

**MINUTES OF THE NUCLEAR SAFETY ADVISORY COMMITTEE
(NUSAC) MAIN MEETING
HELD ON FRIDAY 5 NOVEMBER 2004 AT 09.30 HRS
IN THE ASTOR ROOM, PLYMOUTH HOE MOAT HOUSE
(MEETING SERIES NUMBER 82)**

Chairman:	Mr Steve Vbranch	
Members:	Mrs Sheila Ashford	
	Mr John Billard	
	Mr Andrew Clarke	
	Mr Barry Cripwell	
	Dr Wynne Davies	
	Dr Bryan Edmondson	
	Prof J Knott	
	Dr Paul Haigh	
	Mr Bill Heafield	
	Prof Bev Littlewood	
	Dr Rod McKenzie	
	Prof Neville Moray	
	Mr Steve Napier	
	Prof Susan Parry	
	Dr Jim Whiston	
HM Chief Inspector of Nuclear Installations:	Mr Laurence Williams	HSE
Observers:	Dr Angela Jenkins	AWE
	Mrs Mary Morrey	NRPB
	Mr David Mason	BNG
	Dr Joe McHugh	EA
	Mr Stephen Walsgrove	DTI
	Cmdre Andrew McFarlane	MoD
	Mr Peter Webster	BE
	Mr Andrew Clark	DML
	Dr John Crofts	UKAEA
	Presenters:	Mr Bob Powell
Mr Paul Woodhouse		NII
Secretariat:	Mr Colin Potter	Acting Secretary
	Mr Michael Redhead	Secretariat
	Mrs Alma Edwards	Secretariat

Item 1: Welcome, Introduction and Apologies

- 1.1 Steve Vbranch introduced himself, as it was his first meeting as Chairman and welcomed observers and presenters to the meeting.
- 1.2 Apologies were received from Sue Cox, David Owens and Robin Bloomfield.

Item 2: Minutes of the Main Meeting held on 8 July 2004

- 2.1 The Minutes were accepted as a true record.

Item 3: Matters Arising

- 3.1 Action 82/2/15 cleared – NuSAC to be consulted by NSD shortly.
- 3.2 Action 82/2/16 cleared – BE has promised a paper for July 2005 meeting.
- 3.3 Action 82/2/17 – Laurence Williams promised a paper for Review Group 1 in July 2005, before undertaking a wider consultation on review of safety assessment principles.
- 3.4 Action 82/1/26 (March 2004) – cleared, see Agenda Item 9.
- 3.5 Action 82/1/27 (March 2004) – cleared, NSD resources paper presented to Members' Meeting.
- 3.6 82/1/28 (March 2004) – cleared, see Agenda Item 10.
- 3.7 78/3/19 (November 2002) – cleared, information provided to members.

Item 4: NII-related Business

- 4.1 Report presented by Laurence Williams, HM Chief Inspector of Nuclear Installations.
- 4.2 British Energy:
 - Licensee undertaking further work to demonstrate the ongoing integrity of boiler closure units at Heysham 1 and Hartlepool.
 - A corrosion mechanism may be affecting vertical tendons on certain concrete pressure vessels and boiler closure units. Company is carrying out an inspection programme to investigate integrity of tendons.
 - Potential for turbine failure, with possible coincidental fire and flooding under reactors. The method of construction of reactor would preclude blow-down with reactor at full pressure. BE is working to ensure back-up cooling provision is adequate and making necessary modifications to the plant.
 - Graphite bricks in core. The presence of unanticipated cracks has raised concerns about its Safety Case. A modified Case is in preparation.
- 4.3 British Nuclear Fuels – Decommissioning:
 - NII is aware of BNFL's plan to "parachute in" managers from the British Nuclear Group (BNG) parent, as "secondees" to the licensee companies, and are discussing the legal status of those managers. Discussions continue between lawyers for BNFL and HSE.

