen was unaware that Davis-Besse used a camera-on-a-stick technique to inspect the head. In this regard, the Majority Decision states that "in 2000, [Mr. Geisen] . . . believed that a 'boroscope-type camera'

was used instead [of a camera on a stick], affording much greater flexibility” (p. 80). Because the Enforcement Order charged Mr. Geisen with making material misrepresentations in 2001, Mr. Geisen’s putative belief in 2000 regarding Davis-Besse’s use of a boroscope-type camera is not relevant here unless that belief carried over to 2001. And the record shows that it did not. Rather, as Mr. Geisen himself testified, at the relevant time in 2001, he believed Davis-Besse “us[ed] a camera on the stick” to perform its prior inspections (Tr. at 1616). This fact is confirmed by his purchase of a robotic rover for the 13th RFO (Tr. at 1614-1616), which would not have been necessary if Davis-Besse had been using a flexible boroscope-type camera that was capable of inspecting the entire head.

2. Mr. Geisen Also Knew That Nozzle Inspections Were Impeded By Large Boric Acid Deposits Boric acid deposits on the reactor head also impeded nozzle inspections. The 1998 and 2000 inspections performed during the 11th and 12th RFOs showed massive accumulations of boric acid, which Davis-Besse employees concluded – erroneously and in derogation of the NRC Bulletin (supra note 22) – came exclusively from flange leakage (NRC Staff Exh. 81). These large boric acid deposits not only prevented the camera from inspecting the nozzle-head interface for small, popcorn-like deposits that would have signified nozzle leakage, they physically blocked the camera from penetrating into inspection areas during the 12th RFO (NRC Staff Exh. 77 at 4; Tr. 901). Ample evidence shows that Mr. Geisen knew this fact prior to the first NRC submission relevant to this case in September 2001.

During the 12th RFO – which occurred in Spring 2000 – Mr. Geisen replaced another Davis-Besse official in Outage Central approximately 3.5 weeks into the 6 week outage (Tr. at 1561-62). Outage Central served as the communication hub for the outage, and it consisted of about 16 to 18 people with assigned positions from every major work group within the station (Tr. at 1560-61). Mr. Geisen functioned as the engineering point of contact in Outage Central. Any engineering issue that arose while Mr. Geisen was on shift came to him, and he would (1)

determine who would receive the assignment, (2) contact the appropriate group, and (3) endeavor to keep the schedule on track. See Tr. at 1562-64.

While working in Outage Central, Mr. Geisen closely reviewed two related Condition Reports (CRs) written in April 2000: (1) CR 2000-1037, which addressed the accumulation of boric acid deposits on the head and around the nozzle penetrations (NRC Staff. Exh. 18); and (2) CR 2000-0782, which identified leaking flanges as the likely cause of the deposits and discussed corrective action to repair the flanges (NRC Staff Exh. 19).²⁴

CR 2000-1037 identified a “problem” in the form of “[l]arge deposits of boron [that] have accumulated on the . . . Reactor Vessel Head” (NRC Staff Exh. 18 at 2357). The CR explained that the “[i]nitial Reactor Vessel Head inspection conducted on 4/5/2000 revealed an accumulation of boron on the Southeast Reactor head flange between the head and the studs. Boric acid deposits were ‘lava like’ and originate from the ‘mouse holes’ and CRD flanges” (*ibid.*). The CR indicated these boric acid deposits were incompatible with the requirement to perform nozzle inspections, because “to perform required inspections, the nozzles as well as the penetrations must be free of boron deposits” (*id.* at 2358). The CR attributed the deposits to CRD flange leakage, and it recommended that the head be cleaned using pressurized, heated, demineralized water (*id.* at 2359-60). Because Mr. Geisen signed this CR and authorized the use of pressurized, heated, demineralized water to remove the boric acid deposits from the head – which was an unconventional cleaning method (see infra text accompanying notes 26-27) – there is no question he knew that “large,” “lava-like” deposits of boric acid on the reactor head prevented the proper inspection of nozzle penetrations during the 12th RFO. See id. at 2357; see also Tr. at 1834 (Mr. Geisen concedes he read CR 2000-1037 “with some care”).

²⁴ CRs are generated when a plant problem is discovered (Tr. at 1022). Mr. Geisen acknowledged he reviewed both CR 2000-1037 and CR 2000-0782 during the 12th RFO (Tr. at 1571-72), and the record confirms his knowledge of the information contained in both CRs. See NRC Staff Exh. 18 at 2361; NRC Staff Exh. 79 at 50.

Mr. Geisen's familiarity with CR 2000-0782 likewise made him knowledgeable about the substantial accumulation of boric acid deposits on the reactor head. The CR described the boric acid deposits as follows:

The leakage [from the mouse holes] is red/brown in color. The leakage is worst on the east side [mouse] holes. The worst leakage from one of the [mouse] holes is approx[imately] 1.5 inches thick on the side of the head and pooled on top of the flange The total estimated quantity of leakage through the [mouse] holes and resting on the flange is approx[imately] 15 gallons Preliminary inspection of the head through the [mouse] holes indicates clumps of Boric Acid are present on the east and south sides.

NRC Staff Exh. 19 at 1772. See also id. at 1774 (describing "accumulation of boron on the Southeast Reactor head flange between the head and the studs [as] 'lava like'"); id. at 1776 (describing boric acid deposits as "red/brown deposits" representing "[h]eavy leakage from head [mouse] holes").

Notably, in discussing CR 2000-0782 at the evidentiary hearing, Mr. Geisen addressed the meaning of "lava-like" deposits, stating that the description indicates boric acid was "flowing out of the mouse holes, and it was of a thick consistency" (Tr. at 1842). He further testified that the boric acid made its way to the reactor head by "flow[ing] down the sides of the CRDM [nozzles]" (Tr. at 1843). Of course, if – as Mr. Geisen stated – the boric acid flowed down the side of the CRDM nozzles, boric acid deposits would accumulate around the base of the nozzles, obscuring the nozzle-head interface. This conclusion is confirmed by the seven pictures that were attached to CR 2000-0782 showing the lava-like deposits that flowed from the mouse holes (Attachment to NRC Staff Exh. 19). These pictures would have put even a casual observer on notice that the large and extensive boric acid deposits posed a serious impediment to nozzle inspections.

Mr. Geisen conceded as much during the evidentiary hearing. He testified that during the 12th RFO when he served in Outage Central (Spring of 2000) he saw what was referred to in this hearing as the "Red Photo." See NRC Staff Exh. 66. He described it as "ugly" (Tr. at

1844), stating that lava-like deposits were “[o]bviously . . . coming from the head” (Tr.at 1845), and “there is no reason to expect that you can have a photo like this and have a clean head” (Tr. at 1846). See also NRC Staff Exh. 79 at 38-39 (Mr. Geisen testifies that “[i]t was clearly obvious based on [the] picture . . . [that leakage out of the mouse holes] was significantly worse than what we had seen in past outages.”); id. at 39 (Mr. Geisen testifies that “in looking at the pictures, it’s obvious we have gotten a lot more boron. I had never seen a picture like this before. So therefore, to me, it was clearly . . . worse than it was.”).²⁵

That Mr. Geisen knew the boric acid deposits impeded nozzle inspections is further confirmed by his active participation in a meeting with a group of engineers in Outage Central during the 12th RFO to determine how the reactor head should be cleaned (Tr. at 1567-69). Mr. Geisen knew head cleaning normally was performed using a vacuum and, on occasion, using rods that were manually pushed through the mouse holes to break up clumps of boron (Tr. at 1840). But this conventional cleaning method was not sufficient to clean the large accumulation of boric acid deposits found on the head during the 12th RFO, which consisted of residual boron deposits from the 10th and 11th RFOs, coupled with the large build-up of boron that accumulated between the 11th and 12th RFOs.²⁶ As Mr. Geisen testified, in considering how to approach the head cleaning challenge during the 12th RFO, his “frame of reference” was that

²⁵ Testimony of two Staff witnesses, Dr. Allen Hiser (Tr. at 1289) and Mr. John Martin (Tr. at 1521), confirmed that an engineer with Mr. Geisen’s training and experience would have understood that the Red Photo indicated an excessive amount of boric acid had accumulated on the reactor head.

²⁶ Mr. Geisen testified as follows (NRC Exh. 79 at 183):

Question: Following each RFO, was it your understanding that the head had been completely cleaned?

Mr Geisen: No. No. Following 10 RFO and 11 RFO, I knew that the deposits had been left on the head and that our mechanical cleaning was not as successful as we wanted it to be. That’s what drove us to do the water cleaning in 12 RFO.

