

**MINUTES OF THE NUCLEAR SAFETY ADVISORY COMMITTEE  
(NUSAC) MAIN MEETING  
HELD ON FRIDAY 17 OCTOBER 2003 AT 0915 HOURS**

**AT PORTLAND HOUSE, ALDERMASTON PARK,  
ALDERMASTON  
(MEETING SERIES NUMBER 81)**

Those attending:

<b>Chair:</b>	<b>Prof John Head</b>	
<b>Members:</b>	<b>Mrs Sheila Ashford</b>	
	<b>Mr Andrew Clarke</b>	
	<b>Dr Bryan Edmondson</b>	
	<b>Prof Tony Goddard</b>	
	<b>Dr Paul Haigh</b>	
	<b>Mr Bill Heafield</b>	
	<b>Prof John Knott</b>	
	<b>Prof Bev Littlewood</b>	
	<b>Dr Rod McKenzie</b>	
	<b>Prof Neville Moray</b>	
	<b>Mr Steve Napier</b>	
	<b>Prof Susan Parry</b>	
<b>CI NII:</b>	<b>Mr Laurence Williams</b>	
<b>Observers:</b>	<b>Mrs Mary Morrey</b>	<b>NRPB</b>
	<b>Dr Peter Manning</b>	<b>BNFL</b>
	<b>Mr Richard Mayson</b>	<b>BNFL</b>
	<b>Mr Alan Brandwood</b>	<b>AWE</b>
	<b>Mr Peter Smith</b>	<b>AWE</b>
	<b>Mr Jeremy Western</b>	<b>BE</b>
	<b>Dr Steve Dolan</b>	<b>DTI</b>
	<b>Mr Clive Williams</b>	<b>EA</b>
	<b>Cdre Peter Hurford</b>	<b>MoD</b>
	<b>Dr John Crofts</b>	<b>UKAEA</b>
	<b>Mr Phil Shepherd</b>	<b>BNFL Magnox</b>
<b>Presenter:</b>	<b>Mr Neale Brittain</b>	<b>BE</b>
<b>Secretariat:</b>	<b>Mr Colin Potter</b>	<b>Temp Secretary</b>
	<b>Mrs Joyce Boorman</b>	<b>Secretariat</b>
	<b>Mrs Alma Edwards</b>	<b>Secretariat</b>

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Item 1: Welcome, introduction and apologies

- 1.1 The Chair, Prof John Head, thanked everybody for their good wishes during his recent period of sickness. He also thanked John Knott for deputising for him during that time and Neville Moray for chairing a meeting.
- 1.2 Apologies were received from Barry Cripwell, Sue Cox, Wynne Davies, Keith Duncan, David Owens, Jim Whiston, David Mason (BNFL Magnox), Andrew Clark (DML), Joe McHugh (EA) and Patrick Robinson (DTI).
- 1.3 Prof Head welcomed Mrs Mary Morrey the new NRPB observer, Mr Phil Shepherd (BNFL Magnox) deputising for David Mason, Dr Steve Dolan (DTI) deputising for Patrick Robinson, Mr Clive Williams (EA) deputising for Joe McHugh, Mr Peter Smith (AWE) accompanying Alan Brandwood and Mr Richard Mayson (BNFL) who will be replacing Peter Manning as BNFL's observer.
- 1.4 Prof Head also welcomed Mr Neale Brittain (BE) who would be making a presentation on the Torness gas circulator problem.
- 1.5 Prof Head formally thanked Alan Brandwood for the NuSAC site visit to AWE on 16 October.
- 1.6 Prof Head informed the meeting that the post for NuSAC Chair had been advertised as he wished to step down by the end of the year.

Item 2: Minutes of the 'Main' meeting held on 3 July 2003

- 2.1 The minutes were taken as a correct record.

Item 3: Matters arising from 'Main' meeting held on 3 July 2003

- 3.1 Actions 78/3/23 and 80/2/11 were cleared. Actions 80/2/8, 80/2/9, 80/2/10, 78/3/19 and 78/1/18 are outstanding. Comments on actions are given below:

Action 78/3/23 - Wynne Davies participated in the UK meeting of interested organisations on the IAEA Safety Guide on Radioactivity in Commodities.

Action 80/2/11 - BNFL paper on Magnox Pondwater was being presented later in this meeting.

Action 80/2/8 - This action is still outstanding. The WENRA study on harmonisation is not yet complete and will be discussed at the WENRA meeting in November. Laurence Williams will report on developments at the March 2004 meeting.

