Office for Nuclear Regulation
An agency of HSE

The state of security in the civil nuclear industry and the effectiveness of security regulation

A report to the Secretary of State for Energy and Climate Change

April 2011 – March 2012

Contents

Foreword

This has been another busy year, with our work continuing to be characterised by ongoing reviews of security arrangements at all civil nuclear facilities covering all facets of physical, personnel and information security. Like the industry we regulate, we have worked to introduce enhancements where necessary as part of our ongoing commitment to continuous improvement in civil nuclear security.

A key personal focus, and one which has included all of my team, has been our integration into the Office for Nuclear Regulation (ONR) alongside the disciplines of safety, safeguards and nuclear transport safety. We have worked hard to develop a goal setting and performance measurement approach to security regulation, which we have consulted on widely in this reporting period and intend to implement over the forthcoming year.

One area where our collaboration with other disciplines has been most apparent is our first joint review with safety specialists of computer-based systems important to safety – an essential component for the safe operation of nuclear plants. Safety regulators identify and categorise the systems, whilst my team ensure security against cyber attack, manipulation, falsification and sabotage.

With the closure of our office in Harwell, our Personnel Security Team has experienced unprecedented change. This has included recruiting and training a new team in ONR head office in Bootle; accommodating the new Government e-vetting system, Cerberus; dealing with high volumes of clearance activity; and processing aftercare reports to assist in the management of safety and, in many instances, to help individuals address the difficulties they face.

I was very pleased to note that a UK-hosted International Physical Protection Advisory Service (IPPAS) Mission, tasked with assessing the UK's legal and regulatory infrastructure, the security at Sellafield, and our nuclear transport facilities at Barrow, commented favourably on the UK's adherence to the International Atomic Energy Agency's (IAEA) security best practice.

As a result of our continuing integration into the Office for Nuclear Regulation, this will be the last annual report in this format. From next year this security report will be incorporated into the Office for Nuclear Regulation annual report.

Introduction

1 This is the tenth annual report submitted by the Director, Civil Nuclear Security, (now Deputy Chief Inspector (Civil Nuclear Security) (DCI (CNS))) to the Secretary of State for Energy, Department of Energy and Climate Change (DECC). It fulfils the requirement to report on the state of security in the civil nuclear industry and to provide an assessment of the effectiveness of regulation. It covers the period 1 April 2011 to 31 March 2012.

Background

2 The 9/11 attacks in the United States prompted a significant appraisal of protective security measures within the UK's civil nuclear industry, a programme of enhancements and the subsequent deployment of the Civil Nuclear Constabulary onto nuclear power stations.

3 Ten years on, our work continues to be characterised by ongoing reviews of security arrangements at all civil nuclear facilities. These have covered all facets of physical, personnel and information security, and where necessary have introduced enhancements as part of our ongoing commitment to continuous improvement in civil nuclear security.

4 A significant feature of this reporting period has been the lead up to the London Olympic and Paralympic Games. The UK's terrorist threat level for that period was set at SUBSTANTIAL by the Joint Terrorism Analysis Centre. Accordingly, the maintenance of proportionate levels of security at civil nuclear sites has continued to be a priority.

5 At the March 2012 Nuclear Security Summit in Seoul, the UK reaffirmed its commitment to safe and secure storage of all Category I nuclear material. It is the UK's intention to consolidate these materials at Sellafield in secure storage facilities, built to the latest standards.

ONR business changes

6 Significantly, during this reporting period the Office for Nuclear Regulation has brought together and has been integrating the respective disciplines of safety, security, safeguards and nuclear transport safety. The closer collaborative approach to regulation within ONR which has resulted has led to the review of our technical security guidance to industry, with the purpose of promoting a goal setting and performance measurement approach to security regulation. The first step in this evolutionary regulatory journey has been the production of a *National objectives, requirements and model standards (NORMS)* document (ref 1) which is described in more detail later in this report.

7 ONR's regulatory business is also subject to a broader integrated change programme, the purpose of which is to synergise safety and security regulation between industry and the regulator. The backdrop is the *Strategic Defence and Security Review (SDSR)* (ref 2) where Task 7 identifies the need to deliver security and resilience of infrastructure, including nuclear facilities, against attack, damage or destruction.