“I’ve got debris up there [on the reactor head] that impedes me doing an inspection next time around. Let’s get it off” (NRC Staff Exh. 79 at 64). Mr. Geisen thus knew that substantial boric acid deposits impeded past head inspections, and he approved the use of pressurized, heated water to clean the head in an effort to remove that impediment (Tr. at 1571, 1589; NRC Staff Exh. 79 at 53-54, 58).²⁷

On June 27, 2001, Mr. Geisen reviewed and approved an intra-company memorandum that addressed the nozzle leakage and circumferential cracking at other plants, and that also considered whether Davis-Besse should perform a head inspection if the plant were to shut down prior to the 13th RFO (NRC Staff Exh. 31). The memorandum stated that “[l]arge boron leakage from a CRDM flange . . . did not permit the detailed inspection of CRDM nozzles” during the 12th RFO (*id.* at 2), but it nevertheless recommended deferring further nozzle inspections until the 13th RFO, because “[t]here is no short-term safety issue associated with the CRDM nozzle cracking” (*id.* at 3). This document represented an engineering evaluation of a safety-related plant condition that required managerial approval (Tr. at 1102). Mr. Geisen provided the managerial review and approval signature (NRC Staff. Exh. 31 at 4), signifying he read it “carefully” and understood that the large accumulation of boric acid deposits prevented the detailed inspection of CRDM nozzles (Tr. at 1868, 1869).²⁸

²⁷ Mr. Geisen learned no later than August 11, 2001 that Davis-Besse’s effort to clean the head fully during the 12th RFO was not successful. On that date, he received an e-mail from Mr. Goyal stating that “we can not clean our head thr[ough] the mouse holes and Andrew Siemaszko is requesting 3 large holes be cut in the Service Structure for viewing and cleaning” (NRC Staff Exh. 36). On September 14, 2001, he once again received notice that the head had not been successfully cleaned via a report by Mr. Gibbs noting that “boric acid crystal deposits of considerable depth” were left on the top of the head after the 12th RFO (NRC Staff Exh. 44 at 1; see also infra note 37).

²⁸ Notably, Mr. Geisen testified that the statements in the June 27, 2001 memorandum regarding the large accumulation of boric acid deposits and the inability to conduct a detailed inspection of nozzles during the 12th RFO came as no surprise to him, because he already knew the condition of the head from the Red Photo and other reports he had received
(continued...)

On July 10, 2001, Mr. Geisen was copied on an e-mail from Mr. Goyal to Mr. Siemaszko entitled "Plant-specific data verification" (NRC Staff Exh. 32). In the e-mail, Mr. Goyal stated that an attached Table containing nozzle-inspection information must be corrected, because it "currently shows 100% inspection which is not correct because of the large boric acid deposits on the head very few CRDMs could be inspected. Also the table shows under 'Result' no leakage detected. This will need to be modified" (*id.* at 1). Mr. Geisen testified that the e-mail told him that "*only a small number of CRDMs could be inspected*" during the 12th RFO, and that the inspection "*wasn't even close to 100 percent*" (Tr. at 1871) (emphasis added).²⁹

On August 17, 2001, Mr. Geisen was copied on an e-mail from Mr. Goyal to two employees at Framatome regarding Davis-Besse's response to the NRC Bulletin (NRC Staff Exh. 39). In the e-mail, Mr. Goyal asked (*ibid.*) whether it is "possible to go back to 1998 that is when a good head exam was done with no nozzle leakage (meaning not taking any credit for 2000 inspection)." Mr. Geisen testified this e-mail would not have caused him any concern, because he already knew at that time that several flanges at the top of the head had leaked (Tr. at 1634-35). In other words, he already knew substantial boric acid deposits hindered the ability to conduct nozzle inspections during the 12th RFO.

Finally, Mr. Geisen admits he saw videos that were taken of the Davis-Besse reactor head inspections during the 10th, 11th, and 12th RFOs, but states he did not see them until early October 2001 (prior to October 11) when he spent approximately an hour reviewing the methodology Mr. Siemaszko used in preparing a nozzle-by-nozzle table of inspection results

²⁸(...continued)
(see Tr. at 1870).

²⁹ Mr. Geisen testified he received between fifteen and forty e-mails each day, and he further testified it was his practice to read them all, regardless of whether he was the principal recipient or a copied recipient (Tr. at 1866-67).

requested by the NRC (Tr. 1693-94, 1696-98; NRC Staff Exh. 79 at 113-14).³⁰ According to notes prepared by Mr. Jack Martin during his 2002 investigatory interview with Mr. Geisen, however, Mr. Geisen stated he reviewed the videos in August 2001 (Staff Exh. 63; Tr. at 1483). I found Mr. Martin to be a credible witness, and I credit his testimony that Mr. Geisen said he saw the videos in August 2001. These videos (NRC Staff Exh. 81) would have provided Mr. Geisen with first-hand knowledge that nozzle inspections during the 10th RFO (1996), 11th RFO (1998), and 12th RFO (2000) were significantly impeded by the camera-on-a-stick inspection technique as well as accumulations of boric acid deposits.³¹

Even if, however, I were to credit Mr. Geisen's testimony that he first saw the videos in early October 2001 during his meeting with Mr. Siemaszko, my conclusion that the NRC Staff satisfied its burden of proof would remain unchanged. I conclude Mr. Geisen would then have reviewed closely all three inspection videos in light of (1) his knowledge of the NRC Staff's keen interest in Davis-Besse's nozzle inspections, (2) his knowledge of the safety-significance of the issue, and (3) his supervisory responsibility (infra Part II.C) for the nozzle tables. That review would forcefully have *confirmed* Mr. Geisen's already-existing knowledge that significant impediments hampered the nozzle inspections, and such confirmation would have occurred prior to (1)

³⁰ In October 2002, Mr. Geisen testified he "viewed portions of [the] '96, the 1998 and 2000" video inspections with Mr. Siemaszko (NRC Staff Exh. 79 at 145). I credit that testimony rather than his subsequent testimony averring that he did not see all three videos, because the former testimony was closer in time to the relevant event.

³¹ On the 12th RFO inspection video, Davis Besse workers can be heard to say: "this area is majorly affected by boric acid" (NRC Staff Exh. 81, time stamp 8:26; Tr. at 921); "the bottom could not be seen because it's covered in boric acid" (id., time stamp 10:56; Tr. at 922); "lava-like configuration" (id., time stamp 14:38; Tr. at 922); "the camera is stuck and a piece of boron came upon us" (id., time stamp 17:28; Tr. at 925). See also NRC Staff Exh. 74 at 1317 (Mr. Geisen's supervisor, Mr. Moffitt, testifies he was "shocked" by the 1996 video of the 10th RFO because, contrary to what Davis-Besse represented to the NRC, the reactor head "was not essentially clean").

his oral misrepresentations to the NRC on October 11 and November 9, 2001, and (2) his written representations to the NRC Staff on October 17 and 30, 2001. See infra Part II.C.

The Majority Decision erroneously describes Mr. Martin's notes as a "pillar[]" on which this Dissent and the Enforcement Order rely for their "ultimate support" (pp. 134-35). As shown above, even if I were to disregard Mr. Martin's notes and credit Mr. Geisen's testimony that he first saw the videos in early October 2001, I would still sustain the Enforcement Order. Counsel for the NRC Staff likewise explained that Mr. Martin's notes were not critical to the Enforcement Order. In this regard, counsel stated: "[W]e have, I believe, an overwhelming case, even putting aside that Martin testimony. In fact, I think that we have an overwhelming case establishing that Mr. Geisen knew about the impediments to inspections and that he knew about the existence of boron on the head from many, many sources" (Tr. at 2353). I agree.

In sum, an overwhelming volume of persuasive evidence supports the conclusion that Mr. Geisen knew, at times relevant to this proceeding, that the camera-on-a-stick inspection technique and pervasive boric acid deposits prevented Davis-Besse from performing adequate nozzle inspections. Unfortunately, as will now be shown, Mr. Geisen knowingly provided the NRC with materially incomplete and inaccurate information regarding the inspections.³²

³² Mr. Geisen argues that the NRC Staff did not prove he had knowledge, but instead improperly endeavored to impute his subordinates' knowledge to him. See Post-Trial Brief of David Geisen with Proposed Findings of Fact and Conclusions of Law at 2-3 (Jan. 30, 2009) [hereinafter Geisen January 2009 Post-Trial Brief]. This argument is insubstantial. As shown supra Parts II.B.1 and II.B.2, an abundant volume of probative evidence – which, by Mr. Geisen's own concession, he read, closely reviewed, discussed, or approved – supports the conclusion he *knew* the Davis-Besse nozzle inspections were impeded by the camera-on-a-stick inspection technique and by the extensive deposits of boric acid.

The Majority Decision – relying on a "knowledge hierarchy" of its own making (pp. 31-32) – concludes that Mr. Geisen would not have remembered the contents of many of the e-mails and trip reports he received discussing the significant impediments that hindered Davis-Besse's performance of nozzle inspections. But the Majority Decision's analysis neglects to acknowledge that Mr. Geisen's knowledge of the impediments was also informed by memorable documents, pictures, and events that commanded his attention, including: (1) CR 2000-0782,
(continued...)

