

**MINUTES OF THE NUCLEAR SAFETY ADVISORY COMMITTEE
(NUSAC) MAIN MEETING HELD ON
THURSDAY 7 MARCH 2002
AT ROSE COURT, LONDON
(MEETING SERIES NUMBER 78)**

Those Attending:

Chair:	Professor John Head	
Members:	Mr Gordon Bellard	
	Mr Barry Cripwell	
	Dr Bryan Edmondson	
	Mr John Hall	
	Professor John Knott	
	Professor Bev Littlewood	
	Dr Rod Mckenzie	
	Professor David Owens	
	Dr Susan Parry	
	Dr Bob Hall	
	Mrs Sheila Ashford	
	Professor Neville Moray	
	Professor Keith Duncan	
	Dr Wynne Davies	
Professor Tony Goddard		
Dr Paul Haigh		
Observers:	Mr Andrew Moore	MoD
	Dr Peter Manning	BNFL
	Mr David Mason	BNFL/Magnox
	Ms Mary Harrison	UKAEA
	Mr Alan Brandwood	AWE
	Dr Joe McHugh	EA
	Mr Jeremy Western	BE
	Ms Helen Leiser	DTI
Presenters:	Mr Nigel Knee	BE
	Mr Mike Harrison	BE
	Mr Colin Gregory	UKAEA
	Mr Tony Coverdale	DTI
	Dr Peter Storey	NII
Chief Inspector HMNII:	Mr Laurence Williams	
Secretariat:	Mr Kevin Allars	Secretary
	Mrs Joyce Boorman	Secretariat
	Ms Eve Quist-Therson	Secretariat

**MINUTES OF THE NUCLEAR SAFETY ADVISORY COMMITTEE (NuSAC)
MAIN MEETING
HELD ON THURSDAY 7 MARCH 2002, 10.00AM AT ROSE COURT.**

1. INTRODUCTIONS, WELCOME AND APOLOGIES

1.1 Apologies were received from Sue Cox, Jim Whiston, Steve Napier, Peter Hurford (MoD) (Andrew Moore substituted), Jim Gray (EA) (Joe McHugh substituted) Richard Wood (DEFRA), Andrew Clark (DML), John Crofts (UKAEA) (Mary Harrison substituted) and Melissa Bilous (Secretariat).

1.2 John Head introduced and congratulated Kevin Allars on his recent promotion as Head of Nuclear and Hazardous Installations Safety Policy Division and in his new role as 'Secretary to NuSAC'.

1.3 John Head informed the meeting that Sheila Ashford had been officially appointed as a member of NuSAC. He also welcomed Paul Haigh (a prospective member of NuSAC) who was observing the meeting.

1.4 John Head also welcomed Nigel Knee (BE), Colin Gregory (UKAEA), Tony Coverdale (DTI), Peter Storey (NSD) and Mike Harrison (BE) who presented papers.

1.5 John Head also informed the meeting that Eve Quist-Therson would take minutes for the meeting in Melissa's absence.

2. MINUTES OF PREVIOUS MEETING HELD ON 8 NOVEMBER 2001 NuSAC (2001) M4

2.1 Minutes of the previous meeting, circulated on 2nd February 2002, were accepted as a correct record with the deletion of the words 'culture but no management', which needed to be addressed' and the addition of the word 'structure' in 'reporting' in paragraph 7.5.

3. MATTERS ARISING

3.1 Actions of the last meeting were agreed as correct and either discharged, or placed on the forward work programme. The NII report on the 'fuel element lifted above the shielding' was still awaited. Action 77/3/18 (visit to AWE) will take place in May 2002, 77/3/24 (visit to Vulcan) to take place in July 2002 and 76/2/18 to be placed on the forward programme.

4. NII RELATED BUSINESS

4.1 Laurence Williams reported that HMS Vanguard had received clearance (with the assistance of the naval internal regulator) for docking down and is now in 9 Dock. Bryan Edmondson responded positively to the NII/MoD collaboration on this work.

