

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

RAS 6719

DOCKETED 08/18/03

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

SERVED 08/18/03

Ann Marshall Young, Chair
Dr. Richard F. Cole
Dr. Thomas S. Elleman

In the Matter of

Docket No. 50-336-OLA-2

DOMINION NUCLEAR CONNECTICUT, INC.

ASLBP No. 03-808-02-OLA

(Millstone Nuclear Power Station, Unit 2)

August 18, 2003

MEMORANDUM AND ORDER(Ruling on Petitioner's Supplemented Petition and Contention)

This proceeding involves a September 26, 2002, application of Dominion Nuclear Connecticut, Inc. (Dominion), to amend the operating license for Millstone Power Station, Unit No. 2, by changing certain technical specifications. The proposed changes are based upon re-analysis of the limiting design basis Fuel Handling Accident using an Alternative Source Term in accordance with 10 C.F.R. § 50.67 and NRC Regulatory Guide 1.183. This application was among those included in a November 2002 NRC "Biweekly Notice" regarding "Applications and Amendments to Facility Operating Licenses Involving No Significant Hazards Considerations." 67 Fed. Reg. 68,728, 68,731 (Nov. 12, 2002). On December 12, 2002, in response to this notice and Dominion's application, the Connecticut Coalition Against Millstone (CCAM) and the STAR Foundation, Inc. (STAR) filed an "Amended Petition to Intervene and Request for Hearing." In LBP-03-03, 57 NRC 45 (2003), this Licensing Board held that Petitioner CCAM had standing to participate in this proceeding but that Petitioner STAR lacked standing, and on June 5, 2003, the Licensing Board heard oral argument on Petitioner CCAM's March 10, 2003, Supplemented Petition and Contention. For the reasons stated herein, we conclude that Petitioner CCAM's Contention is not sufficiently supported to be admissible under relevant rules and law, and therefore dismiss it and terminate this proceeding.

BACKGROUND

Dominion in its license amendment application requests approval of its “re-analysis of the Millstone Unit No. 2 limiting design basis Fuel Handling Accidents using a selective implementation of the Alternative Source Term (AST) methodology in accordance with 10 C.F.R. 50.67 and Regulatory Guide 1.183,” and approval of certain changes to the Technical Specifications (TSs) consistent with that reanalysis. Dominion License Amendment Application (Letter, J. Alan Price to U.S. Nuclear Regulatory Comm’n Document Control Desk, B18763, “Millstone Unit No. 2, License Basis Document Change Request (LBDCR) 2-18-02, Selective Implementation of the Alternative Source Term - Fuel Handling Accident Analyses” (Sept. 26, 2002)), at 1 [hereinafter LAA]. Specifically, Dominion requests amendments to TS 3.3.3.1, “Monitoring Instrumentation, Radiation Monitoring”; TS 3.3.4, “Instrumentation, Containment Purge Valve Isolation Signal”; TS 3.7.6.1, “Plant Systems, Control Room Emergency Ventilation System”; TS 3.9.4, “Refueling Operations, Containment Penetrations”; TS 3.9.8.1, “Refueling Operations, Shutdown Cooling and Coolant Circulation - High Water Level”; TS 3.9.8.2, “Refueling Operations, Shutdown Cooling and Coolant Circulation - Low Water Level”; and TS 3.9.15, “Refueling Operations, Storage Pool Area Ventilation System.” *Id.*

As noted by Staff Counsel, the LAA is based on a 1999 amendment of NRC regulations, permitting nuclear power plant licensees “to voluntarily replace the traditional source term^[1] used in design basis accident analyses with alternative source terms.” Final Rule, Use of Alternative Source Terms at Operating Reactors, 64 Fed. Reg. 71,990 (Dec. 23, 1999); see NRC Staff’s Response to Amended Petition to Intervene and Request for Hearing Filed by

¹ Source term refers to the fission product release from the reactor core into containment resulting from a design basis accident. It is “characterized by the composition and magnitude of the radioactive material, the chemical and physical properties of the material, and the timing of the release from the reactor core. The accident source term is used to evaluate the potential radiological consequences of design-basis accidents.” 64 Fed. Reg. at 71,991.

[CCAM] and [STAR] (Jan. 2, 2003), at 2-3. The new “Alternative Source Term” rule, codified at 10 C.F.R. § 50.67, permits utilities with nuclear power plant operating licenses to replace the prior, 1962-era source term in their licenses with a revised one. 64 Fed. Reg. at 71,990-92. Under the new rule, at 10 C.F.R. § 50.67(b), certain dose limits — specifically, those to (1) individuals located at any point on the boundary of the exclusion area for any two-hour period following the onset of the postulated fission product release, (2) individuals located at any point on the outer boundary of the low population zone exposed to the radioactive cloud resulting from the release, and (3) persons working in the control room under accident conditions — are stated in terms of single total effective dose equivalents (TEDEs). This approach replaces that used in the original design basis for operating reactors, the terms of which provided for two different doses, one to the whole body and the other to the thyroid. See 64 Fed. Reg. at 71,992-93; see *also* 10 C.F.R. § 100.3 (2003), defining “Exclusion area” and “Low population zone.”