C. Because Mr. Geisen *Knowingly* Provided The NRC With Materially False Information Relating To Inspection Impediments And Inspection Results, The Charge In The Enforcement Order Must Be Sustained

As shown supra Part II.A, Mr. Geisen *knew* the August 2001 NRC Bulletin: (1) raised safety-sensitive concerns about the possible existence of circumferential nozzle cracking that could lead to a loss-of-coolant accident; (2) placed Davis-Besse in the category of plants most susceptible to nozzle cracking; and (3) required Davis-Besse to either (i) perform a qualified visual examination of 100% of its nozzles by December 31, 2001, employing a conservative assumption that boric acid deposits were to be attributed to nozzle leakage unless they could reliably be attributed to another source, or (ii) otherwise provide a basis for concluding regulatory requirements would continue to be met. The Bulletin emphasized that the “effectiveness of the qualified visual examination should not be compromised by the presence of insulation, existing deposits on the RPV head, or other factors that could interfere with the detection of leakage” (NRC Staff Exh. 8 at 8). Further, the Bulletin required a description of the nozzle inspections that had been performed in the past four years, including a “description of any

³²(...continued)

which described large, “lava-like” boric acid deposits on the reactor head, and which included graphic photographs of the deposits; (2) Mr. Geisen’s discussion with engineers in Outage Central during the 12th RFO to determine how to clean the reactor head; (3) CR 2000-1037, which Mr. Geisen signed to authorize an unconventional method to clean the boric acid deposits on the reactor head; (4) the “Red Photo,” which depicted an unforgettable image of boric acid deposits on the reactor head that Mr. Geisen described as “ugly” and, in his experience, unprecedented; (5) Mr. Geisen’s “careful[]” managerial review of, and signature on, a June 2001 intra-company memorandum that stated large boric acid deposits prevented a detailed nozzle inspection during the 12th RFO; and (6) Mr. Geisen’s review of inspection videos taken during the 10th, 11th, and 12th RFOs. When *all* the evidence is objectively and cumulatively assessed through the prism of the Majority Decision’s “knowledge hierarchy,” one is left with the conviction that Mr. Geisen *knew* the information he provided to the NRC was materially incomplete and inaccurate.

limitations (insulation or other impediments) to accessibility of the bare metal of the RPV head for visual examinations” (id. at 11).³³

As shown supra Part II.B.1, Mr. Geisen *knew* Davis-Besse’s camera-on-a-stick inspection technique precluded qualified visual inspections for, at the very least, the nozzles at the top of the head constituting 14% of the 96 nozzles. And as shown supra Part II.B.2, Mr. Geisen also *knew* the head had not been effectively cleaned prior to the 12th RFO, and the residual boron remaining from the 10th and 11th RFOs, combined with the extensive additional deposits that formed between the 11th and 12th RFOs, prevented visual inspections of a significant additional number of nozzles. As Mr. Geisen himself stated, he received an e-mail in July 2001 telling him that, due to large and extensive boron deposits, “only a small number of CRDMs could be inspected” during the 12th RFO, and the inspection “wasn’t even close to 100 percent” (Tr. at 1871). Accord, e.g., NRC Staff Exh. 31 at 2 (Mr. Geisen provides managerial review and approval signature for a June 2001 intra-company memorandum stating that “[l]arge boron leakage from a CRDM flange . . . did not permit the detailed inspection of CRDM nozzles” during the 12th RFO).

³³ The Majority Decision avers that Mr. Geisen is not blameworthy for the material misrepresentations to the NRC regarding *past* nozzle inspections, because he believed the “information requested by the Bulletin was forward-looking” (p. 25; see also p. 85 n.138). Such a conclusion is clear error for two reasons. First, it cannot be reconciled with the plain language of the Bulletin, which required licensees to provide a description of nozzle inspections conducted in the past four years, including a “description of any limitations (insulation or other impediments) to accessibility of the bare metal of the RPV head for visual inspections” (NRC Staff Exh. 8 at 11). Second, it cannot be reconciled with Mr. Geisen’s testimony that, in light of the Bulletin’s safety significance, he read it “from front to back” and “understood what the Bulletin was asking” (Tr. at 1823, 1878; see also Tr. at 1820-22). The Majority’s conclusion that Mr. Geisen interpreted the Bulletin as generally requesting *forward-looking* information, means Mr. Geisen *misunderstood* the Bulletin, which conflicts with his testimony that he “understood” it (Tr. at 1878). Additionally, the Majority’s conclusion conflicts with Mr. Geisen’s testimony that he understood the “Bulletin was asking for inspection *history*” (Tr. at 1813) (emphasis added). I am unwilling to interpret Mr. Geisen’s understanding of the Bulletin in a manner that is at war with Mr. Geisen’s own testimony.

Mr. Geisen nevertheless repeatedly provided the NRC Staff with materially incomplete and inaccurate information regarding nozzle-inspection impediments and their impact on Davis-Besse's ability to perform qualified nozzle inspections.

It is not difficult to ascertain the reason underlying Mr. Geisen's material misrepresentations to the NRC. The August 2001 Bulletin effectively presented Davis-Besse with an ultimatum: either demonstrate that circumferential nozzle cracking was not a concern, or shut down the plant before the end of the year for a full nozzle inspection (see NRC Staff Exh. 8 at 12; NRC Staff Exh. 46). The Bulletin emphasized the importance of a qualified visual inspection of 100% of the nozzles to make the requisite demonstration (NRC Staff Exh. 8 at 8). But this was a demonstration Davis-Besse could not make. As Mr. Geisen knew in the Fall of 2001, Davis-Besse had not performed a "qualified visual inspection during any of [the three previous] outages" (Tr. at 1992; see also Tr. at 1821). Moreover, Davis-Besse had postponed until 2002 the modification of the head service structure that was needed to permit a full inspection and cleaning of the head (see supra note 22). In 2000, Davis-Besse had found large and extensive boric acid deposits on the head that impeded nozzle inspections (see supra Part II.B.2). If these inspection impediments had been revealed to the NRC, Davis-Besse would have been at serious risk of a regulatory shut down in December 2001, which was several months before the next scheduled RFO in Spring 2002. This presented an extremely unwelcome prospect for Davis-Besse managers due to the significant costs that would be incurred for an unscheduled shut down, especially in December (Tr. at 1905).³⁴

Despite the failure to perform a qualified visual inspection on all the nozzles, Davis-Besse managers, including Mr. Geisen, were confident about the plant's ability to operate safely

³⁴ When a nuclear plant shuts down, it must purchase electricity from another source to ensure consumers' power needs are met. This is costly, and it is especially expensive during the Summer and Winter seasons when, respectively, air conditioning and heating loads are high. See NRC Staff Exh. 71 at 1975-77.

until the next scheduled RFO (supra note 22), and they were determined to instill the same confidence in the NRC (NRC Staff Exh. 71 at 1981-82). To this end, Mr. Geisen resorted to dissembling to the NRC, making material misrepresentations about the scope and adequacy of nozzle inspections while endeavoring to persuade the NRC, through the use of a crack-growth-rate analysis, that the plant could safely operate beyond the end of the year until the next scheduled RFO in Spring 2002.

Mr. Geisen's misrepresentations to the NRC began with Davis-Besse's submission of Serial Letter 2731 on September 4, 2001 (NRC Staff Exh. 9), which was Davis-Besse's first response to the August 2001 Bulletin. Although Mr. Geisen did not participate in drafting Serial Letter 2731, he reviewed and approved the final copy on August 28, 2001, and he signed the "Green Sheet" in his capacity as Design Basis Manager, signifying the letter was "technically accurate" (NRC Staff Exh. 10 at 6-7; Tr. at 1900-01, 1903; Staff Exh. 71 at 1971). Two days later, on August 30, 2001, Mr. Geisen again reviewed and approved Serial Letter 2731, and he signed the Green Sheet on behalf of his boss, Mr. Moffitt, signifying the letter was "technically accurate." See NRC Staff Exh. 10 at 6-7; Tr. at 1639-40.³⁵

In fact, Serial Letter 2731 – like all the Davis-Besse serial letters admitted into evidence in this Enforcement Proceeding – was a blend of truth, obfuscation, and falsehood. It contained

³⁵ The Majority Decision asserts that the Green Sheet instructions, properly interpreted, did not make Mr. Geisen culpable for materially incomplete and inaccurate representations relating to nozzle inspections, because he "was not 'the' manager responsible for the letter's technical accuracy" regarding such information (p. 59; see also p. 23). Mr. Geisen did not share the Majority Decision's narrow interpretation of the Green Sheet instructions. He understood that "all" Green Sheet signatories who occupy director or management positions are responsible for the completeness and accuracy of information in the correspondence (Tr. at 1902). In any event, Mr. Geisen's responsibilities were not defined solely by the Green Sheet instructions; they were also defined by unambiguous regulations, which – as he knew – required him to provide the NRC with "complete and accurate" information (Tr. at 1901). Accord ibid. (Mr. Geisen acknowledges that if a reviewing manager "saw something [in Serial Letter 2731] that was inaccurate or incomplete," the manager could not, consistent with his legal responsibilities, sign the Green Sheet).