4.2 With reference to EA and HSE working together, Bob Hall asked if the positive tones expressed meant that members could begin to relax. Laurence Williams replied that there were still a few areas of tension and the new ways of working were being explored as a result of the work stemming from the Statement of Intent between the two regulators. The formal Memorandum of Understanding between the Director General of HSE and the Chief Executive of the EA would underpin the current situation and better delineate areas of responsibility.

4.3 Neville Moray asked for information about BE's 12 hour shift working Pilot Plan. Laurence Williams replied that the Human Factors team were taking a close look at the issue and were satisfied with the situation. Jeremy Western added that trials were in place and these were being monitored and that a paper had gone to Nuclear Safety Committee to justify the extension of shift working lengths. He offered to provide NuSAC members with a copy of the paper.

ACTION 78/1/17 NII to send latest information to NuSAC
ACTION 78/1/18 BE to send paper to NuSAC

4.4 In response to Bob Hall's query as to whether there was a link with Tech Specs, Laurence Williams commented that there was no strong link between the two issues. He explained that what was important was the need to provide a safer environment of working and this might rest on the need to change ways of working that have been in operation many years. Jeremy Western suggested that NII and BE provided a paper to RG1 that was appropriate to the whole committee.

ACTION: 78/1/19 NII/BE to provide RG1 with paper

4.5 Rod McKenzie expressed concern that he had not seen any statement of emergency arrangements in 'NII's QQR of BE's Decommissioning Strategy' document and asked if (a) NII could point out if such arrangements were in place and (b) if they were, could NII provide the committee with information on how well they were being assessed.

4.6 Laurence Williams replied that all 36 licence conditions still applied to a decommissioning site, although the means of compliance may be different. He added that it was up to operators to submit arrangements for their emergency plans for NII's approval. He agreed to provide a short note on emergency arrangements for decommissioning sites.

ACTION: 78/1/20 NII

4.7 Gordon Bellard commented that at some stage in the decommissioning process, emergency preparedness staffing levels should surely be reassessed.

4.8 Laurence Williams reported that this was part of the ongoing regulatory process and would be addressed in the relevant safety case for the plant.

4.9 Bryan Edmondson reported that he was disappointed in the way BE had responded to the NII Audit of BE's management arrangements. Jeremy Western responded that BE were also disappointed at the lack of progress

despite the efforts they had made. However, a new focus had been applied in the past 4 months and there were positive signs this was bearing fruit. Laurence Williams added that at a recent high level meeting BE and NII had both recognised the importance of closing out the recommendations at an appropriate speed.

4.10 Helen Leiser indicated that she was pleased with the positive progress that had been made with the working relationships between EA and HSE; and asked whether similar work was being undertaken with SEPA. This would be important for the Dounreay Site Restoration Plan. Laurence Williams commented that NII was conscious of the need to have good working relations with SEPA and that plans were in place to sign an MOU with SEPA in the next couple of weeks.

5. GRAB RELEASE MECHANISM INCIDENT AT CHAPELCROSS ON 22 MARCH 2001 (NuSAC (2002) P2)

5.1 The paper was presented by David Mason (BNFL/Magnox). He reported that both events (see next item) involved the following issues:

- (a) equipment developed in the 1950s
- (b) equipment that had been modified inappropriately
- (c) Long Term Safety Reviews (LTSR) had failed to allow the inherent faults/weaknesses
- (d) operators had been, or could not be, exposed to high levels of radiation
- (e) lack of questioning attitude by operators involved.

5.2 Since the time the equipment had been improved and there had also been improvements in safety culture at both Chapelcross and Calder Hall. An independent improvement board for both Chapelcross and Calder Hall had been set up and workers' confidence in the Management process had increased. The member referred to in the report which he said explained these issues in considerable detail.

6. DROPPED FUEL ELEMENT BASKET IN DISCHARGE MACHINE INCIDENT AT CHAPELCROSS ON 5 JULY 2001 (NuSAC (2002) P3)

6.1 The paper was presented by David Mason (BNFL/Magnox). Bob Hall commented on behalf of RG2 and said the group had met with the Station Manager and open and detailed discussions had taken place. Bob Hall said that there had been poor management by both regulators and operators, and expressed his astonishment at the separate ways in which the two sister stations had dealt with the problems. However, he was pleased with how the company had dealt with the situation and was happy with NII's comments that the company was now moving in the right direction.

