



HM Nuclear Installations Inspectorate

Relicensing the Atomic Weapons Establishment Sites to AWE plc

EXECUTIVE SUMMARY

The safety of licensed nuclear installations in the UK is the responsibility of holders of nuclear site licences and is assured through a system of regulatory control. A nuclear site licence, which can only be granted to a corporate body, permits the use of a site for specified activities. Licensing applies throughout the lifetime of an installation from design, siting, construction, commissioning, operation, and modification to eventual completion of decommissioning.

Under the Nuclear Installations Act 1965 (as amended)¹ (NI Act), no site may be used for the purposes of installing or operating nuclear facilities unless a nuclear site licence has been granted by the Health and Safety Executive (HSE) for that site. Before this can be done, HSE's Nuclear Installations Inspectorate (NII) will evaluate an application by considering three main aspects: the organisation; the location; and the activities. A licence may be revoked by HSE or surrendered by the licensee. However, in either event, the licensee will retain absolute legal responsibility for the nuclear safety of activities on the site until there has ceased to be any danger from ionising radiations from anything on the site.

Since 1997 the Nuclear Installations Inspectorate (NII) of the Health and Safety Executive (HSE) has regulated the management by Hunting BRAE Ltd of the Atomic Weapons Establishment (AWE) sites at Aldermaston and Burghfield under the UK's nuclear site licensing regime (see Annex 1). Hunting BRAE's management contract expired on 31 March 2000. The Ministry of Defence (MoD), which owns the sites and is the main customer for their outputs, wanted to achieve a position which enabled AWE plc to run the sites in future. Nuclear site licences cannot be transferred. Consequently the changeover in the management of the sites has necessitated the revocation of the nuclear site licences formerly held by Hunting BRAE Ltd, and the grant of new licences to the new operator, AWE plc.

Before granting new licences HSE needed to assure itself that AWE plc was a suitable body to be licensed and had the potential to operate the sites in a manner consistent with the requirements of the Nuclear Installations Act 1965 (as amended) and with the policies of the Health and Safety Executive in relation to the safe management of nuclear sites. Consequently the NII has undertaken a review of the arrangements which AWE plc proposed to put in place.

The purpose of this report is to summarise the development over the last 5 years of the regulation of the Atomic Weapons Establishment sites by the NII and to set out the basis on which new licences were granted, effective from 1 April 2000.

In order to ensure that the arrangements proposed by AWE plc are fully and adequately implemented, NII proposes to undertake, in addition to its ongoing inspection of the sites, formal reviews of the safety performance of AWE plc at 3 months and 12 months after licensing.



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LICENSING OF THE AWE SITES TO HUNTING BRAE Ltd

Introduction

1. The AWE sites are owned by the Ministry of Defence (MoD), who managed operations on the sites until 1993. As a government department MoD had Crown immunity from the licensing requirements of the Nuclear Installations Act 1965 (as amended) (NI Act)¹. The AWE Act 1991² paved the way for civilian contractor management, and in April 1993 the MoD placed a management contract with Hunting-BRAE Ltd in respect of sites at Aldermaston, Burghfield, Cardiff and Foulness (Essex). Hunting-BRAE Ltd is owned by Hunting Engineering Ltd, Brown and Root Ltd, and AEA Technology plc. Under the terms of the 1991 Act Hunting-BRAE Ltd was initially treated as a government body and thus it was exempt from the nuclear site licensing regime.

2. The HSE took the opportunity to establish a benchmark with the new management and carried out an extensive review of safety at AWE sites in 1993-94, culminating in a report³ published in October 1994. A key recommendation of this report was that the Secretary of State for Defence should remove Hunting-BRAE's exemption from licensing. This recommendation was accepted. The power to remove the exemption was given to the Secretary of State for Defence in the AWE Act. The removal was achieved through the Atomic Weapon Establishment Act 1991 Amendment Order 1997 (SI 1997/1396)⁴, which came into effect on 1 July 1997 to coincide with the date of licensing.

3. The review in 1993-94 of health and safety management at AWE sites had identified some shortcomings both in management arrangements and in physical controls. Subsequently AWE worked to develop health and safety arrangements not only to close out the recommendations of HSE's report, but to satisfy the requirements for nuclear site licensing. Many of the HSE review recommendations provided a basis for the development of management systems into arrangements that would ensure nuclear safety and satisfy the standard licence condition requirements. The Safety Management System has continued to be improved upon and can now be considered to be well developed and mature.

4. By July 1997, when the first licences were issued, ALL BUT ONE OF HSE'S SIXTY-FOUR RECOMMENDATIONS HAD BEEN ADDRESSED SATISFACTORILY. The outstanding recommendation related to waste storage and the agreed way forward was changed from the refurbishment of stores to the provision of a new one. The construction of this is well under way. At the time of licensing there were a number of areas where there were opportunities for further safety improvements. These included the need to progress the strategy and programme for dealing with redundant facilities and radioactive waste, introduce safety improvements at the plant level which had been identified by safety analyses and to ensure the corporate safety management systems were fully implemented at all levels within the company. Licence conditions gave HSE appropriate powers to tackle this issue.

First licensing

5. Some of the activities at Aldermaston and Burghfield come within the definitions of licensable activities in the NI Act and in the Nuclear Installations Regulations 1971. Activities at Cardiff and Foulness do not. Hunting BRAE submitted applications for nuclear site licences in respect of Aldermaston and Burghfield in April 1995. The applications were supported by information including organisational arrangements, safety policy statements, instructions and procedures addressing the management of safety, and licence compliance arrangements.

6. The company prepared safety cases for all major facilities on both sites with a total of 80 being submitted to NII. These safety cases were examined in accordance with a strategy developed at the commencement of the licensing process by the site inspection team. In line with the approach taken with other licensees, NII discussed with the licence applicant the matters to be addressed in safety cases and the principal methods used in the safety assessment process. The NII concluded that the company had prepared adequate safety cases to justify the undertaking and for the granting of nuclear site licences. Furthermore, a programme was produced by Hunting-BRAE Ltd to address the implementation of action plans for improvements that were identified from the preparation and assessment of safety cases.

7. The NII examined all the relevant issues and it concluded that Hunting BRAE Ltd was a suitable body to hold nuclear site licences, and was capable of exercising the necessary level of control of the sites. Accordingly nuclear site licences for the AWE Aldermaston and Burghfield sites were granted to Hunting BRAE Ltd, effective from 1 July 1997. A full description of the licensing process was published in 1997⁵.

8. The granting of licences imposed a strict new regulatory upon AWE through conditions that are particularly rigorous and appropriate for the management of nuclear safety and waste management (see Annex 1).

Experience of Regulating the AWE Sites When Hunting-BRAE Ltd Held the Licences

9. This section of the report provides a summary of the key safety issues that commanded attention since licensing together with some commentary on the performance by Hunting-BRAE Ltd over this period. Areas of weakness where further work is still required to align with modern safety standards are also identified together with a view on the way forward.

Licence conditions and Safety Management System

10. Prior to the licences being issued for Aldermaston and Burghfield, Hunting-BRAE Ltd devoted considerable effort into developing well thought out and comprehensive arrangements to satisfy the requirements of the standard licence. These have continued to be subject to critical review by the licensee and have been developed and improved upon to achieve a high standard. Licence condition arrangements and compliance requirements are also fully integrated into the AWE Safety Management System as part of the quality assurance system. All this documentation has been widely available and easily accessible to the workforce, being published on the site intranet and also distributed on CD ROM.