material misrepresentations that were crafted with the goal of persuading the NRC to allow Davis-Besse to continue operating beyond the end of the year and until the 13th RFO. The inaccuracies and omissions in the letter were evident to Mr. Geisen based on his knowledge of the nozzle-cracking issue and his knowledge of the impediments to Davis-Besse's performance of visual nozzle inspections. First, the September 4 letter stated that the insulation at the top of the head "does not impede visual inspection [of the nozzles]" (Attachment 1 to NRC Staff Exh. 9 at 2). Accord ibid. ("A gap exists between the RPV head and the insulation, the minimum gap being at the dome center of the RPV head where it is approximately 2 inches, and does not impede a qualified visual inspection."). Mr. Geisen knew the insulation – coupled with Davis-Besse's camera-on-a-stick inspection technique – had impeded visual inspection of the nozzles for the past three RFOs, and he thus knew this statement was false. See, e.g., Tr. at 1616, 1822-23, 1959; supra Part II.B.1. Second, although the letter acknowledged that "some accumulation of boric acid" was found on the vessel head and nozzles during the 12th RFO (Attachment 1 to NRC Staff Exh. 9 at 3), it failed to disclose that the extensive boric acid deposits were "large" and "lava-like" (NRC Staff Exh. 18 at 2357), or that they were "red/brown deposits" representing "heavy leakage from head [mouse] holes" (NRC Staff Exh. 19 at 1776). Mr. Geisen worked in Outage Central during the 12th RFO, during which time he saw the Red Photo and reviewed the relevant Condition Reports describing the large-scale accumulation of boric acid on the head (supra text accompanying notes 24-25), and he thus knew the statement in the letter was materially incomplete and falsely minimized the nature and extent of boric acid deposits. Third, the letter falsely implied that Davis-Besse performed a full "bare metal" inspection during the 11th and 12th RFOs in compliance with the BACC Program (Attachment 1 to NRC Staff Exh. 9 at 2). Mr. Geisen knew the extensive and large accumulation of boric acid deposits precluded the performance of such inspections (supra Part II.B.2). Fourth, the letter suggested that Davis-Besse performed a qualified visual inspection of the nozzles and was able

to rule out the possibility of nozzle leakage that would have evidenced nozzle cracking (Attachment 1 to NRC Staff Exh. 9 at 3). But Mr. Geisen knew Davis-Besse's camera-on-a-stick inspection technique precluded inspecting the nozzles on top of the head and, additionally, the large, lava-like accumulation of boric acid precluded the ability to rule out nozzle leakage on a significant additional number of nozzles.³⁶ Fifth, the letter falsely reported that a qualified visual inspection during the 13th RFO "will not be compromised due to any pre-existing boric acid crystal deposits" (Attachment 1 to NRC Staff Exh. 9 at 5). Mr. Geisen knew, however, that Davis-Besse's efforts to clean the head fully during the 12th RFO were not successful and, accordingly, that residual boric acid deposits would significantly compromise a qualified visual inspection during the next RFO (supra note 27). Finally, Mr. Geisen's own testimony forcefully confirms he signed the Green Sheet despite knowing that Serial Letter 2731 contained materially incomplete information:

Question: So you signed off on the Green Sheet. And you knew that boric acid from flanges was an impediment to inspection, and it doesn't say that there?

Mr. Geisen: That's correct.

NRC Staff Exh. 71 at 1972-73. In short, I find a preponderance of the evidence supports the conclusion that Mr. Geisen signed the Green Sheet attesting that Serial Letter 2731 was technically accurate, when in fact he *knew* the letter contained materially incomplete and inaccurate information.

³⁶ The letter stated that the 12th RFO inspection revealed "[n]o visible evidence of nozzle leakage" (Attachment 1 to NRC Staff Exh. 9 at 3). Further, the letter stated that the 1998 and 2000 inspection videotapes of the RPV head had been reviewed to "re-confirm the indications of boron leakage experienced at [Davis-Besse] were not similar to the indications seen at [Oconee] . . . ; i.e., was not indicative of RPV nozzle leakage. This review determined that indications such as those that would result from RPV head penetration leakage were not evident" (ibid.). But, as Mr. Geisen knew, these statements were incomplete, misleading, and contrary to the directive in Bulletin 2001-01, because any such review could not definitively attribute the boron deposits to flange leakage and thereby rule out the possibility of nozzle leakage.

On September 28, 2001, after the NRC determined that Davis-Besse's Serial Letter 2731 was not adequately responsive to the August 2001 Bulletin, the NRC's Associate Director of Project Licensing and Technical Analysis, Dr. Brian Sheron, telephoned Davis-Besse's Chief Nuclear Officer, Bob Saunders, strongly advising that Davis-Besse shut down the reactor plant prior to December 31, 2001 to inspect the nozzles. See NRC Staff Exh. 46; NRC Staff Exh. 71 at 1974; NRC Staff Exh. 79 at 163; Tr. at 1693.

Dr. Sheron's telephone call prompted a strong reaction among Davis-Besse managers (Tr. at 1905), because the possibility that Davis-Besse might be ordered to shut down prior to the next scheduled RFO was not a welcome prospect (supra note 34). From this point forward, Mr. Geisen became the spokesperson for Davis-Besse on matters relating to the nozzle inspections. See NRC Staff Exh. 74 at 1228-29. As Mr. Geisen's supervisor (Mr. Moffitt) testified, this was a matter over which Mr. Geisen ultimately took "ownership" (id. at 1240).

On October 3, 2001, Mr. Geisen and other Davis-Besse representatives participated in a telephone conference with NRC representatives to discuss Serial Letter 2731.³⁷ Mr. Geisen *knowingly* made material misrepresentations to the NRC during the call. First, he told the NRC that, with the exception of 5-6 nozzles near the center of the head that were obscured by boric

³⁷ Notably, prior to the October 3 telephone conference, Mr. Geisen received a copy of the "Gibbs Report" (NRC Staff Exh. 44), which was a short report dated September 14, 2001 written by a Davis-Besse consultant at the request of Mr. Geisen's supervisor (Tr. at 1887, 1890, 1892-93). As relevant here, the Gibbs Report put Davis-Besse officials on notice that Davis-Besse incorrectly represented in its response to NRC Bulletin 2001-01 that "the top head visual inspections would not be compromised [in the 13th RFO] due to any pre-existing boric acid crystal deposits" (NRC Staff Exh. 44 at 1). This representation was inaccurate, indicated the Gibbs Report, because "on completion of 12 RFO, the Reactor Vessel did have boric acid crystal deposits of considerable depth left in the center top area of the head, since cleaning of this area at that time was not successful in removing all the deposits (partly due to limited access)" (ibid.). The Gibbs Report thus reinforced Mr. Geisen's knowledge that past inspections had been impeded due to difficulty in inspection access and the existence of boric acid deposits. Cf. NRC Staff Exh. 75 at 844 (Mr. Gibbs testified that a purpose of his letter was to express concern that the "actual conditions [of the reactor head] had not been communicated" to the NRC by Davis-Besse, and "you could draw a conclusion that [statements in Serial Letter 2731] potentially were misleading.").

acid deposits, “100 percent of the [reactor vessel] head was inspected which included the CRD housing to head interfaces” (NRC Staff Exh. 52 at 1; see also NRC Staff Exh. 51 at 1). Mr. Geisen knew this statement was inaccurate because Davis-Besse’s camera-on-a-stick inspection technique, coupled with the existence of extensive boric acid deposits on large portions of the reactor vessel head, prevented Davis-Besse from inspecting far more than 5-6 nozzles (see supra Parts II.B.1 and II.B.2). Indeed, Mr. Geisen testified he knew in mid-August 2001 that the “2000 inspection wasn’t a thorough, 100 percent inspection because [he] knew there was flange leakage” (NRC Staff Exh. 71 at 1967). Second, in discussing Davis-Besse’s confidence level in differentiating between flange leakage and nozzle leakage, Mr. Geisen represented that Davis-Besse had an 80% confidence level in its conclusion from the 12th RFO inspection that the boric acid deposits were not from nozzle leakage (NRC Staff Exh. 51 at 1). Mr. Geisen had no basis for this inaccurate statement, because the extensive lava-like boric acid deposits found around many nozzles during the 12th RFO would have masked any small boric acid deposits at the nozzle-head interface that would have been indicative of nozzle leakage (see supra Part II.B.2).