8 An immediate outcome of the above changes in regulatory approach has been a requirement to reinforce ONR in all its security disciplines to enable the implementation of outcome-based regulation. This process is ongoing and I would expect to report the outcomes next year. An additional, and welcomed, initiative is the creation of an ONR Security Committee, operating in support of the ONR Board to provide oversight of, and support to, ONR's regulatory processes.

9 The *Nuclear Industries Security Regulations (NISR) 2003* (ref 3) are currently subject to review and change to enable ONR to have the vires to regulate security on nuclear construction sites. The legislative change is being led by DECC. The objective of this change is twofold: to protect adjacent nuclear sites from potential threats from construction activities, and to ensure security on the site under construction, including requiring security to be a constituent design feature. The outcome will be that security is planned and executed during the design and construction phase so that appropriate security infrastructure is in place when nuclear material is brought onto the site. The enabling primary legislation is in place and work is ongoing to develop the secondary legislation to provide ONR with the required powers. The focus is currently on the new build reactor programme but this change applies to all new build activities close to existing facilities and is an important component in our collective ability to protect nuclear material from theft and sabotage.

10 ONR closed its office in Harwell at the end of the reporting period. The civil nuclear security programme's main office is co-located with ONR at their head office in Bootle, Merseyside, with a small contingent of inspectors based out of ONR's Cheltenham office.

11 This will also be the last annual report in this format as from next year this annual report on security will be incorporated into the ONR annual report.

The threat to the civil nuclear industry

12 DCI (CNS) is a member of the UK's Joint Terrorism Analysis Centre (JTAC) oversight board. The civil nuclear security programme also maintains a permanent presence within JTAC. Such ONR representation guarantees the fastest possible identification and notification of intelligence that indicates changes to present and foreseeable threats to civil nuclear activities. The JTAC post also contributes to the regular production of a comprehensive nuclear threat assessment, from which the UK's design basis threat – the *nuclear industries malicious capabilities planning assumptions paper (NIMCA)* (ref 4) is compiled, to provide a common basis for determining the industry's nuclear security needs.

Physical security

Site security plans

13 The Regulations require operators of civil licensed nuclear sites that hold Category I to IV nuclear material or other radioactive material, or those who use or store Category I to III nuclear material at other premises, to have a site security plan (SSP). SSPs must describe the standards, procedures and arrangements that enable dutyholders to maintain acceptable security arrangements at civil licensed nuclear sites and other nuclear premises. SSPs must be approved by ONR. If a civil licensed nuclear site has a tenant(s) who uses, or stores nuclear or other radioactive material (including radioactive sources), then the tenant must have their own SSP, which must also be approved by ONR.

14 There are currently 31 civil licensed nuclear sites, each with an SSP as well as tenants on sites, such as the National Nuclear Laboratory, who are required to maintain an SSP. ONR also regulates the security at two nuclear premises that are not licensed or situated on a licensed site. SSPs, once approved by ONR, are implemented and thereafter become the basis against which the dutyholders' security regime is judged for compliance. Following their approval, SSPs are kept under constant review and scrutiny by the site security staff and through ONR regulatory activity. Each year, SSPs are formally reviewed by the duty holder and approved by ONR, although they can be amended at any time if necessary.

Temporary security plans

15 SSPs are living documents and by necessity they may be subject to a temporary change, particularly for example if building works are to be carried out which will affect the integrity of the security arrangements described in the SSP. When such circumstances occur, the dutyholder must obtain ONR approval for a temporary security plan (TSP), the purpose of which is to detail compensating security arrangements during the temporary period.

16 ONR approved 164 TSPs between 1 April 2011 and 31 March 2012.

Inspections

17 Over a set period of time, which depends on the categorisation of the site, ONR formally inspects every component of a SSP to ensure compliance and, in conjunction with site security staff, assesses the continuing effectiveness of the described security measures to protect against the malicious capabilities outlined in the NIMCA. These inspections and assessments are key elements in the SSP annual review process and provide a clear focus for regulatory activity and interventions. During the reporting period, ONR carried out 188 routine site inspections and a further 18 no-notice inspections to ensure sites remained compliant with their SSP.

Reports made under regulation 10

18 Regulation 10 of the Nuclear Industries Security Regulations (NISR) 2003 requires dutyholders to report, within 24 hours, a range of events and occurrences that may be of interest from a security viewpoint. The Regulations detail the events that must be reported. These could include such matters as unauthorised incursions onto a civil licensed nuclear site, any incident involving an explosive device or a firearm, malicious damage, theft of nuclear material or any failure to comply with the SSP. There is also a requirement for dutyholders to report "any matter or event which might affect the security of the premises or the material, equipment or information mentioned in regulation".

