

*The Nuclear Regulatory Commission's Combined
Operating License Application Review Process*
Joseph Hoch - Physical Scientist/Meteorologist (NRC)

Pursuant to Title 10 of the Code of Federal Regulations Part 52 (10 CFR 52), a combined operating license (COL), when issued, is authorization from the Nuclear Regulatory Commission (NRC) to construct and, with conditions, operate a nuclear power plant at a specific site in accordance with the applicable laws and regulations. The NRC's COL application review process consists of an acceptance review, a safety review, an environmental review, a mandatory hearing, and a Commission licensing decision. All stakeholders, most importantly the public, will be given notice as to how and when they may participate in the regulatory process, including opportunities to request a hearing on issuance of the license. This presentation provides a summary of the NRC review process for COL applications.

Once a COL application is submitted to the NRC, the acceptance review is a 60 day process to determine whether the application is complete and technically sufficient for docketing (i.e., acceptable pursuant to 10 CFR Part 2). NRC Regulatory Guides (RG) 1.206 and 4.2 describe an acceptable form and content for the safety information (i.e., Safety Analysis Report (SAR)) and the environmental information (i.e., Environmental Report (ER)) presented in the COL application, respectively. If docketed, the NRC staff will complete a safety and environmental review of the COL in accordance with the Atomic Energy Act (AEA), NRC regulations, and the National Environmental Policy Act (NEPA).

The safety review is a six phase process and the environmental review process is a four phase process. Site-specific meteorology must be considered for both the safety and environmental review portions of any COL application. The scope of the safety review for meteorology focuses on evaluating the site meteorology to ensure that a nuclear power plant can be designed, constructed, and operated while ensuring adequate protection of public health and safety and protecting the environment. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Sections 2.3.1 through 2.3.5, "Regional Climatology," "Local Climatology," "Onsite Meteorological Measurements Programs," "Short-term Dispersion Estimates for Accident Releases," and "Long-term Atmospheric Dispersion Estimates for Routine Releases," provide an overview of the meteorology-related topics reviewed by the NRC staff as part of the safety review. The scope of the environmental review for meteorology focuses on evaluating the potential impacts on the environment from construction and operation of a nuclear power plant. NUREG-1555, "U.S. NRC Environmental Standard Review Plan," Section 2.7, "Meteorology and Air Quality," Section 5.3.3.1, "Heat Dissipation to the Atmosphere," and Section 6.4, "Meteorological Monitoring," provide an overview of the meteorology-related topics reviewed by the NRC staff as part of the environmental review.

After the safety and environmental reviews are completed, the NRC holds a mandatory hearing regarding the potential issuance of a COL. Administrative judges from the NRC's Atomic Safety and Licensing Board Panel (ASLBP) generally conduct these hearings. The judges have no stake in the outcome of a proceeding to ensure objective decisions are tendered based on the record. Finally, the Commission has the ultimate authority to reject or issue a COL.

This presentation provides an overview of the NRC's COL application review process from the initial application submittal to the final Commission licensing decision. The majority of the presentation focuses on the six phases of the safety review process, including the NRC staff's review responsibilities and how the safety evaluation report (SER), requests for additional information (RAIs), and open items (OIs) are developed.