Management of Operations and Safety Culture

11. Prior to licensing Hunting-BRAE Ltd, NII carried out a team inspection part of which was to form a view on the safety culture within the organisation. Interviews with a sample of staff at all levels provided an encouraging

picture on attitudes and adoption of good working practices. Over the last two years NII has had no reason to doubt its original findings and at a corporate level Hunting-BRAE Ltd has striven to engender a positive attitude towards safety. In its quest to build upon its achievements it has employed various tools including surveys, training and talks to accomplish their mission.

12. Nevertheless, NII's experience from inspections and monitoring of incidents has from time to time revealed pockets of resistance to changes in attitude and the adoption of modern safety management practices, including compliance with licence arrangements. Unfortunately, in some cases shortcomings were revealed at the middle and facility management level where positive attitudes and quality of leadership form the bedrock of the drive to achieve real improvements. However it was apparent from discussions with Hunting-BRAE Ltd's senior management that they were aware where there were weaknesses and action was being taken to improve the situation.

Safety committees

13. A Nuclear Safety Committee (NSC) was formed by AWE in March 1996 based on the requirements of Licence Condition 13. Since the formation of the committee NII has received minutes of meetings and notification of appointment of internal and external members. The terms of reference of the committee and the procedures have also been agreed with NII through the development of the Corporate Safety Instructions. NII has therefore been well placed to assess the development of the committee and the supporting structure. Examination of the NSC minutes has shown that members are uninhibited in discussions and that the advice of the external members is welcomed and heeded. We were satisfied that Hunting-BRAE Ltd had a strong and effective Nuclear Safety Committee that provided sound advice to the licensee.

Safety Cases and Plant Improvements

14. All the nuclear and the majority of the other facilities with significant hazards at Aldermaston and Burghfield now have safety cases to cover their operations. Over the last two years much effort has been put into introducing engineered improvements where safety case assessment work has identified shortcomings. These include the installation of a secondary shutdown system to a neutron pulse reactor, additional protection to the assembly facilities and improvements to containment / ventilation systems to a number of facilities handling radioactive materials. Whilst some of this work is not complete, satisfactory progress is generally continuing to be made.

15. Now that the facility safety cases have been prepared work is progressing on the provision of a safety case covering the site services and infrastructure. A series of individual documents reviewing the adequacy of services such as electricity, fire fighting and shift cover have been already prepared.

Safe Systems of Work

16. Routine inspections conducted by the HSE together with information gained from incident occurrences and investigations have revealed weaknesses in some parts of the organisation with respect to safe systems of work, work planning and management supervision. This led to enforcement action being taken by the NII on two occasions over the last two years. One involved a prosecution in Newbury Magistrates Court in August 1998 and the other was an Improvement Notice which was served in October 1998.

17. Subsequently Hunting-BRAE Ltd implemented improvements in their safety arrangements including the

establishment of local Work Control Centres (through which work is planned and sanctioned), provision of additional training for risk assessors and personnel with supervisory responsibilities, and more focused and direct supervision. A team inspection carried out jointly with HSE inspectors from FOD¹ and CHID² in March 1999 confirmed the situation to be satisfactory to enable the Improvement Notice to be discharged.

Emergency Plans

18. Emergency plans for both Aldermaston and Burghfield have been in place for a considerable time. However, they were not properly exercised until an Improvement Notice was issued at the time of the HSE review in 1993. Since that time the plans have been extensively revised and exercised under the scrutiny of NII. Aldermaston and Burghfield both have a site demonstration exercise each year, which is witnessed by the HSE. In recent exercises the performance of the site emergency manager's organisation has been of a high standard, but this has not always been the case at the plant level. AWE's site emergency managers have all received specialist training and coaching in emergency management and a training programme has been developed for facility personnel in order to comply with an Improvement Notice. This programme has now to be implemented. NII regarded these developments as clear evidence of the intent to improve performance in this area.

19. A large scale exercise was held in 1998 involving the external organisations around the Aldermaston site and Thames Valley Police Headquarters. This was the first time such an exercise had been undertaken and, as was to be expected, it identified that there was some misunderstanding of the responsibilities between the external organisations and the licensee. Whilst there were issues arising from the exercise which need to be addressed, the exercise was considered to be a success and reinforced confidence in the ability of AWE to handle its part in an emergency. Work has been undertaken to strengthen the emergency arrangements and a further such exercise is planned for early 2001.

Waste Management

20. At the time of the HSE review in 1993 there were significant criticisms made of AWE's waste management arrangements. Whilst there has been good progress in developing a long term strategy for dealing with radioactive wastes NII had concerns that this was not backed up by a fully funded capital programme. In line with current government policy and NII strategy the licensee is being required to make arrangements to treat and pack both operational and legacy wastes so that they can remain on site for long term storage in a passively safe state. This will require further capital investment.

21. There are two projects, Sludge Retrieval and Immobilisation and the provision of improved intermediate level waste (ILW) storage facilities, where progress has been disappointing. Owing to delays in sanctioning the projects and general resourcing issues, the originally proposed completion dates, which have been made public, are now very challenging. These are now being progressed by AWE plc, the new licensee. See paragraphs 68 to 71.

Sludge Retrieval and Immobilisation

22. A project to retrieve and immobilise radioactive waste sludges in the old waste treatment complex was initiated a few years ago, but progress has been slow. NII has recently issued a number of licence instruments which have the effect of preventing further accumulations being made to the old tanks and require the retrieval, conditioning and packaging of the waste for long term storage on the site. Retrieval from the first tank is required to commence by 2002.

Intermediate Level Waste (ILW) Storage

23. ILW is stored in a number of facilities at the site. Whilst the newer facilities are generally of a high standard there are three stores which are in need of replacement. Furthermore, owing to the storage arrangement the drums within these stores are not capable of being inspected easily. Hunting-BRAE Ltd made a commitment to empty these stores and also to build a new store as part of the close out of the HSE Review.

24. A safety case for the new store has been received, construction work is proceeding and the store is expected to be operational in June 2001. Further licence instruments have been issued recently, the effect of which is to require the provision of a new ILW treatment facility. In its future operational wastes and existing legacy wastes can be compacted and processed into a stable form and then packaged in containers suitable for long-term storage, either on site or in a national repository, should one be provided.

Decommissioning

25. After two years of inspection under the licensing regime NII had a greater appreciation of the various processes which had been used at the Aldermaston site and the historical legacy which still remained. As a result of this we considered that the Aldermaston site decommissioning programme required changing to ensure that the legacy is tackled in an appropriate timescale. We informed AWE and MoD that progress was expected to be made on all redundant facilities and that the highest hazard plants should be given a greater priority. Paragraphs 68 to 70 describe the situation at 1 April 2000.

Land Quality Survey and Southampton University Study

26. Hunting-BRAE Ltd established a strategy to identify environmental legacy problems by undertaking an extensive land quality survey of the Aldermaston site. This involved analysing water from streams, drains and boreholes to look for any radioactive or toxic materials that might be present. AWE published its initial report in 1997 and presented it to a public meeting in the form of an information leaflet. This work and associated remediation on site will continue under the new licence. Conditions off the licensed site, and discharges from it, are the responsibility of the Environment Agency.

Openness and Relationship with Local Community

27. Hunting-BRAE Ltd achieved considerable success in improving openness and developing good relationships with its neighbours. The Local Liaison Committee appears to be working well and a great deal of safety information is made available.

