

NUCLEAR SAFETY DIRECTORATE - BUSINESS MANAGEMENT SYSTEM		
<b>NII REGULATION OF NON-LICENSED NAVAL NUCLEAR SITES</b>		<b>G/INS/005</b>
		ISSUE 001
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## **1 Purpose and Scope**

1.1 The NII has always exercised a regulatory interest in non-licensed naval sites on which nuclear-related activity takes place: these are now HM Naval Bases at Devonport and Clyde (including Faslane, Coulport and part of Rosyth) and the Vulcan Naval Reactor Test Establishment at Dounreay. The NII also has regulatory duties in relation to operational submarine berths (Z berths).

1.2 The development of greater joint working with the Defence Nuclear Safety Regulator (DNSR) and the emphasis on more effective NII regulation within the Defence Facilities Division have led the NII's Naval Nuclear Propulsion Programme IPG to agree in 2006 that it was appropriate to establish a clearer strategy for the development of intervention plans for these sites. A workshop was held on 3 November 2006 as the first step in this. This guidance reflects the outcome of that workshop, with the intention of ensuring that a consistent, proportionate and effective joint NII/DNSR approach is adopted with regard to NSD responsibilities at these sites.

## **2 Policy**

2.1 The NII NNPP regulatory strategy aims to adopt a holistic approach to the regulation of risks and hazards across the whole of the NNPP (licensed and non-licensed activity). This means, for example, that the NII should not give disproportionate attention to risks arising from similar activities such as those at 9 dock on the licensed site at Devonport compared with those at the shiplift on the non-licensed site at Faslane. To achieve this will require particularly careful joint NII/DNSR working and information exchange across all aspects of the NNPP.

2.2 The revised NII/DNSR Letter of Understanding of November 2006 places much emphasis on joint working. It is expected that this will be a significant feature of intervention plans for non-licensed sites.

2.3 NII regulation at non-licensed sites should not be used as a surrogate for the level of regulation associated with licensing since DNSR exercise an extensive regulatory presence through the Authorisation Condition (AC) compliance and permissioning processes, ACs mirroring NII nuclear site licence site conditions.

2.4 As a guide, the level of NII regulation for non-licensed sites should be similar to that which would be exercised by HSE/HID for an equivalent major

hazards industrial site, or that which would be exercised on an equivalent installation under IRRs etc on a licensed site. It is expected that NII Inspectors will liaise closely with FOD/HID in the development of their intervention plans. A baseline 'contact' of one inspection period per quarter is expected at Vulcan and HM Naval Bases Clyde and Devonport, with less for operational Z berths. Contact in relation to operational Z berths depends on circumstances. For a 'steady state' Z berth in regular use, regulatory contact is likely to be limited to those in connection with the three-yearly REPIR demonstrations, augmented by perhaps two additional watching brief contacts per berth during the year. However, there is no firm yardstick and circumstances with particular locations could be significantly different. See also para 5.1.

2.5 A number of aspects of the MOD/HSE Agreement are particularly important on non-licensed sites and Inspectors are expected to familiarise themselves with its contents, in particular:

- Limitations relating to classified information.
- Restrictions on access to submarines.
- The need for prior MoD consultation before releasing information about safety related incidents.

2.6 Similarly, the regulatory vires for non-licensed sites are significantly different from those at licensed sites and Inspectors are expected to take additional steps to familiarise themselves with these, for example HASAWA, IRRs, REPIR, MOHASAW, together with the role of DNSR and the way in which that role is exercised.

### **3 Responsibilities**

3.1 Head of Unit 3A. Responsible for:

- Ensuring that intervention plans for non-licensed sites reflect this guidance, and their final approval.
- Ensuring that all 3A NII Inspectors involved in non-licensed sites are sufficiently knowledgeable in relevant regulations and interface agreements.

