2000-11-15

Commission on Safety Standards
Seventh Meeting
5-7 June 2000
IAEA Headquarters, Vienna
Report of the Meeting

1. Introduction

Mr. Domaratzki, Deputy Director General, Head of the Department of Nuclear Safety opened the seventh meeting of the Commission on Safety Standards (CSS) and welcomed all participants. Mr. Domaratzki acknowledged the work of the Commission during the last term, paid tribute to Dr. Bishop for chairing the meetings of the Commission's first term and thanked the outgoing members of the Commission. Mr. Domaratzki also thanked Mr. Williams for agreeing to Chair the meetings of the Commission's second term.

2. Adoption of Agenda and Report of the Sixth Meeting

The agenda for the seventh meeting of the Commission was approved (Annex I) and the draft report of the sixth meeting was also approved. The list of actions arising from the deliberation at the meeting is attached as Annex II.

3. Overview of the Activities of the Department of Nuclear Safety

Mr. Domaratzki presented the main activities undertaken by the Department since the November meeting of the Commission, including:

- the approval of the safety requirements on design of nuclear power plants at the March Session of the Board of Governors;
- the Cordoba Conference on the safety of radioactive waste management;
- the preparation of the programme for the period 2002-2003;
- interface with OECD/NEA and the status of the draft Memorandum of Understanding;
- the meeting of legal and technical experts to draft a code of conduct on radiation sources;
- the preparation of publications policy.

Mr. Domaratzki again emphasised that the production of safety standards was the top priority for the Department of Nuclear Safety.

4. Report of the Chairmen's Meeting

Mr. Williams presented a summary of the discussions of the Chairmen's meeting held in the morning of 5 June in advance of the Commission meeting. The main topics of discussions included:

Development of Common Safety Fundamentals: The Commission will closely follow the development of the common fundamentals and will consider the extended outline again, after it

is reviewed by the Committees, in the November meeting. The document will then be drafted and developed in accordance with the established procedure. The meeting agreed that the draft should be flexible, where possible, to allow for future development of topics currently under consideration at the Agency and by other international organizations.
Joint meeting of the Committees: The joint meeting of RASSC and WASSC in April of this year proved to be very successful and there are plans to hold such meetings in the future. The Secretariat was encouraged to hold meetings of two or more committees during the same week to allow for joint meetings and interchange of information in the margins.
Safety standards for fuel cycle facilities: The standards proposed for development in this area will require involvement by more than one Committee. The Secretariat was requested to consider how this will be co-ordinated amongst the Committees, particularly in the light of existing draft and published standards, and to report to the Commission when the Document Preparation Profiles (DPPs) for these standards are considered for approval.
Overall structure of the IAEA Safety Standards: There are currently about 90 safety standards (70 in the process of revision or development and about 20 already published) and the preparation of a set of safety standards for fuel cycle facilities has been proposed. In order to be able to identify possible gaps (in coverage of topics and facilities) and ensure the involvement of the appropriate Committees in their development, a framework needs to be agreed (indicating the areas that need to be developed and their priority). The Secretariat was asked to prepare a discussion paper for the next meeting of the Chairmen and the Commission, taking into account the need for a more systematic coverage of facilities and topics. [Annex II, 7.1].

The meeting of Chairmen was considered very useful for closer collaboration among the Committees and with the Commission, it was decided to schedule a full day meeting of Chairmen ahead of each meeting of the Commission. Additionally, it was decided the Chairmen should be invited to attend the full Commission meetings. In connection with the overall structure of the safety standards, it was also decided to prepare a statement by the Commission for distribution to all Member States describing the process and the importance of their contribution in the development of safety standards. [Annex II, 7.2].

5. Activities of the Committees on Safety Standards

The Chairmen of the Committees (Messrs. Govaerts, Mason, Metcalf and Young) were present for the discussion of this Agenda item.

5.1 Nuclear Safety Standards Committee

Mr. Lacey presented an overview of NUSSC activities including:

- the review of standards and DPPs at the ninth meeting of NUSSC (final review of two safety guides, initial review of one requirements and nine guides and, the review of four DPPs);
- the initial review of approximately three quarters of the standards have been completed, however, the heavy workload of NUSSC will continue at the same level through 2001;
- four safety guides (DS 250, DS 251, DS 253, DS 276) are being prepared for final review by NUSSC in October 2000;
- NUSSC agreed to a change of name for the set of standards on site evaluation (originally siting) to better reflect the approach adopted in their revision;
- the Secretariat has completed a study on the treatment of all hazards in site evaluation and design to ensure coherence and consistency;

- three safety guides on research reactors (DS259, DS260, DS261) endorsed by the Commission in March 1998 have been distributed as Working Material; these safety guides will be reviewed by NUSSC when the draft of the related safety requirements has reached an advanced stage. Following the review by NUSSC, the guides will be submitted to the Commission for final endorsement.