Conclusion

28. Hunting-BRAE Ltd, as the first licensee, achieved a great deal following licensing and showed a strong and positive attitude towards management of safety. In particular it made considerable progress in the areas of: emergency arrangements, corporate safety management systems, openness, communications and relationship with its neighbours, safety training, quality systems, safety committees and quality of safety cases.

29. NII has taken explicit action to stimulate progress in decommissioning redundant facilities and the management of radioactive waste (in particular minimisation of arisings and treatment to reduce volumes and to ensure passive safety). Control and supervision of operations and safe systems of work is another area which

has commanded special attention by NII.

1 Field Operations Directorate of HSE, which regulates 'conventional' health and safety matters across a range of industries

2 Chemical and Hazardous Industries Directorate of HSE, which also deals with explosives



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THE RE-TENDERING EXERCISE

Background

30. Hunting BRAE's management contract expired on 31 March 2000. MoD decided that from April 2000 AWE plc, which employs the managers and workforce, should operate the sites directly but with top level management and financial input provided by a management contractor. Amongst other things, this would allow continuity in the event of any future change of management contractor, possibly avoiding the need for another licensing project and the renegotiation of all the services contracts.

Selection of the New Contractor

31. Responsibility for selecting the new contractor rested entirely with MoD. In preparing the invitation to tender, and in evaluating the bids, MoD considered a range of factors including safety, security, cost and the retention and development of scientific capability. Bids for the new contract were received by MoD at the end of May 1999 from 3 consortia: Hunting-BRAE / DERA³, AWE Management Ltd (comprised of BNFL, Lockheed-Martin and SERCO), and AWE 2001 (comprised of Babcock, W S Atkins and SAIC).

32. The tendering process included:

- a presentation by NII to prospective bidders, dealing with licensability and regulatory requirements. NII advised MoD and the bidders that the timetable for relicensing would be jeopardised if the bids involved proposals for significant changes to existing safety management systems, or arrangements for compliance with licence conditions, since NII would need time to assess the proposals thoroughly. The inference was that bidders would find it advantageous to carry forward existing practices and defer changes until after relicensing, when changes could be regulated under the licence conditions.

- submission to NII, via MoD, of the draft Safety Management Prospectuses (SMP) which were submitted as an integral part of each bid (these represented each bidder's vision of the SMP that it would put in place for AWE plc, as the prospective licensee, if successful).

- consideration by NII of bidders' proposals for carrying forward the ten-year decommissioning and waste management strategy.

- feedback to MoD, and the bidders, on NII's provisional view of the licensability of AWE plc on the basis of the draft SMPs and decommissioning / waste management plans, and advice on areas where improvements might be made.

33. NII's involvement in the process was limited to ensuring that AWE plc, however constituted after 1 April 2000, would be potentially licensable. MoD and the bidders understood that the advice provided by NII did not represent

a final decision on licensability, and that NII would need, inter alia, to reassess the final version of the SMP following the formal award of the contract by MoD. Other factors relevant to licensability to be considered by HSE would include security of tenure of the sites, financial standing, coverage for decommissioning liabilities, and the underwriting of the absolute liability assumed by the licensee of a nuclear site.

Transitional arrangements

34. In order to minimise potential difficulties should a bidder other than Hunting BRAE Ltd be successful, the MoD programme allowed a 3 month transitional period, from January to March 2000, when the new management team would work alongside Hunting-BRAE Ltd to develop and implement the arrangements set out in their management prospectus etc.

3 DERA: The Defence Evaluation and Research Agency, which is an agency of MoD.

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LICENCE APPLICATION BY AWE plc

Introduction

35. On 30 November 1999 the Secretary of State for Defence announced that AWE Management Limited (AWEML) had been appointed to provide management and financial expertise to AWE plc, which was to operate the AWE sites from 1 April 2000. AWE plc submitted to HSE on 20 December 1999 an application for nuclear site licences for Aldermaston and Burghfield. The application was based on the guidance provided in the HSE publication "Nuclear Site Licences - Notes for Applicants"⁶. This section sets out the issues considered by HSE and the conclusions reached.

The Licensing Process

36. The assessment of the application from AWE plc was addressed within 3 broad areas - the organisation, the location and the activities. Topics examined included:

- **Organisation**^[1]
 - the Safety Management Prospectus;
 - use of contract staff or sub-contractors;
 - decommissioning strategy and plans;
 - assurances on financial standing, funding for decommissioning etc;
 - terms of reference for the Nuclear Safety Committee;
 - position of key stakeholders;
- **Location**^[2]
 - ownership of the site;
 - leasing arrangements;
- **Activities**^[3]
 - licence condition compliance statements and top tier arrangements;
 - adequacy of safety cases;
 - decommissioning and waste management commitments;
 - emergency arrangements.

37. Consideration of the licence applicant's case has followed the normal approach to regulatory decisions under

the NI Act¹. That is, the licence applicant's case and supporting evidence has been assessed by NII; inspections have taken place to verify, so far as is possible, that the arrangements which AWE plc is putting in place are consistent with the submissions made in the Safety Management Prospectus etc.; and advice has been sought from legal and policy advisers in HSE where appropriate.

Notification of Public Bodies

38. NII has discretionary powers under the Nuclear Installations Act 1965 s.3(3) to Direct a licence applicant to serve notice on certain local public bodies which may have duties in relation to the safety of the site. This is to ensure that all the local bodies concerned have an opportunity to comment and to suggest anything which, from the point of view of their own statutory responsibilities, ought to be provided for in the conditions attached to the licence.

39. Hunting BRAE Ltd was directed by HSE to notify public bodies prior to first licensing of the AWE sites. Nothing was forthcoming which required any addition to or amendment of the standard licence conditions. HSE has considered whether a further public body notification exercise was required prior to relicensing the AWE sites to AWE plc. It concluded that this was not necessary because:

- less than 3 years had elapsed since the original exercise was conducted on first licensing of these sites;
- there was no change to the activities being undertaken on the sites;
- the existing safety management system, licence compliance arrangements and emergency arrangements were to be carried forward by the new licensee;
- existing personnel would continue to manage and execute operations;
- MoD would retain ownership of the sites.

40. Accordingly it was judged unlikely that the change of management contractor would have any material impact upon the statutory responsibilities of local public bodies, or that it could prompt them to suggest anything additional which might need to be provided for in the licence conditions.

Link URLs in this page

1. Organisation
<http://www.hse.gov.uk/nuclear/awe/awe00-06.htm>
2. Location
<http://www.hse.gov.uk/nuclear/awe/awe00-07.htm>
3. Activities
<http://www.hse.gov.uk/nuclear/awe/awe00-08.htm>



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ORGANISATION

Contractual Arrangements

41. AWE is a 'Government-Owned Contractor-Operated' (GOCO) organisation, with MoD owning the sites and facilities but operations being performed by a contractor. Hunting-BRAE Ltd has been the contractor for the last seven years and has used the employees of AWE plc to manage and operate the site on a day to day basis. AWE plc is a company created by MoD; it employs most of the workforce on the AWE sites and is the repository of AWE's scientific and production expertise. For the purposes of the GOCO arrangement AWE plc became a subsidiary of Hunting BRAE, the latter holding all the shares in AWE plc with the exception of one special share retained by the Secretary of State for Defence.

42. Hunting BRAE Ltd's management contract expired on 31 March 2000 and accordingly its shares in AWE plc reverted to MoD at that time. MoD transferred the shares to the new management contractor and thus AWE plc became a wholly-owned subsidiary of AWEML as from 1 April 2000, apart from the special share.