This Licensing Board has ruled, as indicated above, that Petitioner CCAM established standing to participate in this proceeding, but found that Petitioner STAR did not establish standing and dismissed it from the proceeding. LBP-03-03, 57 NRC at 60-63. On March 10, 2003, CCAM filed its one contention in this proceeding. Petitioner, [CCAM], Supplemented Petition and Contention (March 10, 2003) [hereinafter Contention]. In its Contention, CCAM challenges Dominion’s proposed changes to TSs that would modify requirements regarding containment closure and spent fuel pool area ventilation during movement of irradiated fuel assemblies in containment and in the spent fuel pool area, allow containment penetrations including the equipment door and personnel airlock door to be left open under administrative control, and eliminate requirements for automatic closure of

containment purge during Mode 6 fuel movement, as well as the deletion of TSs associated with storage pool area ventilation. Contention at 1-2.

Dominion and the NRC Staff filed answers to CCAM's Contention on March 31, 2003. Answer of Dominion Nuclear Connecticut, Inc. to [CCAM] Supplemented Petition and Contention (March 31, 2003) [hereinafter Dominion Answer]; NRC Staff's Answer Opposing Contention Filed by [CCAM] (March 31, 2003) [hereinafter Staff Answer]. Thereafter, as indicated above, on June 5, 2003, the Licensing Board heard oral argument on Petitioner's Contention. Finally, on June 20, 2003, Dominion filed an Affidavit of William J. Eakin and certain dose calculations as discussed in oral argument, which we address below. See Letter from David A. Repka, Counsel for Dominion Nuclear Connecticut, Inc., to Licensing Board (June 20, 2003)

ANALYSIS

Standards for Admissibility of Contentions

To intervene in an NRC proceeding, a Petitioner must, in addition to demonstrating standing, submit at least one contention meeting the requirements of 10 C.F.R. § 2.714(b),(d). *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333 (1999); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996). As we have previously noted, the standards that licensing boards must apply in ruling on the admissibility of contentions, and that we apply in ruling on CCAM's contention, are defined at 10 C.F.R. § 2.714(b), (d). The failure of a contention to comply with any one of these requirements is grounds for dismissing the contention, *Arizona Public Service Company* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991), and, pursuant to section 2.714(b)(1), the failure of a petitioner to submit at least one admissible contention is grounds for dismissing the petition.

The Commission, in an earlier case involving CCAM and Dominion, has stated that the “contention rule is strict by design,” having been “toughened . . . in 1989 because in prior years ‘licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.’” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 1 and 3), CLI-01-24, 54 NRC 349, 358 (2001) (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)).

Thus, a petitioner must do more than merely make unsupported allegations. Contentions must *specifically* state the issues a petitioner wishes to raise and, in addition to providing support in the form of expert opinion, document(s), and/or a fact-based argument, a petitioner must provide reasonably specific and understandable *explanation* and *reasons* to support its contentions. If a petitioner in a contention “fail[s] to offer any specific explanation, factual or legal, for why the consequences [the petitioner fears] will occur,” the requirements of the contention rule are not satisfied. *Millstone*, CLI-01-24, 54 NRC at 359. “An admissible contention must *explain, with specificity*, particular safety or legal reasons requiring rejection of the contested [licensing action].” *Id.* at 359-60 (emphasis added). The contention rule does not require “a specific allegation or citation of a regulatory violation,” *id.* at 361, but a petitioner is obliged, under 10 C.F.R. § 2.714(b)(2)(iii), either “to include references to the specific portion of the application . . . that the petitioner disputes and the supporting *reasons* for each dispute,” *id.* (emphasis added), or, if a contention alleges that an application “fails to contain information on a relevant matter as required by law,” *id.*, to identify “each failure and the supporting *reasons* for the petitioner’s belief.” *Id.* (emphasis added); see *Millstone*, 54 NRC at 361-62.

The Statement of Considerations (SOC) for the final 1989 rule amendments, 54 Fed. Reg. 33,168 (Aug. 11, 1989), also provides elucidation in interpreting and applying the contention requirements, guidance that is entitled to “special weight” under the authority of *Long Island Lighting Company* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC

275, 290-91 (1988), *review declined*, CLI-88-11, 28 NRC 603 (1988). In the SOC the Commission stated that a “contention will be dismissed if [a petitioner] sets forth no facts or expert opinion on which it intends to rely to prove its contention, or if the contention fails to establish that a genuine dispute exists between the intervenor and the applicant,” and that petitioners must do more than submit “bald or conclusory allegation[s]” of a dispute with the applicant. 54 Fed. Reg. at 33,171. They must “read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,” *Millstone*, CLI-01-24, 54 NRC at 358 (citing 54 Fed. Reg. at 33,170), and “explain[] why they have a disagreement with [the applicant].” 54 Fed. Reg. at 33,171.

In addition, according to the Commission’s 1998 *Statement of Policy on Conduct of Adjudicatory Proceedings*, a “contention’s proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement” of the rule. CLI-98-12, 48 NRC 18, 22 (1998).

