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## MINUTES OF THE NUCLEAR SAFETY ADVISORY COMMITTEE (NUSAC) MAIN MEETING HELD ON THURSDAY, 14 JULY 2005 AT 0930 HOURS IN THE GLOBE ROOM, ROSE COURT, LONDON

Chairman:	Mr Steve Vbranch	
Members:	Mrs Sheila Ashford	
	Mr John Billard	
	Prof Robin Bloomfield	
	Mr Andrew Clarke	
	Mr Barry Cripwell	
	Dr Wynne Davies	
	Dr Bryan Edmondson	
	Dr Paul Haigh	
	Dr Rod McKenzie	
	Prof Neville Moray	
	Prof David Owens	
	Prof Susan Parry	
	Dr Jim Whiston	
HM Chief Inspector of Nuclear Installations	Dr Mike Weightman	HSE
Observers:	Dr Angela Jenkins	AWE
	Dr John Crofts	UKAEA
	Mr Peter Webster	BE
	Dr Rex Strong	BNG
	Mrs Mary Morrey	HPA
	Mr John Lownds	DTI
	Mr Andy Layton	DTI
	Cmdre Andrew McFarlane	MoD
	Dr Joe McHugh	EA
	Mr Laurence Williams	NDA
	Mr Bobby Ronnie	SE
	Mr Alan Brandwood	Magnox
Presenters:	Mr Roger Brunt	OCNS
	Mr Peter Rooke	BNG
	Mr Andrew Baker	EA
	Mr Vaughan Parvess	Magnox
Secretariat:	Mr Colin Potter	Secretary
	Mrs Joyce Boorman	Secretariat
	Mrs Alma Edwards	Secretariat

AWE	=	Atomic Weapons Establishment
UKAEA	=	UK Atomic Energy Authority
BE	=	British Energy
HPA	=	Health Protection Agency
DTI	=	Department of Trade and Industry
MoD	=	Ministry of Defence
EA	=	Environment Agency
NDA	=	Nuclear Decommissioning Authority
SE	=	Scottish Executive
OCNS	=	Office for Civil Nuclear Security
BNG	=	British Nuclear Group

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## **Item 1: Welcome, Introduction and Apologies**

1.1 Apologies were received from NuSAC members Sue Cox, Bill Heafield and Steve Napier.

1.2 Apologies were received from David Mason, BNG, Andrew Clark, DML, Richard Mayson, BNFL, and Louise Robson, DTI.

1.3 Steve Vbranch welcomed Rex Strong, BNG, representing David Mason; Andy Layton and John Lownds, DTI, representing Louise Robson and Bobby Ronnie, SE.

1.4 Steve Vbranch congratulated Mike Weightman on his appointment as Chief Inspector of the Nuclear Installations Inspectorate. He also welcomed Laurence Williams on his return to NuSAC as the NDA's Observer.

1.5 Steve Vbranch introduced Robin Bloomfield who had been appointed as an Independent Member to NuSAC, replacing Bev Littlewood. He formally recorded his thanks to Bev Littlewood for his contribution to NuSAC since his appointment in 1990, in particular for his work with the Sub-Committee on Research and for the sterling work undertaken with the Study Group on the use of computer-based systems for control and protection of plant (SOCS) and its associated report published in October 1998.

1.6 The HSC 'nuclear champion' Commissioners, Margaret Burns and Judith Hackitt, were unable to attend.

1.7 Steve Vbranch welcomed presenters: Andrew Baker, EA, Peter Rooke, BNG, Vaughan Parvess, Magnox and Roger Brunt, OCNS.

1.8 Steve Vbranch explained that following the independent review of NuSAC some changes have been put in train e.g. the inclusion the Policy issues update and the NII issues update to the Main meeting and available to Observers. He wanted Observers to have the opportunity to be more involved in the meetings as their views were valued. He asked for feedback on the new format.

**1.9 Action 8/2/2005: Observers to feedback comments on the new format of the Main Meeting to the Secretariat by 12 August 2005.**

## **Item 2: Minutes of the Main meeting held on 17 March 2005**

2.1 The following amendments were made to the Minutes:

Para 2.1 to read 'The minutes were 'approved' rather than 'taken'.