Action 80/2/9 - The analysis of the recruitment strategy will be presented at a meeting of stakeholders (as part of the Harbison Review of NSD) scheduled for 31 October 2003.

Action 80/2/10 - The paper on Safety Performance Overview 2002-2003 is scheduled for the March 2004 meeting.

Action 80/2/11 - Meeting took place in August 2003. Action cleared.

Action 78/3/19 - This action is still outstanding. Although a presentation is being made on the Torness Gas Circulator problem later in the meeting a formal paper has yet to be presented.

Action 78/1/18 - This item is still outstanding. The paper on BE 12 Hour shift working and the need to change ways of work is scheduled for the March 2004 meeting.

#### Item 4: NII-related business

4.1 Laurence Williams reported on the following current key issues for NII.

##### Review of SAPs and Guides:

4.2 NII would be embarking on a two-year project from November 2003 to review the SAPs (now 10 years old) to ascertain whether they are still relevant. Other drivers to this review include the IAEA standards, the Convention on Nuclear Safety and the Joint Convention. The review will address how the SAPs relate to these. The project will involve consultation with licensees.

4.3 **ACTION 81/3/12: NII to report at the March 2004 meeting on the Terms of Reference for the SAPs Review Study with additional information on the scope of the project and its process.**

4.4 20-Year Forward Look:

Laurence Williams reported that the Sam Harbison led independent study of NII staffing had reported and that a stakeholder meeting was being held on 31 October to which NuSAC Members had been invited, albeit at short notice for which he apologised. The report had triggered the need to look carefully at the workload and staffing for the next 20 years. The meeting would explain to stakeholders how NII sees the future nuclear industry and get agreement (or otherwise) so that NII recruitment can be linked to deal with both future needs and dealing with the back-log of work. Dependent on the outcome of the meeting, he hoped to put forward a case to the Treasury for additional staff finance.

4.5 Members asked Laurence Williams whether resources for work related to possible new build had been included and what was the timescale. Laurence Williams said that specific resources for new build were not addressed. The NSD goal was to maintain competence to address such issues.

4.6 Joint convention:

Laurence Williams reported that he would be chairing the meeting of Contracting Parties from 3 to 14 November at the IAEA. Defra was the UK lead department and Mike Weightman, one of NII's DCIs would be leading the UK delegation and make the UK presentation explaining how UK complies.

4.7 High Level Seminar:

Laurence Williams reported that he would be holding the seminar in April 2004 with licensees, GDs and other invited attendees to launch a number of activities including revision of the nuclear site licence.

4.8 IAEA Standards:

Laurence Williams updated the meeting on the review of the IAEA standards. He noted that the IAEA standards had been greatly improved over recent years and were no longer the lowest common denominator. He informed members that the IAEA was working on a leaflet, which would act as a lay person's guide to the nuclear safety standards and was also developing a comprehensive list of all the extant safety standards documents. The leaflet should be available shortly.

**4.9 ACTION 81/3/13: NII to send leaflet on extant IAEA Standards to NuSAC Members.**

Item 5: Matters that the Sub-Committee on Research and Review Groups may wish to raise with licensees or observers

5.1 SCR:

John Knott reported on the change in the composition of the membership of the SCR with both Tony Goddard and Jack Richardson leaving. The composition was now predominantly from universities. Experience of industry would give the SCR a better balance.

5.2 The last SCR meeting had been held on 19 September at Manchester University to allow a visit to the Radiochemistry Centre.

5.3 The out-turn in nuclear safety research was deemed to be satisfactory with a swing to waste management and decommissioning and the HF position was now satisfactory. There were concerns about how it will operate when the NDA comes into existence.