To summarize, a contention must:

A. under section 2.714(b)(2), consist of a *specific* statement of the issue of law or fact the petitioner wishes to raise or controvert; and

B. under subsection 2.714(b)(2)(i), be supported by a brief *explanation* of the factual and/or legal basis or bases of the contention, which goes beyond mere allegation and speculation, is *not* open-ended, ill-defined, vague or unparticularized, and *is* stated with reasonable specificity; and

C. under subsection 2.714(b)(2)(ii), include a statement of the alleged facts or expert opinion (or both) that support the contention and on which the petitioner intends to rely to prove its case at a hearing, which must also be stated with reasonable specificity; and

D. also under subsection 2.714(b)(2)(ii), include references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish the facts it alleges and/or the expert opinion it offers, which must also be stated with reasonable specificity and, at a minimum, consist of a fact-based argument sufficient to demonstrate that an inquiry in depth is appropriate, and illustrate that the petitioner has examined the

publicly available documentary material pertaining to the facility(ies) in question with sufficient care to uncover any information that could serve as a foundation for a specific contention; and

E. under subsection 2.714(b)(2)(iii), provide sufficient information to show that a *genuine dispute* exists with the applicant on a *material* issue of law or fact (i.e., a dispute that actually, specifically, and directly challenges and controverts the application, with regard to a legal or factual issue, the resolution of which “would make a difference in the outcome of the licensing proceeding”), 54 Fed. Reg. at 33,172), which includes either:

1. *references to the specific portions of the application* (including the applicant's environmental report and safety report) that the petitioner disputes *and the supporting reasons for each dispute*, or
2. if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the *identification of each failure and the supporting reasons for the petitioner's belief*; and

See Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2, Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 NRC 49, 67-68 (2002); *see also* LBP-03-03, 57 NRC at 64.

Also, as indicated in the text of subsection 2.714(b)(2)(iii), for issues arising under NEPA, contentions must be based on the applicant's environmental report, and the petitioner can amend such contentions or file new contentions “if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's document.” And finally, under subsection 2.714(d)(2)(ii), in ruling on a contention a Licensing Board must refuse to admit a contention if, assuming the contention were proven, it would be of no consequence in the proceeding because it would not entitle the petitioner to specific relief.

CCAM Contention

CCAM in its one contention states as follows:

The amendment involves the potential of significant increase in the amounts of radiological effluents that may be released offsite and thus the amendment involves an adverse impact on the public health and safety.

Contention at 3. Another part of the contention, challenging the Staff's "No Significant Hazards Consideration" determination, was effectively withdrawn at oral argument. Tr. 30, 97-99.

As basis for its contention, CCAM notes that the proposed changes involved in the LAA "modify certain containment closure and spent fuel pool ventilation requirements during fuel movement operations that would allow doors and other penetrations to remain open under administrative control and eliminate requirements for automatic closure of openings," citing 67 Fed. Reg. 68,728, 68,731 (Nov. 12, 2002), and asserts that, "[i]f in such fuel movement operations, containment penetrations are left open, rather than having automatic and other closing functions operable or in effect, in the event of an accident and in routine operations there is a greater likelihood of a release of radioactivity that might have an impact on those who live nearby the site." Contention at 3-4. Further, CCAM asserts that, "[i]f a fuel handling accident occurs during refueling, and the containment door is left open, more radioactivity will escape the containment than if the doors were closed"; that a "fuel handling accident involving spent fuel entails an increased potential for offsite consequences"; and that "[t]herefore, the proposed changes do not meet the criteria for categorical exclusion set forth in 10 C.F.R. § 51.22(c)(9). . . ." *Id.* at 4.

In its Statement of Facts, CCAM gives various examples of proposed changes to the TSs that "modify requirements regarding containment closure and spent fuel area ventilation during movement of irradiated fuel assemblies in containment and in the spent fuel pool area." *Id.* These include changes: to TSs 3.3.3.1 and 3.3.4 such that "the revised Fuel Handling

Accident ('FHA') Inside Containment Analysis no longer assumes automatic closure of the containment purge valve during a FHA inside containment involving increasing airborne radioactivity levels" but rather "assumes the containment purge valve remains open"; to TS 3.9.4 such that "containment penetrations need not be closed if closure would represent a significant radiological hazard to the personnel involved"; and to TS 3.3.3.1 that would eliminate the spent fuel storage area ventilation system automatic isolation signal. *Id.* at 4-5. Asserting that the modifications "substitute yet unsubmitted and unreviewed administrative controls for presently credited automatic penetration closure and in the spent fuel pool area," CCAM says that, "[a]t the same time, the modifications obviate existing requirements to prevent leakage of radioactive effluent from containment to the environment should radiation levels be deemed too hazardous for personnel." *Id.* at 5 (citing LAA, Attach. 2 at 8). According to CCAM, such leakage "will be channeled to the environment without mitigation as required under existing Technical Specifications." Contention at 4-5.

Moreover, CCAM asserts as fact, "[a] fuel handling accident involving spent fuel entails an increased potential for offsite consequences" that can be "severe and indeed catastrophic." Based on these assertions of fact, CCAM argues that the proposed amendment "involves potential significant increase in the amounts of radiological effluents that may be released offsite" and therefore involves an "adverse impact on the public health and safety." *Id.* at 5.

