

April 18, 2005

ORGANIZATION: Duke Energy Corporation

SUBJECT: SUMMARY OF MARCH 14, 2005, MEETING WITH DUKE ENERGY CORPORATION TO DISCUSS PLANNING RELATED TO A POSSIBLE COMBINED LICENSE APPLICATION

On March 14, 2005, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting with Duke Energy Corporation (Duke) at NRC headquarters in Rockville, MD. The purpose of the meeting was to discuss planning currently being undertaken by Duke Energy Corporation (Duke) for the possible development of a combined license (COL) application. Duke identified four possible COL application scenarios: certified design with a greenfield site, certified design with a previously characterized site, certified design with an existing site, and noncertified design with a greenfield site (see page 2 for a complete discussion). Duke is considering three reactor technologies: the General Electric ESBWR, the Framatome ANP EPR, and the Westinghouse AP1000. Duke said they will decide whether to proceed with the project in May 2005 and if they do, will select the site and reactor technology by the end of 2005. Duke said they will actively engage the NRC in pre-application discussions in advance of a COL application in early 2008 if they proceed with the project.

The NRC staff presented nominal review schedules and resource estimates based, in part, on SECY-01-0188, "Future Licensing and Inspection Readiness Assessment." In addition, the staff discussed other COL application topics, including pre-application interactions, inspections to support the COL application review, the antitrust review, and NEI 04-01, "Draft Industry Guideline for Combined License Applicants Under 10 CFR Part 52."

The meeting attendees are listed in Attachment 1 and the meeting agenda is in Attachment 2. Two handouts were distributed during this meeting. They are listed at the end of this memorandum with their accession numbers and can be accessed through the Agencywide Documents Access and Management System (ADAMS) by accession number. This system provides text and image files of NRC's public documents. If you do not have access to ADAMS or if you have problems in accessing the handouts in ADAMS, call the NRC Public Document Room (PDR) reference staff at 1-800-397-4209 or 301-415-4737 or e-mail pdr@nrc.gov.

SUMMARY OF DUKE AND NRC PRESENTATIONS

Duke made a presentation to the NRC concerning their planning related to a possible COL application. Duke's goal for this meeting was to lay out their plans, have a discussion on their meeting topics, and understand NRC's planning and resources for reviewing a COL application. In addition, Duke was interested in discussing possible ways to accelerate the review schedule. Duke requested that the NRC not focus on the terminology of their licensing scenarios (e.g., base case) as the scenarios were solely for planning purposes and did not reflect a preference for one scenario over another. Duke's slides are provided in Attachment 3 to this meeting summary.

Duke provided an overview of their plans to add a new nuclear power plant into service in the next decade. Enercon Services is currently under contract from Duke to perform a study for new nuclear power. A proposal will be finalized in May 2005. The plan is to select the reactor technology and site by the end of 2005 and submit a COL application in early 2008. These dates could shift depending on several factors. Duke said that their efforts do not supplant their involvement in the NUSTART consortium. In addition, Duke said that they are involved with the development of NEI 04-01.

Planning Scenarios

Duke said their planning scenarios were for cost estimates only and include the siting review as part of their COL application. Duke said that their planning scenarios used the AP1000 as the base case design because the NRC staff issued a final design approval on September 13, 2004. Duke and the NRC discussed the four COL application scenarios outlined in the Duke handout. The NRC said that the resource and schedule information previously published in SECY-01-0188 did not match up with the four scenarios specified by Duke (see Attachment 4). However, the NRC said that the information should be helpful to Duke. In addition, the NRC noted that the cost information did not include the cost of inspection.

The four scenarios are discussed below.

Certified Design With a Greenfield Site

The NRC said that the site review would be the critical path in this scenario and identified the seismic review and emergency planning issues as potential critical path items. The NRC said that the current early site permit reviews, which are all being performed on existing sites, should be completed in 33 months, including the hearing at the end of the process.

Certified Design With a Previously Characterized Site

The NRC said that it did not see a significant difference between this scenario and the previous scenario. The NRC said the reviews performed several years ago will be of little benefit to the staff; also, no regulatory conclusions (or bases) were documented for these sites. The application would need to provide up-to-date site information for the environmental impact statement and safety evaluation report.

Certified Design With an Existing Site

The NRC said that this scenario is similar to current ESP reviews. The NRC said that the review schedule would depend on the site chosen because some of the seismic reviews for the ESPs currently under NRC review have been challenging.

Noncertified Design With a Greenfield Site

The NRC said that the design and site reviews are expected to proceed in parallel. However, if a COL application comes in during a design certification review, many issues would have to be addressed that would not be a concern if the COL referenced a certified design. If the COL

application referenced a custom design, this might actually save resources on the technical review (e.g., no COL action items) but bring up legal issues regarding the scope of hearings.