3.2 Nominated Inspectors. Responsible for:

- Ensuring that their Intervention Plans are developed in conjunction and liaison with DNSR and, where appropriate, FOD/HID/EA/SEPA.
- Establishing any necessary reactive response in liaison with DNSR.
- Effective through-year liaison with DNSR and FOD/HID/EA/SEPA.

### **4 Definitions**

4.1 DNSR. The Defence Nuclear Safety Regulator. On non-licensed sites that are formally 'authorised', DNSR exercises a non-statutory regulatory role similar to NSD's statutory licensing process with accountability to the Secretary of State for Defence through the Chairman of the Defence Nuclear Environment and Safety Board.

4.2 NRP. The nuclear reactor plant. This is taken by the NII to be all structures, systems and components related to a submarine's nuclear steam-raising plant.

## 5 Guidance

5.1 **Legal position.** It is the policy of the Secretary of State for Defence to comply with all relevant safety and environmental legislation unless exemptions/disapplications/derogations apply. With the exception of visiting forces, non-licensed sites are subject to the Health and Safety at Work Act and all the regulations derived from it. There is no crown exemption from the requirements of the HASAWA (but NB position with regard to prosecution and Crown Censure, see Annex B para 14 of G/INS/004). That being the case, HSE Inspectors are statutorily required to enforce the relevant statutory provisions at these sites, a duty that by law cannot be abrogated to others. Enforcement is defined very broadly within the HSC/E Enforcement Policy Statement and allows HSE Inspectors considerable discretion in the way in which they carry out their enforcement duties (conditioned by the Enforcement Management Model). Recognising the role exercised by DNSR at these sites through Authorisation Conditions, NII practice in the exercise of its enforcement duties is to concentrate on a relatively low level of compliance inspection, complemented with joint NII/DNSR reactive work as required and effective NII/DNSR information exchange.

5.2 **NII/FOD/HID liaison.** It is a BMS requirement for NII Inspectors to agree liaison arrangements with responsible FOD/HID Inspectors for the regulation of non-licensed sites. It is expected that NII Inspectors will liaise with FOD/HID colleagues and maintain an effective information exchange throughout the year. T/INS/051 sets out specific requirements with regard to the regulation of 'conventional' safety at non-licensed sites.

5.3 **Hazards.** Reference has been made at para 2.1 to the need to adopt a holistic approach to risks and hazards across the whole of the naval programme. Without routine access by the NII to relevant safety cases, it is not as easy for NII Inspectors to do this for non-licensed sites as it is for licensed activities, although information contained in evaluations and reports made under REPPIR reg 4 and 6 will help. This is one of the reasons why effective and routine dialogue with DNSR is important. An idea of some of the hazards at non-licensed sites is given at Table 1.

5.4 **Design issues.** By agreement/law, the NII will not seek to influence the design of the NRP/nuclear weapon, even if it has reason to believe that to do

so may be justified in safety terms and even though these are the source of the principal hazards. Any concerns in these areas are dealt with by DNSR.

**5.5 Understanding of plant design.** Notwithstanding the above agreed limitations, it is an explicit and agreed aim of the NII NNPP Integrated Intervention Strategy to improve the NII's general understanding of the NRP and related issues. The reason for this is to help ensure that permissioning and other decisions required with regard to licensed facilities on nuclear licensed sites are made on the basis of as full an understanding of the source of the hazard as possible. This is another reason for encouraging effective joint NII/DNSR working. NII Inspectors are also encouraged to take advantage of any opportunity for improving their NRP plant understanding (but noting the commitments in the MOD/HSE Agreement with regard to submarine access).

### **Associated documents**

6.1 T/INS/051. The Regulation of Conventional Safety by NSD Inspectors.

6.2 The MOD/HSE Agreement, in particular Annex A and C, which are relevant to non-licensed sites. This is set out in SIM 07/2001/46.