The documents and sources on which CCAM relies are the LAA, including attachments and references; LBP-03-03; an otherwise-unidentified "October 2000 report prepared by Sandia National Laboratories for the [NRC] on the potential consequences of a spent fuel pool accident"; and "[s]uch additional sources and documents as are a matter of public record and as may be disclosed in discovery in these proceedings." *Id.*

CCAM disputes the Applicant's assertions that the proposed changes are "safe," "meet the criteria for categorical exclusion," and "do not involve an adverse impact on public health

and safety,” citing a Dominion cover letter dated September 26, 2002, at 1-4, and documents referenced therein. Contention at 7. According to CCAM, the proposed changes do not protect the public health and safety and hence are not safe, and “[i]n the event of a FHA, with a containment penetration open, if the level of airborne radiation is too severe to enable personnel to carry out the substitute administrative controls to prevent venting to the environment, the impact to the surrounding area will be adverse.” *Id.* In addition, CCAM asserts, the proposed changes “compromise 10 C.F.R. § 50.92(c) criteria,” and involve “a significant increase in the probability of consequences of an accident previously evaluated.” *Id.* (citing LAA, Attach. 3 at 1-4). Indeed, CCAM states, “an increased risk of increase in dose at the site boundary or to control room personnel is acknowledged by the Licensee.” *Id.* (citing LAA, Attach. 3 at 2).

CCAM relies on this Board’s statement in LBP-03-03 that “if a fuel handling accident occurs during refueling, and the containment door is left open, common sense indicates that more radioactivity is going to escape the containment than if the doors were closed.” Contention at 7; see LBP-03-03, 57 NRC at 61. CCAM asserts that the proposed changes involve a “significant reduction in the margin of safety.” Comparing current provisions for automatic closure during a FHA to a situation in which the radiation levels become “too severe – a not at all unlikely event,” CCAM asserts that the latter situation would “automatically render[] nugatory” the proposed administrative controls under the LAA such that “the Licensee will not be faulted for not closing the penetration during the FHA.” *Id.* at 8. In addition, CCAM claims, the proposed changes “increase the risk of significant increase in the amount of radiation that may be released off-site,” entail “risk of a significant increase in individual or cumulative occupational radiation exposure such as at the containment penetrations where personnel would be called upon to manually close doors which had theretofore been required to close automatically,” and would permit the Licensee “to make its own judgment call as to what degree

of severity to subject its personnel to under serious accident conditions to carry out what had theretofore been required to be performed automatically and mechanically.” *Id.*

CCAM asserts that through such mechanisms as doors that would be permitted to be open, the proposed changes “subject the public to a greater risk of exposure to and adverse effect from radiological emissions which escape to the environment,” and argues that “the application is replete with references to as yet unsubmitted administrative controls, the absence of which precludes meaningful analysis of the merits of the application. *Id.* at 9 (citing LAA, Attach. 1 at 18, 20; LAA, Attach. 2 at 3, 6, 7, 8, 9, 14, 15).

Finally, CCAM argues in its written submission that its contention, “if proven, would be of consequence in the proceeding because it would entitle the petitioner to specific relief” in the form of denying the LAA, or, again citing this Board in LBP-03-03, disallowing the proposal to leave open penetrations. *Id.*

Dominion Answer

Dominion argues that CCAM’s proposed contention “lacks a basis sufficient to demonstrate a genuine dispute,” that it “would not entitle CCAM to any relief in this proceeding,” and that, “[a]ccordingly, the proposed contention is not admissible and the request for hearing should be denied.” Dominion Answer at 1. It argues further, relying on the principle that an “intervenor must do more than submit ‘bald or conclusory allegation[s]’ of a dispute,” that he or she must “allege with particularity (1) that an applicant is not complying with a specified regulation, or (2) the existence and detail of a substantial safety issue on which the regulations are silent”; that “[i]n the absence of an allegation of a ‘regulatory gap,’ the failure to allege a violation of the regulations or an attempt to advocate stricter requirements than those imposed by NRC regulations will result in a rejection of the contention”; and that a Licensing Board “is not to accept uncritically the assertion that a document or other factual information or

an expert opinion supplies the basis for a contention.” *Id.* at 6-7 (citing *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001) (citing 54 Fed. Reg. at 33,170-71); *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), LBP-82-106, 16 NRC 1649, 1656 (1982); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998); *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90, *rev’d in part on other grounds*, CLI-96-7, 43 NRC 235 (1996)).

With regard to its re-analysis underlying its LAA, Dominion states that it applies only to Millstone “design basis fuel handling accidents postulated during fuel movements in the containment building and in the spent fuel pool building,” done “only while the reactor is in Mode 6 (refueling mode) or in a defueled condition,” and that the re-analysis “supports reductions in administrative burdens related only to fuel movements, as described in the Application.” *Id.* at 3. Dominion argues that the re-analysis “does not involve any physical modifications to the plant equipment, alter the flowpath or the methods of processing and disposal of radioactive waste or byproducts, or increase the type and amounts of effluents that may be released off-site,” *id.* (citing LAA, cover letter at 2, Attach. 2 at 16), but does “incorporate[] revised assumptions regarding available equipment,” which it contends is “[c]onsistent with the very purpose of 10 C.F.R. § 50.67” and has “the objective of eliminating unnecessary regulatory or administrative burdens.” Dominion Answer at 4.