19 I welcome the dutyholders' openness in reporting minor events, which supports 'learning from experience' within the industry, although many reports made under regulation 10 have little or no impact on security. No reports were made under regulation 10 during the reporting period that constituted a serious breach in security. However, all reports were investigated by the dutyholders' security managers, or where necessary by ONR, and the appropriate action taken.

Counter-terrorist exercises

20 It is a regulatory requirement that every civil licensed nuclear site conducts an annual counter-terrorist exercise at which ONR inspectors are present. The aim is to test all security elements at a site. The exercise plays an important part in evaluating a site's security regime and can raise the awareness of the staff who work there as part of a continuous improvement culture. Thus, care is taken to ensure that scenarios are demanding, and that the greatest possible proportion of the workforce on each site is involved in some way. Exercise scenarios are approved by ONR to ensure consistency between sites.

21 Exercises are designed to test command and control arrangements, to probe the interfaces between the various elements and agencies that support the security arrangements at civil licensed nuclear sites and to encourage increasing interaction between security and safety. This year we have deliberately tested both safety and security responses in the same exercises on three occasions, and intend to continue this theme in the future.

22 All exercises were completed successfully and lessons identified during the exercises were documented; these have subsequently been reflected as appropriate in revised counter-terrorist contingency planning. Positive observations from exercises this year have included improvements to site lock-down procedures and improvements to direct communications between sites and the Civil Nuclear Constabulary's (CNC) Force Information Manager.

23 A number of peaceful demonstrations against nuclear new build have taken place at Hinkley Point and Sizewell. Due to detailed planning by dutyholders in close co-operation with the local police, security and safety at sites was maintained throughout and disruption to site operations was minimal.

24 Preparations to place de-fuelled nuclear power stations into a state of care and maintenance have progressed steadily during the reporting period. ONR has worked closely with Magnox Ltd to develop proportionate security objectives, requirements and model standards that will ensure that sites in a state of care and maintenance are provided with an appropriate level of security at all stages of the programme.

Generic Design Assessment / New Build project

25 The civil nuclear security programme has continued to engage in the ongoing assessment, by the Office for Nuclear Regulation and the Environment Agency, of designs for new nuclear reactors proposed for construction in the UK. This is known as the Generic Design Assessment (GDA). This culminated in the production of the *civil nuclear security technical assessment reports to the overall GDA programme* (ref 5), against the requesting party submissions for the designs. These reports deliver the intent of the security assessment strategy set out early in the GDA process and provide a description of the security features that ONR expects to see incorporated into the designs if subsequently constructed in the UK. The civil nuclear security reports identify a number of assessment findings that will need to be addressed by dutyholders during the forward programmes for the reactors, including the need to ensure that the conceptual security arrangements remain relevant, as the respective designs are further optimised and built at licensed sites.

26 As previously stated, the Regulations are currently subject to review and change to enable ONR to have the vires to regulate security on nuclear construction sites.

27 The civil nuclear security programme is also engaged in the development of the Geological Disposal Facility (GDF) design and it is anticipated that a similar approach will be adopted for other significant investment programmes across the civil nuclear industry.

Safety / security interface

28 Operators of civil nuclear facilities are required to deal with nuclear and radiological risks taking account of both safety and security requirements. Both disciplines have the same purpose, which is to protect people and society from the hazards of the nuclear industry. The aim of safety is to protect people and the environment against radiological hazards. The aim of security is to prevent the theft

of nuclear or other radioactive materials and the sabotage of nuclear or radioactive materials, or nuclear facilities. A dutyholder's safety and security arrangements must be mutually coherent. This work will have increased focus within ONR in future as ONR's safety and security elements continue to integrate.

Senior Managers' (Nuclear) Security Briefing

29 The Senior Managers' (Nuclear) Security Briefing is held biannually in May and November at the Health and Safety Laboratory (HSL) in Buxton. The briefing comprises a series of lectures and practical demonstrations at HSL's range and test facilities that illustrate the malicious capabilities outlined in the NIMCA. Specialists from HSL and Centre for the Protection of National Infrastructure (CPNI) support ONR in delivering these briefings and their expertise is crucial to the briefings' success. Approximately 32 senior executives, emergency controllers and security managers attend each briefing after nomination by industry. Their feedback continues to be positive and we notice greater security awareness on their part during subsequent regulatory activity with dutyholders.