6.3 NII/DNSR Letter of Understanding November 2006.

TABLE 1  
**NUCLEAR HAZARDS AT NON-LICENSED SITES**

OPERATION/POTENTIAL HAZARD	COMMENT
<b>HM Naval Base Clyde (Faslane, Coulport and parts of Rosyth<sup>1</sup> – plus other operational facilities)</b>	
Operation of submarine reactors at full power.	Power operations may take place alongside at Faslane and Coulport.  The jurisdiction of the Health and Safety at Work Act extends to the baseline of UK territorial waters, ie it includes the geographical boundary designated as falling under the statutory authority of the Queen's Harbour Master.
Maintenance.	This can include intrusive work on the NRP and in the reactor compartment.
Explosives handling.	This includes weapons handling.
Treatment, storage and disposal of radio-active waste (ILW and LLW).	ILW at Faslane only.
Submarine and ship movements.	Some submarine movements involve situations of limited manoeuvrability.
Shiplift operations.	Nuclear Fleet and Ballistic Missile submarines are periodically moved into the Faslane shiplift for maintenance and other operations.
Storage of DDLP submarines.	(DDLP – De-fuel, De-equip and Lay-up Preparation). Several Polaris submarines are stored, pending disposal, on the non-licensed site at Rosyth.
<b>HM Naval Base Devonport</b>	
De-commissioning	De-commissioning of various facilities at Devonport.
Operation of submarine reactors at power.	Power operations may take place alongside in Naval Base berths and also at the 5 basin PRT berth.  The jurisdiction of the Health and Safety at Work Act extends to the baseline of UK territorial waters, ie it includes the geographical boundary designated as falling under the statutory authority of the Queen's Harbour Master.
Maintenance.	This can include intrusive work on the NRP and in the reactor compartment.
Explosives handling.	This includes weapons handling.

OPERATION/POTENTIAL HAZARD	COMMENT
Treatment, storage and disposal of radio-active waste (ILW and LLW).	ILW (for example spent resins) and LLW.
Submarine and ship movements.	Some submarine movements involve situations of limited manoeuvrability.
Building/facility renewal.	Significant SRC building/dismantling works are in hand.
Storage of DDLP submarines.	(DDLP – De-fuel, De-equip and Lay-up Preparation). Several SSN submarines are stored, pending disposal, on the non-licensed site.
De-commissioning	De-commissioning activities in a number of areas.
<b>Naval Reactor Test Establishment Vulcan</b>	
Reactor power operations.	This includes a range of operational conditions.
ILW and LLW waste handling.	The Decontamination and Waste Treatment Facility, (care and maintenance status). Contains used resins.
Fuel storage.	Used fuel is stored at both STF and DSMP ponds.
MCP refurbishment.	Vulcan facilities are used to refurbish nuclear submarine main coolant pumps.
<b>Operational berths (Z berths)</b>	
Operational berths are situated at various locations around the UK.	<p>These berths are used for port visits and operational activity.</p> <p>Apart from arrival and departure, the reactor plant will not normally be run at high power and reactor plant maintenance is not permitted. The NII's main interest is with regard to REPIR and IRRs.</p>

1 The area of Rosyth designated Rosyth Royal Dockard is a nuclear licensed site. A further area where redundant submarines are stored is non-licensed and comes under the control of the Clyde Naval Base Commander.

# LETTER OF UNDERSTANDING

between

**Her Majesty's Nuclear Installations Inspectorate**

and the

**UK Defence Nuclear Safety Regulator**

**setting out their intentions for joint regulation of the defence nuclear programmes**

## **INTRODUCTION**

1. The HSE/MoD General Agreement is an administrative agreement that sets down how the MoD will observe the Health and Safety at Work Act and its relevant statutory provisions, and how HSE will fulfil its statutory duties in relation to defence-related activity. Annex B deals with MoD-related nuclear sites; it should be read in conjunction with this LoU. It allows for the development of Letters of Understanding when it is appropriate to do this to clarify working level relationships between the MoD regulators and the Nuclear Installations Inspectorate (NII) which is responsible within HSE for the statutory regulation of nuclear safety at licensed nuclear sites.

