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| ONR GUIDE                                  |   |                     |            |
| <b>SUPPLIER CAPABILITY</b>                 |   |                     |            |
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**TABLE OF CONTENTS**

|   |   |
|---|---|
| 1. INTRODUCTION .....                                       | 2 |
| 2. PURPOSE AND SCOPE .....                                  | 2 |
| 3. RELATIONSHIP TO RELEVANT LEGISLATION .....               | 2 |
| 4. RELATIONSHIP TO IAEA DOCUMENTATION AND GUIDANCE .....    | 2 |
| 5. RELATIONSHIP TO NATIONAL POLICY DOCUMENTS .....          | 3 |
| 6. ADVICE TO INSPECTORS .....                               | 3 |
| 7. SUPPLY CHAIN ORGANISATION AND TECHNICAL CAPABILITY ..... | 4 |
| 8. SUPPLY CHAIN MANAGEMENT SYSTEMS .....                    | 5 |
| 9. REFERENCES .....   | 8 |
| 10. GLOSSARY AND ABBREVIATIONS .....                        | 9 |

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### 1. INTRODUCTION

- 1.1 The Office for Nuclear Regulation (ONR) has established a set of Security Assessment Principles (SyAPs) (Reference 1). This document contains Fundamental Security Principles (FSyPs) that dutyholders must demonstrate have been fully taken into account in developing their security arrangements to meet relevant legal obligations. The security regime for meeting these principles is described in security plans prepared by the dutyholders, which are approved by ONR under the Nuclear Industries Security Regulations (NISR) 2003 (Reference 2).
- 1.2 The term 'security plan' is used to cover all dutyholder submissions such as nuclear site security plans, temporary security plans and transport security statements. NISR Regulation 22 dutyholders may also use the SyAPs as the basis for Cyber Security and Information Assurance (CS&IA) documentation that helps them demonstrate ongoing legal compliance for the protection of Sensitive Nuclear Information (SNI). The SyAPs are supported by a suite of guides to assist ONR inspectors in their assessment and inspection work, and in making regulatory judgements and decisions. This Technical Assessment Guidance (TAG) is such a guide.

### 2. PURPOSE AND SCOPE

- 2.1 This TAG contains guidance to advise and inform ONR inspectors in exercising their regulatory judgment during assessment activities relating to a dutyholder's supply chain management arrangements. It aims to provide general advice and guidance to ONR inspectors on how this aspect of security should be assessed. It does not set out how ONR regulates the dutyholder's arrangements. It does not prescribe the detail, targets or methodologies for dutyholders to follow in demonstrating they have addressed the SyAPs. It is the dutyholder's responsibility to determine and describe this detail and for ONR to assess whether the arrangements are adequate.

### 3. RELATIONSHIP TO RELEVANT LEGISLATION

- 3.1 The term 'dutyholder' mentioned throughout this guide is used to define 'responsible persons' on civil nuclear licensed sites and other nuclear premises subject to security regulation, a 'developer' carrying out work on a nuclear construction site and approved carriers, as defined in NISR. It is also used to refer to those holding SNI.
- 3.2 NISR defines a 'nuclear premises' and requires 'the responsible person' as defined to have an approved security plan in accordance with Regulation 4. It further defines approved carriers and requires them to have an approved Transport Security Statement in accordance with Regulation 16. Persons to whom Regulation 22 applies are required to protect SNI. ONR considers supply chain management to be an important component of a dutyholder's arrangements in demonstrating compliance with relevant legislation.

### 4. RELATIONSHIP TO IAEA DOCUMENTATION AND GUIDANCE

- 4.1 The essential elements of a national nuclear security regime are set out in the Convention on the Physical Protection of Nuclear Material (CPPNM) (Reference 3) and the IAEA Nuclear Security Fundamentals (Reference 4). Further guidance is available within IAEA Technical Guidance and Implementing Guides.

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4.2 Fundamental Principle J of the CPPNM refers to quality assurance and states that ‘a quality assurance policy and quality assurance programmes should be established and implemented with a view to providing confidence that specified requirements for all activities important to physical protection are satisfied’. The importance of issues relating to assurance activities are also recognised in the Nuclear Security Fundamentals, specifically:

- Essential Element 12: Sustaining a Nuclear Security Regime – 3.12
  - h) Routinely performing assurance activities to identify and address issues and factors that may affect the capacity to provide adequate nuclear security including cyber security at all times.

