

United States Nuclear Regulatory Commission
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**NRC ISSUES NOTICE TO FUEL FACILITIES TO ENSURE CONTROLS EXIST
TO PREVENT CRITICALITY ACCIDENTS**

The Nuclear Regulatory Commission has issued a notice to its fuel facility licensees, reminding them of controls they must have in place to avoid a nuclear criticality accident similar to that which occurred at the Tokaimura plant in Japan on September 30.

The NRC has a robust regulatory program at its fuel facilities, which includes ongoing inspection and licensing activities with highly trained and experienced professional staff. The agency believes that the accident in Japan reinforces the need for such stringent requirements, and provides an opportunity for an in-depth safety review of the plants in this country.

In the notice, licensees are encouraged to review their programs to assure that:

- Controls are in place to avoid the possible commingling of high- and low- enriched uranium;
- Operators have received proper training and retraining with regard to criticality safety rules and postings;
- Operations are conducted in strict accordance with approved procedures;
- New processes and restart of processes that have been shut down for an extended period are covered by current safety assessments;
- Emergency planning has been conducted, and both on- and offsite personnel are familiar with criticality safety aspects of the facility;
- Management provides appropriate oversight of high risk operations, to ensure plant safety programs are effectively implemented.

Preliminary indications are that the accident in Japan was caused when operators placed too much uranium into a vessel that was not specifically designed to prevent a criticality (chain reaction). This resulted in the exposure of three operators to extremely high levels of radiation, contamination of certain areas of the plant and the environment, and exposure to radiation of emergency workers and some members of the public.

Japan has begun an investigation into the accident, and NRC will formally review the results to determine whether safety findings there are applicable to fuel cycle plants in the United States.

The NRC also plans to review the results of an industry-led initiative to assess U.S. criticality programs.

The notice does not require any action or response; however, the NRC expects that the owners of each fuel facility will review the notice to ensure that the proper procedures and requirements necessary to maintain safety at their plants are being implemented.

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