According to Dominion, its re-analysis supports the proposed changes by demonstrating “that the radiological consequences of a fuel handling accident inside containment — including postulated control room doses and doses at the exclusion area and low population zone boundaries — will be within the limits of 10 C.F.R. § 50.67, Reg Guide 1.183, and 10 C.F.R. Part 100 *without taking credit* for containment boundaries and certain equipment or automatic actions presently governed by the Millstone TS[s],” and “that the radiological consequences of a

fuel handling accident outside containment (in the spent fuel pool building) will be within the applicable regulatory limits *without taking credit for any* containment or filtration of accident releases by the spent fuel building and ventilation system.” *Id.* at 4-5 (emphasis in original) (citing Application, Attach. 2, 4, 5). Certain features, Dominion says, “are no longer required to be included in TS because they are not credited in the revised accident re-analysis,” but it has nonetheless in its Application described certain administrative controls that will be established “to reduce radiological consequences further below regulatory limits,” but which “are not assumed in the analysis, are not required to meet the regulatory limits, and are proposed only as a defense-in-depth measure to further reduce postulated accident doses.” Dominion Answer at 5-6.

In light of the preceding, Dominion contends that CCAM has merely reiterated conclusory assertions made in its original filing, and has not provided “any meaningful technical basis on which to conclude that there is a genuine dispute.” Dominion Answer at 8-9. Dominion argues that, while the “common sense” supposition that CCAM relies on from LBP-03-03 might be sufficient for a showing of standing, it is insufficient for an admissible contention, and CCAM has offered no basis for such a conclusion. Dominion Answer at 9-10 (citing LBP-03-03, 57 NRC at 61; *Millstone*, CLI-01-24, 54 NRC at 359).

Nor, Dominion argues, has CCAM in any way asserted, much less provided a basis for an assertion, that the DNC alternative source term accident re-analyses are in error. Dominion Answer at 10 (citing LAA, Attach. 1, Tables 6, 8). Moreover, according to Dominion, CCAM has failed to provide a basis for the assertion that there will be significant increases in radiological effluents; failed to engage the “fundamental conclusion” that, as assertedly demonstrated by the alternative source term analyses in the LAA, even with the associated changes in operational controls, there will be no increased offsite accident consequences; and failed to allege where and how the LAA fails to meet regulatory standards. Dominion Answer at 11.

In support of its argument to the effect that CCAM's contention, even if proven, would be of no consequence in the proceeding because it would not entitle the petitioner to specific relief, Dominion asserts that, without any basis to challenge the accident analyses or demonstrate a significant safety issue, there is no regulatory basis for the relief sought by CCAM of disallowing leaving penetrations open during fuel movements. *Id.* at 12. In addition, Dominion argues, the contention does not meaningfully challenge the criteria for requiring technical specifications under 10 C.F.R. § 50.36. *Id.* at 12-13 (citing 64 Fed. Reg. at 71,992; *Private Fuel Storage*, LBP-98-7, 47 NRC at 180; LAA, Attach. 2, at 12-15).

Dominion also asserts that CCAM has shown no connection between the LAA at issue and the Sandia study it cites because the study in question “pertains to beyond-design-basis spent fuel pool events and does not address design basis fuel handling events” such as are addressed in its LAA, and argues that CCAM “has not made any specific, affirmative demonstration of environmental impacts from the proposal” that would warrant preparation of an environmental assessment (EA) or environmental impact statement (EIS) and thus meet the “categorical exclusion” criteria of 10 C.F.R. § 51.22(c)(9). Dominion Answer at 13-19. Finally, Dominion argues that CCAM is in effect impermissibly challenging postulated releases or accident doses that are within NRC regulatory limits in its assertions that the proposed changes involved in the LAA would “adversely affect the public health and safety.” *Id.* at 19-20.

NRC Staff Answer

The Staff asserts among other things that CCAM does not allege that the requested license amendment if granted would result in any violation of an NRC regulation or that CCAM's concern is not covered by an NRC regulation, nor does CCAM dispute Dominion's statement that the proposed license amendment will comply with § 50.67. Staff Answer at 6. In addition, the Staff argues that CCAM has not pointed to any particular part of the LAA that supports its

position, or to any part of the Sandia report, nor does it offer any explanation of how the report is relevant or cite any part of it as supporting its argument. *Id.* at 7-8.

With regard to CCAM's reference to "such additional sources and documents as are a matter of public record and as may be disclosed in discovery in these proceedings, the Staff suggests that this runs counter to the Commission's interpretation of § 2.714(b) as "preclud[ing] a contention from being admitted where an intervenor has no facts to support its position and where the intervenor contemplates using discovery or cross-examination as a fishing expedition which might produce relevant facts." *Id.* at 8-9 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2, Catawba Nuclear Station Units 1 and 2), CLI-02-28, 56 NRC 373, 387 (2002); and Final Rule, Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,171 (August 11, 1989)).