2. Letters of Understanding have been in existence since March 2003 (NII / CNNRP for the naval nuclear propulsion programme) and December 2003 (NII / NWR for the nuclear weapons programme). This LoU replaces these earlier versions and reflects the formation of the Defence Nuclear Safety Regulator (by merger of CNNFRP and NWR) and the deepening relationship between NII and DNSR to achieve effective regulation. The main change from previous LoUs is the identification of managerial measures that will be necessary to give full effect to its aspirations, and the emphasis on the development of jointly determined and implemented strategies and plans.

3. This Letter of Understanding:

- Provides the high-level intentions<sup>1</sup> for joint regulation<sup>2</sup> of the defence nuclear programmes;
- Sets out what is expected of working level regulation to reflect the need for greater integration and joint effectiveness;
- Encourages development of a more holistic approach to the regulation of the programmes;
- Recognises that it is not possible or appropriate to prescribe working level practice in detail but better to encourage a common regulatory vision and associated values as a means of improving joint regulation;
- Promotes a learning approach to joint regulation with exchange of information an inherent element of this.

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<sup>1</sup> These intentions will be developed into detailed instructions and guidance in the documentation of each regulator.

<sup>2</sup> Joint regulation is an aspiration for duty holders to provide information once, on a given topic, and receive co-ordinated responses from the regulators. In practice it will be achieved by close alignment of licence and authorisation conditions, common understanding of risks and hazards by regulators, sharing of information, and the adoption of common regulatory principles and philosophies

## **PURPOSE OF JOINT REGULATION**

4. The relevant legislation, referenced in Annex B of the HSE / MoD General Agreement, is complex; in particular, defence nuclear activities associated with propulsion and weapons have exemptions, derogations or disapplications from legislation by comparison with nearly equivalent civil activities. The relevant legislation also applies generally onto to UK territory; defence nuclear assets are routinely deployed outside this area. The visions, missions and values of both HSE / NII and DNSR, whilst differently worded, point to a shared aim in the regulation of defence nuclear activities; the protection of people from potentially harmful effects resulting from such activities. Given the complex legal situation and the delivery of the programmes through a range of management arrangements encompassing industry under contract, departments and branches of MoD and the Royal Navy, the shared aim can only be achieved by maintaining a close relationship, delivering joint regulation and providing each other with mutual assurance. The role of DNSR as the competent authority in respect of the designs of propulsion reactors and nuclear weapons is especially important in this relationship.

## **PRINCIPLES FOR JOINT REGULATION**

5. For these reasons, and also to make the most of the strengths and position of each regulator to maximise regulatory effectiveness, the NII and DNSR are committed to making the most of the potential benefits of joint regulation through application of the following principles:

- Mutual understanding of regulatory philosophies (vision, values etc);
- Acceptance that each regulator may seek and accept expert assurance from the other;
- Better use of resources through more appropriate targeting of activity based on a common NII / DNSR understanding of risks achieved through dialogue between respective regulatory strategy development teams (greater effectiveness);
- Greater understanding by duty-holders of regulatory expectations through the representation of a single regulatory view wherever possible and at the right time (better communications);
- Reduction of the regulatory burden on duty-holders by minimizing different requirements (greater efficiency);
- Working towards a common set of safety expectations.

## **JOINT WORKING AND ORGANISATION**

6. A number of organisational requirements flow from the Purpose and Principles. There is a need for:

- Effective continuous communications between regulators;
- Training in the complexities of the defence nuclear programmes and their regulation;
- The joint development, review and maintenance of strategies that take into account the concerns and interests of both regulators and encourage a holistic view of risks across programmes;
- The establishment of plans reflecting these strategies that are jointly



developed and maximize joint NII / DNSR activity;

- A process whereby the NII and DNSR can take into account particular defence needs when making regulatory judgements and considering ALARP issues;
- Arrangements to exchange information rapidly on abnormal occurrences;
- Arrangements to share information in answering requests under the Freedom of Information Act (FOI);
- Mechanisms to ensure that consistent messages are given to duty-holders by both regulators.