The Commission questioned the appropriateness of the distribution of the three safety guides as Working Material and asked to be consulted on all relevant issues related to the safety standards before actions are taken by the Secretariat.

In his presentation Mr. Lacey raised two issues, namely *Should DS253 (safety assessment and verification for nuclear power plants) and DS284 (safety assessment for predisposal waste management) be combined?* The Secretariat's position was that the two guides have been reviewed for consistency and should be retained for the different technical areas. There was no objection from the Commission on keeping two separate standards. The second issue raised was in connection with the *withdrawal of DS262 (design, safety assessment and operation of storage facilities for spent fuel from research reactors) from publication.* The Commission expressed dissatisfaction regarding the lack of scrutiny by the Secretariat in the early stages of the development of the safety standards and for allowing the document to reach this advanced stage before considering its appropriateness for publication. It was decided to drop DS262 from the list of standards to be published.

5.2 Radiation Safety Standards Committee

Mr. Bilbao presented an overview of RASSC activities including the status of safety standards being developed by RASSC and reported on the effectiveness of the joint RASSC/WASSC meeting. The suggested topics of discussion for future joint meetings are: exclusion, exemption and clearance; cleanup of contaminated areas; prolonged exposure; discharges and environmental monitoring; radiological criteria for disposal; and predisposal/disposal of spent radiation sources. The Commission was also informed of the status of the WHO guidelines for stable iodine prophylaxis following nuclear accidents and of the recommendation of RASSC to consult other organizations sponsoring the Basic Safety Standards (including WHO) in preparing a joint statement clarifying the existing international guidance on iodine prophylaxis.

Mr. Bilbao informed the Commission of a decision by the Secretariat that was endorsed by RASSC on the withdrawal of DS61 (preventing, detecting and responding to illicit trafficking in radioactive material) from publication. It was also pointed out that the prevention part of the document will be included in the safety guide DS67 (establishing national regulatory infrastructure for radiation safety) and the remaining parts will be used for preparing a Safety Report publication. The Commission agreed to the deletion of DS61 from the list of standards. However, the Commission once again expressed its dissatisfaction as to the lack of scrutiny by the Secretariat in the early stages of development of standards which has resulted in wasted efforts and resources.

5.3 Waste Safety Standards Committee

Mr. Delattre presented an overview of WASSC activities including the results of the review of a number of safety standards at the last WASSC and joint RASSC/WASSC meeting, including:

- the review of the combined safety requirements and guide on cleanup of contaminated areas;

- the review of three safety guides on predisposal management of waste (DS159, DS163, DS284) prior to submission to the Member States for comments; and
- the suggestion by WASSC to NUSSC and the Commission on the *possibility of producing one single standard on safety assessment covering all facilities (possibly with appendices to address specific recommendations for different types of facilities).* No suggestions were made on this item (see also Section 5.1 of this report).

The Commission questioned the suitability of the term 'predisposal' and decided to reconsider the issue at the next meeting of the Commission. [Annex II, 7.3].

In view of topics of common interest (practices and intervention, high levels of natural background radiation, and exclusion, exemption and clearance) between WASSC and ICRP, the Secretariat was requested to invite an ICRP representative to participate in the meetings of WASSC. [Annex II, 7.4].

5.4 Transport Safety Standards Committee

Mr. Pope presented an overview of TRANSSC activities including a discussion of the new revision cycle for the transport regulations and preparation of errata for the English version and translations in other languages of the published transport regulations (ST-R-1). In response to the Commission's inquiry regarding the errata for the English text of the regulations Mr. Pope indicated that the errata only concerns mistakes introduced in the process of type-setting and does not introduce changes of substance to the approved text.