Finally, the Staff argues, Petitioner CCAM has not demonstrated the existence of a genuine dispute on a material issue of fact or law, by virtue of its failure to provide any factual or scientific information, expert opinion, or supporting documents that produce some doubt about the adequacy of a specified portion of the applicant's documents — personal opinion and mere speculation not being sufficient to demonstrate such a "genuine dispute." *Id.* at 9 (citing *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 521 (1990); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 267 (1996); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Ga.), LBP-95-6, 41 NRC 281, 304, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995)).

Oral Argument

In oral argument, CCAM stated through counsel that its position is that Dominion's application is "counter to the purpose of the NRC in establishing the alternate source term approach," noting a statement from an NRC document relating to the alternative source term to the effect that the NRC did not intend to approve any source term that is not of the same level of quality as the source terms in NUREG 1465. Tr. 8-10; see also SECY 99-240, "Final Amendments to 10 CFR Parts 21, 50, and 54 and Availability for Public Comment of Draft Regulatory Guide DG-1081 and Draft Standard Review Plan Section 15.0.1 Regarding Use of Alternative Source Terms at Operating Reactors," Oct. 5, 1999. CCAM Counsel also referred to a document filed by Dominion on June 2, 2003, containing a response to a Request for Additional Information (RAI) from the NRC Staff, seeking clarification of what Dominion meant by the statement, "if it is determined that closure of all containment penetrations would represent a significant radiological hazard to the personnel involved, the decision may be made to forgo the closure of the affected penetration(s)." Tr. 13-14; LAA, Attach. 1 at 1. In this document, Dominion responded that the qualification of the 30-minute closure provision was "prudent . . . given that analysis of the design basis fuel handling accident shows that closure is not required to assure that doses are within applicable limits," and also, among other things, that the "radiological analysis of a fuel handling accident in containment did not credit containment closure within 30 minutes." *Id.*

With respect to the Sandia study not being relevant to design basis accidents, CCAM Counsel argued that possible revision of standards and requirements relating to design basis accidents in light of the events of September 11, 2001, suggests that such terrorism issues should be taken into account in this proceeding. Tr. 18-25. Counsel also, among other arguments, contended that Dominion has not adequately examined or established that the

public will not be exposed to an “enhanced risk” as a result of the LAA, and that the primary basis for the challenge is the “obvious potential for unexpected occurrences which would lead to releases that would violate the rules,” along with the “removal of a barrier that logic dictates should not be removed.” Tr. 37-44.

In response to the CCAM argument that the LAA is counter to the NRC purpose in the rule, as well as to CCAM's questioning of Dominion's motivation in seeking the license amendment, see Tr. 28-30, Dominion Counsel quoted from the Statement of Considerations for the rule, as follows:

The NRC concluded that some licensees may wish to use an alternative source term in analyses to support operational flexibility and cost beneficial licensing actions in that some of these application could provide concomitant improvements in overall safety and in reduced occupational exposure.

Tr. 47; 64 Fed. Reg. at 71,992.

With regard to CCAM's reference to NUREG 1465, Dominion Counsel pointed out that it is the basis for the source term reflected in Regulatory Guide 1.183 and also for that utilized in Dominion's application. Tr. 50. Regarding the questioned RAI response, Dominion Counsel explained that, applying the alternative source term, taking “no credit whatsoever in either the containment or the spent fuel area or spent fuel building for containment closure or for spent fuel area boundary closure,” and assuming “the entire source term of the design basis fuel handling event is released to the public,” the releases at both the low population zone boundary and the exclusion area boundary are “within NRC requirements.” Tr. 51. Dominion has nonetheless adopted additional administrative controls as an “added protection,” in order “to keep the doses even lower” and “in recognition that beyond design basis things are at least a hypothetical possibility,” according to counsel. Therefore, Counsel argued, the qualification on the administrative control is prudent in the sense of not needing the control when it would cause a worker “undue harm,” but Dominion has still, in response to the RAI, established criteria for

when the qualification would be implemented. Tr. 51-54. In addition, Counsel asserted, CCAM has not provided any specific basis for its allegation of “unexpected conditions.” *Id.* at 54.

Finally, among other arguments, see Tr. 54-61, Dominion called the alternative source term a “good example of [the] philosophy of realistic conservatism” that has been described by NRC Chairman Nils Diaz, which takes advantage of recent advances in technology; and noted that even under the current TSs, the containment personnel hatch can be open during fuel handling “to be closed within 10 minutes in the event of a fuel handling accident.” Tr. 58-60.

During oral argument Staff Counsel provided clarification of various points in dispute as well as regarding Staff action relating to the LAA, and responded to various arguments of CCAM relating to safety and dose issues. Tr. 93-143.

