

EVALUATION OF RESPONSE TO LONG TERM ITEMS
11, 12, AND 20 IN RESTART SER (NUREG-0916)
STEAM GENERATOR TUBE RUPTURE (SGTR) EVENT

SER ITEM 11:

Within six months, provide procedures for cooldown following a steam generator tube rupture.

LICENSEE RESPONSE:

The procedures for cooldown following a steam generator tube rupture have been prepared based on Westinghouse Owners Group guidance and have been implemented.

NRC EVALUATION:

The staff agrees with the licensee's decision to implement procedures for cooldown based on the Westinghouse Owners Group (WOG) guidance. In a letter, dated June 3, 1983, from Darrell G. Eisenhut to all operating reactor licensees owning Westinghouse PWR reactors, he indicated that the NRC concluded that the technical guidelines developed by the WOG were acceptable for implementation. These guidelines include guidance for cooling down following a steam generator tube rupture. Thus, RGandE's response, i.e., to implement the guidance contained in the WOG Guidelines, is acceptable for covering cooldown following a steam generator tube rupture.

SER ITEM 12:

Within six months, provide procedures to cover a steam generator tube rupture with a failed open steam generator safety valve.

LICENSEE RESPONSE:

The steam generator tube rupture procedure has been broadened to include various size steam breaks, including a break equivalent to a failed open safety valve, coincident with a steam generator tube rupture on the same steam generator. This procedure has been implemented.

NRC EVALUATION:

In a discussion with licensee representatives on July 15, 1983, the staff was advised that procedures covering a steam generator tube rupture with a failed open steam generator safety valve were broadened as indicated in the licensee response above and were made to be in accord with guidance in the WOG technical guidelines. Because these guidelines cover contingencies for various sizes of steam breaks simultaneous with a SGTR, and because the guidelines developed by WOG have been found acceptable by the staff for implementation, the staff finds the licensee's response acceptable.

SER ITEM 20:

Within six months, determine the criteria which should be provided in the steam generator tube rupture procedures for deciding when to discontinue the use of the main condenser in favor of the atmospheric steam dump.

LICENSEE RESPONSE:

It has been determined that steam dump to condenser should be utilized whenever possible during a steam generator tube rupture. The determination was based on minimizing releases and the best method to monitor releases. When steam is dumped to the condenser many contaminants remain in the condensate system and less contaminants are released through the air ejector than would be released through steam dump to atmosphere. It is also more straight forward to monitor releases through the air ejector than through the atmospheric steam dump. Therefore, the current tube rupture procedure E-1.4 directs operators to use steam dump to condenser as long as necessary permissives are met.

NRC EVALUATION:

The staff agrees that steam dump to condenser should be used for RCS cooling whenever possible following a SGTR because it minimizes radioactive releases to the environment and allows more accurate quantification of those releases. In addition, the staff recognizes that the condenser may not always be available for use during a SGTR event (e.g., if offsite power is unavailable). In such circumstances, steam dump to atmosphere is the alternate method for cooling the RCS and removing decay heat. We, therefore, find the licensee's response acceptable.