



**HM NUCLEAR INSTALLATIONS INSPECTORATE**  
**BNGSL SELLAFIELD AND DRIGG, AND UKAEA WINDSCALE**  
**WEST CUMBRIA SITES STAKEHOLDER GROUP**  
**QUARTERLY REPORT FOR 1 APRIL TO 30 JUNE 2005**

**FOREWORD**

This report is issued as part of the Health and Safety Executive's commitment to make information about inspection and regulatory activities relating to the above sites available to the public. It is for distribution to members of the West Cumbria Sites Stakeholder Group (WCSSG) and covers activities associated with the regulation of safety at BNGSL (British Nuclear Group Sellafield Ltd.) Sellafield and Drigg, and UKAEA Windscale.

These reports are distributed quarterly and will be available on the Internet. Site Inspectors of HM Nuclear Installations Inspectorate (NII) attend WCSSG meetings and will be happy to respond to any questions raised there. Any other person wishing to inquire about matters covered by this report should contact HSE, Nuclear Safety Directorate Information Centre on 0151 951 4103.

This report will be put onto the HSE Website at

[http:// www.hse.gov.uk/nuclear/llc/index.htm](http://www.hse.gov.uk/nuclear/llc/index.htm) under "Local Liaison Committee Reports"

## **1 INTRODUCTION**

NII Inspectors made a total of 66 visits to the Sellafield, Calder Hall, Windscale and Drigg sites during the quarter. This involved a total of 299.5 days on site (see Table 1 for details). The more significant issues identified during these inspections are summarised below.

## **2 BNGSL SELLAFIELD**

### **2.1 GENERAL SITE MATTERS**

#### **2.1.1 Coordinated Inspection – Contamination Control**

BNGSL provided a response at the end of January to each of the issues raised by NII as a result of the co-ordinated inspection on contamination control. NII has yet to review the content of BNGSL's response.

#### **2.1.2 Visit of the UK Ambassador to Dublin**

NII hosted a visit by the UK Ambassador to Dublin at Sellafield which was useful in balancing the importance of the Sellafield issues in relation to general Anglo-Irish contacts. Significant progress has been made in establishing the Anglo-Irish links and HSE/NII was encouraged to maintain the effort in this area. The Ambassador's Team in addition to visiting various plant areas and the emergency management facilities also had discussions with the BNGSL Management Team and the Trade Union Representatives. Inspectors from the Environment Agency and Office of Civil Nuclear Security were present during the visit.

#### **2.1.3 Periodic Safety Review**

Licence condition 15 requires licensees to implement arrangements for the periodic review of safety cases. The periodicity for a major review has been set as 10 years. BNGSL has provided a schedule of planned delivery dates against a 10-year Sellafield and Drigg Sites Safety Case Programme. Continued Operations Safety Reports (COSRs) for some of the plants have in the past been delayed; however there are now signs that BNGSL is beginning to meet its programme.

A number of COSRs and Long Term Periodic Review (LTPR) reports (BNGSL's initial scoping assessment of requirements for a COSR) have been received during the last quarter. NII does not have the resources to carry out a detailed assessment of all the COSRs, and in sampling bases its decision on various factors including age of the plant, hazard rating and vintage of the safety case, all of which influence the extent of re-work and additional work proposed for the safety case. NII has commented generically on the format and content of the LTPR reports to facilitate the determination of the extent of NII assessment required. BNGSL has responded positively.

NII currently has a number of COSRs at various stages of assessment.

### **2.1.4 Emergency Exercise Bullfinch**

A Level 1 Emergency Exercise was held on the 19 April 2005 to demonstrate BNGSL's response, under the Emergency Plan, to an incident associated with the Dry Solid Waste Silo on the Sellafield Site. The exercise was to test also the arrangements for relocating the Site Emergency Control Centre (SECC) in those circumstances when the main facility is untenable. In addition to the licensee's response, NII participated in the exercise as a means of improving our interactions with the site.

A number of NII Inspectors observed the exercise and judged the response by BNGSL as an adequate demonstration of the arrangements. A number of general and specific issues arose which BNGSL should consider further.

## **2.2 INCIDENTS**

### **2.2.1 Product Finishing And Storage (PF&S) - Inadvertent Accumulation of Powder in Rotary Vacuum Filter (RVF) Glovebox**

During April, BNGSL reported an inadvertent accumulation of powder in the RVF Glovebox. BNGSL subsequently removed drier lagging and identified 2 potential leak paths for this powder. At the time of writing this report repairs were being effected. NII considered the details of this event when identifying the prerequisites that have to be satisfied before consent for restart of the Finishing Line will be considered.

### **2.2.2 Sea Line 3**

During the routine 6 monthly inspection of Sea Line 3, the inspection team identified a leak on the sea line approximately 0.5km offshore and 1.5km from the Sea Line Outlet Diffuser, well below the low tide mark. Divers identified the source of the leak as a bolted coin patch around 150mm in diameter that had come away from the pipe. Corrosion is believed to be the cause of failure. Discharges were routed to Sea Line 2 whilst repairs were effected and had minimal effect on donor plants. Sea Line 3 was returned to service with no further incident. The NII was regularly briefed by BNGSL and EA, the lead regulator on this topic, and no further action was considered necessary by NII.

### **2.2.3 Product Store - Inadvertent Dismantling of Internal Wall**

A section of wall was inadvertently dismantled in a Product Store during seismic strengthening work being undertaken by contractors. This led to modified airflows in the non-active vent system. The incident is currently under investigation by BNGSL and will be followed up by the Site Inspector, as this is a failure to control modifications to plant.