At the conclusion of the October 3 telephone conference, Davis-Besse agreed to provide the NRC with a nozzle-by-nozzle table of inspection results. Mr. Geisen was tasked with overseeing the preparation of this table, and he, in turn, assigned the job of preparing the table to Mr. Siemaszko (Tr. at 1690, 1692; NRC Staff. Exh. 52 at 1; NRC Staff Exh. 71 at 1910-11; NRC Staff Exh. 74 at 1229). Mr. Geisen was also tasked with overseeing the development of a crack-growth-rate analysis to support Davis-Besse’s argument for continuing operation until the 13th RFO (Tr. at 1690). Regarding the latter task, Mr. Geisen testified of the need to “really get [the crack-growth-rate analysis] moving because we felt that was going to be our argument going forward” (ibid.) – and it was. Going forward, Mr. Geisen’s representations to the NRC emphasized that the crack-growth-rate model justified continuing plant operations until the 13th

RFO. Unfortunately, his representations regarding the scope and efficacy of Davis-Besse's nozzle inspections continued to contain material omissions and inaccuracies that were likewise designed to justify continuing plant operations until the 13th RFO.

Mr. Geisen's next misrepresentations to the NRC occurred on October 11, 2001, when he and several other Davis-Besse managers traveled to NRC Headquarters to meet with the NRC Commissioners' Technical Advisors (TAs) to present a safety basis to allow operation of the plant until the 13th RFO. See NRC Staff Exh. 77 at 4. At this meeting, Mr. Geisen presented a slide stating that Davis-Besse "[c]onducted and recorded video inspections of the head during 11 RFO (April 1998) and 12 RFO (April 2000) No head penetration leakage was identified" (NRC Staff Exh. 55 at 6). Another slide he presented stated "[a]ll CRDM penetrations were verified to be free from 'popcorn' type boron deposits using video recordings from 11 RFO or 12 RFO" (id. at 7). Taken together, these statements falsely affirmed that – based on inspections conducted during the 11th and 12th RFOs – Davis-Besse verified the absence of popcorn-type boron deposits evincing nozzle leakage on *all* nozzles. Mr. Geisen knew this representation was false. In particular, he knew, contrary to his representation, that: (1) it was *impossible* to view "all CRDM penetrations" during the 11th and 12th RFOs due to the camera-on-a-stick inspection technique used at Davis-Besse (supra Part II.B.1); and (2) it was *impossible* to *verify* all CRDM penetrations to be free from popcorn-type deposits, because a significant number of nozzles could not be seen due to the inspection technique (ibid.), and the heavy boric acid deposits on many other nozzles covered and obscured any popcorn-type deposits (supra Part II.B.2).³⁸

³⁸ Moreover, as Mr. Geisen himself conceded, when he made the "strong claim" to the TAs that the CRDM "penetrations were verified to be free from popcorn [deposits]," Mr. Siemaszko "hadn't finished his nozzle-by-nozzle review of the tapes" from the 11th and 12th RFOs (NRC Staff Exh. 71 at 1989-90).

Shortly after the meeting on October 11, 2001, Mr. Siemaszko gave Mr. Geisen the nozzle-by-nozzle table for the 1998 and 2000 inspections (NRC Staff Exh. 11; Tr. at 1720-21). Mr Geisen testified that upon reviewing the table – which indicated that only 50 of 69 nozzles (72%) were viewed during the 11th RFO, and only 45 of 69 nozzles (65%) were viewed during the 12th RFO (Attachment 1 to NRC Staff Exh. 11 at 2) – he realized his representations to the Commissioners’ TAs on October 11 regarding the scope and efficacy of the nozzle inspections were false (Tr. at 1945-46).³⁹ Mr. Geisen informed his supervisor, Mr. Moffitt, and the Davis-Besse Regulatory Affairs Manager that he had provided inaccurate information to the TAs that needed to be corrected (Tr. at 1946). As a result, Davis-Besse managers drafted Serial Letter 2735 (Tr. at 1721, 1946). On October 17, Mr. Geisen reviewed Serial Letter 2735 and signed the Green Sheet, signifying he verified the technical accuracy of the letter (NRC Staff Exh. 12; Tr. at 1642). On the same day, Davis-Besse sent the letter to the NRC.⁴⁰

Because a principal purpose of Serial Letter 2735 allegedly was to correct the material misrepresentation Mr. Geisen made to the TAs on October 11, one might reasonably assume he would have subjected the letter to meticulous review, accepting nothing less than scrupulous

³⁹ Upon reviewing the nozzle-inspection tables for the 11th and 12th RFOs, Mr. Geisen directed Mr. Siemaszko to create a nozzle-inspection table for the 10th RFO (NRC Staff Exh. 71 at 1920).

⁴⁰ Mr. Geisen asserts that his efforts to have his misrepresentation to the TAs corrected demonstrates that his misrepresentations were inadvertent (Geisen January 2009 Post-Trial Brief at 30). But, as discussed *infra* in text, his overall conduct – including his subsequent material misrepresentations to the NRC – belies that assertion. Notably, Serial Letter 2735 nowhere acknowledges that Mr. Geisen provided the Commissioners’ TAs with materially false information. Rather, it purports to be “provid[ing] updated and additional information in support of the basis for the continued safe operation of the Davis-Besse Nuclear Power Station (DBNPS) until its next scheduled refueling outage commencing in March 2002” (NRC Staff Exh. 11 at 1). In other words, this letter was part of the continuing effort by Davis-Besse managers, including Mr. Geisen, to mislead the NRC regarding the scope and efficacy of the nozzle inspection, while endeavoring at the same time to convince the NRC that “there is reasonable assurance that [Davis-Besse] will continue to operate safely to the next refueling outage scheduled for March 2002” (*id.* at 2). The Majority Decision’s contrary conclusion (pp. 105-10) cannot plausibly be reconciled with the evidence.

accuracy. Unfortunately, Mr. Geisen vouched for the technical accuracy of the letter knowing it contained material inaccuracies. First, Serial Letter 2735 falsely stated that Davis-Besse's reviews of the video tapes of the 12th RFO inspection "corroborates the previous statements and conclusions stated in letter Serial Number 2731 that the results of this review did not identify any boric acid crystal deposits that would have been attributed to leakage from the CRDM nozzle penetrations, but were indicative of CRDM flange leakage" (Attachment 1 to NRC Staff Exh. 11 at 3). Mr. Geisen *knew* the large and extensive boric acid deposits that encrusted many nozzles precluded ruling out the existence of nozzle leakage (see supra Part II.B.2). Second, the letter falsely said that the inspections performed during the 10th, 11th, and 12th RFOs had been done in accordance with the BACC Program (Attachment 1 to NRC Staff Exh. 11 at 2). Mr. Geisen *knew* this statement was inaccurate, because he knew that compliance with the BACC Program required access to the bare metal of the reactor head (Tr. at 1938-39), but boric acid deposits precluded access to extensive areas of the reactor head (see supra Part II.B.2). Third, the letter falsely said that during the 10th RFO, "the entire [reactor pressure vessel] head was inspected" (Attachment 2 to NRC Staff Exh. 11 at 2)⁴¹ – in other words, "every nozzle was visualized" (Tr. at 1953). Mr. Geisen *knew* this statement was inaccurate, because he knew the camera-on-a-stick inspection technique precluded the possibility of inspecting the nozzles at the top of the head (see supra Part II.B.1). Fourth, the letter stated that the reactor pressure vessel head was cleaned during the 12th RFO "to the extent possible to provide a clean head for evaluating future inspection results" (Attachment 1 to NRC Staff Exh. 11 at 2), thus suggesting that a qualified visual inspection of all nozzles could be conducted during the next RFO. But Mr. Geisen *knew* the head had not been fully cleaned during the 12th RFO and, accordingly, a qualified visual inspection of all nozzles would not be possible (supra notes 27

⁴¹ Mr. Geisen actually wrote this statement (Tr. at 1952).

and 37). Finally, the letter said that “results from previous inspections of the CRDM nozzle penetrations provide reasonable assurance for the continued safe operation of [Davis-Besse] until the next refueling outage in March 2002” (Attachment 1 to NRC Staff Exh. 11 at 3).

Although Mr. Geisen might have believed the Davis-Besse crack-growth-rate analyses provided reasonable assurance that Davis-Besse could safely operate until the next RFO (Tr. at 1690), he *knew* such a conclusion could not be based on the “results of previous [nozzle] inspections,” because those inspections had been impeded by massive boric acid deposits and the camera-on-a-stick inspection technique (supra Parts II.B.1 and II.B.2).

