

HCVS Guidance Inquiry Form

A. TOPIC: Plant Response During a Severe Accident

Inq. No.: HCVS-FAQ-11

Source document: NEI 13-02 Revision 1

Section: 4.2.5.1.5, 4.2.5.2.3

B. DESCRIPTION:

EA-13-109 and NEI 13-02 require the capability to protect containment from the effects of an Extended Loss of AC Power leading to a severe accident with breach of the Reactor Pressure Vessel. This includes the Phase 1 Severe Accident Capable Wetwell Vent and the Phase 2 use of a Severe Accident Drywell Vent with or without Severe Accident Water Addition. The effects of the SA on other plant emergency response measures are not required by EA-13-109 or NEI 13-02.

C. PROPOSED ANSWER: (Include additional pages if necessary. Total pages: 1)

A severe accident may include the release of radioactive material to the wetwell atmosphere, the wetwell water, and to the drywell. In addition, containment venting that may be required will release radioactive materials to the environment. EA-13-109, paragraph 1.1.3 and NEI 13-02 section 4.2.5.1.5 require that the design must include consideration of the vent's dose rate and its effect on plant emergency response actions. Such guidance requires, for example, that the routing of the vent pipe be evaluated for its effect on emergency response actions. Also required is that the vent is designed to minimize the potential for hydrogen gas migration and ingress into the reactor building or other buildings. The scope of the Order and guidance do not, however, expand to other aspects of severe accident management.

Neither EA-13-109 nor NEI 13-02 require that the effects of the severe accident be reevaluated or specifically addressed for actions not associated with HCVS operation. Since the accident progress cannot be known ahead of time, the Emergency Response Organization will direct actions accounting for the dose rates and temperatures seen at the time. Prior knowledge of the potential dose rates emanating from the vent pipe will aid ERO decision-making, but prediction of dose rates throughout the facility from a severe accident is not required.

D. RESOLUTION: (Include additional pages if necessary. Total pages: 1)

Licensees are not required to address the effects of a severe accident on actions and equipment not related to containment protection per EA-13-109. The effects of EA-13-109 containment venting during a SA, however, must be considered.

Applies to both Phase 1 and Phase 2.

Revision: 0

Date: 09-18-2015