Civil Nuclear Constabulary (CNC)

30 CNC officers continue to be deployed at designated sites where their presence provides an armed response capability as part of an integrated security plan.

31 During the reporting period, the CNC's tactical training has improved markedly. The introduction and use of tactical engagement simulation equipment, in a sequence of 'force on force' exercises, has provided valuable information for the assessment of their security performance and the lessons from these exercises have enhanced the CNC's operational capability.

32 To ensure that this increased capability is deployed to best effect, the CNC has also adopted a more focussed approach to command and leadership training for Bronze firearms commanders. The overall outcome has been a better co-ordination between the CNC's Authorised Firearms Officers and the industry's unarmed guard forces.

33 Good stakeholder engagement between the CNC and dutyholders has both refined and nurtured the way forward for the provision of a more integrated security posture at existing and new build sites.

Information security

Overview

34 The Regulations place an obligation on the civil nuclear industry to protect sensitive nuclear information (SNI) against the threats of theft and compromise. SNI includes any information relating to the security of nuclear material and to nuclear proliferation. The civil nuclear operators and contractors to the industry must apply the Government's protective marking system to all such information and store it, regardless of the media in which it is held, to a level of protection commensurate with its protective marking. ONR is the accreditation authority for information technology (IT) systems storing protectively marked material and bases its judgements on nationally approved standards for such systems. The function involves acting as an impartial assessor on the risks these information systems may be exposed to in the course of meeting the business requirement, and formally accrediting these systems once those risks have been appropriately treated and managed.

The Information Security Branch

35 ONR's Information Security Branch regulates approximately 330 locations where SNI is held and accredits approximately 340 IT systems storing protectively marked material. These include a number of large networks and discrete local area networks, although they are mainly standalone systems.

36 The sites subject to regulation have been categorised in order of priority. These sites are formally inspected on a regular basis. Routine information security inspections are currently carried out by the nominated site inspectors, while more complex areas are dealt with by the Information Security Branch. The inspections carried out have confirmed that, generally, dutyholders' systems are compliant with national standards and the relevant accreditation documents. Where observations are made these usually relate to relatively minor procedures that are easily corrected by the dutyholder.

Contract security

37 There are significant numbers of contractors, most of whom hold small quantities of SNI with a low level of protective marking. These are primarily inspected by the contracting authorities, with oversight from ONR Information Security Branch. Contracts that involve SNI with a protective marking of CONFIDENTIAL and above remain the direct responsibility of the Information Security Branch.

Accreditation

38 The past few years have seen increasing demand for information security hardware and software accreditation. In part, this can be explained by activity associated with New Build, but at the same time, the former large corporations of

the United Kingdom Atomic Energy Authority (UKAEA) and British Nuclear Fuels Limited (BNFL) have been broken down into smaller entities that require their own accredited networks. ONR accreditors have worked closely with the dutyholders to ensure sensitive data has remained secure during the transition period.

39 ONR regularly liaises with regulators responsible for information security in France, Germany and the USA to enable the flow of protectively marked information associated with New Build between regulators, requesting parties, potential operators and technical support contractors. The global nature of the civil nuclear industry and the fact that both current candidate designs for New Build in the UK are foreign have made it essential that practical information sharing arrangements are in place. As part of these arrangements, and in conjunction with the French regulator for security, the Information Security Branch approved a connection between classified networks in France and the UK earlier in the year, a first for the civil nuclear industry.

Computer-based systems important to safety

40 Computer-based systems important to safety (CBSIS) are an essential component for the safe operation of nuclear plants. ONR requires that CBSIS are protected against cyber attack, manipulation, falsification and sabotage, consistent with the threats identified in national threat assessments.

41 The importance of these systems for the safe operation of nuclear power stations has emphasised the importance of the input from nuclear safety specialists within ONR. ONR will continue to identify and categorise CBSIS and to ensure they are appropriately secured. The reporting period has seen the first joint ONR safety and security CBSIS inspection.