Para 4.2 to read 'The final version of the Consultant's Review Report would be available at a later date'.

Para 6.12, last line: replace 'my' with 'by'

Para 6.18, first line: replace 'their' with 'the'

Para 7.1, second line: replace 'EQFM' with 'EFQM'

Para 9.16, last line: last sentence to read 'This was a positive initiative.

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2.2 With the above amendments the minutes of the Main meeting held on 17 March 2005 were accepted as a true record and approved.

## **Item 3: Actions Arising**

3.1 Action 13/1/2005 and Action 14/1/2005: These items are outstanding. A meeting is scheduled to take place in late September 2005 to discuss both issues.

Action 15/1/2005: Andy Layton, DTI, to respond by end July 2005.

Action 16/1/2005: NuSAC Secretariat is contacting HSC Commissioners.

Action 17/1/2005: Jim Whiston will attend HSE's Shipbuilding and Shiprepairing Health and Safety Consultative Committee meeting in December 2005.

Action 18/1/2005, Action 19/1/2005, Action 20/1/2005 and Action 21/1/2005: Cleared.

Action 82/2/15 and Action 82/2/17 from July 2004: Outstanding with a paper from Action 82/2/17 (Review of SAPs) scheduled for October 2005 meeting

## **Item 4: Nuclear Safety Performance update on HSE's policy (Paper NuSAC(2005)P11) and Operational issues (Paper NuSAC(2005)P12) and wider issues**

4.1 This item was presented by Colin Potter and Mike Weightman.

4.2 Colin Potter presented the paper 'Policy Update briefing for NuSAC meeting – July 2005' (NuSAC(2005)P11), which included updates on:

- (i) NDA Memoranda of Understanding (MoU) with regulators.
- (ii) HSE's Delicensing Policy Statement.
- (iii) Radioactively Contaminated Land Regulations.
- (iv) Low Level Waste Policy.
- (v) Licensee Insolvency
- (vi) Proposed Amendments to the Nuclear Reactors (Environment Impact Assessment for Decommissioning) Regulations (EIADR99).
- (vii) Draft Guidance to the Nuclear Reactors Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR99).
- (viii) Western Nuclear Regulators Association (WENRA).
- (ix) EU Nuclear Legislation.
- (x) Hampton Review and Better Regulation.
- (xi) The UK Presidency of the EU.

4.3 In response to Laurence Williams' question about assurance that the EA would not try to enforce the Radioactively Contaminated Land Regulations on nuclear licensed sites, Colin Potter stated that there should be a workable solution under HSE's MoU with the EA.

4.4 Joe McHugh (EA) explained the background to the regulations and reassured the committee that there was no intention for EA to regulate on

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licenced sites where HSE had an extant legislative regime that was sufficient to meet the requirements of the regulations.

4.5 Mike Weightman, Chief Inspector NII presented the paper 'Report for NII for the meeting to be held 13-14 July 2005' (NuSAC(2005)12). Mike Weightman commented on the following key issues:

- The relicensing of Torness and Hunterston B to BEGL. NII welcomed this as having a single licensee in control brings clarity of roles and less confusion.
- Reactor Core Graphite – There were concerns about core brick cracking and weight loss. Discussions are taking place with the licensee. The greatest impact was weight loss at Oldbury NPP.
- Sellafield: B299 Leak of fissile liquor into pumping cabinet following failure of a hose connection
- The improved recent performance of the Sellafield Waste Vitrification Plant
- Convention on Nuclear Safety
- Annual meeting with the French nuclear regulator in Chinon, at which one of the points discussed was that the EdF proposed decommissioning reactors to a 25-year timescale.

4.6 Members asked about the effects of NDA recruitment on staff losses in NII and in the industry. Mike Weightman confirmed that NII had lost 4 staff so far, although NDA are still recruiting. John Crofts noted that UKAEA had lost only a few staff – although some were project and programme management staff which the licensee could ill afford to lose. Laurence Williams noted that the NDA had about 120 staff at present and were aiming to get up to 180 by the year's end. They were looking to recruit a further 7-8 staff with relevant nuclear health and safety experience.