- 5.4 The new arrangements (post IMC) are working satisfactorily with a report due at the April 2004 meeting, although the same people were currently involved. The technical topic for the next meeting would be 'Graphite' with other topics for future meetings.
- 5.5 Prof Head reported that at the Members Only meeting held on 15 October Members were concerned that the new arrangements had yet been tested, as there had been no change in representatives. At the meeting Laurence Williams offered a paper for the 4 March 2004 meeting. NuSAC to monitor the arrangements beyond April 2004.
- 5.6 ACTION 81/3/10: NII, to present a paper on the way in which research would be co-ordinated between NII and the licensees for the March 2004 meeting of NuSAC. (This is a duplicate action from the Members Only meeting held on 15 October 2003).**
- 5.7 Prof Head said that at his recent meeting with the HSC Chair Bill Callaghan confirmed that he places importance on the advice received from the SCR.
- 5.8 RG1:
- In Jim Whiston's absence, Bev Littlewood reported that RG1 had met with BE in August and a presentation on the Torness Gas Circulator problem would be presented later. The 12 Hour Shift Working paper had been delayed, but would be presented at the March 2004 meeting.
- 5.9 Presentations and discussions also included the Work Management System, Health Indicators, BE's WANO corporate review. RG1 would like both BE and NII to present complementary papers on 'Towards Operational Excellence' for the July 2004 meeting of NuSAC and suggested it might be appropriate to hear directly from WANO. Jeremy Western agreed and indicated that he would invite WANO's UK based Managing Director, Sig Berg to participate. RG1 thanked BE for the very useful meeting.
- 5.10 ACTION 81/3/11 (duplicate from Members Only meeting on 15 October 2003): Papers from BE and NII on 'Towards Operational Excellence' for July 2004 Main meeting.**
- 5.11 Bev Littlewood also reported that the RG would like to know more about NII and the EFQM process, to which Laurence Williams said that NII would be pleased to discuss.
- 5.12 ACTION 81/3/14: RG1 to discuss EFQM with NII.**
- 5.13 RG1 would also be working with RG3 to understand BNFL's approach to management issues with the introduction of the NDA. Peter Manning/Richard Mayson agreed to facilitate such a meeting. Laurence Williams commented that NuSAC might wish to look at the interactions with NII.

- 5.14 RG1 also wished to review progress towards improving safety performance at Dounreay at an appropriate time. John Crofts welcomed RG1's interest, noting that a new Dounreay Director would be in post shortly.

RG2:

- 5.15 Bill Heafield reported on the study of the review covering high level waste (HLW) storage and vitrification, the status of the B211 structure and the trial treatment in EARP of MAC with TPP.
- 5.16 Members of RG2 had met with NII and BNFL about the latest developments of TC99. A meeting with EA was planned but the group had yet to arrange a meeting with NIREX. Clive Williams thought that the timing was probably not yet right to talk with Nirex and suggested to wait the results of the trial in which both NII and the EA expected to be involved. Laurence Williams said that the NII/EA were well focused, but he also welcomed NuSAC's views. The funding arrangements were clear and a well-argued safety case was expected. Bill Heafield said that RG2 would still like to meet with Nirex direct.

RG3:

- 5.17 In Wynne Davies' absence, Steve Napier reported that the RG had led the NuSAC response to the NDA Bill. He thanked Member's for their contributions.

5.18 RG4:

In Barry Cripwell's absence there was nothing to add to his written report presented at the Members' only meeting.

5.19 RG5:

Steve Napier added thanks to Alan Brandwood and AWE for the visit the previous day.

- 5.20 He commented that the RG was under strength and required new members, who would need to have the required higher security clearance.

- 5.21 The RG was investigating the possibility of co-ordinated visits with DNSC and both secretariats had had initial discussions.

Item 6: An Overview/Update of the Health, Safety and Environmental Management at AWE (November 2001 to September 2003)

- 6.1 Alan Brandwood presented this paper, which reported progress since the last paper and addressed outstanding issues (criticality control, safety case delivery and integrated management system).
- 6.2 There had been significant progress in decommissioning, waste treatment, dose reduction, fire safety improvement programme and general health and

safety together with establishing a learning organisation and closing the scarce skills gap.

- 6.3 The award of the 25-year contract (now in its third year) would mean a long term future and help with planning and investment and give flexibility.
- 6.4 AWE had also agreed the principles of operation with the new Nuclear Weapons Regulator (NWR). Peter Hurford gave background information about this organisation, which is an internal MoD regulator that complemented the work of the CNNRP. Laurence Williams said that NII had some concerns about the possibility of dual regulation and was working up a protocol for working with the NWR. Bryan Edmondson reported that the DNSC was taking a keen interest in the NWR.
- 6.5 Laurence Williams considered the report as well balanced. He said that there was an outstanding NII action on AWE to improve criticality control and confessed that NII had been tardy in looking at the safety cases.
- 6.6 Steve Napier echoed the balance of the paper together with its honesty. He raised questions on the ownership of the buildings, the change from cost to resourcing accounting practices, random testing for drugs and alcohol and the control of construction contractors.
- 6.7 Rod McKenzie said that at discussions with Safety Representatives at site the day before concerns were raised about the apparent narrowing knowledge of radiological protection staff on site. Laurence Williams reported that AWE's emergency arrangements had been reviewed and NII were content with them. Alan Brandwood commented that such training was overviewed by the Corporate RPA and a cross Company committee (the Skills Centre). Although, on occasions, the release of radiological protection staff had been problematic all emergency training was up to date.
- 6.8 Prof Head concluded that RG5 would continue dialogue with AWE for an update at an appropriate time in the future and thanked Alan Brandwood for the presentation.

