

Open Government Status:

**FULLY CLOSED**

**NuSAC/SCR/06/22**

**HEALTH AND SAFETY COMMISSION**

**NUCLEAR SAFETY ADVISORY COMMITTEE**

**SUB-COMMITTEE ON RESEARCH**

**3rd OCTOBER 2006**

**REVISED GUIDELINES FOR HSC COORDINATED PROGRAMME**

**Paper by HSE**

## **Introduction**

1. The HSC Co-ordinated Programme of Nuclear Safety Research is run under the DTI Guidelines, first issued in 1990 and revised in 1994. Extensive changes since then mean the guidelines need updating.

## **Discussion**

2. The current guidelines are given in Appendix 1. The proposed revised version is given in Appendix 2 with the proposed changes highlighted and in Appendix 3 with the proposed changes accepted. The changes may be summarised as follows:

- change of 'ownership' from DTI to HSC
- removing the distinction between primary and secondary objectives
- replacing the criteria of 'adequacy and balance' (which have always been problematical to interpret) with 'reasonable practicability' (which accords with regulatory practice, and also with the previous version of the objectives)

- altering the first secondary objective to reflect more accurately the actual strategy for licensee Essential Research Capability and HSE access to Independent Technical Capability
- inserting an additional objective on maintaining HSE knowledge and expertise
- inserting an additional principle about the accountability and transparency of process
- updating the name of ACSNI to NuSAC
- including decommissioning and waste management explicitly in the scope
- explaining the applicability to all licensees in principle
- mentioning coordination with other government agencies (i.e. including NDA)
- deleting mention of the DTI residual programme.

3. The consultation process so far and that envisaged for the future is:

- The draft has been sent for comment to the licensee research coordinators currently involved in the HSC programme, NDA, DTI, the NuSAC SCR chair, the NSD committee of assessment unit heads (CALM), and their comments have been included as far as possible.
- It is currently awaiting comments from the HSE solicitor and from HSE policy (C Potter, who is also the NuSAC secretariat).
- It is the intention to send it to the naval internal nuclear regulator (DNSR), and then the NSD Management Board.
- The final step is envisaged as being an exchange of letters between the HSC or HSE/NSD and a senior DTI official.

## **Conclusions**

4. Changes are proposed in the content and ownership of the guidelines for the nuclear safety research programme, to take into account the changing circumstances of the programme. These have been discussed with DTI.

## **Action Required**

5. The SCR are asked to note the proposed changes and comment on the implications for nuclear safety research.

## Appendix 1

### **GUIDELINES FROM THE PRESIDENT OF THE BOARD OF TRADE**

These guidelines amend and update those issued with effect from 1 April 1990 regarding nuclear safety research responsibilities which are, or will be, managed on the Commission's behalf by the Health and Safety Executive (HSE). They take effect from 1 April 1994 except where otherwise indicated.

The guidelines take into account the fact that the safety of nuclear installations is the responsibility of the licensees of such installations, and that research covering their safety is largely undertaken or commissioned by commercial licensees, if necessary at the request of the HSE's Nuclear Installations Inspectorate (NII). They also take account of the public interest in maintaining the availability of the research capability needed for regulatory purposes.

#### 1. Primary Objectives

- i) To ensure that adequate and balanced programmes of nuclear safety research continue to be carried out, based on a view of the issues likely to emerge both in the short and long term.
- ii) To ensure that, as far as reasonably practicable, the potential contribution which such research can make to securing higher standards of nuclear safety is maximised.
- iii) To ensure that the results of any such research having implications for nuclear safety are disseminated as appropriate.

#### 2. Supporting Objectives

- i) To take account of the desirability of maintaining a sufficient range of independent capability to ensure the attainment of the primary objectives.
- ii) To ensure that proper account is taken of the advantages of international collaboration in furthering the primary objectives.

#### 3. Research and related work covered by HSC Co-ordinated Programme

These arrangements cover research and related work which has as a primary purpose the improvement of nuclear safety, offers a potential return in terms of greater safety standards at reasonable cost, and which is relevant to any activity or process associated with operation or decommissioning of nuclear power systems on a UK licensed site.

