

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

**In the Matter of
South Texas Project Nuclear Operating Co.
Application for the South Texas Project
Units 3 and 4
Combined Operating License Application**

Docket Nos. 52-012, 52-013

Petitioners' Response to Applicant's Motion to Strike Portions of Petitioners' Reply

The Petitioners present the following as their Response to the Applicant's Motion to Strike Portions of Petitioners' Reply.

Overview

The Petitioners' Reply does not impermissibly expand on the contentions as originally framed in their Petition. Generally, the additional information is a legitimate amplification of the points raised in the Petition. In other instances, the reply material is in direct and logical/legal response to issues raised in the Staff's and Applicant's Answers. Accordingly, the materials complained of by the Applicant in the subject motion should be determined to be either legitimate amplifications of the original contentions in the Petition or a logical/legal response to the Answers of the Staff and Applicant. Accordingly, the Motion to Strike should be denied.

Contention Two

The Applicant objects to the Petitioner's Reply related to Contention Two because it calls out the requirements of 10 C.F.R. 52.79(a)(6) related to fire protection at South Texas Units 3 and 4. The Petitioner concedes the point that in the Petition 10 C.F.R. 52.79(a)(6) was not specifically cited. However, Contention Two focuses on the adequacy of the Applicant's documentation related to fire protection under the new requirements of 10 C.F.R. 50.54(hh). Petitioners contend that the recently adopted requirements of 10 C.F.R. 50.54(hh) that include mitigative strategies and response procedures for loss of large areas of the plant due to fires and explosions are now a functional part of the licensing requirements specified at 10 C.F.R. 52.79(a)(6) related to fire protection. As such they would become a logical part of this adjudication. Further, the citation to 10 C.F.R. 52.79(a)(6) is a legitimate amplification of the contention because compliance with the licensing requirements is the overarching objective of the COLA adjudication pursuant to the AEA, 42 U.S.C. 2133(d). Accordingly, the citation to 10 C.F.R. 52.79(a)(6) does not materially change Contention Two because it is a logical extension and a legitimate amplification of the points raised in the contention. IN THE MATTER OF PPL SUSQUEHANNA, LLC (Susquehanna Steam Electric Station, Units 1 and 2) 65 N.R.C. 281, 301(2007).

Contention Three

The Applicant objects to the Petitioner's Reply related to Contention Three because it calls out the requirements of 10 C.F.R. 52.79(a)(3) as such would apply to the Applicant's projections of the kinds and quantities of radioactive materials expected to be generated at South Texas Units 3 and 4. The Petitioner concedes the point that in the Petition 10 C.F.R. 52.79(a)(3)

was not specifically cited. However, the Petition does raise the issue of the inadequacy of the Applicant's Environmental Report because it fails to project and analyze the consequences of managing high-level waste and spent nuclear fuel on-site on the premise that a federal geologic repository would not be available for this waste stream. (Petition, pp. 23-26) Therefore, the citation to 10 C.F.R. 52.79(a)(3) is a legitimate amplification of the issue raised in the Petition. *In the Matter of Nuclear Management Co., LLC (Palisades Nuclear Plant)* 63 N.R.C. 314, 328 (2006). To the extent the Commission requires the Applicant to fully consider the environmental and public health consequences of long-term/indefinite duration management of high-level waste and spent nuclear fuel on-site, it would logically follow that an analysis of the kinds and quantities of radioactive materials that would accumulate over time would be necessary in order to meet the specification requirements of 10 C.F.R. 52.79(a)(3).). Accordingly, the citation to 10 C.F.R. 52.79(a)(3) does not materially change Contention Two because it is a logical extension and a legitimate amplification of the points raised in the contention. IN THE MATTER OF PPL SUSQUEHANNA, LLC (Susquehanna Steam Electric Station, Units 1 and 2) 65 N.R.C. 281, 301(2007).

