NRC Issues Confirmatory Order to National Institute of Standards and Technology for Fuel Damage Event at Reactor

The Nuclear Regulatory Commission has issued a Confirmatory Order to the National Institute of Standards and Technology for violating NRC requirements during a February 2021 event at the NIST research reactor in Gaithersburg, Maryland. The event resulted in damage to a reactor fuel element without affecting public health and safety.

NRC staff concluded there were seven violations, including five violations related to exceeding the fuel cladding temperature safety limit and damaging a fuel element. Other violations were related to emergency planning and equipment modification.

The NRC followed normal practice in offering NIST a mediated settlement through the agency’s alternative dispute resolution process. The Confirmatory Order enforces the results of that mediated settlement. NIST committed to several actions, including enhancing its training for fuel handling procedures and related management activities; enhancing its safety culture program; enhancing reactor facility operations staff and management; enhancing its corrective action program and operational procedures; and enhancing the reactor facility’s emergency response resources and procedures. Through the mediation process, the NRC agreed to eliminate a financial civil penalty for the violations.

Since the event resulted in violation of the fuel cladding temperature safety limit, the NRC must formally approve a restart of the reactor, which NIST has requested. The NRC will consider authorizing restart only when the agency has completed reviewing the restart request and has determined that sufficient corrective actions have been implemented to ensure that the facility will be operated safely by the licensee. The NRC will hold a public meeting later this month to discuss restart-related activities, including the agency’s plans to inspect NIST’s corrective actions. Increased NRC oversight of the NIST facility will continue when a restart has been authorized.