The HSC Co-ordinated Programme may also include work which:

- i) would not be undertaken by commercial licensees on their own account;
- ii) though of potential interest to commercial licensees is more appropriate for HSC to retain the proprietary rights;

- iii) though required by licensees, may for legal or contractual purposes require HSC to retain the proprietary rights (e.g. where government participation is required for collaboration with other countries).

#### 4. Research not covered by HSC Co-ordinated Programme

- i) Research which is undertaken individually or in collaboration by, or on behalf of, commercial licensees primarily for purposes other than safety; or to meet licensing conditions or their own safety design rules;
- ii) Research which is commissioned by the NII to enable it to take specific licensing decisions, or by the licensees as a particular condition of their licences.

#### 5. Determination of HSC Co-ordinated Programmes and Budgets

The HSC should determine the programmes in the light of consultations by HSE with:

- i) the nuclear industry bodies concerned;
- ii) the Advisory Committee on the Safety of Nuclear Installations (ACSNI);
- iii) such other sources as they consider appropriate;

and upon recommendation by the HSE.

#### 6. Basis for Cost Recovery

- i) The costs of research, and its management by HSE, should be recovered from licensees of, or licence applicants for, nuclear installations to the safety of which the research appears to the HSC/HSE to relate.
- ii) They should be recovered in proportions which
  - reasonably reflect the costs of research (and its management by HSE);and which take account inter alia:
  - in the case of existing licensees, of the scale on which each of them undertakes the activities to which the research relates.
  - in the case of licence applicants, of the scale on which each of them plans to undertake the activities to which the research relates.

The scaling factors will be specified in a Memorandum of Arrangements between HSE and the licensees.

#### 7. Proprietary Information

In exercising their co-ordinating role, the HSC/HSE should use their best endeavours to protect any proprietary information which comes to their attention, so far as this is consistent with the requirements of nuclear safety.

8. The Department of Trade and Industry's residual Programme of Safety Research

The Department of Trade and Industry may retain responsibility for funding certain safety research which is more relevant to its own responsibilities than to those of the HSC/HSE. The results of this work will nevertheless be made available to HSC/HSE, and their views may be sought on its content and direction.

Department of Trade and Industry  
April 1994

**Appendix 2**  
**GUIDELINES FOR THE HSC COORDINATED PROGRAMME OF NUCLEAR**  
**SAFETY RESEARCH**  
*Draft October 2006*

These guidelines amend and update those issued by DTI with effect from 1 April 1994 regarding nuclear safety research responsibilities which are managed on the Commission's behalf by the Health and Safety Executive (HSE). They take effect from ??

The guidelines take into account the fact that the safety of nuclear installations is the responsibility of the licensees of such installations, and that research covering their safety is largely undertaken or commissioned by the licensees, if necessary at the request of the HSE's Nuclear Installations Inspectorate (NII). They also take account of the public interest in maintaining the availability of the research capability needed for regulatory purposes.

The HSC is responsible for ensuring that nuclear safety is supported by the appropriate level and type of research. The HSC Coordinated Programme of Nuclear Safety Research comprises:

- Research commissioned by HSE at the direction of HSC
- Research commissioned by the licensees, declared as part of the programme with the agreement of HSE

1. Primary Objectives

- i) To ensure that a reasonably practicable programme of nuclear safety research\* continues to be carried out, based on a view of the issues likely to emerge both in the short and long term, which is appropriate to the safe operation and decommissioning of UK licensees' plant, the associated waste management, and the assessment of these by HSE (\*'Reasonably practicable' here refers to the balance between the cost of the research and the estimated safety benefits of the results).
- ii) To ensure that the results of any such research having implications for nuclear safety are disseminated as appropriate. The programme should be conducted with a view to accountability and transparency of process.

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2. Supporting Objectives

- i) To maintain an essential infrastructure of research capability (in the UK or overseas) which provides HSE with access to sources of independent technical advice and provides the licensees with technical expertise essential for the safety of licensed nuclear installations.
- ii) To contribute to the HSE knowledge and expertise required to assess the safety of nuclear installations.