43. Under the revised GOCO arrangement operating from 1 April 2000 AWEML is contracted to deliver results but compelled to sub-contract manufacture etc. to AWE plc, which operates the sites. AWEML is responsible for the supply of some management expertise through the recruitment of personnel who are formally directors of AWE plc and thus part of the licensed corporate body.

44. From 1.4.2000 the Chief Executive of AWE plc is required to attend the board meetings of AWEML and can thus contribute to any discussion that might directly or indirectly affect safety. Additionally there is an independent Director to the AWEML Board with specific responsibility for monitoring safety performance.

Safety Management Prospectus

45. An important aspect of HSE's approach to the regulation of AWE was to gain confidence that the licensee had a robust safety management system and possessed a well structured and resourced organisation to manage the licensed sites.

46. A Safety Management Prospectus (SMP) can be regarded as that part of a licensee's safety case which deals with management issues; it describes the organisation of a licensee / licence applicant, its environmental, health and safety policy and its safety management system. The SMP provides assurances on various issues. The items that should be covered are indicated in HSE's publication: "Nuclear Site Licences - Notes for Applicants".

47. In view of the proposal that AWE plc should be the licensee but with management and financial expertise provided by directors recruited by AWEML, NII paid particular attention to the integrity of the licence applicant as

a corporate body. Subsequently, the arrangements for implementation of the Prospectus and the commitment to it of the management and the workforce were reviewed through inspections undertaken by NII inspectors, with the following outcomes:

- a. it was clear that AWE plc would be the company with day to day control of the sites and activities upon them, and whose staff would manage the operation of the plant. Consequently AWE plc, as the user of the sites, was the appropriate body to hold the nuclear site licences in accordance with section 1 of the NI Act;
- b. it was clear that the new management team would bring wide and relevant experiences of the management of complex organisations. It was also evident that a great deal of thought had been given to the "lead in" process. Some of the directors had been involved in taking over other GOCO organisations and were clear on the processes that needed to be followed;
- c. approximately 180 supporting staff were involved in a large programme of information gathering. These assessments, for the lead-in process, were completed by April 1st. Strategic objectives and plans had been prepared. Examination of those plans and discussions with the directors provided evidence that the plans were being developed for the long term;
- d. each of the new directors had a programme of familiarisation visits to the plants for which they were to become responsible. Briefings on the Management Prospectus and current safety management systems had also been provided. Some of the current AWE senior managers/directors were expected to remain with the company for at least 6 months. This was judged to be a prudent measure and one which would contribute to a smooth transition.
- e. the new management team had stated that it wished to be more open in its dealings with employees, the public and MoD. It was evident that efforts had been made to provide the workforce with information; several briefing sessions had been held and three newsletters had been issued.

48. The Management Prospectus met the requirements identified in the "Notes for Applicants" guidance, subject to minor changes.

Nuclear Safety Committee (NSC)

49. Licence condition 13 requires that a licensee should set up a senior level committee which should consider and advise on matters which affect the safe design, construction, commissioning, operation and decommissioning of the installations on the licensed site and any other matters relevant to safety. The committee must have members who are adequately qualified to perform this task and to provide a source of authoritative advice to the licensee. The committee, however, is purely advisory and must not be considered to have an executive function, but the HSE must be informed if the advice of the committee is not to be followed by the licensee.

50. The AWE plc Nuclear Safety Committee terms of reference and procedures are unchanged. Curriculum Vitae for the new NSC members were formally submitted to NII and, following consideration of the particulars, no objections were made on membership.

Financial Standing

51. HSE should be satisfied before granting a licence that the applicant corporate body has the necessary financial resources to discharge the obligations and liabilities connected with having a nuclear site licence.

52. The sites and assets on them are the property of MoD. Changes to this asset base, including those related to safety, can only be made with MoD approval and are funded through MoD's Management and Operation Contract with AWE ML. Changes to the asset base, in this context, include the decommissioning of plant, equipment and facilities as well as the creation of new assets. As owner of the sites, MoD is responsible for the eventual decommissioning of the sites when that is considered appropriate. Such decommissioning would be undertaken under contracts placed and funded by MoD, who will also meet associated long-term liabilities.

53. AWE plc does bear the day to day running costs of AWE but these are recovered by AWE ML, which owns the shares of AWE plc (except for the golden share retained by MoD), by invoicing customers against contracts placed with them. MoD is virtually the sole customer, although there is a small amount of work carried out on a commercial basis.

54. MoD has obtained joint and several unlimited guarantees from the parent companies of AWE ML which underwrite all the liabilities of AWE ML, including all those relating to AWE plc. These parent companies are major defence contractors and are subject to MoD's normal scrutiny on financial health. In addition to this normal and general oversight, MoD runs special financial health checks whenever circumstances arise which render it prudent to do so. Through these arrangements MoD has confirmed that it will ensure that adequate funding is available to maintain safety.

55. In view of the assurances received from the Ministry of Defence HSE has not deemed it necessary to assess the financial arrangements of the prospective licensee in detail.

Funding for Decommissioning and Waste Management

56. The MoD provided an assurance that as regards the funding level for decommissioning and waste management, the management contractor is committed to meeting all identified decommissioning and waste management requirements known at the point of bidding. To the extent that regulatory requirements imposed on AWE plc increase the commitment associated with decommissioning and waste management beyond that contemplated in the Contract, the associated additional costs would fall to MoD.

Nuclear Liability Insurance

57. Under the NI Act s.19(1) licensees must ensure that sufficient funds are available to meet third party claims within the limits prescribed in the Act. This provision is not enforceable by HSE under the HSWA, but comes within the remit of the Department of Trade and Industry. However the licensee's ability to satisfy DTI in this respect is included in HSE's consideration of the licence application.

58. MoD has provided an indemnity for the AWE sites as an alternative to commercial insurance. The indemnity, effective from 1 April 2000, is in two parts in respect of nuclear risks:

- a. Nuclear Installations Act (NIA65) Risks: AWE plc is indemnified against any claims arising out of, or in conjunction with its use of the establishment and transport of nuclear matter to and from the establishment for which insurance of up to £140m, exclusive of interest and costs, is required under NIA65.
- b. Non-NIA65 Risks: AWE Management Limited and AWE plc are indemnified against nuclear risks beyond the £140m for which insurance is required under the provisions of NIA65, embracing claims arising as a result of damage to property, or in respect of death or personal injury to a third party.

59. The Department of Trade and Industry has confirmed that it is content with the indemnity provisions made for

AWE plc by the Ministry of Defence.

Consultation with the Environment Agency / Discharge Authorisations

60. The Environment Agency Act 1995 (EA Act)⁷ introduced a statutory obligation on HSE to consult the appropriate Environment Agency (EA) before granting or revoking a licence. HSE consulted the EA in relation to the licence applications for Aldermaston and Burghfield under the terms of the EA Act. The EA raised no objection to the granting of the new licences and the revocation of those being superseded. The EA also indicated its intention to issue to AWE plc new Authorisations under the Radioactive Substances Act 1993 for the disposal of radioactive wastes from Aldermaston and Burghfield and to revoke the Authorisations formerly held by Hunting-BRAE Ltd.



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LOCATION

Verification of the Site Boundaries and Maps

61. Maps showing the extent of the site were provided by AWE plc in support of the licence application. There were no changes to the site boundaries. The NII site inspector has confirmed that the boundaries of the licensed sites corresponded with those shown on the maps submitted by AWE plc. Signs delineating the licensed site boundaries and specifying the name of the new licensee have been installed.