Reports made under regulation 22

42 The Regulations place an obligation on dutyholders to report actual or potential breaches of information security within 24 hours of them occurring. As with reports made under regulation 10 (site security) and regulation 18 (transport security), dutyholders are also expected to report a variety of occurrences that may not in themselves constitute a serious breach of security, but may potentially be of security interest. ONR information security inspectors review all reports to ensure appropriate follow-up action is taken.

43 Whilst there has been a small increase in the number of security breaches involving information security, there were no reports of serious breaches in information security made under regulation 22 during the reporting period.

Personnel security (vetting)

Overview

44 The Regulations require that all employees and contractors in the civil nuclear industry must be vetted to a level of clearance commensurate with their access to nuclear material and SNI. The lowest level of clearance is the Baseline Personnel Security Standard. This is the minimum requirement for unescorted access to civil nuclear premises and to SNI on a 'need to know' basis. A Counter-terrorist Check (CTC) is required for unescorted access to a Vital Area, unless the category of any associated nuclear material holdings dictates that a higher level of security clearance is required. Higher levels of vetting (Security Check and Developed Vetting (DV)) are necessary for regular access to more highly sensitive information / areas and for those whose knowledge extends to the more detailed workings of a civil nuclear facility, especially those aspects directly associated with the safety / security of nuclear materials and the operation of the security regime.

45 ONR Personnel Security Team is responsible for providing a vetting service to the civil nuclear industry. In processing applications and granting clearances, ONR applies agreed standards and processes in accordance with the UK's national security vetting (NSV) policies. Security clearances are revalidated at the prescribed intervals. ONR has an internal appeals process for applicants whose requests for clearance are denied or withdrawn. A further avenue of appeal may exist, which depends on the employment status of the Counter-terrorist Checked, Security Checked, or Developed Vetting holder or applicant, to the Security Vetting Appeals Panel (SVAP). The SVAP is an independent body of the Cabinet Office.

46 The reporting period has seen a significant period of change for the Personnel Security Team. Following the decision to close the Harwell office and transfer the Personnel Security function to the ONR offices in Bootle, a new Personnel Security Team had to be recruited and trained. The structure of the Personnel Security Team has changed, with an increase in inspector posts from two to three and a loss of two administrative posts. The reorganisation will provide greater assurance through an increased inspection capability once the additional inspector takes up post in June 2012.

47 The reporting period also saw the launch of e-vetting through a system called Cerberus (more information can be found at www.dva.mod.uk).

48 A breakdown of clearances processed by ONR's Personnel Security Teams during the reporting period is given in the table on page 15.

Security clearances 2011/12

49 There has been a large increase in the number of initial DV applications; however, proportionately, the most significant increase has been CTC clearances.

50 In 2011/12 dutyholders determined that 16 464 Baseline Personnel Security Standard (BPSS) applications did not need to be referred to ONR for investigation and assessment. Therefore, these were signed off locally.

Clearance Level	New Cases				Reviews
	2011/12	2010/11	2009/10	2008/09	2011/12
Developed Vetting (DV)	438	271	390	385	148
Security Check (SC)	1554	1683	2302	1565	333
Counter-terrorist Check (CTC)	365	77	80	37	4
Baseline Personnel Security Standard (BPSS)	953*	660*	601*	9551	45*
Total	**3310**	**2691**	**3373**	**11538**	**530**

* **BPSS cases which fall outside of the civil nuclear operators signing guidelines (for example, because of nationality or unspent convictions).**

51 As at 31 March 2012 there were 982 cases with Defence Business Services (formerly Defence Vetting Agency) that were awaiting the completion of enquiries prior to ONR assessment.

Denials and appeals

52 During the reporting period one DV was withdrawn, three SCs were denied, two were withdrawn, one CTC was denied, and four BPSS requests were denied and two were withdrawn. Additionally, ONR declined to accept the 'transfer in' of an SC and in 11 cases, a CTC was issued in lieu of a SC.

53 Appeals were made in relation to two BPSS denials and one SC withdrawal. One of the appeals against the BPSS denial was successful and a caveated BPSS was subsequently granted and the other BPSS appeal is currently in process. The appeal against the SC withdrawal is still in process.

Awareness and aftercare

54 The last annual report went into considerable detail on security awareness and aftercare initiatives. We have continued to drive forward these initiatives. Not only do they help improve security in the nuclear industry, but they also aid safety and can in many instances help individuals address the difficulties they face.

