

**HEALTH AND SAFETY COMMISSION
NUCLEAR SAFETY ADVISORY COMMITTEE**

4 March 2004

The Benchmarking and Review of NSD Assessment Standards

A Paper by NSD

1 Introduction

This paper addresses action 81/3/12 from the meeting of NuSAC in October 2003 to provide NuSAC with terms of reference for the NII's review study of its Safety Assessment Principles (SAPs).

A project to consider the review of SAPs was started in 2000 but was put on hold because of staff shortages and higher priority work. The Harbison Report on NSD's staffing supported NII's intention to revise NII SAPs.

2 Project Objectives

1. Undertake a review of NII's SAPs and Technical Assessment Guides (TAGs) by benchmarking against IAEA Standards to identify whether the relevant safety principles, requirements and good practice, set out in IAEA Safety Fundamentals, Requirements and Guides, have an equivalence in NII SAPs and TAGs; and vice versa.
2. Manage the revision of the NII SAPs in order to meet the needs of the future remediation and decommissioning activities of the industry and taking account of the results of the benchmarking, consulting internally and externally as necessary. Target completion is November 2005 for a SAPs document suitable for public consultation.

3 Project Scope

The project comprises:

1. The benchmarking of NII SAPs and TAGs with the IAEA safety standards - Fundamentals, Requirements and Guides;
2. The review and revision of NII SAPs to bring them into line with IAEA standards, including those for remediation and decommissioning activities and taking into account previously identified technical issues;
3. The preparation of a revised NII SAPs document suitable for public consultation.

4 Method of Approach

Detailed knowledge of the various technical subjects covered by the SAPs resides with the inspectors in NSD who through the discipline related Nuclear Topic Groups (NTGs) collaborate and take ownership of the related guidance. The project will therefore work through these NTGs for advice and subsequent drafting effort.

Consultants (retired ex NII senior staff who are familiar with the SAPs and IAEA standards) will carry out the benchmarking task, which will address IAEA Safety Fundamentals, Requirements and Guides in the areas of General Safety, Safety of Nuclear Facilities and Safe Management of Radioactive Waste.

5 Project Deliverables and/or Desired Outcomes

The overall project deliverable will be a revised SAP document suitable for public consultation with revised and additional TAGs as required.

The deliverable of the IAEA benchmarking task will be a report that:

1. Identifies any relevant principles (Fundamentals level), requirements (Requirements level) or safety guidance (Safety Guide level) in the relevant IAEA documents and maps the equivalence in NSDs internal documentation (noting that some will be in licence condition arrangements);
2. Identifies omissions from the SAPs and TAGs when compared to the IAEA documents by identifying where there is no equivalence, either by its absence or its inadequacy by comparison;
3. Identifies any SAPs or TAGs in which there are inconsistencies with international best practice, or where the required standards differ;
4. Recommends changes to the SAPs and TAGs or sets out a rationale for any differences.

Although it is planned to complete the revision of the SAPs by the nominal project end date (November 2005) the work on the TAGs may take longer. The deliverable from this project in terms of the TAGs therefore will be the strategy for implementing the findings of the international benchmarking. Implementation will be part of the continuous improvement work of the NTGs with accountability via Corporate Assessment Liaison Meeting (CALM).

6 Project Resources

These will comprise:

1. The full time effort of Colin Waker retained beyond retirement to 30 November 2005 to manage the project, to develop any strategic requirements, to plan and coordinate the required resources and to undertake the overall re-drafting of the SAPs.
2. The external consultants to undertake the IAEA benchmarking task, employed under the Nuclear Safety Support (NSS) budget.
3. Members of all of NSD's NTGs to be involved in by advising on any redrafting of SAPs and to undertake the revision of TAGs (or the writing of new TAGs). The exact requirement will only become manifest as the project proceeds. The estimated additional effort required from NTG members spread over the project is likely to be in the range 20 to 50 man-days from each of the 12 NTGs, depending on the number of SAP related topics covered by the NTG. This effort amounts to approximately 2.5 man-years over the project.
4. A Project Board with a technical secretary requiring up to 40 man-days at SI level from each Division over the whole project plus in the range 30 to 50 man-days at I/PI level.