Dominion Additional Dose Calculations

After oral argument, at the request of the Board, Tr. 78-81, 160, Dominion submitted additional information, “comparing four cases of a postulated design basis fuel handling accident inside containment at Millstone Unit 2, utilizing an Alternative Source Term (AST),” and calculating offsite doses, for the Exclusion Area Boundary (EAB) and the Low Population Zone (LPZ). Eakin Aff. at 1, ¶ 3. (Mr. William Eakin is a “supervisor of radiological engineering employed by Dominion.” Tr. 6.) According to these calculations, using the AST in each and stating doses in terms of Total Effective Dose Equivalent (TEDE), the following results are reported: (1) assuming the current TSs (which allow the personnel hatch to be open under administrative control and closed at 10 minutes) and 150 hours of fuel decay prior to fuel movement (stated to be consistent with current and proposed TSs, both of which allow fuel movement only after 150 hours of decay), the dose at the EAB and LPZ would be 0.3483 and 0.04567 Rem, respectively; (2) assuming no credit for the administrative controls in the proposed TSs (with the entire FHA source term released over 2 hours), in accordance with the

guidance of Reg. Guide 1.183, and 150-hour fuel decay, the dose at the EAB and LPZ would be 0.7942 and 0.1042 Rem, respectively; (3) assuming the proposed TSs (with containment penetrations open under administrative control and closed at 30 minutes) and 150-hour fuel decay, the dose at the EAB and LPZ would be 0.6539 and 0.08576 Rem, respectively; (4) assuming no credit for the administrative controls in the proposed TSs (with the entire FHA source term released over two hours) and also assuming only 72-hour fuel decay for conservatism (as in the Application Analysis), the dose at the EAB and LPZ would be 1.132 and 0.1485 Rem, respectively. Dominion Nuclear Connecticut Supplemental Dose Calculations — Alternative Source Term Millstone Unit 2 (June 19, 2003), at 1. (The Application actually rounds the results in Case 4 and lists the respective doses as 1.2 and 0.15 Rem. *Id.* at 2, ¶ 5.)

It is also pointed out in the materials filed June 20 that the dose criterion provided in Reg. Guide 1.183 is 6.3 Rem for design basis fuel handling accidents, a “small fraction” of the 25 Rem TEDE dose limit prescribed at 10 C.F.R. § 50.67. *Id.* at 2, ¶ 8. Affiant Eakin suggests the most relevant comparison of what will be changed if the proposed TSs are implemented is that between cases (1) (current TSs) and (3) (proposed TSs), and that comparing cases (2) and (3) “shows the effect of adopting the proposed [TSs]/administrative controls as defense-in-depth to further mitigate postulated releases below the regulatory limit.” Eakin Aff. at 2, ¶ 4.

Board Ruling on Petitioner’s Contention

As indicated above, the rule governing revision of the source term and use of an alternative source term is 10 C.F.R. § 50.67. This section provides as follows:

§50.67 Accident source term.

(a) Applicability. The requirements of this section apply to all holders of operating licenses issued prior to January 10, 1997, and holders of renewed licenses under part 54 of this chapter whose initial operating license was issued prior to January 10, 1997, who seek to revise the current accident source term used in their design basis radiological analyses.

(b) Requirements. (1) A licensee who seeks to revise its current accident source term in design basis radiological consequence analyses shall apply for a license amendment under §50.90. The application shall contain an evaluation of the consequences of applicable design basis accidents¹ previously analyzed in the safety analysis report.

(2) The NRC may issue the amendment only if the applicant's analysis demonstrates with reasonable assurance that:

(i) An individual located at any point on the boundary of the exclusion area for any 2-hour period following the onset of the postulated fission product release, would not receive a radiation dose in excess of 0.25 Sv (25 rem)² total effective dose equivalent (TEDE).

(ii) An individual located at any point on the outer boundary of the low population zone, who is exposed to the radioactive cloud resulting from the postulated fission product release (during the entire period of its passage), would not receive a radiation dose in excess of 0.25 Sv (25 rem) total effective dose equivalent (TEDE).

(iii) Adequate radiation protection is provided to permit access to and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 0.05 Sv (5 rem) total effective dose equivalent (TEDE) for the duration of the accident.

[64 FR 72001, Dec. 23, 1999]

¹ The fission product release assumed for these calculations should be based upon a major accident, hypothesized for purposes of design analyses or postulated from considerations of possible accidental events, that would result in potential hazards not exceeded by those from any accident considered credible. Such accidents have generally been assumed to result in substantial meltdown of the core with subsequent release of appreciable quantities of fission products.

² The use of 0.25 Sv (25 rem) TEDE is not intended to imply that this value constitutes an acceptable limit for emergency doses to the public under accident conditions. Rather, this 0.25 Sv (25 rem) TEDE value has been stated in this section as a reference value, which can be used in the evaluation of proposed design basis changes with respect to potential reactor accidents of exceedingly low probability of occurrence and low risk of public exposure to radiation.

64 Fed. Reg. at 72,001-02.

We find that, although Petitioner CCAM raised a concern that was sufficient to demonstrate standing in this proceeding, *see generally* LBP-03-03, it has not presented any specific issue, supported by a basis stated with reasonable specificity, to show that a genuine

dispute exists with regard to whether the application at issue meets the requirements of 10 C.F.R. § 50.67(b)(2), or whether the proposed changes in technical specifications are appropriate in light of the requirements of either § 50.67 or the rule on technical specifications, 10 C.F.R. § 50.36. Nor, we find, has the Petitioner, under the contention requirements of 10 C.F.R. § 2.714, specifically or directly challenged or controverted any particular part of the application with regard to any legal or factual issue that would make a difference in the outcome of this proceeding, such that it could be entitled to any relief in the proceeding. Therefore, we must find CCAM's contention to be inadmissible.