55 ONR continues to promote attendance by human resource and personnel security managers at relevant briefings given by the CPNI. We have particularly encouraged attendance at the 'Personnel Security Risk Assessment' and 'Resolving suspicions about employees of concern' briefings.

56 From April 2012, all dutyholders are required to report any positive test for unlawful substances and any second positive test for alcohol.

57 At the 2011 Personnel Security Industry Day, dutyholders were also encouraged to promote positive policies in relation to lesbian, gay, bisexual and transgender issues.

Personnel security inspections

58 In all, seven personnel security follow-up inspections were completed plus three joint inspections with the CPNI. The focus of inspections is now on aftercare / ongoing personnel security issues rather than the processing of vetting applications, although sample checks on vetting casework are still carried out.

Transport security

Overview

59 ONR regulates the movement of all civil nuclear material by road and rail throughout the United Kingdom and worldwide when carried on UK-flagged vessels. As the UK's designated competent civil nuclear security authority, ONR is required to ensure that appropriate measures are taken to prevent the theft or sabotage of nuclear material in transit. In line with the *Co-ordinated Policing Protocol between the Civil Nuclear Constabulary and Home Office Police Forces/ Scottish Police Forces* (ref 6), any public order incidents associated with the movement of nuclear material would normally be the responsibility of the local Chief Constable.

Approved carriers

60 The number of approved carriers has reduced to 22 as one has had their status revoked, pending resubmission of the transport security statement. No applications for approved carrier status were received during the reporting period.

Movements

61 During the period covered by this report, 2101 separate movements of civil nuclear material were pre-notified to ONR in accordance with regulations 19 and 20 of the NISR 2003.

62 Dutyholders made 1519 notifications for the movement of spent fuel (in comparison to 1496 during the previous reporting year). Of these, 713 notifications were for rail transport, while 806 notifications were for transport by road from nuclear power stations to the associated railheads or direct to Sellafield. Of the 1519 notifications, 514 were subsequently cancelled for operational reasons. The increased number of notifications reflects improved flask availability and shorter flask turnaround times.

63 In addition to the movements within the UK, ONR also received notifications for 122 movements of Category III nuclear material that transited through UK ports on foreign-flagged vessels. These covered the import and export of Category III nuclear material from/to: Spain, USA, Canada, the Russian Federation, Holland, France, Sweden, Germany and South Korea.

Inspections

64 During the reporting period, ONR transport security inspectors carried out 23 inspections of the policies and procedures of a number of approved carriers at sites, railheads and other premises. These remain an important and effective enforcement tool which informs policy change and helps ensure that all approved

carriers maintain robust and appropriate levels of security when transporting nuclear material. ONR transport security inspectors confirmed that the approved carriers who were inspected remained compliant with their approved transport security statements.

Reports made under regulation 18

65 As with reports made under regulation 10 (site security) and regulation 22 (information security), dutyholders are expected to report instances of theft or sabotage of nuclear materials in transport. There were no reported instances of theft or sabotage of nuclear material in transport during this reporting period and no reports were made under regulation 18, NISR 2003.

Import licences

66 Thirteen import licences were granted during this reporting period.

The movement of Category I mixed oxide (MOX) fuel from France to Japan

67 As reported previously, it had been planned that MOX shipments to Japan would take place annually, and significant work was undertaken in preparation for a shipment that was scheduled to depart from France during the reporting period. However, because of the tragic events in Japan in March 2011 and following consultation between the relevant stakeholders, the shipment was postponed.

Plutonium shipment

68 One shipment of Category I plutonium was made from Sweden to USA during the reporting period. The nuclear material was transported from Sweden to the USA by sea aboard a UK-flagged vessel. It was the first shipment of plutonium materials to take place under the *US Global Threat Reduction Initiative (GTRI)* (ref 7) programme. As a Category I shipment, in compliance with ONR requirements and taking account of international recommendations, CNC escorted the consignment. ONR transport security inspectors ensured the vessel complied with regulations and that security procedures were tested prior to departure. Arrangements for the vessel's arrival in Swedish / US territorial waters and the subsequent hand-over of security responsibility were co-ordinated and agreed with the respective national authorities. The shipment was completed without incident.