4.3 A more detailed description of the elements is provided in Recommendations level guidance, specifically Nuclear Security Series (NSS) 13, Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) (Reference 5).

## **5. RELATIONSHIP TO NATIONAL POLICY DOCUMENTS**

5.1 The SyAPs provide ONR inspectors with a framework for making consistent regulatory judgements on the effectiveness of a dutyholder’s security arrangements. This TAG provides guidance to ONR inspectors when assessing a dutyholder’s submission demonstrating they have effective processes in place to achieve SyDP 4.2 – Supplier Capability, in support of FSyP 4 – Nuclear Supply Chain Management. The TAG is consistent with other TAGs and associated guidance and policy documentation.

5.2 The HMG Security Policy Framework (SPF) (Reference 6) describes the Cabinet Secretary’s expectations of how HMG organisations and third parties handling HMG information and other assets will apply protective security to ensure HMG can function effectively, efficiently and securely. The security outcomes and requirements detailed in the SPF have been incorporated within the SyAPs. This ensures that dutyholders are presented with a coherent set of expectations for the protection of nuclear premises, SNI and the employment of appropriate personnel security controls both on and off nuclear premises.

5.3 The Classification Policy (Reference 7) indicates those categories of SNI, which require protection and the level of security classification to be applied.

## **6. ADVICE TO INSPECTORS**

6.1 This TAG informs regulatory assessment of Supply Chain Management (SCM) arrangements with a particular focus on the supplier’s capability. It should be read together with the Safety TAG NS-TAST-GD 049 Rev 5 ‘Licensee Core and Intelligent Customer Capabilities’. That TAG defines key terms: ‘core capability’, ‘contractor’ and ‘intelligent customer’. The TAG also relates the use of contractors to several Licence Conditions.

### **Regulatory Expectations**

6.2 The regulatory expectation is that dutyholders will describe in the security plan how they seek assurance of supplier capability to support effective nuclear supply chain management arrangements.

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| <b>FSyP 4 - Nuclear Supply Chain Management</b>   | Supplier Capability | SyDP 4.2 |
| For work with nuclear security significance, dutyholders should evaluate and confirm that suppliers have the organisational and technical capability, capacity and culture to deliver items or services to the specification prior to placing any contract. |                     |          |

- 6.3 The regulatory expectation from dutyholders is that they will evaluate and confirm suppliers have the organisational and technical capability, capacity and culture to deliver items or services to the specification prior to placing any contract for items or services identified as being of nuclear security significance. This expectation is in addition to the normal personnel security screening necessary for any contractor to gain access to a site or operation. That process aims to counter the 'insider threat' and CPNI has produced a number of good practice guides on how this might be mitigated, with specific reference to contractors.
- 6.4 The regulatory expectation from dutyholders is that they will ensure suppliers have quality management arrangements which are appropriate and consistent with the security significance of the procured items or services. In most cases dutyholders will use established contractors with a good track record. Such contractors are likely to have the appropriate accreditations and associations. For example: Security Industry Association's Approved Contractor Scheme, BS EN ISO 9001 Quality Management Systems, membership of the Security Institute and related codes of practice and British Standards.

**7. SUPPLY CHAIN ORGANISATION AND TECHNICAL CAPABILITY**

- 7.1 For work with nuclear security significance, the purchaser should evaluate and confirm that suppliers have the organisational and technical capability, capacity and culture to deliver items or services to specification, prior to placing any contract.
- 7.2 Suppliers should be selected by the purchaser after evaluation against pre-defined criteria appropriate to the contract. The criteria will test the supplier's ability to meet the specified intent and should include information from the supplier that provides objective evidence of their capability and capacity to deliver the required item or service. The criteria for selection should be appropriately weighted to evaluate the supplier's ability to meet the required security performance (e.g. protection of SNI) of the contract.
- 7.3 Purchasers are expected to ensure that the supply chain has the organisational and technical capability to deliver items or services in line with their requirements. Suppliers' organisational arrangements should include documented management system arrangements appropriate to the items or services being supplied. These systems should be implemented and be able to meet the requirements of any relevant national or international management system standard for quality, environment and security management. An evaluation of a potential supplier should include the potential supplier's nuclear security culture, ensuring that the organisation and its leaders understand, or have the potential to understand, the importance of nuclear security and the contribution of any high-risk item or service they may supply to achieving the purchaser's security plan requirements.
- 7.4 As part of the supplier selection process, the purchaser should confirm that suppliers have adequate oversight and assurance arrangements for their own suppliers. The

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purchaser and suppliers should hold certification in accordance with recognised management system requirements, issued by the UK Accreditation Service (UKAS), or international equivalent, to ensure that appropriate quality management arrangements are in place and are being applied throughout the Supply Chain. This approach should not preclude purchasers from directly evaluating any level of the Supply Chain or carrying out oversight and assurance when work is in progress. All contracts should detail this right of access by the purchaser.