Contention Five

The focus of Petitioners' Contention Five is that the Applicant's Environmental Report is deficient because it fails to comprehensively analyze the consequences related to long-term management of spent fuel on site in spent fuel pools and dry cask storage. (Petition, pp.28-30) The Petitioners contend that the regulatory requirements under 10 C.F.R. 50.54(hh) related to projecting loss of large areas of a nuclear plant related to explosions/fires and mitigative measures related thereto should also be applied to dry cask storage units. A comprehensive

analysis of the environmental and public health consequences of long-term/indefinite duration of spent fuel on site in dry cask storage units would logically include postulated attacks by terrorists or others with a malicious motive. The Petitioners contend that it is inconsistent, logically and as a policy matter, to differentiate between maintaining the integrity of the spent fuel pool and maintaining the integrity of dry cask storage in the event of attacks on either. In the event that the Commission agrees that the Application requires an elaboration on the consequences of long term/indefinite duration of on-site management of spent fuel, it seems reasonable that such would include an analysis of the means by which to protect dry cask storage units from malicious attacks. This is particularly the case considering the “changing threat environment” premise of the new requirements specified at 10 C.F.R. 50.54(hh). 74 Fed. Reg. 13926, 13928 (March 29, 2009). Therefore, the citation to 10 C.F.R. 50.54(hh) is a logical and legal extension of the original arguments made in Contention Five. *In the Matter of Nuclear Management Co., LLC (Palisades Nuclear Plant)* 63 N.R.C. 314, 328 (2006).

The Applicant also objects to the Petitioners’ citation to 10 C.F.R. 52.79(a)(3) regarding specifications of the kinds and quantities of radioactive materials anticipated to be generated at South Texas Units 3 and 4. The Petitioner concedes the point that in the Petition 10 C.F.R. 52.79(a)(3) was not specifically cited. However, the Petition does raise the issue of the inadequacy of the Applicant's Environmental Report because it fails to project and analyze the consequences of managing high-level waste and spent nuclear fuel on-site on the premise that a federal geologic repository would not be available for this waste stream. (Petition, p.17) Therefore, the citation to 10 C.F.R. 52.79(a)(3) is a legitimate amplification of the issue raised in the Petition. *In the Matter of Nuclear Management Co., LLC (Palisades Nuclear Plant)* 63

N.R.C. 314, 328 (2006). To the extent the Commission requires the Applicant to fully consider the environmental and public health consequences of long-term/indefinite duration management of high-level waste and spent nuclear fuel on-site, it would logically follow that an analysis of the kinds and quantities of radioactive materials that would accumulate over time would be necessary in order to meet the specification requirements of 10 C.F.R. 52.79(a)(3).

Contention Eight

The premise of Contention Eight is that the Main Cooling Reservoir (MCR) is a radiological problem that is acknowledged by the Applicant but then ignored by the Environmental Report. The Petitioners contend that the admission by the Applicant that it discharges radioactive particulate into MCR requires further information related to the kinds and quantities of the discharged radioactive particulate. This is not inconsistent with Contention Eight as it was framed in the Petition. (Petition, pp. 32-35) Citation to 10 C.F.R. 52.79(a)(3) in the Reply is to demonstrate that the specification called for in Contention Eight would necessarily require identification and quantification of radioactive materials discharged into MCR. Additionally, this is consistent with the Petitioner's contention that in the event MCR becomes a dry lakebed and allows airborne transport of the radioactive particulates there should be disclosures as to the kinds and quantities that would be involved. Accordingly, the citation to 10 C.F.R. 52.79(a)(3) does not materially change Contention Eight because it is a legitimate amplification of the points raised in the contention. IN THE MATTER OF PPL SUSQUEHANNA, LLC (Susquehanna Steam Electric Station, Units 1 and 2) 65 N.R.C. 281, 301.