At its recent meeting, TRANSSC considered the International Nuclear Event Scale (INES) Manual which includes consideration of lost sources and transport events. Publication of this manual (sponsored jointly by IAEA and OECD/NEA) has been delayed for some time. The Secretariat was requested to proceed with the publication of the manual as soon as possible. Revision of the manual is expected for 2001, and the Commission will review the revised manual at its November 2001 meeting. In this connection the Secretariat was asked to arrange for the review of the manual by the Committees prior to the Commission's review. [Annex II, 7.5].

6. Status of the IAEA Safety Standards

The Scientific Secretary presented the status of the safety standards and provided information on their free distribution. Ten safety standards (four safety requirements and six safety guides) will be published this year and 26 standards are expected for publication in 2001. The Commission was informed of a database prepared for free distribution of 500 copies of safety standards. The database currently includes 126 countries and 380 individual addresses with particular emphasis on the users in the developing countries. Recently published standards have been distributed to the potential users with a covering letter from the DDG-NS asking them for feedback on the use of the safety standards at an appropriate time. The database will be expanded to include addresses of nuclear power plants worldwide. The Commission was also informed that the revised glossary will be on the website [www.iaea.org/ns/coordinet] by early August 2000.

The commission expressed concerns about the delays in the development of safety standards and the fact that the number of standards expected for publication in a particular year keeps

slipping as publications are deferred to subsequent years. In view of the fact that the development of safety standards is the highest priority activity of the Department, the Commission requested clarification of these delays. The Commission was informed that some of the delays have to do with the topics and are due to the time it takes to reach consensus in the Committees before submitting the standards to the Member States. However, the Commission noted that large demands are made on the coordinators and technical officers involved in the development of safety standards (i.e. performing work for the technical cooperation programme and conducting safety related services). It was decided to bring this issue to the attention of the Director General. [Annex II, 7.6].

7. Document Preparation Profiles

In 1999, the Commission decided to review the document preparation profiles for all safety requirements prior to the initial drafting. In accordance with this decision, the Secretariat has submitted for consideration at this meeting three new DPPs (items 7.2, 7.5 and 7.6) and for completeness two DPPs which had earlier been approved by the relevant Committees and for which the initial drafting work had begun (items 7.2 and 7.3). Consideration of the extended outline of previously approved DPP for the preparation of common safety fundamentals (agenda item 7.1) was requested by the consultants involved in its preparation.

The Commission decided to review the new DPPs prepared for the development of Safety Guides. [Annex II, 7.7]

7.1 Objective, Principles and Strategies for the Safe Management of Radiation Hazards (DS 298), Safety Fundamentals

Mr. Barraclough presented the extended outline, prepared by consultants, for the development of common safety fundamentals. The Commission made the following comments and recommendations:

- the title of the document is to be reconsidered and made shorter, a suggestion was put forward to replace ‘principles’ by ‘policy’ and delete ‘hazards’ from the current title;
- in the first objective on human health, the Commission noted the difference in controlling radiation hazards for the public and workers;
- subject related principles should not be lost in the effort to introduce common principles (i.e. engineering principles);
- the word environment as used in the outline should be made clear (i.e. does it include property?); it should also be noted that environmental effects from radiation alone are considered; and
- to include medical exposure.

It was also pointed out that the safety fundamentals have been used as a basis for developing the Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. In order not to lose the relevant specific principles the document could be drafted to include the common principles followed by specific principles, related to subject areas. The Secretariat should arrange for the review of the document by the four Committees and report back to the Commission in November. [Annex II, 7.8].

7.2 Safety of Nuclear Power Plants: Site Evaluation (DS 305), Safety Requirements

Mr. Guerpinar presented the DPP for approval by the Commission. The DPP was approved with the following comments:

- include probabilistic consideration of external events;
- include consideration of land use and emergency procedures;
- include consideration of site re-evaluation; and
- expand the scope of the requirements to include other installations.

7.3 Design and Operation of Research Reactors (DS 272), Safety Requirements

Mr. Boado Magan presented the DPP for the preparation of the safety requirements. The Commission was informed that an initial draft of the document has been prepared and has been subject to internal review. The Commission recommended to include requirements in relation to aging and periodic safety reviews and to update the schedule for development of the requirements included in the DPP. NUSSC was requested to ensure that the comments are incorporated in the draft before its submission to the Member States. [Annex II, 7.9]. The Commission approved the DPP.