4.7 Mike Weightman also updated the meeting on the Thorp incident at Sellafield from the regulatory perspective. NII was carrying out a formal investigation that had yet to be completed. Those NII Inspectors carrying out the investigation had not accessed the BNFL Board of Inquiry Report, as it was important for the NII investigation to remain totally independent.

4.8 Mike Weightman shared the following information:

- NII was informed of the leak on 20 April 2005
- The licensee discovered the leak whilst investigating accounting discrepancies.
- The incident was rated INES 3
- NII have been in constant contact with the licensee
- There were concerns about instrumentation failures and sump sampling procedures.
- Two Improvement Notices had been issued linked to Licence Conditions 24/25 (instructions and recording) and 28/34 (maintenance and leak detection).
- The licensee's Board of Inquiry Report was in the public domain.

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4.9 Rex Strong said that it was the first time that an Internal Board report had been placed in the public domain. This was a significant step for the licensee. Laurence Williams said it was a robust report giving harsh facts. There would now be an expectation of publication of such reports would undoubtedly have an impact on future investigations, which would have to be properly managed.

4.10 Rex Strong also said that there was a substantial story to be told and would welcome the opportunity to update NuSAC in due course.

## **4.11 ACTION 9/2/2005: BNFL to update NuSAC on the Thorp incident**

4.12 Members expressed concern that the event illustrated that there was a poor safety culture at the site. Mike Weightman made the general comment that NII could not regulate safety culture, although it could influence it, but as part of its overall strategy would seek to maximise its leverage in this area. He confirmed that NII would also be examining whether the incident had any learning points for them.

## **Item 5: Management of Contractors at BNFL Sellafield (NuSAC(2005)P6)**

5.1 Rex Strong presented the paper with Peter Rooke answering questions.

5.2 There had been significant numbers of contractors on the Sellafield site since the mid 1980s; there were currently approx 3000 on-site contractors working for 45 different companies.

5.3 Regular audits of the contractors over the years have demonstrated that contracting companies have improved their safety performance.

5.4 With effect from 1<sup>st</sup> April 2005, there had been a massive corporate restructuring. Previous BNFL employees are now employees of a variety of different, affiliate, companies – who are themselves, in some cases, contractors to the NDA.

5.5 The principles of the management of contractors process remain:

- Single person accountability for all aspects of a contract
- Single process for all involving common site standards for contractors and a code of practice for BNGSL's contractor managers
- Monthly Operational Experience Feedback meetings for all the resident companies and the BNGSL contractor managers to review and improve the process

5.6 Steve Vranich commented that there appeared to be a whole range of "contractors" from Tier 1 management companies down to 'low-level' site sub-contractors, and asked whether it would be possible to come up with clear definitions of the roles/responsibilities of each. Andy Layton and Laurence Williams agreed to prepare a paper on contractors (owners and licensees)

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including who reports to who and who has responsibility for safety (aiming for presentation to the October 2005 meeting).

## **5.7 ACTION 10/2/2005: DTI and NDA to prepare a paper on the new terminology of contractors and responsibilities**

5.8 NuSAC welcomed this as there was a need for explanation, as the inter-relationships of the various bodies appeared to have become very complicated.

5.9 Andy Layton reminded members that in general with the formation of the NDA the ownership of the companies had changed but not the site licensee workforces. This will remain the case when sites are completed.

5.10 In reply to Susan Parry's question about who had oversight of the safety of contractors Peter Rooke said that it was his responsibility as the site Resident Engineer.

5.11 Jim Whiston thanked BNG for the paper and invited an update paper for the July 2006 meeting.

## **5.12 ACTION 11/2/2005: BNG to present an update paper on the management of contractors at Sellafield at the July 2006 meeting**

### **Item 6: NuSAC's Perception of Emergency Arrangements (NuSAC(2005)P4)**

6.1 Barry Cripwell presented the paper on behalf of RG4. He explained that originally RG4 had focused on the observation of emergency exercises; more recently it had been taking an interest in strategic issues through the work of the NEPLG.