On October 30, 2001, Davis-Besse submitted Serial Letter 2744 to the NRC Staff (NRC Staff Exh. 13). This letter was a follow-up to a commitment made on October 24 by Davis-Besse to provide the NRC Staff with pictorial documentation of the visual inspections of the reactor pressure vessel head performed during the 10th, 11th, and 12th RFOs (id. at 1). Mr. Geisen helped prepare this submission, having written captions to the attached photographs (Tr. at 1963) and the note to the nozzle-by-nozzle tables attached to the letter (Tr. at 1960-61).⁴² Moreover, he signed the Green Sheet for the letter in his capacity as Design Basis Manager, signifying the letter was technically accurate (NRC Staff Exh. 14). But the letter contained material misrepresentations. In a continuing effort to prevent the NRC Staff from requiring Davis-Besse to shut down before the end of the year to perform nozzle inspections, Serial Letter 2744 once again misrepresented the scope and efficacy of the inspections performed during the 10th, 11th, and 12th RFOs. For example, the letter asserted that the inspections “consisted of a whole head visual inspection of the RPV head in accordance with the . . . [BACC] Program” (NRC Staff Exh. 13 at 2), but Mr. Geisen *knew* these inspections had not been conducted in

⁴² The note composed by Mr. Geisen on the table stated that “[i]n 1996 during the 10 RFO, 100% of nozzles were inspected by visual examination” (NRC Staff Exh. 13). This was a material misrepresentation because, as Mr. Geisen knew (Tr. at 1959; supra Part II.B.1), the top nozzles could not be inspected with Davis-Besse’s camera-on-a-stick inspection technique.

accordance with the BACC Program, which requires a bare metal inspection that was impossible to perform due to the extensive accumulation of boric acid deposits (supra Part II.B.2; NRC Staff Exh. 74 at 1317). Additionally, although the letter stated that 24 of the 69 nozzles were obscured by boric acid deposits during the 12th RFO, it asserted that Davis-Besse's review of the video tapes taken during the inspection "did not identify any boric acid crystal deposits that would have been attributed to leakage from the CRDM nozzle penetrations, but were indicative of CRDM flange leakage" (NRC Staff Exh. 13 at 2). The apparent purpose of this sentence was, of course, to persuade the NRC Staff that Davis-Besse's most recent inspection ruled out the possibility of nozzle leakage. But Mr. Geisen *knew* it was impossible to rule out the possibility of nozzle leakage, because evidence of such leakage (in the form of small, popcorn-like deposits) would have been hidden by the large accumulation of lava-like deposits on the reactor head that obscured over 1/3 of the nozzles (supra Part II.B.2).

Finally, the record shows Mr. Geisen knowingly provided materially incomplete information to the NRC on November 9, 2001 during a meeting of the Advisory Committee on Reactor Safeguards (ACRS). At that meeting, in the context of discussing Davis-Besse's use of the 1996 nozzle inspection as the baseline for the crack-growth-rate analysis, an ACRS member asked, "What was the extent of the [1998 and 2000] inspection[s]?" (NRC Staff Exh. 59 at 397). Mr. Geisen responded that the 1996 inspection video provided the best baseline for the crack-growth-rate analysis because it presented the best view of the head, whereas the videos from the 1998 and 2000 inspections were "looking for the impact of boric acid leakage from leaky flanges" and, accordingly, in "many cases, the camera angle was looking upwards" rather than down toward the nozzles (id. at 398). At the evidentiary hearing, Mr. Geisen conceded his statement to the ACRS was incomplete, because he failed to disclose that the 1998 and 2000 inspections were "extremely limited" due to the boron deposits and Davis-Besse's use of the camera-on-a-stick inspection technique (Tr. at 1973). He testified, however, that he was

unaware his statement to the ACRS was incomplete when he made it (*ibid.*). For the reasons discussed *supra* Parts II.B.1 and II.B.2, I find that, contrary to Mr. Geisen's assertion, he *knew* in November 2001 that his statement to the ACRS was incomplete. Because Mr. Geisen stipulated that the NRC considered his statement to the ACRS in determining whether to allow Davis-Besse to continue uninterrupted operations until its next scheduled RFO in March 2002 (NRC Staff Exh. 77 at 2, 10-11; *see* Tr. at 2106), I conclude his November statement constituted yet another example of Mr. Geisen providing the NRC with materially incomplete information.

In sum, I find a preponderance of the evidence supports the conclusion that Mr. Geisen *knowingly* provided the NRC Staff with materially incomplete and inaccurate information regarding the scope and efficacy of the Davis-Besse nozzle inspections. In particular, the evidence establishes that Mr. Geisen: (1) *knew* the August 2001 NRC Bulletin required Davis-Besse either to verify it had performed a qualified visual inspection of 100% of the nozzles within the past four years, or to be prepared to shut down by December 31, 2001 to examine the nozzles; (2) *knew* Davis-Besse had not performed a qualified visual inspection of 100% of the nozzles within the past four years, because Davis-Besse's camera-on-a-stick inspection technique made it impossible to visualize the nozzles at the top of the reactor head, and the existence of extensive boric acid deposits prevented the inspection of numerous additional nozzles; and (3) *knowingly* provided the NRC Staff with materially misleading information relating to nozzle inspections, while endeavoring to persuade the NRC Staff through the use of a crack-growth-rate analysis that the reactor could operate safely until March 2002.

The Majority Decision attempts to diminish the persuasive impact of the evidence by examining it piece-by-piece and concluding that no single piece, viewed in isolation, suffices to establish that Mr. Geisen had the requisite knowledge (*e.g.*, pp. 67-87). Such an analysis is, in my view, an inconsequential exercise in setting up and knocking down straw men. It ignores the "simple fact[] of evidentiary life" that "individual pieces of evidence, insufficient in themselves

to prove a point, may in cumulation prove it” (Bourjaily v. United States, 483 U.S. 171, 179-80 (1987)). Applying that principle here, the evidence presented by the NRC Staff must be viewed *in its totality* against the backdrop of: (i) Mr. Geisen’s extensive experience in the operation and management of reactor plants (supra Part II); (ii) his admitted knowledge as to the content, requirements, and importance of the NRC Bulletin (supra Part II.A); and (iii) his admission that he read, carefully reviewed, discussed, or approved the relevant evidence (supra Parts II.B.1 and II.B.2). So viewed, the evidence establishes that Mr. Geisen *knew* the representations to the NRC were materially incomplete and inaccurate.

The Majority Decision also attempts to minimize the probative value of the evidence by repeatedly observing that Mr. Geisen did not view it as alarming or as portending pressure boundary leakage. See, e.g., p. 61 (Mr. Geisen not “alarm[ed]” by Condition Reports describing “large” boric acid deposits on reactor head); pp. 63-64 (Red Photo did “not create any alarm or strike [Mr. Geisen] as a warning that any pressure boundary leakage issue existed”); p. 70 (Mr. Geisen did not view the “memorandum, . . . e-mails, or trip reports [as] . . . alarming”). Of course, whether Mr. Geisen was *alarmed* by the evidence is beside the point. The issue is not whether he knew of warnings that suggested pressure boundary leakage; rather, the dispositive issue is whether he knew, between September and November 2001, of impediments that limited Davis-Besse’s ability in the previous four years to access the bare metal of the reactor head for purposes of conducting a qualified visual examination of 100% of the nozzles. The NRC Staff showed by a preponderance of the evidence that the latter issue must be resolved in the affirmative.

I do not doubt Mr. Geisen genuinely believed the crack-growth-rate analysis provided a legitimate basis for concluding the reactor could operate safely until the next scheduled RFO. But this case forcefully shows the potentially disastrous consequences that can result when a licensed entity, or an employee of a licensed entity, essentially seeks to arrogate the regulatory

oversight responsibility of the NRC Staff by knowingly failing to provide the NRC Staff with materially complete and accurate information. Mr. Geisen's material misrepresentations to the NRC Staff directly contributed to the Staff's decision to allow Davis-Besse to continue operations beyond December 31, 2001, thus permitting Davis-Besse to operate with primary coolant leakage from nozzle cracking, causing severe reactor head corrosion that, in turn, posed a real and imminent risk of a "control rod ejection, causing a loss-of-coolant accident" (NRC Staff Exh. 8 at 6). The charge in the Enforcement Order should therefore be sustained.⁴³

III. A FIVE-YEAR SANCTION IS REASONABLE GIVEN THE GRAVITY AND CIRCUMSTANCES OF MR. GEISEN'S MISCONDUCT

Mr. Geisen also challenges the NRC Staff's imposition of a sanction that bars him from involvement in NRC-licensed activities for five years. His challenge does not proceed from the premise that he engaged in deliberate misconduct. Rather, he argues that a five-year ban is unjustified because: (1) he did not engage in deliberate misconduct; and (2) in any event, the NRC Staff's investigative conduct was not compatible with due process principles, resulting in an unsupported Enforcement Order. See Geisen January 2009 Post-Trial Brief at 42-47. I reject the first argument for the reasons discussed supra Part II.C. I likewise reject the second argument, because the record reveals no deficiency in the NRC Staff's investigative conduct

⁴³ The Majority Decision – observing that the Dissent “uses adverbial advocacy to apparent great effect” (p. 136) – proceeds to characterize the Dissent’s conclusions as, variously, “rank,” “raw,” “broad,” and “unjustified” speculation (pp. 137-40). Although the Dissent’s conclusions are, in the main, confirmed by Mr. Geisen’s own incriminating testimony, it is to be acknowledged that the charges in the Enforcement Order were based largely on circumstantial evidence. The Majority Decision concedes that circumstantial evidence “can be compelling” (p. 132), but it nevertheless asserts that the *absence* of direct incriminating evidence in this case “speaks loudly” in support of the conclusion that Mr. Geisen did not engage in deliberate misconduct (*ibid.*). Unlike the Majority Decision, I decline to employ an evidentiary rule that attributes special weight to the *absence* of evidence, relying instead on the voluminous and compelling circumstantial evidence of record as viewed through the lens of Mr. Geisen’s inculpatory testimony. When that evidence is examined dispassionately, reasonably, and cumulatively, it “speaks loudly” in support of the charges in the Enforcement Order. In my judgment, the Majority’s contrary view is clear error.

that approaches a due process violation. Even if a flawed investigation had given rise to an arbitrary and unsupported Enforcement Order, Mr. Geisen had a full and fair opportunity during this Board's five-day evidentiary hearing to make that showing. This he failed to do. Rather, the NRC Staff showed the charge of wrongdoing in the Enforcement Order was supported by a preponderance of the evidence (supra Part II.C).

