Potential Administrative Control Level Exceedance

On June 15, 2018, a potential Administrative Control Level (ACL) Exceedance was identified upon following up to a Personal Contamination Event (PCE), due to an internal uptake of contamination. An ACL (also known as an Action Level) is a specific dose of radiation or other parameter that, if reached, may indicate a loss of control of a part of a licensee’s radiation protection program and triggers a requirement for specific actions to be taken.

All radiological work at McMaster University is performed under the Radiation Safety program associated with the licensed activity being performed. The University and its host institutions have a strong record of radiation safety performance.

In this case, an individual was working in a hot cell in the McMaster Nuclear Reactor that had been previously used for CANDU Pressure Tube analysis, a project conducted under the McMaster Consolidated licence. Upon following up to a PCE, Health Physics identified that internal contamination could have occurred and initial dose estimates indicate that the dose received by the individual due to the intake may have exceeded the dose per shift ACL of 1 mSv. The individual has been removed from performing radiological work, until the dose assessment is complete, and the work activity has been suspended by the Health Physics Advisory Committee (HPAC), until causes are identified and corrective actions are implemented.

There were no radiological consequences to the public or environment, as a result of this event. No activity was released from the nuclear facility.

McMaster University has reported the incident to the Canadian Nuclear Safety Commission (CNSC) and is performing a full programmatic investigation to determine the causes of the event and implement corrective actions to prevent reoccurrence.