#### Item 7: Some Important Management Outcomes from the Torness Circulator Problem

- 7.1 As there was no formal paper, Neale Brittain made a presentation on the two failures along the lines of the one he gave to RG1 members in August 2003, of which copies of the handouts used had been distributed. He explained the technical issues of the gas circulator failure, the costs for returning Torness back to power, management issues that arose from the event and lessons learned that should be taken into consideration for the future.
- 7.2 Jeremy Western said that a formal paper would be provided by BE as he was not happy for the handouts to be regarded as a record of the problem and its outcomes. He would liaise with NII in its production.

- 7.3 Prof Head thanked Neale Brittain for the presentation and said that NuSAC looked forward to receiving the formal paper (Action 78/3/19 refers).

#### Item 8: Sellafield Fuel Handling Plant Pond Water Update

- 8.1 Peter Manning presented the third paper on the subject.
- 8.2 He reported that 600tes of corroded fuel still need to be processed, which had to be managed over the next 10 years. Active management was required to keep to the timetable, as any increase in activity in ponds could be cause for concern.
- 8.3 Bill Heafield thanked Peter Manning for discussions leading to the paper and supported Laurence Williams's comments in that BNFL has a real dilemma. The greatest concern is that without change or some form of accommodation to discharges the process for dealing with the nuclear legacy will not be successful.
- 8.4 Prof Head thanked Peter Manning for his presentation and said that RG2 would continue to monitor the issue.

#### Item 9: Any Other Business

##### Retirements

- 9.1 Prof Head reported that Peter Manning, BNFL and Peter Hurford, MoD were retiring as NuSAC observers and thanked them for their contributions and wished them well for the future. Also, that the Committee looked forward to welcoming Richard Mayson and Andrew McFarland, MoD at its March 2004 meeting.
- 9.2 Prof Head said that as this was probably his last meeting he would take the opportunity to thank the Committee Members for their enthusiasm and hard work during the years of his tenure, the Secretariat for servicing the Committee, Laurence Williams for his reports and the licensees and observers for their willingness to produce papers and discussions/exchanges with the Review Groups in order to conduct NuSAC business.
- 9.3 John Knott, on behalf of NuSAC Members and Observers, thanked Prof Head for all his hard work in steering the Committee over the past four years, and wished him well for his retirement from NuSAC.

#### Item 10: Date of Next Meeting

- 10.1 The next meeting will be held in Rose Court on Thursday 4 March 2004.

**ACTIONS FROM MAIN MEETING HELD ON 17 OCTOBER 2003**

<b>ACTION NUMBER:</b>	<b>ACTION</b>	<b>ACTION BY WHOM</b>
81/3/10	NII, to present a paper on the way in which research would be co-ordinated between NII and the licensees for the March 2004 meeting of NuSAC	NII
81/3/11	Papers from BE and NII on 'Towards Operational Excellence' for July 2004 Main meeting	BE and NII
81/3/12	NII to report at the March 2004 meeting on the Terms of Reference for the SAPs Review Study with additional information on the scope of the project and its process	NII
81/3/13	NII to send leaflet on extant IAEA Standards to NuSAC Members	NII
81/3/14	RG1 to discuss EFQM with NII	RG1 and NII

**ACTIONS OUTSTANDING FROM MAIN MEETING HELD ON 3 JULY 2003**

<b>ACTION NUMBER:</b>	<b>ACTION</b>	<b>ACTION BY WHOM</b>
80/2/8	Laurence Williams to report back to the Committee on the WENRA Study on Harmonisation of Safety Standards at a suitable time	NII
80/2/9	Laurence Williams to give an analysis of the Recruitment Strategy at the October meeting	NII
80/2/10	A Safety Performance overview (2002/3) for the March 2004 meeting of NuSAC	RG1

**ACTION OUTSTANDING FROM MAIN MEETING HELD ON 7  
NOVEMBER 2002**

<b>ACTION NUMBER:</b>	<b>ACTION</b>	<b>ACTION BY WHOM</b>
78/3/19	BE to share details of the Torness gas circulator event at an appropriate time	BE

**ACTION OUTSTANDING FROM MAIN MEETING HELD ON 7 MARCH  
2002**

<b>ACTION NUMBER:</b>	<b>ACTION</b>	<b>ACTION BY WHOM</b>
78/1/18	Paper on BE's 12 hour shift working and the need to change ways of working	BE