Security of Tenure

62. HSE's licensing policy is to ensure that a nuclear licensee has full rights of access to and control of the site, so that it can satisfy the demands placed upon it by the licence and the Nuclear Installations Act. When granting a licence HSE requires evidence of security of tenure to show that sufficient consideration has been given to such issues. The best evidence is normally a lease or some other legally binding contract or documentation setting out the relationship between the licensee and the owner of the site.

63. The AWE sites and the assets on them are the property of the MoD. MoD has granted a licence to AWE plc enabling the latter to use the premises and equipment for the period of the Management and Operation Contract between MoD and AWE ML. MoD has also indicated that, so far as can be foreseen, AWE plc will have access to all the AWE premises and equipment for as long as they exist, irrespective of any changes of the Management and Operation Contractor. AWE ML does not have any rights of access or control over the premises and equipment on the site.

Consents under Licence Condition 3 - Leases, etc.

64. Licence Condition 3 Consents are not necessary for leases etc. if they form part of the basis for granting a new licence. They are used thereafter to ensure effective control of any proposed changes and of proposed new leases etc. There are currently no leases etc. granted to other bodies in respect of land comprising the licensed site. However certain buildings and parts of buildings are occupied by MoD.

65. The wording of LC3 as used for AWE sites differs from the standard wording as follows (variations are underlined):

1. The licensee shall not convey, assign, transfer, let or part with possession of the site or any part thereof or grant any licence in relation thereto **except to the Secretary of State for Defence** without the consent of the Executive.
2. **The licensee shall notify the Executive forthwith if occupancy of the site or any part thereof is taken**

by the Secretary of State for Defence.



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Relicensing the Atomic Weapons Establishment Sites to AWE plc

ACTIVITIES

Scope

66. One of the activities at the AWE sites at Aldermaston and Burghfield is the incorporation of fissile material in a device designed to form part of a nuclear assembly. In applying licence conditions it is not HSE's intention that its inspection and enforcement activities affect the design of a completed device. HSE has no regulatory role in weapon design matters and the AWE Act Amendment Order⁴ disapplies licence conditions to the extent that they affect the design of a nuclear device. Nuclear device design issues are dealt with by a body appointed by the Secretary of State for Defence.

Licence compliance arrangements

67. Licence compliance statements are contained in the existing AWE Company Safety Management System and were adopted by the new licensee on 1.4.2000. Any subsequent changes will be dealt with under the normal change control procedures.

68. The start of the new management contract coincided with the date on which a new licence condition relating to the control of changes to organisational structures and resources, licence condition 36 (see Annex 1), was due to come fully into force. Consequently particular attention was paid to ensuring that AWE plc would have appropriate arrangements in place. Draft arrangements were submitted by the company and were found to be acceptable.

Decommissioning

69. Decommissioning of redundant facilities is an important responsibility of a licensee. The new licensee is faced with a legacy of old buildings, mainly on the Aldermaston site, that have been under care and surveillance for up to 20 years. A decommissioning strategy document and decommissioning plan was received and assessed by NII. Decommissioning safety cases and detailed project management plans produced for specific facilities regarded as a priority for decommissioning have also been reviewed.

70. The company's stated decommissioning policy is "to carry out promptly unless there is a clear safety and environmental benefit from deferral". This is clear and compatible with NII expectations, and is supported by a realistic strategy and funded programmes to implement it. The new management team had identified the scope for improvement on the project management arrangements for decommissioning. Thought had also been given to some "spend to save" initiatives and the adoption of better size reduction techniques. These initiatives are welcome and will be kept under active review from the commencement of the new contract.

71. A recently revised decommissioning strategy document setting out proposals for the long-term planning for decommissioning the site has been submitted by the new management team. The 10 year plan, together with

plans for specific identified facilities, has been approved under LC35 (this means that the plans cannot be changed without the agreement of NII) and it is proposed to continue this practice of regulatory control.

Radioactive Waste Management

72. The new waste management strategy was judged to be clear and compatible with NII requirements in this area. The policy and objectives are supported by a detailed strategy and funded plans. It is understood that arrangements are in place to enable private financing of capital schemes and that it is envisaged that an integrated ILW treatment facility will be provided. The legal specifications referred to in paragraph 21 continue in force and are binding on AWE plc.

Special Nuclear Materials

73. The current arrangements for the storage of Special Nuclear Material (SNM) were inspected. This confirmed that further examination by AWE plc of the future requirements, capabilities and options was required. Furthermore, the current storage containers and older storage facilities were unlikely to be acceptable in the long term and are getting in the way of decommissioning. AWE plc has given an undertaking to produce, by September 2000, a programme with key milestones to address these matters.

Safety Cases

74. Safety cases are already in place following the licensing of Hunting-BRAE Ltd and there is a programme for undertaking Periodic Safety Reviews. AWE plc formally took over the safety cases on April 1st, coincident with the adoption of all licence compliance arrangements by the Chief Executive on behalf of AWE plc.

Emergency Arrangements

75. The emergency arrangements for Aldermaston and Burghfield remain unchanged. New Approvals were prepared in each case. The plans cover both on-site and off-site emergency responses and are derived from the contingency plans for each facility that are contained in their safety cases. Contingency arrangements exist with four hospitals for the treatment of different classes of casualties. Thames Valley Police Headquarters at Kidlington is designated as the off-site centre (OSC).

GRANT OF NEW LICENCES

76. HSE's inspections, reviews and assessments of the licence applicant's case revealed no issues to impede the granting of nuclear site licences to AWE plc for the AWE sites at Aldermaston and Burghfield. Accordingly new licences were granted on 29 March 2000 by HM Chief Inspector of Nuclear Installations, Mr L G Williams, and came into force on 1 April 2000.

ANNEX 1



HM Nuclear Installations Inspectorate

Relicensing the Atomic Weapons Establishment Sites to AWE plc

ANNEX 1: REGULATORY FRAMEWORK

Health and Safety at Work Act

1. The operators of nuclear plants in the UK must, like their counterparts in other industries and places of work in general, conform to the Health and Safety at Work Act 1974 (HSW Act)⁸. This Act places a fundamental duty on employers to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all their employees. It also imposes a duty to ensure, so far as is reasonably practicable, that persons not in their employment are not exposed to risks to their health or safety as a result of the activities undertaken.

The Health and Safety Commission (the Commission, or HSC) and Health and Safety Executive (the Executive, or HSE)

2. The HSC and HSE were created in 1974 by the HSW Act. The Commission has a Chairman and nine part time members, appointed by the Secretary of State for the Environment after consultation with organisations representing employers, employees, local authorities, and others as he thinks appropriate. The Commission is responsible to the Secretary of State for the Environment and to other Secretaries of State for the administration of the HSW Act. In particular, the Secretary of State for Trade and Industry answers in Parliament in relation to nuclear safety.

3. The Commission's duties are, both directly and by encouraging others, to take appropriate steps to secure the health, safety and welfare of persons at work; to protect the public generally against risks to health or safety arising out of work activities and to control the keeping and use of hazardous substances. The Commission also conducts and sponsors research; promotes training, and provides an information and advisory service. It keeps under review the adequacy of legal requirements and submits to Government proposals for new or revised regulations and approved codes of practice.

4. The Commission has general oversight of the work of the Health and Safety Executive and has power to delegate to the Executive any of its functions. It is however precluded from giving directions to the Executive about the enforcement of the Act in any particular case. The HSC makes substantial use of independent advisory committees to advise it directly. The HSC's independent adviser on the subject of nuclear safety is the Nuclear Safety Advisory Committee (NuSAC).