### Strategies

7. Strategies identify and express long term regulatory intentions for securing effective nuclear and radiological safety practices. Strategies will be integrated, both within regulators' organizations and between regulators, so that all inspectors work in a way that is consistent with overall NII / DNSR regulatory aims for defence nuclear programmes.

8. The strategies will:

- Follow the principles set out in para 5;
- Identify the main longer-term regulatory concerns and interests;
- Be informed by the knowledge both regulators hold about duty holders and their state of compliance with requirements (eg. derived from regulatory review processes);
- Identify future duty-holder projects and associated regulatory interest;
- Identify regulatory inspection and assessment leads for particular issues or geographical areas'
- Be written down, subjected to due process for agreement by both regulators, and shared between them and with duty-holders;
- Be reviewed annually.

### Plans

9. Plans deliver the expectations of the strategies. Again it is expected that they will be formulated and implemented jointly by sharing input and output information (assessment and inspection) at routine information exchanges such as intervention co-ordination meetings. The most visible will be those relating to sites, although there may also be plans for other activity, for example influencing 'corporate' affairs and communications.

10. The plans will:

- Follow the principles set out in para 5 and the expectations of relevant strategies;
- Contain routinely the following regulatory activities as appropriate;
  - compliance inspections;
  - correction of known current deficiencies;

- influencing future improvements;
- informing assessment and permissioning
- Scope regulatory activity intended to identify and remedy threats to nuclear safety not revealed by any of the above (for example business/culture issues, funding constraints, productivity pressures, shareholder interests).
- Identify regulatory leads for particular activities (including inspection, assessment and permissioning);
- Maximise joint NII / DNSR inspection activities;
- Identify outputs and 'deliverables';
- Be written down, subjected to due process for agreement by both regulators, and shared between them and with duty-holders;
- Be reviewed quarterly.

### **MANAGEMENT RESPONSIBILITIES**

11. The Head of Defence Facilities Division (NII), and the Director DNSR will:

- Maintain this LoU by periodic review;
- Provide resources to deliver the intentions of joint regulation under this LoU;
- Oversee the development of strategies and plans (see above);
- Review progress in delivering the outputs required by the strategies and plans;
- Approve internal instructions and guidance which implement joint regulation and ensure adequate arrangements for training inspectors;
- Ensure that robust and effective mechanisms are in place for sharing and learning from regulatory experience.

12. Divisional Superintending Inspectors (NII) and Nuclear Propulsion / Weapon Regulators (DNSR) will:

- Determine priorities and consequent resources (including for reactive work where this may have a significant impact) to deliver the strategies within their individual purviews;
- Develop, review and maintain strategies (see above);
- Oversee the development of plans (ensuring particularly that sufficient joint activities are planned);
- Monitor delivery of outputs from the plans;
- Ensure that there are adequate arrangements for communications, both between regulators and with duty-holders;
- Plan and prepare the inputs to regulatory review activity;
- Develop, review and maintain internal instructions and guidance which implement joint regulation (including abnormal occurrences and FoI requests).

13. Nominated (NII) and Principal (DNSR) Inspectors will:

- Develop plans that deliver the strategies;
- Ensure that significant change proposals, emergent findings and details of abnormal occurrences are shared, and jointly develop proposed responses, including formal enforcement;
- Develop joint approaches to the setting and evaluation of emergency exercises;
- Share information from the assessment of safety documentation;
- Exchange draft LLC reports before meetings;
- Arrange regular information exchange meetings;
- Ensure that plans are communicated to duty-holders.

14. All NII and DNSR Inspectors will work to the principles set out in this document and the instructions and guidance on the regulation of the defence nuclear programmes set out in the internal documentation of each regulator.

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Defence Nuclear Safety Regulator

Date

Date