6.2 David Mason admitted that there had been serious culture deficiencies. He added that there had been a similar situation to the grab release mechanism incident (item 5) where operators had notified the site management of

perceived deficiencies, but site management had refused to implement the changes suggested. He also said that lack of resources was a major contributor, and there was now new management and a campaign to recruit to resource the stations properly. The two station managers now communicate regularly. There has also been considerable improvement in culture and resources.

6.3 Laurence Williams agreed with the overall analysis given by David Mason, and observed that the LTSR should have picked up the problem, but both the operators and regulator have learnt important lessons from these two incidents. There was now a new Station Manager at Chapelcross who had made significant improvements. A new NII inspection programme is also about to be initiated, and Laurence Williams agreed to provide NuSAC with a paper describing this new initiative.

ACTION: 78/1/21 NII

6.4 Rod Mckenzie said that it was an increasingly common situation in the workplace for staff to find themselves overworked and stressed. He thought the operators should be given more time to think about the processes they were acrrying out.

6.5 David Mason replied that there had been a management overview at both stations and an Improvement Board (at high level) had been set up together with a fuel route project (to address improvements). Workers have also been encouraged to question procedures and this was being re-inforced as common practice, as part of this they were also encouraged to celebrate successes.

6.6 David Mason further commented that there had been exchange of staff between the two stations together with an analysis of modifications carried out at one station to ensure that they were not also appropriate for the other.

6.7 Neville Moray observed that although improvements had been made, it was worrying that there was an underspend on Human Factors research whilst such events occurred. He asked for assurances from the licensees that funds would be made available for this type of research.

6.8 David Mason said that there was basic lack of knowledge in the Human Factors area and that an occupational psychologist had been brought in to help management address such issues and support the station.

6.9 Gordon Bellard asked whether Magnox Business Group or BNFL was the licensee for Chapelcross and Calder Hall and if it was BNFL that were subject to the implications of LC36.

6.10 David Mason confirmed that BNFL was the licensee.

6.11 John Head reminded members that NII was to produce a paper on its new integrated enforcement strategy. Laurence Williams expressed his view

that this new integrated enforcement strategy took more account of safety issues arising from the present safety cases.

6.12 Wynne Davies queried the lack of a questioning attitude and wondered whether there was anything to learn more generally. He asked whether risk assessments were frequent enough.

6.13 In response to a question from John Head, Bob Hall reported that there had been frank and open exchanges between RG2 and the operators and that there would be no need for a follow up action by NuSAC.

7. SIZEWELL B NPP – REACTOR PRESSURE VESSEL HEAD SEAL LEAKAGE EVENT (NUSAC (2002) P12)

7.1 The paper was presented by Mike Harrison (BE). Bob Hall thanked BE for its frankness on the events in the paper. He said he was impressed with the action taken to ensure that similar occurrences were not happening on other plants. The investigation of the event had been handled in a satisfactory and professional way.

7.2 Wynne Davies remarked that the situation was similar to the events at Chapelcross in respect of a lack of a questioning attitude. Mike Harrison considered it a question of improvement in communication and other internal processes. He did not see a problem with auditing but thought key operational areas needed to be prioritised.

7.3 Rod McKenzie asked if the issue of remoteness of sites had been looked at. Mike Harrison replied that irrespective of where sites were located, communications should not preclude exchanges. However, there was sometimes a need for face-to-face meetings to break barriers and to have better links with other NPPs as part of a global network. Jeremy Western commented that this was especially important for Sizewell B as it is the only commercial PWR in the UK, could get more benefit from better links with the large numbers of such reactor operating worldwide. David Mason added that the sharing of events was paramount and the UK operators had to acknowledge that they were not isolated from the rest of the world (e.g. through WANO peer reviews etc).

7.4 Mike Harrison said it had been good practice to change from Operating rules to Tech Specs, and he did not consider this a contributory cause to the event.

7.5 In response to a question from John Knott, Mike Harrison indicated that the failed joint rings were silver coated but added that the seals themselves were not found to be deficient and that it had been a maintenance deficiency involving debris that got under the seals. New seals had since been fitted.