- iii) To ensure that proper account is taken of the advantages of international collaboration in furthering the primary objectives.

### 3. Research and related activities covered by HSC Co-ordinated Programme

These arrangements cover research and related activities (such as infrastructure support, collaborative agreements, information exchanges) which have as a primary purpose the improvement of nuclear safety, offers reasonably practicable safety improvements, and which are relevant to any activity or process associated with operation or decommissioning of nuclear installations on a UK licensed site.

The HSC Co-ordinated Programme may also include work which HSE commissions because it would not be undertaken by licensees on their own account, or because HSE judges it necessary to have full control of the work rather than access through a licensee.

The scope of the programme, the range of licensees included and the degree of oversight exercised by HSE shall be consistent with the nuclear hazard, the technical complexity of the operation, the level of understanding of the phenomena and HSE's assessment of the licensees' performance. The arrangements will take account of other relevant research programmes funded by other government departments, regulators and agencies, and nuclear operators, with an appropriate degree of coordination.

### 4. Research not covered by HSC Co-ordinated Programme

- i) Research which is undertaken on behalf of licensees primarily for purposes other than safety; or to meet licensing conditions or their own safety design rules;
- ii) Research which is commissioned by the NII to enable it to take specific licensing decisions, or by the licensees as a particular condition of their licences.

### 5. Determination of HSC Co-ordinated Programmes and Budgets

The HSC should determine the programmes in the light of consultations by HSE with:

- i) the nuclear licensees concerned;
- ii) the Nuclear Safety Advisory Committee;;
- iii) relevant governmental and regulatory bodies
- iv) such other sources as they consider appropriate;

and upon recommendation by the HSE.

6. Funding of Nuclear Safety Research commissioned by HSE

- i) The Nuclear Installations Act 1965 (as amended by the Atomic Energy Act 1989) gives HSE the power to recover the cost of research commissioned at the direction of HSC from the licensees of, or the licence applicants for, those installations to which, in HSC's/HSE's judgement, the research relates. The costs should be discussed with and agreed as far as possible with the licensees or licence applicants.
- ii) They should be recovered in proportions which
- reasonably reflect the costs of research (and its management by HSE);
- and which take account inter alia:
- in the case of existing licensees, of the scale on which each of them undertakes the activities to which the research relates.
  - in the case of licence applicants, of the scale on which each of them plans to undertake the activities to which the research relates.

7. Proprietary Information

In exercising their co-ordinating role, the HSC/HSE should use their best endeavours to protect any proprietary information which comes to their attention, so far as this is consistent with the primary objective of dissemination of research results of nuclear safety significance.

**Appendix 3**  
**GUIDELINES FOR THE HSC COORDINATED PROGRAMME OF NUCLEAR**  
**SAFETY RESEARCH**  
***Draft October 2006***

These guidelines amend and update those issued by DTI with effect from 1 April 1994 regarding nuclear safety research responsibilities which are managed on the Commission's behalf by the Health and Safety Executive (HSE). They take effect from ??.

The guidelines take into account the fact that the safety of nuclear installations is the responsibility of the licensees of such installations, and that research covering their safety is largely undertaken or commissioned by the licensees (and licence applicants), if necessary at the request of the HSE's Nuclear Installations Inspectorate (NII). They also take account of the need of the nuclear safety regulator to maintain and have access to research capability needed for regulatory purposes.

The publication of these guidelines recognises the public interest in nuclear safety research and its interest in knowing who has responsibility for nuclear safety research in the UK. The guidelines make it clear what are the duties of the HSC/HSE and what are the responsibilities of nuclear licensees.

The HSC is responsible for ensuring that nuclear safety is supported by the appropriate level and type of research. It does this through its oversight of a programme of Nuclear Safety Research coordinated by HSE with the nuclear licensees. The HSC Coordinated Programme of Nuclear safety Research comprises:

- Research commissioned by HSE at the direction of HSC
- Research commissioned by the licensees (and licence applicants where appropriate), declared as part of the programme with the agreement of HSE.