Thus, the salient question is whether Mr. Geisen's deliberate misconduct warrants a five-year sanction. The analytic tools for resolving this question are located in the NRC Enforcement Policy (NRC Staff Exh. 1), which provides that a sanction for deliberate misconduct by an unlicensed individual is determined by applying (1) four factors to assess the safety significance of the misconduct, and (2) nine factors to assess mitigating or aggravating circumstances. See id. at 8, 40-41.⁴⁴

⁴⁴ The Enforcement Policy is a guidance document (Tenn. Valley Auth. (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 218 n.176 (2004)), and NRC Staff offices may deviate from it "as appropriate under the circumstances of a particular case" (NRC Staff Exh. 1 at 3).

Guided by the Enforcement Policy, I conclude that a preponderance of the evidence establishes that the imposition on Mr. Geisen of a five-year ban from involvement in NRC-licensed activities is reasonable and should be sustained.⁴⁵

⁴⁵ The Enforcement Order made the five-year ban immediately effective. The Majority Decision states the immediately effective aspect of the Enforcement Order worked an injustice, barring an innocent man from working in his chosen field of employment before allowing him to adjudicate the validity of the Enforcement Order (pp. 122-25). It bears emphasizing, however, that NRC regulations, 10 C.F.R. § 2.202(c)(2)(i), gave Mr. Geisen the opportunity to challenge the immediately effective aspect of the Enforcement Order at the outset of this proceeding, followed by the availability of prompt judicial review. Section 2.202(c)(2)(i) on its face appears to provide litigants with a meaningful opportunity to test immediately effective Enforcement Orders against the standard in FDIC v. Mallen, 486 U.S. 230, 240 (1988), which held that where, as here, the government has deprived an individual of a property interest without a hearing, the government must be prepared to show an “important government interest, accompanied by a substantial assurance that the deprivation is not baseless or unwarranted.” Mr. Geisen elected not to invoke section 2.202(c)(2)(i) to challenge the immediate effectiveness of the Enforcement Order.

Although Mr. Geisen’s failure to invoke 2.202(c)(2)(i) relieved this Board of the need to resolve whether the NRC could (i) demonstrate a sufficiently “important government interest” to impose a pre-hearing deprivation (Mallen, 486 U.S. at 240), or (ii) provide “substantial assurance that the deprivation [was] not baseless or unwarranted” (ibid.), the record appears to provide at least prima facie support for an affirmative resolution of both issues, which likely explains Mr. Geisen’s decision not to seek section 2.202(c)(2)(i) relief. First, with regard to the former issue, it must be acknowledged that the NRC has a compelling interest in nuclear reactor safety and effective nuclear reactor regulation, and this proceeding implicates these concerns (infra Parts III.A and III.B). Second, with regard to the latter issue, as mentioned supra Part I.A, within two weeks of the NRC Staff’s issuance of the Enforcement Order, a Grand Jury returned a criminal indictment against Mr. Geisen based on essentially the same facts underlying the Enforcement Order. As the Supreme Court recognized in Mallen, “[t]he returning of the indictment establishes that an independent body has determined that there is probable cause to believe that [the individual] has committed a crime punishable by imprisonment for a term in excess of one year. . . . [This] finding . . . by an independent body demonstrates that the [deprivation] is not arbitrary” (486 U.S. at 244). Moreover, the Mallen Court observed that in circumstances where the criminal trial precedes the enforcement proceeding, the defendant has not perforce been deprived of due process. Rather, the criminal trial provides an additional forum to litigate the factual underpinnings of the administrative sanction. “If [the defendant] . . . is convicted, the [administrative sanction] is further supported” (id. at 247).

I nevertheless note that, in the unique facts of this case, it appears the NRC Staff had ample time prior to issuance of the immediately effective Enforcement Order to accord Mr. Geisen “some form of [pre-deprivation] hearing” (Cleveland Bd. Of Educ. v. Loudermill, 470 U.S. 532, 542 (1985)). When the NRC Staff can, consistent with its duty to protect public health and safety, accord some form of pre-deprivation hearing, such a course of action is advisable in light

(continued...)

A. Mr. Geisen's Misconduct Resulted In A Severe Safety Violation

Pursuant to the Enforcement Policy, safety violations have four levels of severity, with Level I violations being the most severe (NRC Staff Exh. 1 at 12). The following four factors provide guidance for assessing the safety significance of a violation (id. at 9-10): (1) actual safety consequences; (2) potential safety consequences; (3) impact on the NRC's ability to perform its regulatory function; and (4) any willful aspects of the violation. Applying these four factors, the NRC Staff concluded that Mr. Geisen's misconduct constitutes a Level I safety violation. I agree.

Regarding the first and second factors, although Mr. Geisen's misconduct did not have an actual safety consequence,⁴⁶ the inaccurate and incomplete information he provided to the NRC – i.e., misrepresenting the scope and efficacy of Davis-Besse's nozzle inspections – materially contributed to the NRC's decision to allow Davis-Besse to operate for an additional two and one-half months with nozzle cracking, resulting in severe reactor head corrosion that posed a serious threat of a control rod ejection and a loss-of-coolant accident. See NRC Staff Exh. 8 at 13; Tr. at 853, 1811, 2105-06. This condition posed a potential safety consequence that was dangerous in the extreme, thus warranting a safety violation classification at the highest severity level.

⁴⁵(...continued)

of the important "private interest in retaining employment" and the fact that such a proceeding provides "some opportunity for the employee to present his side of the case" (id. at 543). As the Loudermill Court explained, providing pre-deprivation "notice and informal hearing permit[s] the [employee] to give his version of the events [and] provide[s] a meaningful hedge against erroneous action" (id. at 543 n.8) (quoting Goss v. Lopez, 419 U.S. 565, 583-84 (1975)).

⁴⁶ Actual safety consequences, within the meaning of the NRC Enforcement Guide, include such events as a release of radiation, personnel radiation exposure, accidental criticality, core damage, loss of a significant safety barrier, and loss of radioactive material. See NRC Staff Exh. 1 at 9.

Third, the fact that Mr. Geisen's violation adversely impacted the NRC's ability to perform its regulatory function likewise supports classifying the safety violation at the highest severity level. It must be emphasized that the NRC's performance of its regulatory function – that is, its ability to “protect health” and “minimize danger to life or property” (42 U.S.C. § 2201.b) – is largely dependent on accurate self-reporting by licensed entities and their employees. Mr. Geisen's misrepresentations plainly impaired the NRC's performance of that function, because: (1) the underlying issue involved a safety-sensitive matter; (2) the misleading information provided by Mr. Geisen was material to the NRC's decision to allow Davis-Besse to operate in an unsafe manner and in violation of licensing conditions – i.e., with a cracked nozzle and reactor coolant system boundary leakage – for an extended period of time; and (3) Mr. Geisen occupied a managerial position of significant authority and influence, and he is therefore held to a high standard. See NRC Staff Exh. 1 at 9, 43-44.

Finally, willful – i.e., deliberate – violations cannot be tolerated by the NRC, whose regulatory effectiveness depends on the integrity and candor of licensed entities and their employees. The severity of Mr. Geisen's wrongdoing is enhanced by the fact that he repeatedly misled the NRC, thus providing further support for classifying his misconduct as a Level I safety violation. See NRC Staff Exh. 1 at 10.

B. Mr. Geisen's Deliberate Misconduct Involved Aggravating Circumstances That Warrant A Five-Year Sanction

The Enforcement Policy provides nine factors that are considered when determining what sanction to impose on an unlicensed person.⁴⁷ These factors are (NRC Staff Exh. 1 at 41):

1. The level of the individual within the organization.
2. The individual's training, experience, and knowledge of the potential consequences of the misconduct.
3. The safety consequences of the misconduct.
4. The degree of supervision of the individual, i.e., how closely the individual is monitored, and the likelihood of detecting the misconduct.
5. The attitude of the wrongdoer, e.g., admission of wrongdoing, acceptance of responsibility.
6. Who identified the misconduct.
7. The degree of management culpability.
8. The benefit to the wrongdoer.
9. The employer's response, i.e., whether disciplinary action is taken.