Security policy and guidance documents

National objectives, requirements and model standards (NORMS) document

69 During the reporting period, work continued to replace the *NISR 2003 – Technical Requirements Document (TRD)* (ref 8) with a new document titled NORMS. In future, far greater onus / responsibility will be placed on operators and carriers to propose and justify security arrangements that meet ONR defined security objectives. The issue of NORMS will be part of this evolutionary process, and will take into account Government's policy on regulation, which includes where possible, moving away from prescription to a more outcomes-based, goal setting approach focussing on performance measurement.

70 Companies and organisations within the civil nuclear industry have commented on the draft NORMS document and participated in a number of developmental workshops. In accordance with Government policy, an assessment of the impact the document's introduction is likely to have on the industry is also being undertaken.

Classification policy

71 Following consultation with Industry, the latest version of the *Classification Policy Document* (ref 9) was issued during March 2012. The purpose of the Classification Policy Document is to indicate those categories of SNI that require protection and the level of protective marking to be applied. The policy deals with the protective marking of information (including that held on IT systems) relating to nuclear facilities, nuclear material and other radioactive material (ORM) including radioactive sources and material designated as waste. In the interests of national security, a particular objective of this policy is to prevent the disclosure of information which could assist those planning a terrorist act, theft, sabotage, or other malicious acts. The application of the classification policy is therefore an integral part of the security regime that protects nuclear facilities, nuclear material and ORM. The changes in the latest version mainly concerned transport notifications and associated information for the movement of Category III nuclear material.

Security Policy Framework

72 In March 2012, issue 4 of the *ONR Security Policy Framework (SPF)* (ref 10) was issued and it follows, as closely as possible, the layout and content of the Government's SPF. The ONR SPF is applied by the civil nuclear industry and its contractors and sets the standard for the protection of SNI and for the personnel security controls that are necessary to protect sites and nuclear material in transit. The ONR SPF is supported by six civil nuclear security standards, which contain associated reference documents, detailed technical standards, supplementary policy and guidance.

73 The latest version of the ONR document *Guidance on counter-terrorism information and measures for the civil nuclear industry* (ref 11) was also issued to the industry during March 2012. The aim of this document is to provide nuclear dutyholders with comprehensive, in-date counter-terrorism (CT) guidance that can be used to supplement CT measures mandated in policy documents such as the TRD/NORMS. The guidance is not mandatory – it is offered to the civil nuclear industry for consideration only. It also provides general guidance to those companies that are only subject to NISR 2003 regulation 22 (the protection of SNI) on measures to protect non-nuclear premises, staff, contractors and visitors from the risks arising from terrorism.

International co-operation

IPPAS Mission to the UK

74 A team of nuclear security experts assembled by IAEA visited the UK in October 2011 to assess its civil nuclear security arrangements. The IPPAS Mission assessed the UK's laws and regulations pertaining to nuclear material and nuclear facilities. The Mission team also assessed compliance with the *IAEA Convention on the Physical Protection of Nuclear Material* (ref 12) and the *IAEA's recommendations on nuclear security* (ref 13). The team visited the Sellafield civil nuclear site and Barrow port to see first-hand how these measures are implemented in practice.

75 The UK was the first nuclear weapons state to invite international experts to assess their civil nuclear security regime.

76 The Mission was invited to the UK by DECC, and ONR provided essential support and co-ordination. The team made some helpful recommendations and suggestions, and also identified a number of best practices that the UK carries out. ONR provided a series of presentations and information gathering sessions and accompanied the team during their visits to Sellafield and Barrow. In particular, it showed the world the UK's commitment to nuclear security and our willingness to learn from others through peer review. Importantly, it should encourage other countries to follow the UK's lead and invite the IAEA to carry out similar Missions to their nuclear facilities. Overall, the visit was a great success.

Other international interactions

77 ONR has undertaken a wide variety of other international commitments and activities. It has continued to contribute to chemical, biological, radiological, and nuclear work streams with the Cabinet Office and the Foreign and Commonwealth Office. These have included participation in the 2012 Nuclear Security Summit and the Sous-Sherpa meetings that have preceded such international fora. ONR has participated in IPPAS Missions to the Netherlands and Sweden, as well as a Mission to France[1]. ONR has also participated in a nuclear security workshop in China and was part of the UK delegation to the IAEA General Conference, including participation in the annual meeting of the Plutonium Management Guidelines Group.