7.4 Cleanup of Areas Contaminated by past Activities and Accidents (DS 167), Safety Requirements

Mr. Delattre presented the DPP and informed the Commission that:

- at the Joint meeting of RASSC/WASSC, an initial review of the draft document was conducted;
- the lack of consensus in the Committees on exclusion, exemption and clearance has made the drafting of this document very difficult;
- the document covers prolonged exposures and protection of the environment through the protection of human; and
- the draft includes requirements as well as guidance material.

The Commission pointed out that the document should be clear on how protection of the environment is being addressed and be flexible on issues that are currently being debated. It was also noted that although it is efficient to develop the requirements and guidance materials simultaneously, they should be incorporated into two separate documents before their submission to Member States for comments. The Commission approved the DPP.

7.5 Geological Disposal of Radioactive Waste (DS 154), Safety Requirements;

Mr. Gera presented the DPP. The Commission approved the DPP and asked the Secretariat to consider the information available on the topic, particularly those of OECD/NEA and ICRP, in the development of the safety requirements. The Commission requested the review of the DPP for the development of the safety guide at an appropriate time.

7.6 Regulation for the Safe Transport of Radioactive Material (DS 310), Safety Requirements

Mr. Pope presented the DPP and informed the Commission that a revision panel is scheduled for September 2000. The Commission approved the DPP and requested the Secretariat to report back to the Commission in November [Annex II, 7.10]and to modify the figures attached to the DPP to include reviews by the Commission.

8. Policy Issues

8.1 Chairman's letter to the Director General

The Chairman opened the discussion by presenting the issues raised in his letter of 25 February 2000 and the response by the Director General (letter of 14 April 2000). The response to the issues raised has been generally positive; nonetheless, the Commission requested the Chairman to raise the issue of quality assurance again with the Director General. [Annex II, 7.11]

The Commission noted the change of name of the Commission and the Committees to CSS, NUSSC, RASSC, WASSC and TRANSSC.

8.2 Fuel Cycle Facilities

Ms. Ranguelova presented the report on the status of regulations for fuel cycle facilities in member states. The report was prepared in response to a request made at the fifth meeting and the recommendations made at the sixth meeting of the Commission. The report outlined a proposal for preparation of a safety requirements and a set of facility oriented guides to specifically address non-reactor fuel cycle facilities. The report also raised the possibility of establishing a new Committee for the preparation of these standards. The Commission discussed the report and found the proposals made by the Secretariat well prepared and requested the Secretariat to proceed with the development of the suite of standards for fuel cycle facilities with the following recommendations:

- the existing Committees should conduct the review process, with NUSSC as the primary Committee and appropriate level of involvement by the RASSC, WASSC;
- include consideration of isotope production facilities and waste treatment facilities in the suite of standards proposed;
- arrange for close collaboration with experts who have been involved in the preparation of the report of OECD/NEA on the topic; and
- report back to the Commission at the November meeting with a detailed description of the required standards and guides for the various facilities. [Annex II, 7.12]

8.3 Report on the two year revision cycle of transport regulations.

Mr. Pope presented the report on this topic and informed the Commission that the two year cycle for the revision will start in 2003. The Commission requested to be informed regularly of the progress made (see Section 5.4 of this report).

9. Presentation and Discussion of Regulatory Issues

The members of the Commission presented the recent regulatory issues of significance in their countries.

10. Topics for Senior Regulators Meeting

The Commission discussed proposed topics for the senior regulators meeting scheduled for 21 September in connection with the IAEA General Conference. The topics selected were 'impact of deregulation on nuclear safety regulatory work' (an update), and 'research capacity needed by the operating organizations to ensure operational safety in the long term'.

The DDG-NS informed the Commission that in addition to the topics recommended, the programme of the meeting will include the report of the last peer review discussion on the regulatory control of contractors by operating organization and another topic on a regulatory issues other than those related to nuclear power plants.

11. Topics for Peer Discussion Groups

The commission recommended the topic of 'quality management programme of the regulators' for the next round of peer discussion groups.

12. Dates and Agenda for the next meeting

The next meeting of the Commission is scheduled for 28-29 November 2000.

Tentative dates for the meetings for 2001 are 29-30 May and 27-28 Nonember[*].

The meetings are currently scheduled for Tuesday and Wednesday (Monday being reserved for meetings of Chairmen) of each week. Depending on the number of documents submitted for endorsement at each meeting the duration of meetings may have to be extended an extra day. A decision on the duration of the meetings will be made, in consultation with the Chairman, a few months in advance of each meeting.