5. HSE is a statutory body which employs over 3500 staff engaged in developing health and safety policy, inspecting the premises of duty-holders and enforcing health and safety legislation, investigating work-related accidents and complaints, and providing information, guidance and advice on health and safety matters. HSE is also the statutory licensing authority for non-Crown bodies which operate nuclear sites, a function which it delegates to senior officials within HM Nuclear Installations Inspectorate (NII) which is part of HSE's Nuclear

Directorate.

Nuclear Installations Act 1965 (as amended)

6. Those parts of the Nuclear Installations Act 1965 (as amended) (NI Act)¹ which relate to nuclear safety are relevant statutory provisions of the Health and Safety at Work Act. Under the NI Act, no site may be used for the purposes of installing or operating any reactor or other specified nuclear facilities unless a nuclear site licence has been granted by the Health and Safety Executive (HSE) for that site.

7. The NI Act is nationally and internationally recognised as strong and effective. Central features of it are the granting of licences by HSE to the "users" of sites (see Glossary), and the attachment of conditions to such licences. The grant of a nuclear site licence imposes liabilities and duties for safety on licensees who are required by the licence conditions to establish and implement arrangements for the key activities affecting safety.

A Permissioning Regime

8. The regulatory regime which NII operates under the terms of the Nuclear Installations Act requires that all significant actions by the licensee (essentially those having implications for nuclear safety) are subject to vetting and approval by NII. It is therefore described as a 'permissioning regime since licensees are unable, for example, substantially to modify plant or to alter operating arrangements without submitting their proposals to NII for consideration.

9. The nuclear permissioning process is unique in that the safety case which supports compliance with the licence is subject to continuing review. The resources and effort to deal with an individual duty holder are spread over the lifetime of the installation rather than falling at discrete periods determined by legislation.

Controls Used by NII

10. NII interacts with its licensees using a wide variety of legal instruments under powers delegated by the Executive when administering the provisions of the Nuclear Installations Act 1965 (as amended). These powers enable NII to:

- i. grant **licences** to applicants;
- ii. **vary** a licence, to reduce the area of the licensed site;
- iii. attach **conditions** to the licences, and to vary or revoke those conditions;
- iv. **Consent** to particular actions, usually to the commencement of a given activity;
- v. **Approve** particular arrangements or documents, generally to "freeze" them so they cannot be changed without NII agreement, e.g. emergency arrangements;
- vi. **Notify** the licensee that it requires certain information to be submitted e.g. a safety case;
- vii. issue **Specifications** to call in particular documents for examination, or Specify that something must be done in a particular way, e.g. form of waste material;
- viii. issue **licence instruments** as a means of agreeing to particular plant or process modifications;
- ix. **Direct** the licensee to shut down particular operations.

11. The first three of these are comparatively infrequent events. Most of the remainder, i.e. (iv) to (viii), are likely

to be much more frequent, and generally reflect the rate of change on the site covered. These actions result from a request from or application made by a licensee (or prospective licensee). In general they will have been signalled to HSE in advance of receiving the formal request, and will often be the subject of considerable discussion, during which the views of each side will be well aired, before the NII exercises its powers.

12. NII may from time to time reject or refuse a licensee's formal application. On occasion the NII may deem it necessary to call on its reserve power to issue a direction to close down particular operations for safety reasons. The various actions which can be taken under the licence are described more fully in Appendix 1 to this Annex.

Other regulators

13. The requirements for the protection of the environment and the authorisation of discharges of radioactive waste from nuclear licensed sites are the responsibility of the Environment Agency for England and Wales and the Scottish Environment Protection Agency for Scotland. Enforcement of certain legislation concerning the transport of radioactive matter, other than on nuclear licensed or relevant (i.e. Crown) sites, rests with the Radioactive Materials Transport Division of the Department of Environment, Transport and the Regions.

The Nuclear Site Licence

14. The safety of nuclear installations in the UK is the responsibility of holders of nuclear site licences and is assured through a system of regulatory control. A nuclear site licence, which can only be granted to a corporate body, permits the use of a site for specified activities. Licensing applies throughout the lifetime of an installation from design, siting, construction, commissioning, operation, and modification to eventual completion of decommissioning.

15. Under the NI Act, no site may be used for the purposes of installing or operating any commercial nuclear power plant unless a nuclear site licence has been granted by the HSE. The Nuclear Installations Regulations 1971 added a number of other types of prescribed installations for which a nuclear site licence is also required. A licence is not transferable, but a replacement licence may be granted to another corporate body. Before this can be done, NII will apply the same evaluation criteria as it would for an initial licensee. Its evaluation of an application considers three main aspects - the organisation; the location; and the activities. A licence may be revoked by HSE or surrendered by the licensee. However, in either event, the licensee will retain absolute legal responsibility for the nuclear safety of activities on the site until there has ceased to be any danger from ionising radiations from anything on the site.

Licence Conditions

16. HSE is able to attach to a licence, at any time, such conditions as appear to it to be necessary or desirable in the interests of safety, including conditions relating to the handling, treatment and disposal of nuclear matter. HSE also has power to vary or revoke conditions so providing scope for the licence to be tailored to specific circumstances and the phase of the installation's life. In this way the licence becomes a regulatory tool by which HSE can define the areas in which the licensee should pay particular attention to nuclear safety matters.

17. HSE has developed a standard set of conditions which provide consistent safety requirements and are non-prescriptive and flexible. Each licensee can develop arrangements which best suit its business whilst demonstrating that safety is being properly managed.

18. While the licence conditions provide the basis for control by NII, they do not relieve the licensee of the

responsibility for safety. They are phrased in general terms making the licensee responsible for the application of detailed safety standards and safe procedures for the plant. The arrangements which a licensee develops to meet the requirements of the licence conditions constitute elements of a safety management system. NII reviews the licensee's arrangements to see they are clear and unambiguous and address the main safety issues adequately.

19. Licensees' licence condition arrangements are a focus for NII's inspection activities backed up by assessment of written submissions from licensees, particularly safety cases. Assessment is made by NII's specialists against NII's guidance documents such as HSE's Safety Assessment Principles¹⁴ (SAPs), which gives standards against which to judge the adequacy of safety of plants.

20. A set of 35 standard conditions was used in all licences granted from 1990 and, following various relicensing exercises, these standard conditions had been attached to all nuclear site licences by 1997. However in 1999 it was decided, based on experience in the UK and abroad, that it would be desirable to clarify the arrangements for regulating organisational change, not least to assist licensees in understanding their duties and responsibilities. Accordingly a thirty-sixth licence condition was introduced explicitly relating to changes to organisational structures and resources.

21. The new licence condition requires each licensee to make and implement adequate arrangements to control any change to its organisational structure or resources which could affect the safety of its licensed sites. The new condition will ensure that before a licensee makes an organisational change he must consider the safety implications. For changes that could have a significant effect on safety if they were inadequately conceived or executed the new powers enable NII to require the licensee to submit a safety case, and to prevent the change from taking place until satisfied that the safety implications are understood and that there will be no lowering of safety standards. The text of the new condition is reproduced in Appendix 2 to this Annex.