7.6 Bob Hall concluded that no follow-up action was required from RG2.

8. THE DOUNREAY FUELS MANAGEMENT STRATEGY (NUSAC (2002) P5)

8.1 Colin Gregory (UKAEA) presented the paper and added that the strategy was continuing to evolve. There were references to other organisations in the paper, but this did not imply they had agreed to the strategy.

8.2 John Hall reported that RG3 had been asked to advise the Minister on the way forward for the Dounreay PFR fuels. However, the Minister had not followed the NuSAC advice (that the PFR fuel be processed at Dounreay). The possibility of BNFL stepping in with a processing option had been suggested and RG3 would continue to monitor.

8.3 John Head informed members that he recollected that HSE's advice on the issue was similar to that of NuSAC. Laurence Williams confirmed that this had been the original, but not the later NII advice, and indicated that the strategy now being proposed was a consequence of the Minister's decision. He commented further that there was a cocktail of exotic fuels at Dounreay and elsewhere in the UK that needed a national strategy (not just one for Dounreay).

8.4 Colin Gregory stated that UKAEA was leading in compiling an inventory of the exotic fuels in the country. Helen Leiser reported that the UKAEA inventory was being compiled at the request of DTI, and DTI appreciated the efforts already expended.

8.5 Bob Hall commented that he was uncomfortable because the situation was a similar legacy problem to that at Windscale Piles. It is 25 years since DFR was shutdown with 32 tonnes of breeder fuel still waiting to be reprocessed. It posed a big problem and he asked what was being done to resolve the situation. Colin Gregory reported that a tender by an alliance of companies was being considered. The fuel may go to the BNFL site at " ". He added that a contract was in place to carry out a pilot study at " " to convert carbide to oxides as one way of moving things forward.

8.6 In response to Paul Haigh's query concerning dialogue with countries with similar problems, Colin Gregory said that the UKAEA was talking to their French partners on technology issues; but had not had a lot of contact with the Japanese. Peter Manning agreed with Colin Gregory that the ideas presently proposed were a good start, and expressed the need to keep a dialogue going. The areas that needed working on were: timescale to deal with the technical issues, the clearing of the Dounreay site of its wastes, transport arrangements for the waste and how to involve local communities.

8.7 John Head said the issue was by no means finalised and proposed that further discussion take place at the Residential Meeting taking place at Dounreay in July 2002.

8.8 John Hall suggested that RG3 should monitor developments on perhaps an annual basis.

ACTION 78/1/22 RG3/UKAEA

9. NUSAC'S SUMMARY OF THE MAIN ISSUES ARISING FROM EMERGENCY EXERCISES (NUSAC (2002) P6)

9.1 Rod McKenzie presented the paper and reported that NEPLG had also recently issued its "Consolidated Guidance" for responding to nuclear emergencies. The NuSAC paper had a number of recommendations for emergency co-ordination and media briefing centres, some of which reiterated recommendations in the NEPLG guidance. Recommendations had also been made on the role of the Military Co-ordination Authority at licensed MoD site exercises in providing public protection advice of the type which the GTA provides at civilian site exercises. Another aspect of emergency exercise arrangements which he felt NuSAC might explore further was how the training and approach of the most senior staff affected how the emergency response was developed.

9.2 Laurence Williams reported that the NEPLG had a 'Lessons Learned' Sub-group which was best placed to carry out cross checks between Industry and NII, and the paper should be referred to it. He felt the 'personalities' issue should be explored further by NuSAC. The regulator does have oversight of the people issues of managing an emergency exercise.

ACTION: 78/1/23 Secretariat

9.3 Andrew Moore explained that there was a difference with MoD exercises, where the MCA would take on the role of the GTA. He said that only two exercises had taken place at AWE Aldermaston, so there was still some immaturity. The other significant site was DML and the organisation was again very different. This could be very confusing for the civil organisations involved.

9.4 Laurence Williams reinforced that there were 2 different GTA systems in operation, with differences between the way the military and civilian officials interacted and liaised with central government. He was in dialogue with MoD on lessons learned and the appropriate level of emergency response.