- 7.5 Purchasers should assure themselves that suppliers have competent personnel, particularly those carrying out key functions such as contract review, fabrication and inspection. The judgement on competency should be based on qualifications, training and experience using the supplier organisation's own criteria and any applicable design code requirements for selection, employment and training of employees. A responsible person within the supplier organisation should assess each person involved for SQEPness against the post profiles and record acceptance and/or limitations, identifying how the latter will be addressed.

**Inspectors should consider:**

- Is the purchaser's process for evaluating suppliers of security significant items and services appropriately weighted to consider the quality and security requirements as a key part of the contract selection and award criteria?
- Do suppliers of security significant items and services currently have, and can maintain, sufficient SQEP personnel throughout the contract period?
- Does the supplier have the capacity to provide an enduring source of high-risk items or services throughout the contract period?
- Has the purchasing organisation promulgated the required nuclear security culture with key suppliers?
- Do suppliers of security significant items or services understand the role of their products in achieving the dutyholder's security plan requirements and are well-coordinated with the purchasers' staff?
- Does the purchasing organisation and/or its suppliers monitor the performance of key individuals who are responsible for providing security significant high-risk items or services?

**8. SUPPLY CHAIN MANAGEMENT SYSTEMS**

- 8.1 The purchaser should ensure that suppliers have quality management arrangements appropriate and consistent with the security significance of the procured items or services.
- 8.2 Purchasers should ensure that supply organisations have management system arrangements appropriate to the items or services being supplied. These systems should be implemented and be able to meet relevant national or international; quality, environment and security management system requirements and be certified by UKAS or an equivalent international organisation.

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- 8.3 The purchaser's management system arrangements should ensure that effective SCM, procurement, oversight and assurance arrangements are applied and are proportionate to the nuclear security significance of the items or services being procured. Arrangements should include comprehensive measures for the generation and control of quality plans and records, detailed further below, as key requirements in the effective procurement, manufacture and/or delivery of high-risk items and services.

**Quality Plans**

- 8.4 The purchaser should make clear in the contract the extent to which quality plans will be utilised. Quality Plans should be agreed with the purchaser prior to their use. The use of quality plans, developed by the supplier and agreed with the purchaser, is essential to ensure that items are fabricated, manufactured, erected, tested and inspected in a planned and controlled manner, and that the required levels of integrity are achieved and can be demonstrated within the required record/evidence package.
- 8.5 Quality Plans allow the purchaser to check in advance that the supplier has fully understood the detailed requirements of the technical specification, and that the supplier has the necessary assurance activities to deliver items that will meet the technical specification and applicable codes and standards. Quality Plans also allow the purchaser, second party (supplier), independent third party inspection personnel, and, in some instances, ONR, to insert inspection points, witness points, review points or hold points into the manufacturing sequence.
- 8.6 Quality Plans should include the full sequence of steps to deliver the item or service and details of hold point release. These need to be available for review by involved parties before work commences and in sufficient time to allow these parties to review and annotate them with hold, inspection, witness and review points and/or to question the sequence or referenced documents.
- 8.7 Quality Plans, in identifying the sequence of activities required to satisfy the requirements of the contract, should reference process or fabrication instructions, tests, inspections and clearly identify the records required to be generated and provided to the purchaser. They should enable each stage of work to be signed for as being complete and also on the completion of work covered by each element of the plan. Proposed changes to quality plans before and during work commencement should be formally controlled and agreed by all the inspecting parties.
- 8.8 A completed Quality Plan should demonstrate that all appropriate steps have been taken to deliver items or services to purchaser requirements, including details of the organisations involved and references to control documents and appropriate records.
- 8.9 For complex items that are fabricated, manufactured or erected in stages, there may be several Quality Plans which support a top level quality plan. Quality Plan operations which are carried out by different organisations should make reference to the arrangements for releasing items or services from one to the other and the quality plans that control the ongoing work.
- 8.10 A quality plan should identify or reference all those documents which form the purchaser's document package and include such aspects as qualification of personnel, fabrication procedures, material certification and traceability, consumable specification, concessions and rework, manufacture, fabrication instructions, heat treatment records,

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inspection and test results (including those from the purchaser, second, and third party inspection organisations).