The total NSD resource identified above for the project is of the order 5.5 man-years. The NSD Management Board has sanctioned this level of effort and agreed that work for the project is given the necessary priority to enable the project timescales to be achieved. It has also been agreed that work in support of the project will be explicit in Divisional Plans of Work for 2004/5 and 2005/6.

A firmer and more detailed estimate of the resource requirements from each Division has been made for inclusion in the 2004/5 Plans of Work and will be subject to specific reviews at the September 2004 mid-year and as part of the planning cycle for 2005/6.

7 Exclusions

The project excludes standards on nuclear materials transport. It also excludes the full range of Radiation Safety Standards, as these are not all relevant to nuclear safety assessment. However, those aspects of the SAPs relevant to radiation protection will be reviewed against the relevant IAEA standards.

Public consultation and final publication arrangements are outside of the project scope at this stage.

The project will not compare NII's regulatory processes, arrangements and procedures with international practice as set out in IAEA Fundamentals and Standards documents and other sources. Nor will it benchmark against other standards apart from those from the IAEA.

8 Constraints

The IAEA Standards are subject to a major restructuring and review programme. Several are likely to be replaced on the timescale of this project and some new ones are in process of development. A strategy will be agreed for those Standards in draft but not finally approved

9 Interfaces/consultation

NuSAC; a paper outlining emerging proposals and strategies will be presented to NuSAC for endorsement at its July 2004 meeting.

A further presentation to NuSAC in mid 2005 will also be likely and it is expected that the final draft of the revised SAP document will be presented to NuSAC before finalising it for wider public consultation.

Internally, liaison will be necessary with those having lead roles for the WENRA harmonisation projects and those who have roles on NUSAC and RASSC.

Others; The Environment Agency/SEPA are being consulted to ensure the maintenance of consistency with their development of environmental principles and to meet the recommendations of the joint NUSAC/RWMAC review of regulation (March 2003). The MOD regulator is also being consulted to ensure the maintenance of consistency with its own assessment principles.

Following NUSAC endorsement in July 2004, the mid year project review will consider other stakeholder interactions, such as with the Safety Directors Forum, other industry fora and OCNS.

10 Project Control and Quality Plan

Progress and performance will be subject to monthly review by the Head of Division 4 and a Project Board comprising the Head of Div 4, the Project Manager and Divisional representation at SI level. Performance will be measured against the delivery of targets as set out in the Project Programme and the quality of deliverables to the satisfaction of the Project Board. The project will also be subject to 6 monthly reviews by the NSD Management Board.

11 Initial Outline Project Plan

Activity	Date
Task 1- Develop decommissioning principles	
Initial proposals	June 2004
Completion	December 2004
Task 2- IAEA Benchmarking	
Stage 1	March - April 2004
Review by NII.	Early May 2004
Stage 2	May to November 2004
Task 3- Review international conventions	June 2004
Task 4- Develop strategy for final document	To December 2004
Task 5- Address already identified technical issues	
Phased completion	To March 2005
Task 6 – Drafting	January to October 2005
Project Reviews:	
Mid year review	June 2004 MBM
NUSAC endorsement	8 July 2004 NuSAC meeting
Mid Project Review	January 2005 MBM
Final Project Review	June or July 2005 MBM
Present final draft SAP document to NuSAC	October 2005 NuSAC meeting
Revised SAP document agreed by NSD MB	November 2005 MBM
Finalise document for public consultation	End November 2005

12 Project Risks

The key risks are:

1. Uncertainty over the size of task – thus Stage 1 of task 2 could identify that the project will be longer than anticipated. Additionally further requirements could be identified; e.g. the UK input to the study by the WENRA groups on harmonisation may put additional requirements on this project.
2. Resources: the project officer will need to call upon specialist resources (notably the authors of Technical Assessment Guides) from time to time both to provide advice to the consultants and to advise over decisions or recommendations that emerge. Although the NSD Management Board has agreed to the level of resource identified above and have given the work the necessary priority, the amount of effort remains uncertain and may not be available immediately when called upon due to operational priorities at the time.

13 Action

The Committee is invited to note the project terms of reference and comment as appropriate.

NSD 24 February 2004