

Difficulties in maintaining and recruiting staff with the required skills is a key risk to delivering OME Safety. However, the recent appointment of the Director of the Defence Ordnance Safety Group (DOSG) as Head of Profession for OME Safety should provide a focus through which to address this issue. Another problem area is the current lack of appropriate performance measures against which to make an assessment of the effectiveness of the safety management system. A programme of work has, therefore, been started to develop OME Safety Performance Indicators, to agree the current baseline figures and to set year-on-year improvement targets. An audit programme is scheduled to commence in October 2002.

Overall, however, and bearing in mind that procedures for identifying and managing OME - related risks have been in existence for many years, there is a high level of confidence that major risks are being managed satisfactorily and in accordance with the principles of ALARP. The introduction of JSP 520 and the further work of developing performance measures will provide the means of objectively measuring OME safety and setting year-on-year improvement targets.

DEFENCE NUCLEAR SAFETY BOARD

The Defence Nuclear Safety Board (DNSB) is the most recent of the functional safety boards to be created following a recommendation from the Department's Defence Nuclear Safety Study. This reviewed MOD's safety management systems to ensure the safety of MOD's nuclear assets through life. The inaugural meeting of the DNSB was held on 7 March 2002, when its terms of reference, modus operandi and membership were agreed.



The Secretary of State for Defence's health and safety policy statement requires that where the Department has been granted specific exemptions, disapplications or derogation from legislation, Departmental standards and arrangements are to be introduced which will be, so far as is reasonably practicable, as least as good as those required by civil legislation. Whilst Authorisation (a process which applies the standards and disciplines of Civil Licensing to defence nuclear activities) has been applied successfully to the naval bases and dockyard companies progress has been slow in applying it to the Naval Reactor Plant (NRP).

There have been difficulties in fully integrating security classified reactor plant information into safety justifications. This has been most apparent in the safety campaign for the docking of HMS VANGUARD in Devonport and in the Department's response to the Radiation (Emergency Preparedness and Public Information) Regulations 2001.

Whilst the level of confidence in nuclear weapon safety remains high (a view recently endorsed by the Nuclear Safety Study), the complexity and interdependence within the safety management systems continues to demand, and receive, particular attention within the Department.

Like most advances in the nuclear programmes and nuclear safety, increased regulation comes at a cost, both in terms of finance and specialist resources. The retention of adequate numbers of suitably qualified and experienced personnel (both Service and civilian) within the Department's nuclear programme remains an area of concern.

In 2000 HMS TIRELESS suffered a reactor coolant leak as a result of cracking in one of the reactor circuit pipework connections. A complete repair was successfully completed alongside in Gibraltar in April 2001. The incident did not present any health hazard to the general public or to personnel on board. The early detection and management of the incident underlines MOD's effectiveness and commitment to ensuring that the highest standards of nuclear safety are maintained. The timely, and incident free, completion of the repair was undertaken to the

satisfaction of all relevant authorities including the MOD's internal regulator, the Chairman of the Naval Nuclear Regulatory Panel (CNNRP). Subsequent inspection of the SSN Flotilla identified similar, albeit less developed cracking in 6 other submarines. A pintle repair programme was subsequently implemented, including on 3 submarines where inspection did not identify defects.

The Department has successfully completed a Nuclear Safety Study to review the through life safety of its nuclear assets. The Chairman of the DNSB has commenced work to implement the study's recommendations including the formation of the Defence Nuclear Safety Board (DNSB) and the appointment of an internal Nuclear Weapon Regulator. The transfer of responsibility for the road transport of nuclear weapons and materials and the associated Nuclear Accident Response Organisation (NARO) within the Defence Logistics Organisation from the Director General Equipment Support (Air) (DGES(Air)) to the Chief Executive Warship Support Agency (CE WSA) was completed on schedule at the end of March 2002. This transfer was achieved after rigorous independent assessment of the nuclear weapon transport process and its associated nuclear accident response elements. Revised arrangements for the CinC Fleet Nuclear Accident Response Organisation have been developed to reflect the Fleet HQ organisational changes and relocation of Fleet elements under the Fleet First initiative.

Developments in radiation dose control within the Naval Nuclear Propulsion Programme (NNPP) have been particularly successful. The average dose incurred by all personnel was 0.33mSv (cf. UK average background dose of 2.2mSv) and collective dose across the programme was 2.68ManSv.

The safety of nuclear weapons and propulsion systems is among the Department's highest priorities. As a result of good safety management within its nuclear propulsion and nuclear weapon programmes, the MOD, in over 40 years of such operations, has never had an accident which has led to or come anywhere near leading to a hazard to the public. The application of stringent safety procedures will be maintained to ensure the continued maintenance of this unblemished safety record.

Over the coming year the Nuclear Weapon Regulator, who was appointed in May 2002, will focus on work to ensure a smooth transition to the independent internal regulation of the nuclear weapons programme. The NW regulator and CNNRP will work to establish and develop their relationship with the Health and Safety Executive (HSE)/Nuclear Installations Inspectorate (NII), and other relevant, authorities to maintain confidence that the appropriate processes are put in place to meet the requirements of internal regulation.

Further validation of the new Fleet Organisation and the associated Fleet Safety Management System will be conducted and the new NARO arrangements will be formally assessed by CNNRP.

Work will continue to extend the concept and principles of Authorisation to the NRP and to address the difficulties associated with recruitment and retention of suitably qualified and experienced personnel across the nuclear weapon and propulsion programmes.

The Warship Support modernisation initiative will introduce partnering with civil contractors at both the Clyde and Devonport Naval Bases. Work will continue to ensure that the highest standards of nuclear safety are applied and maintained, that CNNRP is satisfied that the disciplines of Authorisation are applied, and that the MOD as the duty holder retains control of all nuclear activities.

SAFETY HEALTH ENVIRONMENT AND FIRE BOARD

The Safety, Health Environment and Fire (SHEF) Board met once during the year (the previous meeting having taken place in March 2001, just before the end of the last reporting year) and took work forward in the three main areas for which it is responsible: developing overall safety, health,