- 8.11 Quality Plans should identify steps for release, transport, handover and the process that will control the interfaces between organisations. The release process to the purchaser from the supplier should identify and record any approved deviations from contract requirements, specified intent and any outstanding actions.

**Records**

- 8.12 The importance of identification and retention of design, procurement, manufacturing, fabrication and inspection records cannot be overstated as these ultimately support the security plan. These should provide the evidence of assurance activities including those carried out by the supplier and sub-suppliers and in some cases the purchaser. Records also provide ONR with evidence of the application of assurance arrangements and can be used to demonstrate compliance.
- 8.13 Records form part of the demonstration that structures, systems and components meet the design intent and nuclear security requirements. The identification, generation, timely completion, handover and retention of records associated with the supply of items or services, should form part of the contractual arrangements between purchaser and supplier at all levels of the Supply Chain.
- 8.14 The purchaser should identify all the records required to be delivered to the purchaser during or on completion of the contract. Particular attention should be given to material traceability and inspection, test and surveillance activities.
- 8.15 Tracking of record packages by unique reference and plant item unique numbers will aid interim and full system sign off prior to pre and post commissioning testing. The purchaser should develop the lifetime record package tracking process and ensure the supplier's contract arrangements identify this process and their role within that process.

**Inspectors should consider:**

- Are the supplier's management system arrangements appropriate to the risks of the items of services being supplied?
- Are Quality Plans comprehensive and inclusive of the full sequence of steps required to deliver the item or service, including references to assurance activities and applicable codes and standards?
- Do Quality Plans identify inspection/witness/review and hold points for all the required inspection parties?
- Are Quality Plans being adhered to and are they fully signed off after each step has been completed?
- Has the Purchaser put adequate contractual arrangements in place to ensure that relevant records are identified and provided by the Supply Chain in the correct form and to the required timescale?

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### 9. REFERENCES

1. **Security Assessment Principles** – Trim Ref. 2017/121036
2. **Nuclear Industries Security Regulations 2003**. Statutory Instrument 2003 No. 403
3. **Convention on the Physical Protection of Nuclear Material (CPPNM)**  
<https://ola.iaea.org/ola/treaties/documents/FullText.pdf>
4. **IAEA Nuclear Security Series No. 20**. Objective and Essential Elements of a State's Nuclear Security Regime. [http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590_web.pdf)
5. **IAEA Nuclear Security Series No. 13**. Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (**INFCIRC/225/Revision 5**). January 2011. [www-pub.iaea.org/MTCD/Publications/PDF/Pub1481\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1481_web.pdf)
6. **HMG Security Policy Framework**. Cabinet Office.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/316182/Security\\_Policy\\_Framework\\_-\\_web\\_-\\_April\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/316182/Security_Policy_Framework_-_web_-_April_2014.pdf)
7. **NISR 2003 Classification Policy** – Trim Ref. 2012/243357.

*Note: ONR staff should access the above internal ONR references via the How2 Business Management System.*

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**OFFICIAL****10. GLOSSARY AND ABBREVIATIONS**

|       |   |
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| CPPNM | Convention on the Physical Protection of Nuclear Material |
| CS&IA | Cyber Security and Information Assurance                  |
| FSyP  | Fundamental Security Principle                            |
| IAEA  | International Atomic Energy Agency                        |
| NISR  | Nuclear Industries Security Regulations                   |
| NSS   | Nuclear Security Series                                   |
| ONR   | Office for Nuclear Regulation                             |
| OR    | Operational Requirement                                   |
| SC    | Supply Chain  |
| SCM   | Supply Chain Management                                   |
| SNI   | Sensitive Nuclear Information                             |
| SPF   | Security Policy Framework                                 |
| SQEP  | Suitably Qualified and Experienced                        |
| SyAPs | Security Assessment Principles                            |
| SyDP  | Security Delivery Principle                               |
| TAG   | Technical Assessment Guide                                |
| UKAS  | United Kingdom Accreditation Service                      |

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