We did, in LBP-03-03, state that if, after the proposed changes at issue are implemented, in fuel movement operations "containment penetrations are left open, as challenged by Petitioners, rather than having automatic and other closing functions operable or in effect, it would seem self-evident that in the event of an accident there is a greater likelihood of a release of radioactivity that might have an impact on a person who lives near the plant." LBP-03-03, 57 NRC at 61. We also stated that "if a fuel handling accident occurs during refueling, and the containment door is left open, common sense indicates that more radioactivity is going to escape the containment than if the doors were closed," and found that an event of a fuel handling accident involving spent fuel would "quite obviously entail an increased potential for offsite consequences." *Id.* at 61-62

However, although we found these circumstances sufficient to show standing, for which "even minor radiological exposures resulting from a proposed licensee activity can be enough to create the requisite injury in fact," *id.* at 62, the requirements for an admissible contention are, as indicated above, considerably more stringent. CCAM makes various allegations in its contention and basis therefor, including that the potential offsite consequences of a fuel handling accident under the new TSs could be "severe and indeed catastrophic," but offers little support for such statements other than reference to the application itself, LBP-03-03, and the

October 2000 Sandia report, which applies to severe accidents and not design basis accidents such as are at issue in the application. We do not find these to constitute sufficient support to admit the one contention put forth in this proceeding.

Although a contention may be supported by a fact-based argument, such an argument must provide sufficient information to show a genuine issue of law or fact, a requirement the Petitioner has not fulfilled in this proceeding with sufficient basis or specificity. Mere allegation that increases in offsite releases or increased probability of consequences of an accident will be “significant” is not enough to demonstrate such a genuine issue, especially when the Petitioner has not specifically or directly challenged whether the Applicant meets the requirements of § 50.67(b)(2) or § 50.36, or even stated with any specificity *how* any increases would occur. Again, although an “obvious potential for offsite consequences” may be sufficient to show standing, it is not in itself sufficient to support an admissible contention.

Nor has Petitioner CCAM, either explicitly or implicitly, raised any challenge to the specific dose calculations using the alternative source term that were provided either in the LAA or after oral argument in this proceeding. The dose calculations provided on June 20 by the Licensee show some increase in projected doses but also show values that are well below allowed public exposures. According to these calculations, any increases in doses are a very small fraction of the FHA dose of 6.3 Rem² and an even smaller fraction of the 25 Rem TEDE limit prescribed under 10 C.F.R. § 50.67(b)(2)(i), (ii). Petitioner alleges a lowering of safety as a result of increases, but does not provide a specific basis for establishing this, sufficient to demonstrate a genuine dispute on a material issue.

With regard to the details of the "administrative controls" that will be employed to isolate containment in the event of a fuel handling accident, although the Application did not specify

²See Regulatory Guide 1.183, Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors (July 2000), at 1.183-20, Table 6.

these, in its June 2 supplementary filing the Applicant provided greater detail on what radiation levels would require a person to go into the radiation field to close the personnel hatch and which conditions might cause this action to be suspended. By specifying what conditions would trigger the administrative controls and what time period would expire before the hatch would be closed, the Applicant has identified the critical issues. The changes at issue appear essentially to increase the time that containment could be open following an accident from 10 to 30 minutes, and in these circumstances we do not find that challenging a lack of a detailed description of such relatively simple activities as closing a personnel access to containment, such as is already being done under the current TSs, raises a genuine dispute on a material issue of law or fact.

Regarding CCAM's arguments relating to terrorism, the Commission has ruled that such issues are being addressed generically with regard to all plants and therefore are not appropriate subjects for individual proceedings. See *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002); *Duke Energy Corporation* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358 (2002); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-27, 56 NRC 367 (2002).

Whether or not, as the Application implicitly contemplates (even though the Applicant has not addressed these in any significant manner), the operational advantages to having free access to containment during fuel handling justifies the small calculated increases in public dose, CCAM has not challenged the increases or the operational changes in a sufficiently specific manner so as to raise a genuine dispute of material fact or law that could lead to any relief in this proceeding. Nor has Petitioner shown how or why any specific event beyond the applicable design basis accident should be considered in this proceeding. In light of this and

the preceding circumstances, we conclude that Petitioner CCAM has not submitted a contention that is admissible under relevant rules and law.

ORDER

Based upon the analysis set forth above, the Licensing Board hereby dismisses CCAM's Contention and terminates this proceeding.

This Order is subject to appeal in accordance with the provisions of 10 C.F.R. § 2.714a. Any petitions for review meeting applicable requirements set forth therein must be filed within 10 days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD³

/RA/

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

/RA/

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

/RA/

Dr. Thomas S. Elleman
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 18, 2003

³Copies of this Memorandum and Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
DOMINION NUCLEAR) Docket No. 50-336-OLA-2
CONNECTICUT, INC.)
)
)
(Millstone Power Station, Unit No. 2))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON PETITIONER'S SUPPLEMENTED PETITION AND CONTENTION) (LBP-03-12) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 50-336-OLA-2
LB MEMORANDUM AND ORDER (RULING ON
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Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 18th day of August 2003