6.2 Andrew McFarlane thanked RG4 for taking an interest in emergency planning arrangements at defence sites and was keen to develop coherent arrangements – consistent so far as possible with those at civil sites. He thanked Barry Cripwell for the comments on the Military Co-ordinating Authority (MCA) role. He would like to meet with RG4 to discuss defence nuclear emergency response issues, notably the MCA, but other topics as well.

## **6.3 ACTION 12/2/2005: RG4 to meet with MoD to discuss defence nuclear emergency response issues, notably the role of the MCA, and other topics.**

6.4 Bobby Ronnie commented that he was a member of the NEPLG and thought it would be helpful if NuSAC took a closer interest in the work of that Group; he would be happy to act as a conduit. He also reported that at a meeting scheduled for 27 July he would be presenting a paper recommending better liaison with other Government Departments, organisations etc.

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6.5 Laurence Williams informed the meeting that the NDA was not an emergency responder and would not be involved at all in the management of any emergency at NDA sites but, as site owner, naturally would need to know what happened. It would, however, be involved after the event to address the impact on NTWPs and LCBLs and any longer term consequences on the NDA's strategy.

6.6 Rod McKenzie said that in the light of the events at the G8 Summit and the London bombings the management of emergencies involving terrorist attacks should be addressed in both civil and nuclear arrangements. Bobby Ronnie confirmed that this was included in his paper to the NEPLG.

6.7 Andy Layton reported that he had recently taken over the responsibility for Nuclear Emergency Planning in DTI. He had been surprised by the large number of individual organisations' plans that are invoked in a nuclear emergency. He would like to see some simplification of this if at all possible. He was also keen to have closer links between civil and defence/military arrangements, and welcomed the proposal to discuss at NEPLG.

6.8 Sheila Ashford commented that it was essential that arrangements for informing the public in the event of an emergency are kept under review.

## **Item 7: Annual Update on Developments at Dounreay (NuSAC(2005)P7)**

7.1 John Crofts presented the paper as Norman Harrison, Site Director, Dounreay was unable to attend.

7.2 Dounreay was a complex site with a vast task to do. In April 2005 the UKAEA changed from a Government funded body to a contractor to the NDA, therefore the organisation had to change what it did and how it did it. He had had doubts about the formation of the NDA, but the intended 'clustering' of sites (as opposed to splitting UKAEA (and other licensees) into 'single site' licensee companies) had assuaged some of the fears. There had been a flattening of the organisation with more people engaged in actual decommissioning work.

7.3 The Dounreay Site Restoration Plan (DSRP) had become a LCBL with an end date of 2036 instead of the original 2063 with a £1billion decreased budget.

7.4 At the March 2005 NuSAC meeting it was reported that there had been a decline in conventional safety performance at Dounreay, but this was now recovering with the use of good tried and tested techniques. He noted that the site had been awarded level 8 on the ISRS and was hoping to achieve level 9 next year.

7.5 John Crofts thanked Laurence Williams for exerting pressure on the NDA in his capacity as the then CI Nil to 'ease the burden' that was being placed on sites to meet demands for production of NTWPs and LCBLs. This certainly had helped UKAEA.

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7.6 Jim Whiston said that when NuSAC visited Dounreay in 2002 there were some significant concerns, hence the visit by RG1 in October 2004, which requested this update. It was important to the Committee that industry leaders had drive and this had been amply demonstrated to RG1 by Norman Harrison during its visit last year.

7.7 Asked about apparent slippages from the DSRP target dates, John Crofts agreed that some targets were falling back – eg. the shaft completion had slipped by 6 years. But with limited funds and pressures for year on year cost reductions from the NDA, it was inevitable that some things got delayed. Dr Weightman commented that HSE and UKAEA had spent a lot of time and effort reaching agreement on the DSRP dates and slippages will not be taken lightly – we cannot operate in an environment where hard fought regulatory agreements are reneged on, unless for a very good reason.

7.8 Regarding LLW disposal, Mike Weightman commented that the refusal of the Scottish minister to allow SEPA to authorise disposals to Drigg means that a LLW disposal site in Scotland is essential. He would be seeking discussions with the Scottish Executive on how this issue was to be taken forward.

