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Fédération de plus de 930 associations et 60 000 personnes, agrée pour la protection de l'environnement

3 juillet 2018

Etats-Unis : Callaway : découverte d'une situation non envisagée qui dégrade la sécurité du réacteur

L'examen de procédures d'exploitation d'urgence a montré l'existence d'un risque important de perte de réserve d'eau de dissipation de chaleur ultime du cœur qui constitue une dégradation majeure de la sûreté. C'est par la voie de recirculation du mini-circuit du système d'alimentation auxiliaire que surviendrait le problème. L'alimentation en eau normale du réservoir de stockage des condensats n'est pas un composant classé de sécurité : pourtant il sert à l'alimentation essentielle du système de sécurité en eau précité.

Des directives provisoires ont été fournies aux opérateurs afin qu'ils s'assurent que le niveau de l'eau d'évacuation de chaleur ultime soit suffisant pour atténuer la perte potentielle de l'inventaire en eau.

Type PWR - Puissance : 3 565 MWTh - Première divergence : 10/1984 -

Available in english only

Event Number : 53485

Facility : CALLAWAY - State : MO

Unit : [1] - RX Type : [1] W-4-LP

Event Date : 07/03/2018 - Event Time : 00:00 [CDT]

Emergency Class : NON EMERGENCY 10 CFR Section : 50.72(b)(3)(ii)(B) - UNANALYZED CONDITION

Initial PWR : 100 % Current PWR : 100 %

Event Text

DISCOVERY OF AN UNANALYZED CONDITION THAT SIGNIFICANTLY DEGRADES PLANT SAFETY

"On July 3, 2018, while performing a review of Emergency Operating Procedures, a concern was identified regarding the potential for excessive loss of ultimate heat sink inventory (UHS) through the auxiliary feedwater (AFW) system mini-flow recirculation pathway. This condition would have the potential to prevent the ultimate heat sink from providing an adequate inventory of water for a 30-day mission time.

"The normal water supply for the Callaway AFW system is the condensate storage tank (CST). The CST is a non-safety grade component. The safety-grade supply for AFW is the essential service water (ESW) system. The ESW system is supplied by the UHS. The UHS thermal performance analysis accounts for a loss of UHS inventory to the AFW system up until the point of the accident sequence that the AFW pumps would be secured. The analysis did not include an allowance for loss of UHS inventory through the AFW mini-flow recirculation pathway following the AFW pumps being secured. The EOP guidance that secures the AFW pumps does not isolate the mini-flow recirculation pathway.

"Initial estimates indicate that loss of UHS inventory through the mini-flow recirculation pathway, if not isolated, would preclude the UHS from completing its 30-day mission time. This potential for depletion of the UHS placed the plant in an unanalyzed condition that significantly degraded safety.

"Callaway has issued interim guidance to the on-shift personnel regarding this concern to ensure that the ultimate heat sink water level is maintained at a level that will be adequate to mitigate the potential loss of inventory.

"This condition is reportable per 10 CFR 50.72(b)(3)(ii)(B) for an unanalyzed condition that significantly degrades safety.

"The NRC Resident Inspectors have been notified of this condition."

https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2018/20180704en.html