- BNFL is exploring the possibility of setting up parts of the existing company as subsidiary companies. NII is examining these proposals with a view to ensuring that any new companies will fully comply with the legislative requirements of the Nuclear Installations Act.
- 4.4 Members queried whether it would be practical to set up the Nuclear Sciences and Technology Services (NSTS) as a separate entity from 1 April 2005; assuming NSTS were set up as a separate organisation, members were concerned that a conflict of interest might arise if it were maintained as a UK centre of excellence within BNG whilst, at the same time other parts of BNFL were competing for decommissioning work.
- 4.5 Ministry of Defence –
- The most significant issue is Phase 3 of Devonport redevelopment. NII in discussion with MoD and Devonport Management Ltd., including dismantling the hammerhead crane, work on HMS Victorious and decommissioning issues; trades unions are involved.
- 4.6 International –
- IAEA interested in safety and security issues at research reactors. Agency sees them as separate, whilst the Chief Inspector (CI) considers they overlap, taking the view that safety standards should take account of eg the implications of a terrorist attack on a reactor.
- 4.7 Resources NSD –
- Cadre is 179 inspectors, currently 168 in post. It's intended to launch vacancy advertisements in January 2005.
- 4.8 After complimenting Laurence Williams on his report, members raised questions and entered into general discussion. In reply to a question about resources for any new build programme, the CI replied that the adoption by the UK of an established international design might demand the input of some 25 experienced inspectors for two years. However, to recruit and train up staff would take at least a year, so the total assessment period would be at least 3 years. The number of people involved and the amount of time required would increase for a new design of reactor. However, there would be a significant further drain on resources if any resultant Public Inquiries were to be held.
- 4.9 Asked what would be the impact of the Government's PSA target for the Nuclear Decommissioning Authority (NDA) competition schedule, the CI replied the impact would be considerable. He saw a need for an NII unit of five to ten people to consider bids for site management contracts. The work would involve looking at the safety records of competing companies/consortia, examining the submitted safety management prospectuses and reporting views to NDA.

- 4.10 The Committee congratulated Laurence Williams on his recent election to the Royal Academy of Engineering.

Item 5: Nuclear Safety Policy Update

- 5.1 A number of vigorous responses had been received on the Consultative Document published on Delicensing Criteria. These had been analysed. As a first step, the Policy Group is to submit a revised policy statement on delicensing to NSD Management Board shortly. Once agreed within HSE the proposal will go to HSC.
- 5.2 A Consultative Document proposing guidance on the Environmental Impact Assessment for Decommissioning Regulations is to be issued. NuSAC members will receive copies.
- 5.3 Consultations by DTI:
- Policy on ILW substitution – Closed a few months ago; DTI is still considering responses.
 - Nuclear Decommissioning – Members will wish to be aware of the web site address where the Government’s revised decommissioning policy can be found (<http://www.dti.gov.uk/consultations/consultation-1294.html>).
 - Convention on Nuclear Safety – the UK’s 3rd national report is now on the DTI website (http://www.dti.gov.uk/energy/nuclear/announce_pubs/conspubs/third_national_report.pdf)

Item 6: Matters the Sub-committee on Research and Review Groups wish to raise with Licensees or observers

Sub-Committee on Research

- 6.1 John Knott –
- The sub-Committee’s new system of considering licensees’ research programmes is working well; it is useful to monitor effort expended on direct nuclear safety.
 - Topic areas managed by IMC on graphite, control and instrumentation etc. show good integration.
 - Chairman of NuSAC, together with the two members of HSC who “champion” nuclear safety (Judith Hackitt and Margaret Burns), are to be invited to next meeting of SCR.

The formation of NDA Research Board was noted. Whilst no details of its remit are available the move was welcomed.

6.2 During discussion, Steve Walsgrove offered himself as the conduit for views of NuSAC/SCR to be fed into DTI.

6.3 It was hoped that the NDA Research Board would be in a position to ensure programmes were more transparent to NII. However, fears remained about organisations' ability and willingness to share information post-NDA. This on account of the fact that most would have the status of contractor and be in competition with others.

6.4 The Chairman took the view that for environmental protection, "Best Available Technology" means technology in the public domain, although he was of the opinion that if knowledge provided a competitive edge, that was legitimate. Other members were of the opinion that it was a retrograde step for knowledge relating to safety to be withheld.