NEI 04-01

Duke said that they were participants in the Nuclear Energy Institute (NEI) task force developing NEI 04-01. Duke said that to support their COL application studies, they needed the information from the outcome of NEI 04-01 sooner than the timetable laid out by NEI. Enercon is using NEI 04-01 as a basis for their cost estimates. The NRC said that its discussions with NEI on NEI 04-01 were generic in nature and that if Duke wanted to have discussions directly with the NRC on NEI 04-01, these would be more appropriate to be performed in pre-application.

Schedule Optimization

With regard to schedule optimization, the NRC said that the COL applicant controls the schedule, and therefore the cost. The applicants can control costs by submitting a high quality application, being responsive to NRC inquiries, completing the application process once initiated, maintaining good configuration management, and raising any policy issues that need to go before the Commission early in the COL application process.

Pre-application Interactions and Issues

Duke asked the NRC to comment on the appropriate level of interaction during pre-application. Duke said they would like to have frequent interactions, which would include monthly meetings and action items generated from those meetings. The NRC said that Duke should lead discussions on generic work and advised that interactions should be kept at the program director level.

Duke said that they wanted to resolve the amount of meteorological data needed for the site review. Duke proposed to provide 1 full year of data with the application and an additional year of data 1 year after the application was submitted. The NRC said it was not prepared to comment on Duke's proposal at this time.

Duke said that they wanted to submit certain topics early for NRC review. These included the security plan, emergency planning, and technical specifications. With regard to the technical specifications, Duke asked the NRC to comment on a proposal for several utilities to submit a set of technical specifications for NRC approval in a safety evaluation report. The NRC said that in general, it is inefficient to try to review portions of an application separate from the whole application.

The NRC said that some topics could be reviewed in advance, such as certain analytical codes. The NRC encouraged COL applicants to submit their quality assurance program as soon as it was ready for review. However, the NRC said that it would not conduct a review in the pre-application phase if significant aspects of an application have the potential to interact with other information that will be submitted with the COL application. The NRC said that public interaction in the review of the application is important. The NRC further said that the pre-application activities should focus on closing the gaps between the design and the site and

that configuration control was important in this phase to be sure that issues which were resolved during the pre-application were sufficiently captured in the COL application; otherwise a re-review of the information may be unavoidable. The NRC said it would need a couple of months lead time to schedule site review activities. The NRC will conduct a meeting at the site 6-12 months before the COL application is submitted.

Duke said that it appreciated the NRC's comments in this area and may have more specific remarks at a future date.

Engineering Design Verification

The NRC said that information on engineering design verification could be found in NUREG-1789, "10 CFR Part 52 Construction Inspection Program Framework Document." The manual chapter on pre-COL activities (IMC-2502) covers the period from the time a COL applicant notifies the NRC of its intent to construct a plant until the time the COL is issued. The NRC said that the regulations do not require a COL applicant to provide information to the NRC concerning the fabrication of long-lead-time components (e.g., the reactor vessel). However, this information is helpful to the NRC, especially if components are fabricated in a foreign country. The issuance of IMC-2502 is targeted for July 2005. First-of-a-kind engineering inspections are also discussed in this manual chapter. The NRC also said that if a COL applicant referenced a noncertified design, inspections would target all aspects of the design review.

The NRC said the NRC regional offices would be involved in these inspections. The NRC said it was important to share schedules so that NRC inspection activities could be coordinated with the applicant. This will be particularly important for inspections associated with the resolution of inspections, tests, analyses, and acceptance criteria (ITAAC).

Antitrust Review

The NRC provided some general information on the antitrust review. This review will be done in parallel with the design and site reviews. The NRC said that it had had no discussions with the U.S. Department of Justice on COL activities.

Closing Remarks

Duke said that it appreciated the insights provided by the NRC during the meeting. A decision will be made in the May 2005 timeframe on whether to proceed with a COL application. Duke was planning to request a subsequent meeting with the NRC to discuss the next steps. The NRC said it appreciated Duke's questions and the information about Duke's plans. The NRC reemphasized the provisional nature of the cost and schedule estimates. The actual review times would depend on a number of factors both within and outside of the control of Duke.

PUBLIC COMMENTS

A member of the public said that the scenario of a noncertified design on a greenfield site appeared similar to the way plants were licensed in the past. This individual questioned why a COL applicant would use the Part 52 licensing process for a noncertified design on a greenfield

site if using the Part 50 licensing process would be faster. The NRC said that a Part 50 construction permit did not give final approval of design issues and the Part 52 process represents less risk to the company building the nuclear plant.

A member of the public voiced support for new nuclear construction and asked how soon a new plant can begin to produce electricity. The NRC said that, as was stated in the NRC regulatory information conference the previous week, the best-case estimate for new plant generation is 7 to 8 years from this date.

/RA/

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Attachments: 1. List of attendees
2. Agenda
3. Duke Energy Corporation March 14, 2005, Meeting Handout - Planning Related to Possible COL Application (ML050740004)
4. NRC March 14, 2005, Meeting Handout - Planning Meeting With Duke Energy for Possible Combined License Application (ML050740005)

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NRC Meeting with Duke Energy
Planning Meeting For Possible Combined License (COL) Application
Monday, March 14, 2005
1:30 p.m. to 4:30 p.m.
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