9.5 In reply to Bryan Edmondson's query concerning the MoD oriented recommendations, Laurence Williams said that the defence issues would be addressed through the DNSC.

10. REVIEW OF THE NUCLEAR SAFETY RESEARCH PROGRAMME (NUSAC (2002) P7)

10.1 Peter Storey (HSE/NSD) gave a brief resume of the paper. It was certain that the Industry Management Committee (IMC) would not exist following this year and therefore would not be providing the co-ordinating role. NSD would need to fill that role.

10.2 John Knott accepted that NuSAC Sub-committee on Research (SCR) was content with the outcome of the 2001/2 programme, and the content of the 2002/3 programme (with the exception of human factors research, which the sub-committee had agreed to discuss further with Peter Storey).

10.3 John Knott said that the NuSAC SCR would have difficulties in forming an independent opinion of the Research Programme without the benefit of the IMC, and re-iterated that NuSAC was required to assure HSC that there was adequate and balanced nuclear safety research. It was not apparently clear as to how they could continue to undertake this task.

10.4 Peter Storey said the way forward was to ensure the open participation of all licensees, with continuity ensured from one year to the next.

10.5 John Knott said that he felt strongly that the Nuclear Research Index and the IMC was a splendid system and gave added value to the industry, regulators and SCR, and was disappointed that it would not continue. He asked for an explanation of the philosophy on why it was better to go the way suggested. NuSAC should not be seen as an adjunct of NII; it was neutral.

10.6 John Knott said he would like to see a modified paper on the way forward following further debate of the situation.

ACTION: 78/1/13 NII

10.7 Helen Leiser said that Ministers would want to be confident that there was transparent engagement. She said that DTI would talk with the industry on why they needed to disband the IMC. There was need to have a system to decide on what rigorous research needed to be undertaken.

10.8 Peter Storey reported that DTI had been part of the formal written consultation, but the main dialogue had been with BE and BNFL. At no time had DTI challenged the industry on the disbandment of the IMC.

10.9 Jeremy Western said that he supported the paper and was keen to have the opportunity to give industry's views, recognising the changes within the industry since the 1980s. He supported the recommendations.

10.10 David Mason echoed Jeremy Western's views. He suggested that there had been a breakdown in communication, and suggested that the industry needs to better express itself to SCR and DTI.

10.11 John Knott re-iterated his concerns about full explanation of the proposed change and how industry was to assure SCR as the independent reviewer.

10.12 Jeremy Western confirmed that the industry valued continued collaboration but that the prescriptive IMC regime was now not appropriate. John Knott said that he would like to see in the paper actioned earlier, details of the suggested mechanism on how the collaboration would take place and what would be discussed.

10.13 Laurence Williams said that there were big issues of process involved, which were being addressed by Peter Storey's staff.

10.14 John Head said that NuSAC would continue to monitor developments, especially with a view to see how NUSAC could still fulfil its role.

11. THE NUCLEAR SKILLS AUDIT (NUSAC (2002) P8)

11.1 Peter Storey introduced the paper and addressed the skills issue from the regulator's point of view. He reported that 3 years ago the OECD undertook a study on the decline of nuclear skills. The UK was identified as one of the countries declining in skills. In order to raise awareness, NII engaged with DTI and two studies were set up. Some good news emerged i.e. an increase in postgraduate nuclear studies at the Universities of Birmingham and Lancaster. Since then there had been a continuous decline in the number of students taking the courses. Currently, there were no nuclear degree courses on offer for the next 3 years and in some cases Universities were having to close the departments altogether. This posed a serious worry about what would happen within the Industry if the situation was not addressed. One solution was to look at the situation in the various companies and to analyse the initiatives they were taking to address the situation. NII was working closely with DTI to look at training and the viability of new ways of working. If there was no strong encouragement from Government there would be further decline.

12. THE NUCLEAR SKILLS STUDY – THE SUPPLY AND DEMAND OF SKILLS FOR THE APPLICATION OF NUCLEAR AND RADIOLOGICAL TECHNOLOGY OVER THE NEXT 10-15 YEARS (DTI) (NuSAC (2002) P9)

12.1 Tony Coverdale (DTI) presented the paper, which complemented the previous paper from Peter Storey. The main points were that there was an ageing workforce within the industry with engineering and physical sciences subjects being less popular with students applying for university courses.