Review Group 1 (Safety Management and Performance)

6.5 Jim Whiston –

- Reported on the Group's useful recent visit to Dounreay. Much improvement noted since previous visit in August 2002; all issues raised in that visit had been acted upon.
- In connection with the paper by Sig Berg of WANO given at the July 2004 meeting on the relatively poor reliability of the UK nuclear generating plant, Jim Whiston suggested BE might be invited to submit a paper to NuSAC, July 2005, seeking input from Magnox Electric.

6.6 Members commended the CI's resources paper but noted that there had not been time to consider it fully. Members asked that the report be considered at the next meeting.

6.7 In discussion on the visit to DML the previous day, members noted that a report would be compiled from their views and submitted to the site director. One member noted the particular benefits of discussions with site safety representatives and asked that dedicated time be allowed for this in future site visits.

6.8 ACTION 82/3/9 Invite Site Director, UKAEA, Dounreay to address Main Meeting in July 2005.

6.9 ACTION 82/3/10 British Energy invited to present a paper (with Magnox input) on the observations on plant availability of Sig Berg (of WANO), in "Towards Operational Excellence", for NuSAC, July 2005.

6.10 ACTION 82/3/11 Chief Inspector's NII Resources paper to be taken at the next Main Meeting.

Review Group 2 (Fuel Cycle Operations and Interim Safety)

6.11 Bill Heafield –

The Review Group is concerned over any reductions in BNFL funding which may be imposed by NDA in respect of the delivery of decommissioning projects. Made the point that engineering needs to be robust to meet NII Specifications. The Group also was concerned about a lack of engineers having a sufficiently broad range of skills.

6.12 In discussion, David Mason (BNG) noted that the company was looking at their short and longer-term resource/skills requirements.

6.13 Regarding the NII specifications relating to legacy wastes recovery and conditioning, the company was considering how it will be able to resource the engineering requirements. The CI noted that the specifications had been placed on the “old BNFL” and it is necessary to consider the consequences of “old BNFL” disappearing. Regarding the issue of resources, the CI commented that HSE had been pleased that the company had increased engineering resources over the last few years – and were keen to ensure that a sufficient specialist resource is retained following the restructuring.

Review Group 3 (Nuclear Decommissioning Authority and Decommissioning Policy)

6.14 Wynne Davies –

- The group had sent to the Secretariat its comments on i) “Non-technical Summary, EIADR Calder Hall, ii) Pre-Application Environmental Impact Assessment, Sizewell “A”.
- It was known that other, similar EIADR documents were in the pipeline, RG3 will investigate with Secretariat the most efficacious way of dealing with a possible series of them.

6.15 In discussion, it was commented that the submission for Calder Hall had been detailed and helpful, whereas that for Sizewell A seemed much ‘meaner’ and less helpful.

Review Group 4 (Emergency Arrangements)

6.16 Barry Cripwell –

- Liaison with NEPLG: concerns remain about the responsibilities of various organisations, although progress is being made in this area.
- BNFL auto-notification of an event remains a goal, but it's far from easy to implement. Conscious too, of people whom it is not possible to contact readily eg Visitors, walkers, local people who are absent from their homes.

6.17 In discussion, David Mason said liaison with representatives of the local community continues, but there is a need to address numerous points that have been raised. Peter Webster, for BE confirmed that a pilot scheme had been run in Lancashire and said there remained much work to be done.

Review Group 5 (MoD)

- 6.18 Bryan Edmondson –
- Good visit yesterday to DML, much learned.
 - A visit to BAE at Barrow remains outstanding, hopes this will take place December or January.
 - Liaison with Defence Nuclear Safety Committee (some of whom had participated in previous day's visit) has proved useful. Each organisation is now more aware of the other's perspective.
- 6.19 In discussion Sheila Ashford –
- Commented that safety culture was apparent at high level and on shop floor, but opined that pressure on middle managers seemed to dilute the commitment.
 - Impressed by the Devonport Accident Control Centre.
 - Considered site was untidy in a number of locations.
- 6.20 Rod McKenzie and Sheila Ashford to attend an emergency exercise at Devonport 24 and 25 November.