Tentative list of standards to be reviewed at the eighth meeting is listed in Annex III.

[*] Please note that, the proposed date of the second meeting in 2001, has been changed at the request of Mr. Frescura.

ANNEX I

AGENDA

Seventh Meeting of the

COMMISSION ON SAFETY STANDARDS

5 - 7 June 2000

Meeting Room CO7-IV, IAEA Headquarters, Vienna

1. Opening of the Meeting (14:00)
   Z. Domaratzki DDG-NS

2. Introduction, Adoption of the Agenda and Summary Record of the Sixth Meeting
   Mr. L.G. Williams

3. Overview of the Activities in the Department of Nuclear Safety
   Z. Domaratzki DDG-NS

4. Summary Report of the Chairmen's Meeting;
   L.G. Williams

5. Presentation and discussion of reports of Safety Standards Advisory Committees

   5.1 Nuclear Safety Standards Advisory Committees
   P. Govaerts Chairman/D. Lacey Scientific Secretary - NUSSAC
   5.2 Radiation Safety Standards Advisory Committees
   C. Mason Chairman/A. Bilbao Scientific Secretary - RASSAC
   5.3 Waste Safety Standards Advisory Committees
   P. Metcalf Chairman/D. Delattre Scientific Secretary - WASSAC
   5.4 Transport Safety Standards Advisory Committees
   C. N. Young Chairman/R. Pope Scientific Secretary - TRANSSAC

6. Status of the IAEA Safety Standards
   A. Karbassioun

7. Document Preparation Profiles

   7.1 Objective, Principles and Strategies for the Safe Management of Radiation Hazards (DS 298), Safety Fundamentals; *I. Barraclough, Technical Officer*
   7.2 Safety of Nuclear Power Plants: Site Evaluation (DS 305), Safety Requirements; *A. Guerpinar Technical Officer*
   7.3 Design and Operation of Research Reactors (DS 272), Safety Requirements; *H. Boado Magan Technical Officer*
   7.4 Cleanup of Areas Contaminated by past Activities and Accidents (DS 167), Safety Requirements; *D. Delattre Technical Officer*
   7.5 Geological Disposal of Radioactive Waste (DS 154), Safety Requirements; *F. Gera Technical Officer*
   7.6 Regulation for the Safe Transport of Radioactive Material (DS 310), Safety Requirements; *R. Pope Technical Officer*

8. Policy Issues

8.1 Chairman's letter to the Director General;
L.G. Williams

8.2 Integrated Structure for fuel Cycle Facilities;
V. Ranguelova

8.3 Report on two year Revision Cycle of Transport Regulations;
R. Pope

9. Presentation and Discussion of Regulatory Issues (*ACSS Members)*

10. Topics for Senior Regulators Meeting (GC, September 2000)

11. Topic for Peer Discussion Groups

12. Any other business

13. Report of the Meeting and Recommendations, Date of the Next Meeting

ANNEX II
ACTIONS ARISING FROM THE MEETINGS OF THE COMMISSION

Actions Arising from the Seventh Meeting

7.1 The Secretariat was asked to prepare a discussion paper on the overall structure of the IAEA Safety Standards for the next meeting of the Chairmen and the Commission. *(Ref. Item 4 of the report)* **[Action: Co-ordinators/ Karbassioun]**

7.2 It was decided to prepare a statement by the Commission for distribution to all Member States describing the process and the importance of their contribution in the development of safety standards. *(Ref. Item 4)* **[Action: the Commission]**

7.3 The Commission questioned the suitability of the term 'predisposal' and decided to reconsider the issue at the next meeting of the Commission. *(Ref. Item 5.3)* **[Action: Delattre, WASSC]**

7.4 In view of topics of common interest (practices and intervention, high levels of natural background radiation, and exclusion, exemption and clearance) between WASSC and ICRP, the Secretariat was requested to invite an ICRP representative to participate in the meetings of WASSC. *(Ref. Item 5.3)* **[Action: Karbassioun]**

7.5 Secretariat was requested to proceed with the publication of the INES manual as soon as possible. Revision of the manual is expected for 2001, and the Commission will review the revised manual at its November 2001 meeting. In this connection the Secretariat was asked to arrange for the review of the manual by the Committees prior to the Commission's review.*(Ref. Item 5.4).* **[Action: Lacey, NSNI]**

7.6 It was decided to bring to the attention of the Director General concerns regarding delays in the development of safety standards. *(Ref. Item 6).* **[Action: The Chairman]**