12.2 Bryan Edmondson indicated that success depended on concrete actions to stimulate interest in nuclear courses.

12.3 Tony Coverdale said the plan was to target youngsters at the right time by promoting Science and Technology. In reply to a question from Bryan Edmondson on funding to carry the plan forward, Tony Coverdale said that the funds were available and that funding would be through DTI, with financial support from Industry.

12.4 Tony Coverdale informed the meeting that a report with a forward action plan would come out in June. John Head said that NuSAC would certainly follow this up and asked for a paper for the July meeting.

ACTION: 78/1/24

12.5 Wynne Davies wondered why nuclear subjects were so unpopular, and suggested that they were deemed to be too difficult. He remarked that this needed to be addressed earlier in the educational programme.

12.6 Tony Coverdale reported that there were plans to introduce risk management at Key Stage 3 of the National Curriculum.

12.7 Gordon Bellard added that the Industry was losing expertise and offered the Italian experience in which he was involved as an example in which Industry was clearly not thinking ahead in terms of the expertise required to manage the high risks involved in major industries.

12.8 Peter Storey said the fear within NSD was the prospect of not being able to meet expert supply in the short term; and not being able to maintain the existing level of expertise in what was becoming an 'ageing' industry.

12.9 Tony Coverdale reported that one area that was being looked at was re-training and re-skilling the under 25s under adult apprenticeships; funding was a major factor and also the volume of research involved. DTI was building up ideas to put into an action plan which would hopefully address the problem.

12.10 David Owens said that parallels with other Higher Education Sectors revealed that research was dominated by international students and that Universities were having to solve their financial problems via international markets. The future appeared to be bleak. He also commented that a large number of academic staff being employed were now non EU nationals.

12.11 John Knott said that the matter needed close scrutiny. Industry had indicated that it was able to get enough graduates to fill present posts. Full knowledge of age profiles was required to address the chasm likely to form within the next 10 years

12.12 Jeremy Western pointed out that it was becoming more difficult to recruit good quality technically qualified graduates although to date BE had been successful in competing for them in the ever tighter "market". One factor in this success was BE's image as a dynamic international company with exciting opportunities, another was the high quality training programmes available to take graduates through to chartered status. He expressed concern at the fall in the number of people going into sciences and wondered if improvements could be made by making the disciplines more attractive, or taking a more proactive approach towards apprenticeships.

12.13 Peter Manning reported that at Sellafield there had not been a problem with attracting people from other industries but there was a struggle with getting new graduate recruits; they were down 70 currently. He mentioned that 3 universities had been approached to provide direct assistance.

12.14 John Head concluded that it was encouraging to see the follow-up from the February 2001 forum and that it was being tackled with enthusiasm. NuSAC would continue to monitor closely.

13. THE CONSEQUENCES OF NETA FOR NUCLEAR PLANT OPERATION (NuSAC (2002) P11)

13.1 The paper was presented by Nigel Knee, Head of Marketing Development for BE. John Head expressed the Committee's concern for the implications of the management of nuclear safety when faced with new marketing pressures.

13.2 John Knott said that the offer of flexible power and better prices for customers meant a fall in revenue for electric producers. He did not think that the price issue had anything to do with NETA.

13.3 Bev Littlewood thought the process was very complex and increased uncertainties in operators minds. He asked how susceptible was the UK to a similar occurrence to that which happened in California where insufficient generating capacity was available at certain times.

13.4 Nigel Knee replied that if prices were allowed to fall further this would result in plant closures and that there was a need for Industry to plan at least 10 years ahead. Government energy policy here was key.

13.5 Bob Hall said he was not happy with comments made about market forces. His concern was for nuclear safety. NII had embargoed downsizing. The operators should not be placed under a financial system where they cannot plan strategically for the future.

13.6 Nigel Knee said that plant staff were more commercially aware than they used to be. There was no hiding the fact that, if a plant operated at a substantial loss, there would be an impact on its future.