I find six of the nine factors establish aggravating circumstances that support the five-year sanction imposed on Mr. Geisen.

The first aggravating factor is Mr. Geisen's level within the organization (NRC Staff Exh. 1 at 41). The NRC places a higher level of responsibility and accountability on individuals as they advance within a licensed organization, because such individuals have the opportunity to influence others, to affect the way others view the need to comply with NRC requirements, and to represent the licensee before the NRC. See Tr. at 2022-23. As the Manager of Design Basis Engineering at Davis-Besse, Mr. Geisen directly supervised about 42 individuals and

⁴⁷ The types of sanctions the NRC may impose on unlicensed individuals include: (1) notices of violation; (2) letters of reprimand; and (3) orders prohibiting involvement in NRC-licensed activities for a specified period of time (normally not to exceed five years), or until certain conditions are satisfied. See NRC Staff Exh. 1 at 41-42; Tr. at 2019.

represented Davis-Besse before the NRC (Tr. at 1553-54, 2104).⁴⁸ His level within the organization is thus an aggravating factor. That other high-ranking individuals in the organization may share culpability with Mr. Geisen does not absolve him or mitigate his wrongdoing.

The second aggravating factor is Mr. Geisen's training and experience, as well as his knowledge of the potential consequences of the wrongdoing (NRC Staff Exh. 1 at 41). Mr. Geisen was a highly knowledgeable engineer with substantial training and experience in matters relating to reactor safety and the Davis-Besse BACC Program (NRC Staff Exh. 79 at 40-41). He understood the serious safety significance of nozzle cracking (Tr. at 1806-08, 1813), and he also knew the critical importance of providing complete and accurate information to the NRC (Tr. at 1900-01). Hence, his training, experience, and knowledge of the potential consequences of his wrongdoing combine to constitute an aggravating factor.

The third aggravating factor is the safety consequence, both actual and potential, of Mr. Geisen's misconduct (NRC Staff Exh. 1 at 41; Tr. at 2110). As a result of his wrongdoing, the Davis-Besse plant was permitted to operate for an additional two and one-half months with undetected nozzle cracking and accompanying primary coolant leakage that caused severe reactor head corrosion (Tr. at 2105-06, 2110). This posed a potential consequence of a control rod ejection and a loss-of-coolant accident, which is a grave aggravating factor that warrants a heightened sanction.

The fourth aggravating factor is that Mr. Geisen was not closely supervised (NRC Staff Exh. 1 at 41), and he was thus situated to engage in deliberate misconduct without the supervisory oversight that may have prevented his wrongdoing (Tr. at 2112, 2115). That Mr. Geisen took advantage of his unsupervised position to knowingly provide materially incomplete

⁴⁸ Mr. Geisen assumed the lead role for Davis-Besse in providing information to the NRC concerning nozzle inspections. See, e.g., NRC Staff Exh. 74 at 1228-29, 1240. He was thus personally responsible for the misinformation he provided relating to those inspections. See, e.g., Tr. at 1923, 1927.

and inaccurate information to the NRC is an aggravating factor that warrants a heightened sanction.

The fifth aggravating factor is Mr. Geisen's failure to accept responsibility for his deliberate misconduct (NRC Staff Exh. 1 at 41). Although Mr. Geisen acknowledges he made material misrepresentations to the NRC (NRC Staff Exh. 77), and although he expresses remorse about the consequences of his conduct (Tr. at 2119-20), he never admitted he engaged in deliberate wrongdoing (Tr. at 2119). His failure in this regard militates in favor of a heightened sanction.

The sixth aggravating factor warranting a heightened sanction is that the NRC, rather than Mr. Geisen, identified the wrongdoing (NRC Staff Exh. 1 at 41).⁴⁹

The final three factors were *not* aggravating circumstances that supported an enhanced sanction, because: (1) no significant degree of management culpability was associated with Mr. Geisen's misconduct (Tr. at 2128-29);⁵⁰ (2) no discernible benefit accrued to Mr. Geisen as a result of his wrongdoing (Tr. at 2111-12); and (3) Davis-Besse took disciplinary steps against Mr. Geisen when it learned of his wrongdoing (Tr. at 2119).

Placing the nine factors on a scale, I conclude that the six aggravating factors significantly outweigh the three non-aggravating factors, thus supporting the imposition of an enhanced sanction.⁵¹

⁴⁹ As discussed supra note 40, although Mr. Geisen told his supervisor, Mr. Moffitt, and the Davis-Besse Regulatory Affairs Manager that he had provided inaccurate information to the Commissioners' TAs on October 11, 2001 that needed to be corrected, he thereafter improperly vouched for the technical accuracy of the so-called corrective letter (Serial Letter 2735), which itself contained material inaccuracies, and he continued thereafter to provide the NRC with materially misleading information (supra Part II.C).

⁵⁰ In this regard, the record does *not* show that Mr. Geisen's wrongdoing resulted from inadequate training, *nor* does it show that Davis-Besse directed or encouraged Mr. Geisen to engage in deliberate misconduct. Cf. NRC Staff Exh. 1 at 39 (listing examples of management failures that may underlie regulatory violations committed by individuals).

⁵¹ In my view, the following aggravating factors merit special weight: Mr. Geisen's
(continued...)

The NRC Staff, quite understandably, views the deliberate submission of a materially false statement as an “egregious violation[.]” (NRC Staff Exh. 1 at 43). Here, Mr. Geisen’s deliberate and repeated submissions to the NRC of materially false statements regarding a safety-sensitive matter that resulted in a Level I safety violation constituted an egregious violation that warrants the imposition of a five-year sanction.

IV. CONCLUSION

For the foregoing reasons, I conclude – in disagreement with the Majority Decision – that ample evidence supports both the charge in the Enforcement Order and the five-year sanction.

I nevertheless close this Dissenting Opinion by expressing the view that, based on this record, Mr. Geisen possesses creditable attributes that render him competent to resume work in the nuclear-licensed industry upon expiration of the five-year sanction imposed by the Enforcement Order. His motivation and dedication are illustrated by his honorable service as a Naval Officer aboard a nuclear ballistic missile submarine, culminating in his qualification as a Naval Nuclear Engineer (NRC Staff Exh. 79 at 8). After leaving the military, he continued working in the nuclear engineering field, accepting employment at Davis-Besse where he progressively attained positions of higher responsibility. Aside from the incident at issue in this enforcement proceeding, the record supports the conclusion that Mr. Geisen was, by all accounts, a knowledgeable, industrious, and dependable manager (e.g., NRC Staff Exh. 74 at 1214, 1265-66, 1301). These laudable qualities made him a valued employee in the nuclear-

⁵¹(...continued)

high level within the Davis-Besse organization, the grave safety consequence of his wrongdoing, and his knowledge of the potential consequence of his wrongdoing. Cf. Tr. at 2259 (Mr. James Luehman, former Deputy Director of the NRC Office of Enforcement, testified that common factors in enforcement cases involving five-year bans are the wrongdoer’s high level in the organization and the extreme safety significance of the misconduct.).

licensed industry subsequent to the Davis-Besse incident.⁵² Even after issuance of the Enforcement Order, Mr. Geisen's talents were recognized in the nuclear-licensed industry, as evidenced by a letter he received from Dominion Energy inviting him to "contact [Dominion Energy Kewaunee, Inc.] to discuss the possibility of future re-employment' once he regained the legal status necessary to work there again." In the Matter of David Geisen, LBP-06-13, 63 NRC 523, 565 (2006) (Concurring Opinion of Judge Hawkens) (quoting Letter from Lori J. Armstrong, Director Nuclear Engineering, Dominion Energy Kewaunee, Inc., to David Geisen (Feb. 16, 2006)); see also Tr. at 1780.

To be sure, Mr. Geisen's misconduct in the instant case was serious, which is why the NRC imposed a severe sanction. Based on this record, however, it may reasonably be concluded that the misconduct was out of character and that, upon expiration of the sanction, Mr. Geisen has the capacity to resume working in the nuclear-licensed industry, if he wishes to return to it. Cf. Tr. at 716 (counsel for the NRC Staff states that a felony conviction is not an "automatic bar" to employment in the nuclear-licensed industry).

⁵² Mr. Geisen left Davis-Besse in October 2002 (Tr. at 1776). In January 2003, he accepted a job as Nuclear Oversight Engineer at Dominion Energy's Kewaunee Nuclear Power Plant, where he worked until January 2006 when the immediately effective Enforcement Order issued (Tr. at 1778-79). For the three years that Mr. Geisen worked at the Kewaunee Plant, no question arose about the quality or integrity of his work (Tr. at 1779).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of
DAVID GEISEN

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Docket No. IA-05-052

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB ORDER (INITIAL DECISION) (LBP-09-24) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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[Original signed by Nancy Greathead]

Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 28th day of August 2009