7.7 The Commission decided to review the new DPPs prepared for the development of safety guides. *(Ref. Item 7)* **[Action: Co-ordinators]**

7.8 Secretariat should arrange for the review of the document by the four Committees and report back to the Commission in November *(Ref. Item 7.1*) **[Action: Barraclough, Co-ordinators]**

7.9 The Commission recommended that requirements on aging and periodic safety reviews be included and to update the schedule for development of the requirements document in the DPP. NUSSC was requested to ensure that the comments are incorporated in the draft before its submission to the Member States. *(Ref. Item 7.3).* **[Action: Lacey, NUSSC]**

7.10 Secretariat to report back to the Commission in November and to modify the figures attached to the DPP to include reviews by the Commission. (Ref. Item 7.6). **[Action: Pope, TRANSSC]**

7.11 The Commission requested the Chairman to raise the issue of quality assurance again with the Director General. *(Ref. Item 8.1).* **[Action: The Chairman]**

7.12 The Secretariat was asked to produce for the November meeting a detailed outline of the standards and guides that will be needed for Fuel Cycle Facilities *(Ref. Item 8.2).* **[Action: Secretariat]**

Actions Remaining from the Sixth Meeting

6.1 Forum to explore issues related to Risk Informed Decision Making in relation to safety standards *(Ref. Item 4).***[Action: Karbassioun, NS]**

6.2 Explain the Numbering System of Safety Standards Series publication on the website *(Ref. Item 6*). **[Action: Karbassioun]**

6.3 Coverage of decommissioning as part of predisposal *(Ref. Item 5)* **[Action: Delattre, WASSC]**

ANNEX III
Tentative List of Standards
to be Reviewed at the Eighth Meeting

- DS250 Operating Organization;
- DS252 Instrumentation and Control for systems Important to Safety in Nuclear Power Plants;
- DS258 External Person Induced Events in Relation to Nuclear Power Plant Site Evaluation;
- DS73 Building Competence in Radiation Protection and Safe Use of Radiation Sources;
- DS171 Decommissioning of Nuclear Fuel Cycle Facilities

ANNEX IV
PARTICIPATION

The Commission

E. D'Amato, Argentina* (sent apologies - unable to attend)
A. Caubit da Silva*, Brazil
A. Bishop*, Canada
R.M. Duncan, Canada
B. Xiong*, China (Mr. C. Zhao, member, unable to attend)
A-C. Lacoste*, France
J. Gauvain, France
R.D. Wendling, Germany (Mr. W. Renneberg, member, unable to attend)
S.P. Sukhatme*, India (sent apologies - unable to attend)
N. Suda*, Japan
N. Watanabe, Japan
Se-Jong Kim, Korea, Republic of
Jae-Ho Song*, Korea, Republic of
Y.G. Vishnevskiy* (sent apologies - unable to attend)
A. Martín Marquínez*, Spain
L-E. Holm*, Sweden
W. Jeschki*, Switzerland
O.M. Smyshlayaev*, Ukraine
L.G. Williams*, (Chair) United Kingdom
R.P. Pape, United Kingdom
P.W. Dickenson, United Kingdom
K. McDonald, United Kingdom
W.D. Travers*, United States of America
J. Blaha, United States of America
R.H. Clakre, ICRP
G. Frescura, OECD Nuclear Energy Agency

Note: * indicates member of the Commission

Chairmen of Committees
P. Govaerts, NUSSC
G.C. Mason, RASSC
C.N. Young, TRANSSC
P. Metcalf, WASSC

IAEA Staff Members
Z. Domaratzki, Deputy Director General, Department of Nuclear Safety
F. Niehaus, A/Director, Division of Nuclear Installation Safety (NSNI)
G.S. Linsley, A/Director, Division of Radiation & Waste Safety (NSRW)
A. Guerpinar, Head, Engineering Safety Section
J. Versteeg, Head, Safety Co-ordination Section
D. Lacey, Safety Assessment Section
A. Bilbao, Radiation Safety Section
D. Delattre, Waste Safety Section
R. Pope, Radiation Safety Section
V. Ranguelova Safety Assessment Section
I. Barraclough, Safety Co-ordination Section
H. Boado Magan, Engineering Safety Section
F. Gera, Waste Safety Section
A. Karbassioun, Scientific Secretary, Safety Co-ordination Section