Safety Management Prospectus

22. An applicant for a nuclear site licence is expected to provide NII with a Safety Management Prospectus (SMP) which demonstrates that the applicant has a proper commitment to health and safety, an adequate management structure, arrangements, etc. to discharge its obligations associated with being a nuclear licensee. A SMP can be regarded as that part of the licensee's safety case which deals with management issues (the items that should be covered are indicated in HSE's publication "Nuclear Site Licences - Notes for Applicants"⁽⁶⁾). By this means NII expects to receive a clear statement about a company, its structure, organisational arrangements and how it proposes to operate.

23. The type of organisation and magnitude of resource needs to be commensurate with the risk. The licence applicant's SMP leads to a demonstration of a commitment to health and safety through:

- the availability of a high level of health and safety expertise, from either the licensee's own resources or to which the licensee has access and the use of such expertise in an active role for the peer review of the safety case, for audit and for review activities;
- lines of authority that ensure adequate control of activities whether by the licensee's own staff or contractors; the application of adequate staff resources;
- precisely defining and documenting duties;
- the integration of health and safety responsibilities into job functions;

- appropriately trained, suitably qualified and experienced staff; and ensuring adequate in-house expertise.

Safety cases

24. A safety case is a suite of documents providing a comprehensive written demonstration that risks have been reduced to a level which is as low as reasonably practicable (ALARP - see Glossary). The safety case is not a one-off series of documents prepared to obtain a nuclear site licence. It is intended to be a living entity which underpins every safety related decision made by the licensee. The safety case is required to be updated regularly and the implications of proposed plant and other safety related changes have to be examined and, when necessary, additional demonstration of safety provided. Accordingly, the requirements to produce and maintain safety cases are embodied in conditions attached to all nuclear site licences.

25. NII examines the safety case to satisfy itself that the claims of the licensee are justified or demonstrated. For site inspections, NII uses the safety case to help to prepare for inspections and to determine parameters and values against which to judge the adequacy of safety of the plant.

Operational Methods

26. The sections of the NI Act relating to the licensing and inspection of sites are relevant statutory provisions of the HSW Act which also provides the arrangements for enforcement. NII Inspectors are appointed under the HSW Act. They administer the NI Act and deal with nuclear and radiological safety issues at licensed nuclear sites. NII also makes judgements on the acceptability of responses made by licensees to the requirements of licence conditions including assessment of safety cases.

It is NII's duty, in relation to nuclear and radiological safety, to see that appropriate standards are developed, achieved and maintained by the licensee and to ensure that the necessary safety precautions are taken. This duty is carried out by:

- **assuring** themselves that licensees establish, manage and maintain safety requirements for the protection of employees and members of the public;
- **assessing** the safety of proposed and existing sites and nuclear plant designs; and
- **inspecting** sites for compliance with these requirements at all stages from construction to operation and eventual decommissioning.

Assessment

27. Assessment is the process by which NII establishes whether the licensees' demonstration of safety is adequate. The purpose of assessment by NII is to confirm the evidence that the installation is as safe as is reasonably practicable. The technical standards of safety which NII uses to judge a licensee's safety case are expressed in HSE's Safety Assessment Principles (SAPs)⁹. Risk can never be avoided altogether; and normally, safety means the control of risks to an appropriately low level.

Inspection

28. Inspection is the means by which HSE checks for compliance with licence conditions, including safety cases, and other legal requirements, and provides a basis for enforcement and other regulatory decisions. Inspectors also seek to advise and encourage the operators of plants to continually enhance safety. Nuclear licensed sites

are subjected to a high degree of inspection, one or more site inspectors being allocated to a site. A site inspector typically spends around 30% of his or her available time at site. Much of the remaining time is spent reviewing licensee's justifications of safety with other site inspectors and assessment colleagues.

29. Additionally, the NII mounts team inspections on particular topics which may be regular events, such as witnessing the annual demonstration emergency exercise for a site, or special inspections on a selected aspect of safety. Team inspection typically involves a mixture of Site Inspectors and Assessment Inspectors. The work reported here involved both types of inspection activities and included assessment of submissions. Because of the number of plants on the AWE sites, a team of four site inspectors is allocated specifically to them.

Sampling

30. All inspection and assessment is done on a sampling basis, the size and scope of the sample being determined by, for example, the potential hazard of the activity and the findings from initial examinations. This reflects the normal regulatory practice of targeting and proportionality, whilst retaining the basic principle that safety is the responsibility of the licensee. It depends for its success on a suitably qualified and experienced Inspectorate.

Enforcement

31. In exercising the delegated licensing function, NII makes use of a number of controls derived from the licence conditions, as described above. These generally act as enforcement tools in the non-prescriptive nuclear regulatory regime. However NII inspectors may also use their enforcement powers under the HSW Act to issue Prohibition and Improvement Notices and to prosecute for breaches of that Act or the relevant statutory provisions. Breaches of licence conditions are offences under the HSW Act. HSE's enforcement powers are summarised in Appendix 1.



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Relicensing the Atomic Weapons Establishment Sites to AWE plc

ANNEX 1: Appendix 1

NII's powers under a site licence are exercised through the following legal instruments:

Consents

A Consent is required before the licensee can carry out any activity which is specifically identified in the licence or for any other activities which the NII may specify. For example, a Consent is required before a reactor is allowed to be started up again following its periodic shutdown. Before being granted a Consent the licensee must satisfy NII that the proposed action is safe and that all procedures necessary for control are in place.

Approvals

An Approval is used to freeze a licensee's arrangements. If NII so specifies, the licensee is required to submit the arrangements to the NII for approval. Once approved, the procedures cannot be changed without NII's agreement, and the procedure itself must be carried out in accordance with the approved arrangements; failure to do so would infringe the licence condition and would be an offence. For example, for nuclear power stations NII generally approves operating rules important to safety in order to ensure that licensees cannot change these without seeking NII's agreement to the change.

Directions

A Direction is issued by NII when it requires the licensee to take a particular action. For example, Licence Condition 31(1) gives HSE the power to Direct a licensee to shut down any plant, operation or process. Such a Direction would relate to a matter of major or immediate safety importance.

Agreements

An Agreement issued by NII allows a licensee, in accordance with its own arrangements, to proceed with an agreed course of action. For example, Licence Condition 22 requires a licensee to have adequate arrangements to control modifications to safety related plant. Such arrangements will often state that for modifications which, if inadequately conceived or implemented, could have serious nuclear safety implications, the modification cannot be carried out without the agreement of NII. Hence, the licensee submits a safety case justifying the modification and does not proceed until NII has written agreeing to this proposal.

Notification

The standard licence conditions give NII powers to request the submission of information by notifying the licensee of the requirement. For example in Licence Condition 21(8) the licensee shall, if notified by HSE, submit a safety case and shall not commence operation of the relevant plant or process without the consent of the Executive.

Specification

The standard licence gives NII discretionary controls with regard to a licensee's arrangements and these are implemented through Specifications. For example, in Licence Condition 23(2), if HSE specifies, the licensee is required to refer operating rules to his Nuclear Safety Committee for consideration.

Licence Instruments

Agreements, notifications, and specifications are all legally binding communications between NII and the licensee which allow the licensee to carry out an activity or require some form of action to be taken. To administer these requests or authorisations, NII has produced a standard form of letter known as a licence instrument.

NII's enforcement powers under the Health and Safety at Work Act are:

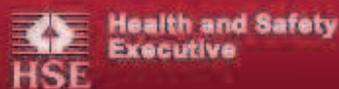
Improvement notice

The HSW Act provides (s.21) for an inspector, if of the opinion that a statutory provision is being or has been contravened (and the contravention will continue), to serve a notice requiring the person to remedy the contravention.

