

Date 2007-11-28  
File / dossier : 6.02.04

## **Supplementary Information**

### **Significant Development Report No. 2007-5**

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This document summarizes significant developments for the period of November 21, 2007 to November 28, 2007.

Commission Meeting

**December 5 and 6, 2007**

## **Renseignements supplémentaires**

### **Rapport des faits saillants N° 2007-5**

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Ce rapport résume les faits saillants qui ont marqué la période du 21 novembre 2007 au 28 novembre 2007.

Réunion de la Commission

**Les 5 et 6 décembre 2007**

4.1.6 Atomic Energy of Canada  
Limited:  
NRU Reactor in an extended  
shutdown due to the facility  
status not matching the safety  
analysis report

07-M38.A

4.1.6 Énergie atomique du Canada  
limitée :  
Réacteur NRU : Dans un état  
d'arrêt prolongé car la condition  
de l'installation n'est pas conforme  
au rapport d'analyse de sûreté

# NOTIFICATION OF OPERATIONAL EVENT/CONDITION

<b>NOE/C no.</b>	<b>Date issued</b> 2007-11-23	<b>Prepared by – Directorate/Division</b> DNCFR/CRLCLD	
<b>Licensee</b> : Atomic Energy of Canada Limited (AECL)	<b>Licence no.</b> NRTEOL-01.00/2011	<b>Licensed activity</b> NRU Reactor Operation	
<b>Location at which event/condition happened</b> NRU Reactor – Chalk River Laboratories			
<b>When event/condition discovered</b> Date: 2007-11-08	<b>When event/condition happened</b> Date: 2007-03-30	<b>When reported to CNSC</b> Date: 2007-11-15	
<b>NATURE OF EVENT/CONDITION</b>			
<b>What happened/discovered</b> CNSC staff discovered that the NRU Reactor facility status does not match that described in the recently revised Safety Analysis Report (SAR). More specifically, the Emergency Power Supply (EPS) connection to Main Heavy Water Pumps (MHWPs) P-104 and P-105 has not been completed. EPS is one of the safety upgrades committed by AECL. AECL subsequently reported the event to CNSC staff according to licence condition 10.7 (S-99 reporting requirements).			
<b>Risk rating</b> : TBD	<b>Applicable criterion:</b> Degradation of a safety system that prevents the system from performing its safety function as intended, or meeting its defined specifications. [CMD 03-M68 criterion 5.2 (a)]		
<b>EFFECTS OF EVENT/CONDITION – ON</b>			
<b>Persons</b>	<b>Who affected</b> Workers [no.] Public [no.]	<b>How affected</b>	
<b>Environment</b>			
<b>Security</b>			
<b>Licensed activity</b>	The NRU Reactor was shutdown for scheduled maintenance for the week starting November 19, 2007. AECL management decided to maintain the NRU Reactor in an extended shutdown to work on EPS availability to the Main Heavy Water Pumps P-104 and P-105.		
<b>Other</b>			
<b>“IMMEDIATE CAUSES” OF EVENT/CONDITION</b>			
<b>Preliminary explanation</b>	AECL committed to perform a Root Cause Analysis that will be completed by December 28, 2007.		
<b>LICENSEE ACTIONS</b>			
<b>Taken or in progress</b> Technical Operability Evaluation and EPS connection to MHWPs in progress. AECL is providing daily updates to CNSC staff.			
<b>Planned/to be taken</b>	<b>What</b> Project plan in progress	<b>When</b>	
<b>Proposed</b>	<b>What</b>	<b>When</b>	
<b>CNSC ACTIONS</b>			
<b>Taken or in progress</b> Review of operability evaluation in progress. CNSC staff monitoring AECL's daily updates.			
<b>Planned</b>	<b>What:</b> Site inspection to verify that physical status is as credited in SAR.	<b>When</b> TBD (depends on AECL's EPS connection schedule)	
<b>REASON(S) THIS EVENT/CONDITION IS OF CONCERN TO CNSC</b>			
<b>Implications – Actual:</b> Operation of the NRU Reactor is outside of the basis under which the licence was renewed.			
<b>Implications – Potential:</b> Safety degradation (fuel damage probability increased)			
<b>“ROOT CAUSE” ANALYSIS</b>			
<b>Planned?</b> Yes	<b>Expected completion</b> 2007-12-28		