Item 7: Update on Regulation at Devonport (NII and MoD) (NuSAC(2004)P14)

- 7.1 Bob Powell (NII), spoke to the paper, making a particular point that the relationship between the Naval Nuclear Regulatory Panel (CNNRP) and NII is relatively new. In these terms each still has much to learn from the other. However, the relationship is developing and a ready exchange of information, as well as joint visits, takes place. The MoD Nuclear Weapons Regulator (NWR) is a recent development and relations between NWR and NII are in their infancy – although these are developing satisfactorily.
- 7.2 Andrew McFarlane (MoD – CNNRP) provided a useful slide presentation, explaining the different characteristics of defence nuclear plant that must be considered in safety regulation, eg the mobility of the plant, constraints on space and weight, the challenging environment (leading to a very robust design of plant and strong containment), the need for plant integrity as irresponsibly tripped plant may at times increase hazard significantly, and the presence of explosives and nuclear materials in close proximity. Andrew McFarlane confirmed, in response to a question, that the Safety Principles used by CNNRP are very similar to NII Safety Assessment Principles, both being based on IAEA INSAG guidance, but with the MoD principles being adapted to take account of the characteristics that he had outlined. He went on to say that while the NII applies SAPs, it acknowledges that they may not apply in all cases; furthermore while operators must address the MoD Safety Principles, this can be by demonstrating compliance or by justifying non-compliance or inappropriateness.
- 7.3 During discussion, Steve Vranich suggested that the concept of "Fit for Purpose" seemed to relate and Bob Powell added that the discipline was to "make the most appropriate use of the money available to achieve risk reduction". Andrew Clark (DML) and Angela Jenkins, who outlined comparable constraints at AWE, supported this concept.

- 7.4 The meeting accepted that the defence areas of the industry continued to work to a practical interpretation of nuclear safety standards and was reassured that NWR, CNNRP and NII were working together and understood the parameters under which each works.

Item 8: Public Perception of Safety at Devonport (NuSAC(2004)P15)

- 8.1 Andrew Clark (DML) – Presented an interesting paper, supported by slides. The principal points made:
- DML working increasingly in partnership with the Royal Navy (RN).
 - The immediate neighbour to the Dockyard is a city of nearly 300,000, with sites of outstanding natural beauty nearby.
 - Whilst the Dockyard is a significant local employer, the proportion of the local population it employs has diminished (to about 12%). Thus, the population at large is less likely to defer to the dockyard than hitherto.
 - DML and RN chair the Local Liaison Committee jointly. The public is invited to meetings.
 - The activity of individual local interest groups varies with changes in their leadership.
 - Open Days are held for employees and their families.
 - Navy Days are popular, although the focus is on RN, rather than the work of the Dockyard in general or nuclear issues in particular.
 - Radiation workers have confidence in the safeguards that exist to protect them; all are volunteers from among the DML staff.
 - A current issue of concern to local people are the presence of five de-fuelled submarines on the site. From a safety viewpoint, DML does not understand why this is of such concern.
 - Problems are experienced with the media's penchant for exaggeration, particularly local media. A recent example was the derailment of a locomotive hauling a flask wagon.
 - A system of cascade briefing has been instituted for dissemination of important messages and information. This works well, ensuring every member of the work-force normally receives the information whilst it is still fresh.
- 8.2 Members held a far ranging discussion on the presentation. Steve Vbranch thanked Andrew Clark for his presentation and for the effort put in by DML personnel to make possible the committee's visit to the Dockyard on the previous day.
- 8.3 **ACTION 82/3/12: Members were asked to provide views on the Chair's suggestion that NuSAC considers the implications for HSE of MoD's developing strategy for management of laid up nuclear submarines. Comments to the Secretariat by 4 March 2005.**

Item 9: Peel Park Closure (British Energy) (NuSAC(2004)P16)

- 9.1 Peter Webster (BE) presented the paper, which centred on the Company's employing a positive approach to the management of change and, where appropriate, complying with Licence Condition 36.