Prohibition notice

The HSW Act also provides (s.22) for an inspector, if of the opinion that activities are being carried out which risk causing serious personal injury, to serve a notice with immediate effect to prohibit the activity.

Prosecution



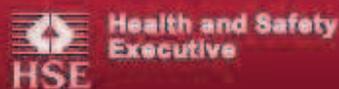
HM Nuclear Installations Inspectorate

Relicensing the Atomic Weapons Establishment Sites to AWE plc

ANNEX 1: Appendix 2

LICENCE CONDITION 36: CONTROL OF ORGANISATIONAL CHANGE

1. The licensee shall make and implement adequate arrangements to control any change to its organisational structure or resources which may affect safety.
2. The licensee shall submit to the Executive for approval such part or parts of the aforesaid arrangements as the Executive may specify.
3. The licensee shall ensure that once approved no alteration or amendment is made to the approved arrangements unless the Executive has approved such alteration or amendment.
4. The aforesaid arrangements shall provide for the classification of changes to the organisational structure or resources according to their safety significance. The arrangements shall include a requirement for the provision of adequate documentation to justify the safety of any proposed change and shall where appropriate provide for the submission of such documentation to the Executive.
5. The licensee shall if so directed by the Executive halt the change to its organisational structure or resources and the licensee shall not recommence such change without the consent of the Executive.



HM Nuclear Installations Inspectorate

Relicensing the Atomic Weapons Establishment Sites to AWE plc

ANNEX 2

GLOSSARY

AEA(T)

AEA Technology plc

ALARP

As Low as Reasonably Practicable - the ALARP principle is a fundamental to the regulation of health and safety in the UK and requires that risks should be weighed against the costs of reducing them; measures must then be taken to reduce or eliminate the risks unless the cost of doing so is obviously unreasonable compared with the risk.

AWEML

AWEML is a consortium comprised of British Nuclear Fuels plc (BNFL), Lockheed Martin and SERCO. It holds the Management and Operations Contract for the AWE sites, and owns all the shares in AWE plc apart from one special share held by the Secretary of State for Defence. AWEML has recruited and supplied a management team to AWE plc, the operator of the AWE sites.

AWE plc

AWE plc is a company created by MoD; it employ the managers and workforce on the AWE sites and is the repository of AWE's scientific and production expertise. AWE plc is the user of the sites and is in day to day control of operations.

CHID

Chemical and Hazardous Industries Directorate of HSE, which also deals with explosives

DERA

Defence Evaluation and Research Agency

DTI

Department of Industry.

EA

Environment Agency

FOD

Field Operations Directorate of HSE, which regulates 'conventional' health and safety matters across a range of industries

GOCO

Government owned, contractor operated

HSC

Health and Safety Commission - The Health and Safety Commission and Health and Safety Executive (HSE or 'The Executive') are bodies created by the Health and Safety at Work etc. Act (1974). The Commission is responsible to the Secretary of State for Environment, Transport and the Regions (and to other Secretaries of State) for the administration of the Act. The Commission makes substantial use of independent advisory committees who advise the Commission directly.

HSE

Health and Safety Executive - a distinct statutory body with day-to-day responsibility for making arrangements for the enforcement of safety legislation. The Executive is the statutory licensing authority for civil nuclear installations, a function which it delegates to senior officials within the Nuclear Installations Inspectorate (NII) which is part of HSE's Nuclear Safety Division (ND).

HSW Act

Health and Safety at Work etc Act 1974².

ILW

Intermediate Level Waste

LC

Licence Condition: HSE is able to attach to a licence, at any time, such conditions as appear to it to be necessary or desirable in the interests of safety. It may also include conditions with respect to the handling, treatment and disposal of nuclear matter. HSE also has power to vary or revoke conditions so providing scope for the licence to be tailored to specific circumstances and the phase of the installation's life. A list of the standard licence conditions is in Reference 8. Note that these have been recently amended to make reference to the Radioactive Substances Act 1993 rather than the Radioactive Substances Act 1960.

Licence

A Nuclear Site Licence - under the NI Act, no site may be used for the purpose of installing or operating a nuclear reactor (or some other types of nuclear installations), other than a reactor in a means of transport, unless a licence has been granted by HSE (sites operated by the Crown are exempt). The granting of a nuclear site licence imposes an absolute liability upon the licensee as regards injury to persons or damage to property arising from a nuclear occurrence.

LLC

Local Liaison Committee.

MoD

Ministry of Defence

NI Act

Nuclear Installations Act 1965 (as amended)³.

NII

HM Nuclear Installations Inspectorate - a part of the Nuclear Directorate of HSE - senior officers of which have delegated regulation and enforcement powers relating to nuclear licensing under the NI Act. (See HSE above).

NuSAC

Nuclear Safety Advisory Committee - the Health and Safety Commission's independent adviser on the subject

of nuclear safety, formerly known as the Advisory Committee on the Safety of Nuclear Installations (ACSNI).

NSC

Nuclear Safety Committee. Licence condition 13 requires that a licensee should set up a senior level committee which should consider and advise on matters which affect the safe design, construction, commissioning, operation and decommissioning of the installations on the licensed site and any other matters relevant to safety. The committee must have members who are adequately qualified to perform this task and to provide a source of authoritative advice to the licensee. The committee, however, is purely advisory and must not be considered to have an executive function, but the Executive must be informed if the advice of the committee is not to be followed by the licensee.

ND

Nuclear Safety Division of HSE, of which NII is part.

OSC

Off-site Centre.

SAPs

HSE's Safety Assessment Principles¹⁴ - written as guidance for NII staff to use when carrying out assessment; they are available to licensees and the public.

Safety case

The safety case is a suite of documents providing a written demonstration that risks have been reduced to a level that is as low as reasonably practicable. The safety case is not a one-off series of documents prepared to obtain a nuclear site licence. It is intended to be a living dossier which underpins every safety related decision made by the licensee. The safety case is required to be updated regularly and as plant and organisational changes dictate. Safety cases can apply to whole plants or to modifications and encompass some aspects addressed in management prospectuses.

Safety Management Prospectus

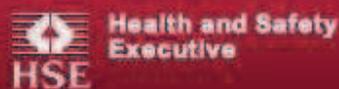
The management prospectus can be regarded as that part of a licensee's safety case which deals with management issues. Licence applicants develop and submit a management prospectus which inter alia demonstrates their commitment to health and safety. By this means NII expects to receive a clear statement about a company, its structure and how it proposes to operate.

Special Share

The Secretary of State for Defence retains one special share in AWE plc. This device enables the Secretary of State to inhibit any change to the company (e.g. to the Memorandum and Articles of the company) which might detract from the continued safe and efficient operation of the AWE sites.

User

The term "user" features in the NI Act in relation to the corporate person licensed under the act. In HSE's published guidance⁶, 'the user' is interpreted as being the company "which is in day to day control of the site, process and activities and whose staff manage the operation of the plant".



HM Nuclear Installations Inspectorate

Relicensing the Atomic Weapons Establishment Sites to AWE plc

ANNEX 3

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1. The Nuclear Installations Act 1965 (as amended) (1965 c.57)
2. The Atomic Weapons Establishment Act 1991
3. The Management of Health and Safety at Atomic Weapons Establishment Premises Part 1 (ISBN 0 7176 0864 6) and Part 2 (ISBN 0 7176 0863 8)
4. The Atomic Weapon Establishment Act 1991 Amendment Order 1997 (SI 1997/1396)
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