## **Item 8: British Energy Observations on 'Towards Operational Excellence' (NuSAC(2005)P8)**

8.1 Peter Webster presented the paper which was in response to the presentation 'Operational Excellence' (NuSAC(2004)P6) made to NUSAC in 2004 by Sig Berg, the then Managing Director, World Association of Nuclear Operators (WANO).

8.2 Peter Webster reported that BE had set in train changes to improve performance including the introduction of an extensive 'Performance Improvement Programme'. The new BE senior management has adopted a rigorous approach and has initiated Staff Attitude Surveys in addition to monitoring and managing sickness absences, stress etc. Such programmes need to be embedded into the organisation and this will take time, especially as BE is seeking to change behaviours. Morale has certainly improved.

8.3 Peter Webster also updated the meeting on the effects of the closure of Peel Park. He said that there had been stress on staff because of potential relocations to Gloucester, but some of these concerns had been allayed with moves being made instead to BE offices in Livingston and Renfrew.

## **Item 9: Magnox Observations on 'Towards Operational Excellence' (NuSAC(2005)P9)**

9.1 Vaughan Parvess presented the paper which was in response to the presentation 'Operational Excellence' (NuSAC(2004)P6) made to NUSAC in 2004 by Sig Berg, the then Managing Director, WANO.

9.2 Vaughan Parvess reminded the meeting that Magnox had four operating reactor sites with the latest due to shutdown in 2010, so the

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company response to the WANO paper was necessarily somewhat different to BE's.

9.3 Magnox was concentrating on people, process and plant performance improvement. There is a very real move away from a 'blaming' culture. There had been benchmarking against international comparator sites. The MEL sites were learning from experience – particularly elsewhere (eg. Thorp will be analysed to see what lessons can be learnt for MEL).

9.4 Rod McKenzie commented on the differences in the percentage returns of staff attitude surveys between BE and Magnox. It looked as though BE staff still did not feel free to report events whereas Magnox staff did. Peter Webster said that he was going to discuss this further with Vaughan Parvess.

9.5 Andrew Clarke congratulated Magnox on Sizewell A gaining Level 10 under the International Safety Rating System (ISRS), which had not been mentioned in the paper.

9.6 Jim Whiston commenting on Papers 8 and 9 said that NuSAC had expressed concerns regarding BE over the past couple of years because of its focus on solving its financial problems, and apparent lack of attention to short-term regeneration. BE were now seeing the benefits of such investment – particularly in training and staff management. The appointment of a Chief Nuclear Operator is a key, positive development.

9.7 In reply to Andrew Clarke's query concerning the mixed accountability/loyalties of staff seconded from the parent company (BNG) into the licensee, Alan Brandwood reported that at Magnox all BNG secondees had signed letters stating where accountability lay. He did get some calls on his time to do work for the parent company, but did not consider that this distracted him from his duties to the licensee.

9.8 Mike Weightman stated that he was encouraged by the work undertaken at BE and MEL. MEL appeared to be further along the road than BE, but the work at BE under its new CEO is very encouraging. The 'drivers' for BE no longer appear to be to 'maximise output', but rather to ensure 'predictable output'. This is all about sustainability. NII wants to see sustained, stable excellence in the licensee and at all its plants.

## **Item 10: Plutonium Contaminated Material (PCM) processes at Sellafield, Dounreay, Harwell and AWE (NuSAC(2005)P10)**

10.1 Paul Haigh presented the paper on behalf of RG2, who explained that information had only been recently received from the licensees, so the RG had only been able to undertake a rudimentary scan. The paper would remain '**closed**' until the RG had held individual and joint discussions with the licensees and had the opportunity to undertake a fuller detailed analysis of the information and a further paper presented to NuSAC.

## **10.2 ACTION 13/2/2005: RG2 to present a follow-up paper on PCM processes at Sellafield, Dounreay, Harwell and AWE**

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## **Item 11: Regulation of the Conditioning of Intermediate Level Radioactive Waste on Nuclear Licensed Sites: An update (NuSAC(2005)P5)**

11.1 Joe McHugh introduced the paper stating that the EA, HSE/NII and SEPA had issued a Guidance Note covering the conditioning of ILW, which supports a Position Statement which was issued in August 2003. The paper was an update of how the new arrangements were progressing from the Regulators' perspectives.

