NRC Publishes Volume 4 of Yucca Mountain Safety Evaluation Report

The Nuclear Regulatory Commission staff has published Volume 4 of its safety evaluation report on the proposed underground geologic nuclear waste repository at Yucca Mountain in Nevada.

Volume 4 covers administrative and programmatic requirements for the repository. It documents the staff’s evaluation of whether the Department of Energy’s research and development and performance confirmation programs, as well as other administrative controls and systems, meet applicable NRC requirements. It contains the staff’s finding that most administrative and programmatic requirements in NRC regulations are met, except for certain requirements relating to ownership of land and water rights. Specifically, DOE has not acquired ownership or jurisdiction over the land where the geologic repository operations area would be located, and the land is not free of significant encumbrances such as mining rights, deeds, rights-of-way or other legal rights. DOE also has not acquired water rights it determined are needed to accomplish the purpose of the geologic repository operations area.

DOE submitted its Yucca Mountain application in June 2008. The NRC staff published Volume 1 (General Information) of the safety evaluation report in August 2010. After DOE moved to withdraw the application and Congress stopped appropriating funds for the NRC’s review, the agency closed out its application review and published three technical evaluation reports containing the staff’s technical analyses to that point but no regulatory conclusions. The adjudication of nearly 300 contentions filed by various parties contesting the application was also suspended in September 2011.

The U.S. Court of Appeals for the District of Columbia Circuit ordered the NRC in August 2013 to resume the licensing process using currently available funding appropriated from the Nuclear Waste Fund. The NRC subsequently published Volume 3 (Repository Safety After Permanent Closure) on Oct. 16. The staff expects to publish volumes 2 (Repository Safety Before Permanent Closure) and 5 (License Specifications) by the end of January, as they are completed.

Publication of the various volumes does not signal whether the NRC might authorize construction of the repository. A final licensing decision, should funds beyond those currently available be appropriated, could come only after completion of the safety evaluation report, a supplement to the Department of Energy’s environmental impact statement, hearings on contentions in the adjudication, and Commission review.