13.7 Jeremy Western agreed with the points expressed by Nigel Knee. In his capacity with BE as "internal safety regulator" he was keeping a close eye on how operators reacted to the new trading arrangements. To date there was no evidence they had reduced their focus on safe operation with the Trading Function responsible for commercial risk.

13.8 Laurence Williams said he was concerned, and NII was monitoring the situation closely. Although there had been a smooth transition to NETA, it was still early days. He said it was vital to have a Chinese wall between traders and operators and that operators had to keep safety uppermost in their minds. He was concerned that traders were talking to operators.

13.9 David Mason said that experience in Magnox paralleled that of BE, except that there was only one way communication to the traders.

13.10 John Head concluded that the paper had helped NuSAC to appreciate the process and NuSAC would continue monitor developments.

14. JOINT CONVENTION ON THE SAFETY OF SPENT FUEL MANAGEMENT AND ON THE SAFETY OF RADIOACTIVE WASTE MANAGEMENT (NUSAC (2002) P13)

14.1 Kevin Allars indicated that the paper was for information only. Asked by Helen Leiser whether any new legislation was needed, Kevin Allars replied that none was and the UK had ratified the paper on that basis.

15. JOINT STUDIES WITH RWMAC

(i) RWMAC/NuSAC - Conditioning Packaging and Storage of ILW

15.1 John Hall confirmed that the report had been endorsed by both RWMAC and NuSAC and would be published as a joint report which would be sent to Ministers very soon.

15.2 Helen Leiser expressed her disappointment that DTI had not been consulted, as she would have wanted the department to have made a contribution.

15.3 Kevin Allars commented that there was nothing in the paper to affect the work on the LMA and that the paper was in any case one from the two Advisory Committees. He promised DTI an advance copy.

15.4 John Hall reported that there had been no input from any Government Department.

(ii) RWMAC/RWMAC - Nuclear Regulation

15.5 John Hall reported that 3 meetings had been held to date and another was taking place later in the month when a rough outline paper of the current situation for the regulation of nuclear safety and environmental protection would be considered. He added that no clear views had been drawn yet about possible conclusions in the paper or whether recommendations would be made.

16. MATTERS THAT THE SUB COMMITTEE ON RESEARCH AND REVIEW GROUPS MAY WISH TO RAISE WITH LICENSEES OR OBSERVERS

16.1 Bob Hall reported that RG2 had not been able to present the annual update report on comparison of safety performance. RG2 had now received good input and, for the first time, there had been an input for defence licensees through liaison with RG5. The annual paper would be available for a meeting later in the year.

ACTION 78/1/25 RG2

16.2 Bob Hall also reported that liaison over the papers for the November 2002 meeting on Tech Specs had started.

16.3 John Hall reported that RG3 had had a very good meeting with BNFL about COSRs/fdSCs and that a paper would be presented to NuSAC in November.

ACTION: 78/1/26 BNFL

16.4 Rod McKenzie reported that RG4 would be referring the Emergency Exercises paper to the NEPLG. In general, and although there were many good examples, RG4 was disappointed at the considerable variations in performance still displayed at off-site emergency exercises despite the guidance and recommendations on training which had been issued over a considerable number of years. RG4 would like licensees to read and act on its report. The group would also like to see more attention given to the layout of off-site emergency and media briefing centres, particularly with respect to facilities for information provision and flow, and to staff training in the use of these centres before exercises took place.

16.5 Steve Napier reported that RG5's next AWE visit would be to Aldermaston in April 2002.

17. ANY OTHER BUSINESS

BNFL/Magnox Briefing Paper for NuSAC Reference Group 2 on Charge Pan Displacement at Calder Hall and Calder Nuclear Power Stations

17.1 This 'CLOSED' paper had been distributed before the meeting and David Mason invited to take any questions, of which there were none.

17.2 Bob Hall commented that it was a good clear factual paper.

17.3 There was no other business.

18. NEXT MEETING

18.1 The next Main meeting will take place on Friday 5 July 2002 at the Pentland Hotel, Thurso, Scotland starting at 9.00am

Approved