1. Objectives

The guidelines provide HSE with the following objectives of what it expects the programme to deliver;

- i) To ensure that a reasonably practicable programme of nuclear safety research continues to be carried out, based on a view of the issues likely to emerge both in the short and long term. The research should be appropriate to the safety and waste management of UK licensees' and licence applicants' plant, and the assessment of these plants by HSE. 'Reasonably practicable' here refers to the balance between the cost of the research and the estimated safety and waste management benefits of the results. The main safety benefits of the research include filling knowledge gaps, reducing significant uncertainties, changes to plant and plant operation, maintaining the technical expertise of the licensees and regulator and securing the infrastructure of research capability.

- ii) To conduct the programme so that there is transparency of process and clear accountability to the public and other stakeholders. In doing so to disseminate and share the research results arising from the programme where it is possible to do so with those who can use them to benefit safety.
- iii) To maintain and provide access to essential infrastructure of research capability both in the UK and where necessary overseas, which provides HSE with access to sources of independent technical advice and contributes to the licensees' (and licence applicants') technical expertise essential for the safety of licensed nuclear installations.
- iv) To contribute to the HSE knowledge and expertise required to assess the safety of nuclear installations.
- v) To ensure that proper account is taken of the advantages of international collaboration in furthering the other objectives.

## 2. Research and related activities covered by HSC Co-ordinated Programme

These arrangements cover research and related activities (such as infrastructure support, collaborative agreements, information exchanges) which have as a primary purpose the improvement of nuclear safety, which offers reasonably practicable safety improvements, and which are relevant to any activity or process associated with operation or decommissioning of nuclear installations on a UK licensed site.

The HSC Co-ordinated Programme may include work which HSE commissions because it would not be undertaken by licensees (or licence applicants) on their own account, or because HSE judges it necessary to have full control of the work rather than access it through a licensee.

The scope of the programme, the range of licensees and licence applicants included and the degree of oversight exercised by HSE shall be consistent with and proportional to the nuclear hazard, the technical complexity of the operation, the level of understanding of the phenomena and HSE's assessment of the licensees' and licence applicants' performance. The arrangements cover both civil and defence licensees, and will take account of other relevant research programmes funded by other government departments, regulators and agencies, and nuclear operators.

## 3. Research not covered by HSC Co-ordinated Programme

- i) Research which is undertaken on behalf of licensees and licence applicants primarily for purposes other than safety; or to meet licensing conditions or their own safety design rules;
- ii) Research and support work which is commissioned by the NII to enable it to take specific licensing decisions, or by the licensees as a particular condition of their licences.

## 4. Determination of HSC Co-ordinated Programmes and Budgets

The HSC should determine the programmes in the light of consultations by HSE with:

- i) the nuclear licensees and licence applicants concerned;
- ii) the Nuclear Safety Advisory Committee;
- iii) relevant governmental and regulatory bodies;
- iv) such other sources as they consider appropriate;

and upon recommendation by the HSE.

#### 5. Funding of Nuclear Safety Research commissioned by HSE

- i) The Nuclear Installations Act 1965 (as amended by the Atomic Energy Act 1989) gives HSE the power to recover the cost of research commissioned at the direction of HSC from the licensees of, or the licence applicants for, those installations to which, in HSC's/HSE's judgement, the research relates. The costs should be discussed with and agreed as far as possible with the licensees or licence applicants. The licensees and licence applicants will need to secure sufficient funds to undertake safety research commissioned to address issues raised by HSE.
- ii) They should be recovered in proportions which
  - reasonably reflect the costs of research (and its management by HSE);and which take account inter alia:
  - in the case of existing licensees, of the scale on which each of them undertakes the activities to which the research relates.
  - in the case of licence applicants, of the scale on which each of them plans to undertake the activities to which the research relates.

#### 6. Proprietary Information

In exercising their co-ordinating role, the HSC/HSE should use their best endeavours to protect any proprietary information which comes to their attention, so far as this is consistent with the objective of dissemination of research results of nuclear safety significance and in accordance with the requirements of the Freedom of Information Act and HSE's published policies.