11.2 Andrew Baker presented the joint paper on behalf of the EA, HSE/NII and SEPA, which concluded that there was a consistent approach to ILW regulation.

11.3 There were several questions regarding the role of Nirex. For instance, Nirex was not a regulator so why could licensees not get other organisations to undertake assessment of packaging proposals? Andy Layton explained that Nirex had only a two-year future at present (and is now wholly owned by Government); this will need to be revisited after CoRWM reports to Government in July 2006.

## **Item 12: Office for Civil Nuclear Security (OCNS) Update**

12.1 Roger Brunt, Director, OCNS, gave a presentation to update the Committee on the work of OCNS in the last year. There was no formal paper.

12.2 Roger Brunt explained that he had been in post since September 2004 following Michael Buckland-Smith's retirement. The OCNS Annual Report was due to be published shortly and he would notify the NuSAC Secretariat for onward notification to Members and Observers (Secretary's note: report published 25 July).

### **12.3 ACTION 14/2/2005: OCNS to notify the NuSAC Secretariat when the OCNS 2004/2005 Annual Report was published.**

12.4 He said that security regulation in the civil nuclear industry was vitally important but it nevertheless had to be conducted in the context that the operators had a business to run. He explained the practical effect of the new security legislation which had been introduced since 9/11 and said that it provided an effective yet challenging environment for both the industry and OCNS. In his view, the one outstanding gap was the lack of an offence of unauthorised access on to a nuclear site.

12.5 He reported on the latest state of site, transport, information and personnel security.

- Site Security Plans had been completely reviewed and agreed in December 2004 and Schedules of Improvements adopted.
- It was important to continue emergency exercises, but they should be more inventive.

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- The UKAEA Constabulary was now a 'stand alone' force under the direction of the Civil Nuclear Police Authority, a Non Departmental Statutory Body, and was now known as the Civil Nuclear Constabulary. Its role remained as an armed guarding service for nuclear material.
- OCNS had regulated 2200 notifications of moves of nuclear material. No significant transport-related incidents had occurred.
- OCNS Inspectors had completed a busy programme of inspections, not just of the physical security arrangements of sites, but also of IT systems and measures to secure protectively-marked documents.
- Complacency remained the biggest threat, and individual awareness was critical, particularly with regard to security of laptops and contract control.
- Although almost 13,000 vetting clearances had been issued in the reporting period, staff shortages had contributed to a backlog in clearances building up and it would be a major priority in 2005/2006 to reduce this.

12.6 In response to a question about security following the London bombings on 7 July, Roger Brunt replied that security was sound, but there could be resource difficulties with prolonged 'Amber Alert' status.

12.7 In response to Vaughan Parvess's question about the recent 'low flying' events, Roger Brunt said that he would need to get back to him.

12.8 Steve Vranich thanked all authors and presenters of papers to the meeting.

## **Item 13: Matters that the Sub-Committee on Research and Review Groups may wish to raise with licensees or observers**

13.1 SCR: Some members of the SCR would attend the NSD Nuclear Research Forum meeting on 19 July 2005.

13.2 RG1: Jim Whiston reported that the RG had had a good meeting with BE and confirmed that he would take up Roy Anderson's offer to meet again in early 2006.

### **13.3 ACTION 16/2/2005: RG1 to meet with Roy Anderson, BE, in early 2006**

13.4 RG1 would be meeting with GE Healthcare in September 2005 with a paper on the review of safety management for the March 2006 meeting (already in NuSAC's Work Plan).

13.5 RG2: Paul Haigh reported that the RG was scheduled to meet with UKAEA in September 2005 to discuss the Windscale Pile Project (already in NuSAC's Work Plan).

13.6 RG4: The RG would follow-up MoD site issues.

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## **Item 14: Any Other Business**

14.1 There was none.

## **Item 15: Date of Next Meeting**

15.1 The next Main meeting will be held on Thursday 13 October 2005 at the Maitlandfield Country House Hotel, Haddington, East Lothian, Scotland.