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Réseau Sortir du nucléaire > Informez vous > Des accidents nucléaires partout > **Etats-Unis : Braidwood : Refus d'ouverture de vannes dans certaines conditions (Bloc PORV)**

20 août 2015

## **Etats-Unis : Braidwood : Refus d'ouverture de vannes dans certaines conditions (Bloc PORV)**

**Les deux réacteurs sont concernés par ce défaut de conception qui aurait bloqué le circuit de commande de ces vannes. La centrale de deux réacteurs cumule 54 ans de fonctionnement avec ce problème ! C'est un feu survenant dans la salle principale de contrôle du réacteur qui bloquerait cette fonction. Le câble ou le moteur de commande des vannes pourraient également empêcher cette action suite à la survenue d'un incendie et d'une rupture de fait des fusibles. Ces vannes assurant l'interface entre haute et basse pression, elles doivent bénéficier de câbles spécifiques. Même après ouverture des fusibles, les vannes seraient susceptibles de s'ouvrir de façon intempestive. Des détecteurs de surpression et des câbles spécifiques ont été mis en place.**

Type : PWR - Puissance : 3 586 MWth - Première divergence n° 1 : 05/1987 ; n° 2 : 03/1988

**Available in english only.**

Event Number : 51334

Facility : BRAIDWOOD

Region : 3 State : IL

Unit : [1] [2] - RX Type : [1] W-4-LP,[2] W-4-LP

Event Date : 08/20/2015 - Event Time : 17:10

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

Initial PWR Current PWR

1 N Y 100 % 100 %

2 N Y 100 % 100 %

Event Text

## **CONDITION THAT COULD PREVENT PRESSURIZER PORV BLOCK VALVES FROM OPERATING**

"On 8/20/2015 at 1710 CDT, a design flaw was discovered with the pressurizer power operated relief valve (PZR PORV) block valve control circuitry. Specifically, the circuit deficiency for which a design basis fire in the Main Control Room (MCR) or cable spreading room could prevent the PZR PORV block valves from being closed from the local control switch at their associated motor control center (MCC). Engineering has reviewed this issue and determined that a potential fire induced ground in the MCR or cable spreading room could clear the associated control power fuses which would prevent the block valves from operating at the local control switch.

"These valves are considered to form a High/Low pressure interface which requires postulating a proper polarity DC cable to cable fault. Engineering has reviewed the circuit design and cable routing associated with PORVs 1(2)RY455A and 1(2)RY456 and determined that their associated cables are routed with other DC circuit cables in the MCR control board and cable spreading room raceways, such that this postulated fault could potentially cause spurious opening of one of the PORVs even after the control power fuses have been removed as directed by the station abnormal operating procedures for control room inaccessibility.

"This identified block valve circuit deficiency prevents the credited safe shutdown action of locally closing the block valves to mitigate the spurious operation of a PORV.

"Hourly fire watches of the affected MCR and cable spreading room fire zones have been implemented. In addition, the MCR is continuously staffed and the affected cable spreading room fire zones are equipped with detection and automatic suppression.

"This event is being reported under 10CFR50.72(b)(3)(ii)(B) for 'Any event or condition that results in the nuclear power plant being in an unanalyzed condition that significantly degrades plant safety.'

"The licensee has notified the NRC Resident Inspector."

N° : 51 334 -

<https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2015/20150821en.html#en51334>