The Applicant further objects to the Petitioners' references to the a) American Society of Civil Engineers statement of the obvious that man-made structures deteriorate, b) well-publicized failures of coal slurry retention structures, c) uranium tailing dam failure in Church Rock, New Mexico, d) infrequency of dam inspections in Texas, and e) impact of drought on operations of nuclear plants. The reference to the American Society of Civil Engineers regarding dams is related to the Petitioners' argument that there is no legal or logical necessity for expert witness testimony to establish that dams and like structures fail. 69 Fed. Reg. 2182, 2203 (Jan. 14, 2004) Additionally, the reference to the American Society of Civil Engineers amplifies the contention; it does not materially expand its scope. 65 N.R.C. at 301.

Likewise, the reference to information related to the failures of similar structures used to impound coal slurry liquids and uranium tailing liquids is to illustrate that man-made structures have limited useful life durations. In this regard, the Petitioners' citation to the American Society of Civil Engineers and reference to other structures like the MCR dam that have failed in the past is a logical response to the Answers both of the Applicant and Staff that effectively asked the Commission to ignore the common knowledge that man-made retention structures have a limited useful life.

The reference to dam inspections in Texas is further amplification of the premise that these structures do not last indefinitely and to extend their useful lives, inspections and maintenance are required. This information amplifies the contention. Additionally, a logical response to an answer is permissible in the context of a reply. 69 Fed. Reg. 2182, 2203 (Jan. 14, 2004)

The Applicant objects to the citation to the information related to nuclear plants being vulnerable during times of protracted drought because of diminished water flows and an article from *Science* published in 2007 that projects possible permanent drought by the year 2050 in southwest portions of the United States. Citation to these references is a logical extension and legitimate amplification of the issues raised by the Petitioners in Contention Eight because the contention focuses on water quality and quantity. The availability of water for nuclear plants is a central issue in the Applicant's Environmental Report. See eg. Environmental Report Sections 2.3.2., Water Use; 5.2.1, Water Use Impacts. Given the crucial relationship between water availability and plant operations assumptions made by the Applicant in the Environmental Report about these matters is therefore subject to this adjudication. The materials offered in support of the Petitioners' Reply related to scientific studies about projections of climate change in the geographic area that includes South Texas Units Three and Four are legitimate amplifications of the issues raised in Contention Eight that address availability of water for plant operations. 63 N.R.C. 314, 328.

Contention Seventeen

The Applicant objects to the citation to Dr. Makhijani's analysis of the LADTAP II in the Petitioner's Reply. However, a fair reading of Dr. Makhijani's analysis reflects specific and logical responses to criticisms that were raised by the Applicant in the Answers; but it does not raise any new contention and only legitimately amplifies on his original report attached to the Petition for Intervention. In that regard, Dr. Makhijani's LADTAP II attachment to the Petition is not materially different from his attachment in the Petitioner's Reply.

For example, Dr. Makhijani is taken to task because he focuses on radiation doses related to saltwater invertebrates and commercial fish. Dr. Makhijani responds directly to this criticism by pointing out that accurately determining the exposure to members of the public should be the primary consideration related to radiation doses rather than whether the particular exposure comes from a saltwater invertebrate, commercial fishing operation or recreational fishing. This is a legitimate elaboration of the conclusions stated in his original attachment to the Petition. IN THE MATTER OF PPL SUSQUEHANNA, LLC (Susquehanna Steam Electric Station, Units 1 and 2) 65 N.R.C. 281, 301.

The staff is also critical of the lack of literature support in Dr Makhijani's attachment to the Petition. However, as pointed out by Dr. Makhijani, the documentation he relies on originates with the NRC. Accordingly, to the extent his literature support is from the NRC, Petitioners maintain it should be administratively noticed pursuant to 10 C.F.R. 2.337(f).

Conclusion

Petitioners respectfully request that the Applicant's Motion to Strike be denied on the grounds that the support materials in the Petitioners' Reply legitimately amplify their contentions or the Reply constitutes logical and/or legal responses to the subject Answers.

Respectfully submitted,

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