78 ONR participated in IAEA meetings to finalise Nuclear Security series documents on *Nuclear Material Accountancy / Control for Nuclear Security* and *Nuclear Security Infrastructure for Newcomers*. In addition, ONR supported DECC at meetings of the Presidency-chaired European Union Ad Hoc Group on Nuclear Security formed (post Fukushima) in July 2011 to identify and share good practices in the security of nuclear power stations. The Group's final report (ref 14) was published by the European Council in May.

[1] **France was the second weapons state to invite an IPPAS Mission. The Mission took place a month after the UK visit.**

Statement of assurance

79 The purpose of this annual report is to give the Secretary of State at DECC an assurance with regard to the state of security within the civil nuclear industry and the effectiveness of regulation. I can report that in the 12 months from 1 April 2011 to 31 March 2012, I have been satisfied with the standards, procedures and commitment with regard to security within the civil nuclear industry.

Adrian Freer
DCI (CNS)
Office for Nuclear Regulation

References

The following documents are referred to in this report:

1 *National objectives, requirements and model standards (NORMS) document*
This document is protectively marked and is not available for public reference.

2 *Strategic Defence and Security Review (SDSR)*
www.direct.gov.uk/sdsr

3 *Nuclear Industries Security Regulations (NISR) 2003*
www.legislation.gov.uk/uksi/2003/403/contents/made

4 *The nuclear industries malicious capabilities planning assumptions (NIMCA) paper*
This document is protectively marked and is not available for public reference.

5 *Civil nuclear security technical assessment reports to the GDA programme*
www.hse.gov.uk/newreactors/step-four-technical-assessment-reports.htm#edf

6 *Co-ordinated Policing Protocol between the Civil Nuclear Constabulary and Home Office Police Forces/Scottish Police Forces*
http://www.acpo.police.uk/documents/uniformed/2011/201108UOCNCProt.pdf

7 *US Global Threat Reduction Initiative (GTRI)*
http://nnsa.energy.gov/mediaroom/factsheets/reducingthreats

8 *NISR 2003 – Technical Requirements Document (TRD)*
This document is protectively marked and is not available for public reference.

9 *Classification Policy Document*
This document is protectively marked and is not available for public reference.

10 *ONR Security Policy Framework (SPF)*
This document is protectively marked and is not available for public reference.

11 *Guidance on counter-terrorism information and measures for the civil nuclear industry*
This document is protectively marked and is not available for public reference.

12 *IAEA Convention on the Physical Protection of Nuclear Material*
http://www.iaea.org/Publications/Documents/Infcircs/Others/inf274r1.shtml

13 *IAEA's recommendations on nuclear security*
http://www-pub.iaea.org/books/IAEABooks/8629/Nuclear-Security-Recommendations-on-Physical-Protection-of-Nuclear-Material-and-Nuclear-Facilities-INFCIRC-225-Revision-5

14 *The report of the European Union Ad Hoc Group on Nuclear Security*
http://register.consilium.europa.eu/pdf/en/12/st10/st10616.en12.pdf

Abbreviations

BNFL	British Nuclear Fuels Limited
BPSS	Baseline Personnel Security Standard
CBSIS	Computer-based systems important to safety
CNC	Civil Nuclear Constabulary
CNS	Civil Nuclear Security
CPNI	Centre for the Protection of National Infrastructure
CSA	Conceptual Security Arrangements
CT	Counter-terrorism
CTC	Counter-terrorist Check
DCI	Deputy Chief Inspector
DECC	Department of Energy and Climate Change
DV	Developed Vetting
GDA	Generic Design Assessment
GDF	Geological Disposal Facility
GTRI	Global Threat Reduction Initiative
HSE	Health and Safety Executive
HSL	Health and Safety Laboratory
IAEA	International Atomic Energy Agency
IPPAS	International Physical Protection Advisory Service
IT	Information technology
JTAC	Joint Terrorism Analysis Centre
MOX	Mixed oxide (fuel)
NIMCA	Nuclear industries malicious capabilities (planning) assumptions
NISR	Nuclear Industries Security Regulations
NORMS	National objectives, requirements and model standards
NSV	National security vetting
ONR	Office for Nuclear Regulation
ORM	Other radioactive material
SC	Security Check
SDSR	Strategic Defence and Security Review
SNI	Sensitive nuclear information
SPF	Security Policy Framework
SSP	Site security plan
SVAP	Security Vetting Appeals Panel
TRD	Technical requirements document
TSP	Temporary security plan
UKAEA	United Kingdom Atomic Energy Authority

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