

Dropped fuel element incident at Chapelcross

At 01.20 am on 5 July operators at BNFL's Chapelcross nuclear power station were preparing to lower a discharge basket containing 24 low-rated irradiated Magnox fuel elements from inside the No 6 discharge machine on Reactor 3, through its radiologically shielded traverser and into the discharge well. Before this activity could be completed the discharge basket became detached from its grab assembly and was thought to have fallen a few feet onto the door at the top of the 80 ft discharge well which at that time was thought to be closed. NII monitored the station's response to the event through its site inspector who had travelled from Calder Hall and through the NII Response Centre which was set up that morning. At 18.00 the Chapelcross Emergency Control Centre stood down on the basis that the fuel was stable and no activity had been released. At a similar time the NII Response Centre stood down.

Dropping irradiated fuel elements is a serious issue and even though BNFL informed NII that there was no release of activity the decision was made to send inspectors to the site to investigate the incident. A team from NII arrived at Chapelcross on 9 July to carry out this task. This team had returned to NII HQ when, on the evening of 12 July, NII were informed that the results of detailed remote TV examination showed 12 fuel elements to be missing from the discharge basket resting on the door at the top of the discharge well. The NII team therefore returned to the site. A site incident was declared at 19.55 on 12 July by the Chapelcross Station Manager to ensure a full and appropriate managed response to the changed status of the plant.

As a result of the emergent findings NII suspended its formal investigation and concentrated its efforts on ensuring BNFL took appropriate steps to locate and recover the missing fuel. Initial information suggested that there was the possibility of damaged fuel at the bottom of the discharge well. The NII Response Centre in Bootle was therefore reopened and a team of NII inspectors monitored BNFL's recovery operation. We continued to operate the NII Response Centre over the weekend and until late on Tuesday 17 July when all the lost fuel had been accounted for and put into a safe place. Twelve fuel rods had dropped into the water-filled flask at the bottom of the shaft, and three of these rods had broken in the fall. With this fuel recovered into the ponds and with the other 12 elements remaining in the discharge machine in a safe and stable state we have now resumed our investigation into the incident. We will make our report on this incident at Chapelcross publicly available.

International

Scope of international radiation safety standards

At a joint meeting of the International Atomic Energy Agency's (IAEA) radiation and waste safety standards committees (RASSC/WASSC) in April 2001, the Chairman of the International Commission on Radiological Protection, Professor Clark, gave a presentation on the scope of radiation safety standards. The RASSC and WASSC supported proposals for a simplification of the scope of the safety standards, such that work should be done to determine the feasibility of having a single set of values for exemption, clearance and exemption from intervention (ie covering food and commodities). It was agreed that the IAEA should set up an Expert Group to make proposals for clarifying and simplifying the scope of regulatory control which will necessarily include review of the current Schedule 1 exemption values in the IAEA's basic safety standards. The IAEA are working towards putting proposals to RASSC and WASSC in the autumn and to subsequently seek Member State comments before publishing a revised scope of international radiation safety standards in Summer 2002.

Annual meeting of French and UK chief inspectors

The 2001 annual meeting between Mr Williams and his French counterpart, M. André-Claude Lacoste, Directeur de la Sûreté des Installations Nucléaires took place on 26 and 27 June 2001 in Poitiers. Topics discussed included an exchange of general information on nuclear safety matters in both countries and significant events in France and the UK since the last meeting. General-interest topics discussed included the effects of electricity market deregulation, nuclear education, transparency, communication, and a review of the joint HSE and DSIN ongoing activities and exchanges.

The meeting was preceded by a very interesting site visit to Electricité de France's Civaux Nuclear Power Plant. This site has the French N4 type of pressurised water reactors.

The next meeting is scheduled for July 2002 and will be held in the UK.