The principal points made:

- A process in place for management of change
 - Licence Condition 36 provides model
 - Understand and control nuclear safety risks associated with change
 - “Fit for Purpose” controls in place
 - Safety to be assured as the end point.
- 9.2 During his presentation, Peter Webster advised the meeting that the Company had tried to redeploy in Scotland, those staff from Peel Park who did not wish to transfer south. Every effort is being made to maintain a pool of Suitably Qualified and Experienced Personnel. NII had placed a regulatory ‘hold’ on these organisational changes, which are now gradually being lifted (only changes in posts in a couple of Peel Park divisions are still held up).
- 9.3 Steve Vbranch noted that the change management model being followed by British Energy is appropriate to any major programme of organisational change. He thanked Peter Webster.

Item 10: Sellafield: Fuel Handling Plant Pondwater Update (NuSAC(2004)P17)

- 10.1 David Mason (BNG) – made some key points:
- Good progress had been made and the poor and deteriorating radiological conditions were now much improved.
 - In connection with decommissioning, BNG wishes to leave (only) a light footprint when its operations finally close.
 - BNG is concerned about maintaining staff skills base.
 - From 1st April 2005, the Company will need to demonstrate that it is looking after a customer’s (NDA) assets. However, funds will not be unlimited and it will be essential to show value-adding as part of the process of decommissioning.
- Noted that the new discharge authorisation would be challenging – and the company is looking at ways of reducing the “source term” rather than seeking to put in place more and more sophisticated abatement technology.
- 10.2 Members complimented BNFL on the good progress made with the plant conditions – and with the much improved throughput of legacy fuel through B205. However, members were concerned that BNFL maintains the necessary skill level to ensure success in all the engineering projects needed to address the legacy wastes fully. The site should ensure it does not lose key engineering staff as happened during a cost-cutting drive in the 1990’s. After the discussion that followed, Steve Vbranch invited Dave Mason to make use of NuSAC members and their contacts if he feels they are able to help in any way.

Item 11: WENRA Study on Harmonisation of Safety Standards (NuSAC(2004)P19)

- 11.1 Paul Woodhouse (NII) – in presenting his paper highlighted the following points:
- WENRA (Western European Nuclear Regulators' Association) - NII Chief Inspector represents UK. Organisation originated with 10 members, there are seven EU accession members.
 - Prescriptive measures used for regulation in Accession States.
 - UK has contributed substantially to IAEA standards; hence UK practices are close to those promulgated by the IAEA.
 - The project under discussion is an exercise to investigate the extent of harmonisation of nuclear regulatory standards in Europe.
 - Of 18 topics identified for investigation, four have been completed.

Many states have adopted the principles of Licence Condition 36.

- 11.2 Laurence Williams informed the committee that the driver for this exercise was the European Commission's need for assurances that Accession Countries have nuclear controls in place that are acceptable to it. Although EU does not have competence in nuclear safety, it utilised its powers under the Treaty of Accession to satisfy itself about standards in every aspect of public administration. The latest IAEA standards are seen as "tough". The CI commented that when the work on this has been completed, NII would report to NuSAC on how the UK "stacked up" against the other European regulators.

Item 12: Any Other Business

- 12.1 Wynne Davies informed members that CORWM reports are available on www.corwm.org.uk. He said that CORWM Secretariat sees NuSAC as an important stakeholder, especially to its current Stakeholder Engagement exercise, and with the support of Steve Vbranch, encouraged Members to contribute.

Item 13: Date of Next Meeting

- 13.1 Members agreed to give the Secretariat details of their availability for meetings in March, July and November 2005.

Item 14: Close

- 14.1 The meeting closed at 1325 hours.

ACTIONS FROM THE MAIN MEETING HELD ON FRIDAY, 5 NOVEMBER 2004

<u>ACTION</u>		
82/3/9	Invite Site Director, UKAEA, Dounreay, to address Main meeting in July 2005	
82/3/10	British Energy invited to present a paper (with Magnox input) on the observations on plant availability of Sig Berg (of WANO), in “Towards Operational Excellence”, for NuSAC, July 2005.	
82/3/11	Chief Inspector’s NII Resources paper to be taken at the July 2005 Main meeting.	[This action is Rolling – dependent on the appointment of new NII Chief Inspector]
82/3/12	Members were asked to provide views on the Chair’s suggestion that NuSAC considers the implications for HSE of MoD’s developing strategy for management of laid up nuclear submarines. Comments to Secretariat by 4 March 2005.	