### **2.2.4 Leak of Product Dissolver Liquor from Fractured Accountancy Tank Feedpipe within Feed Clarification Cell of THORP.**

NII was made aware on the 20<sup>th</sup> April 2005 of the discovery of some 83m<sup>3</sup> of leaked product dissolver liquor within the THORP Feed Clarification Cell. There has been significant interest into this event and requests for information under the Freedom of Information Act. The liquor had been leaking undetected from a fractured pipe feeding one of two accountancy tanks. The licensee when investigating accountancy discrepancies, using in-cell video surveillance, discovered the leak. The incident has been rated as Level 3 in the International Nuclear Event Scale due to the radioactive inventory that leaked from primary into secondary containment over a number of months.

NII was in frequent discussions with the licensee regarding recovery of the leaked liquor, but was satisfied that significant safety margins existed at all times throughout the incident and incident recovery. The leaked liquor has been safely recovered back into primary containment, using the originally installed, purpose designed, sump emptying equipment. There is only a very small, diluted, cell sump 'heel' remaining.

NII has carried out a preliminary investigation into the incident. This investigation was undertaken separately and without reference to the BNFL Board of Inquiry. This investigation revealed concerns regarding instrumentation failures and maintenance and sump sampling and, as a result, two Improvement Notices have been issued, linked to Licence Conditions 24/25 (instructions and recording) and 28/34 (maintenance and leak detection).

NII's investigations are ongoing and are likely to continue for several months more. One group of inspectors is continuing the investigation at Sellafield into the event and why the leak remained unrevealed for some time. A further team are investigating the technical reasons for the pipe failure, wider issues in THORP and liaising with the licensee on their options for plant configuration and return to service.

Thorp is currently shut down for repairs and a planned maintenance outage. Consideration of return to service will be dependent on the submission of appropriate modification proposal(s) and any further regulatory requirements resulting from the ongoing investigations.

## **2.3 MAGNOX REPROCESSING OPERATIONS**

### **2.3.1 Reprocessing Operations**

The reprocessing plant periodic shutdown commenced on 1 April 2005 and is programmed to last 16 weeks. During this period the plant will be washed out and major projects and plant maintenance will be undertaken. Before the plant can be restarted a Consent to Operate will have to be issued by NII.

### **2.3.2 Fuel Handling Plant (FHP) and Pond Conditions**

Fuel decanning operations have ceased in the Fuel Handling Plant due to the reprocessing plant periodic shutdown. The pond water radioactivity contamination level has continued to reduce and is in the 2500 to 3000 Bq/ml range.

### **2.3.3 Magnox Reprocessing Plant COSR**

BNGSL submitted the majority of the revised Continued Operations Safety Report (COSR) for the Magnox Reprocessing Plant during the last quarter of 2004, and final updated sections in March 2005. NII has been considering the COSR and is now coming towards the end of its assessment. NII has raised a number of issues with BNGSL and a way forward is being discussed. The key recommendations arising from the COSR are planned for implementation in two phases, and NII expects the recommendations identified in the first phase to be completed during the planned reprocessing plant outage that commenced on 1 April 2005.

### **2.3.4 NII Investigation into an Incident Involving a Leak of Fissile Liquor in a Pumping Cabinet within Product Finishing Line**

NII's investigation into the incident is complete. In summary the report concludes that:

- The immediate cause of the event was failure of the pump outlet hose, due to an inadequately conceived plant modification.
- A significant number of the lines of defence claimed in the Fully Developed Safety Case (fdSC) were ineffective.
- Criticality did not occur and that adequate safety margins were maintained during the incident.
- There was no release of radioactive material outside the containment of the glovebox, no persons were injured and none incurred any additional radiation dose as result of this incident.

The investigation report makes 6 recommendations regarding regulatory action, which have been implemented. These include:

- An Improvement Notice was served on BNGSL on 22<sup>nd</sup> March 2005 under LC 22 to ensure the Licensee implements adequate arrangements within Magnox PF&S to control modifications to plant that affect safety. Compliance with the Improvement Notice was required by 30 June 2005.
- A Direction was issued to BNGSL on the 23<sup>rd</sup> May 2005 under LC31 (1) to halt feed to the conditioning vessels of Finishing Line 5. This effectively stops Finishing Line production until a consent has been granted by HSE/NII.
- BNGSL has been formally advised that consent to restart Finishing Line operations will require them to address a number of areas to the satisfaction of the Site Inspector. The most significant is to submit a robust review and reassessment of safety that demonstrates the major plant hazards within the PF&S are adequately controlled. The Phase 1 Periodic Safety Review (PSR) was submitted to NII on the 30<sup>th</sup> June 2005.

The PSR is considered key in restoring the Executives confidence in the safety of the plant and supporting the case for consent to restart. Consequently, it is important that NII is able to satisfy itself regarding the adequacy of the PSR submission as a robust justification that substantiates the safety of continued plant operations. BNGSL is working on the remaining prerequisites placed on it by the Site Inspector that need to be satisfactorily addressed before NII will consider a request for consent to restart Finishing Line 5.

There are wider implications if the Finishing Line was to remain shutdown for an

extended period of time, which include potential delays in the restart of Magnox reprocessing and the processing of fuel pond stocks. Consequently, the NII will take account of these when considering the work done by BNGSL to address the areas of concern against the timescale for issuing consent to restart the finishing line.

### **2.3.5 Improvement Notice I/2003/NSD/DCDU/01, dated 10th December 2003, on Magnox PF&S**

The NII monitored BNGSL's progress against the requirements of the Improvement Notice and has found that satisfactory improvement had been achieved in each of the areas highlighted by the Improvement Notice. Consequently, BNGSL has been formally advised that Improvement Notice I/2003/NSD/DCDU/01 has been formally discharged.

A limited amount of related work initiated by the Improvement Notice has still to be fully completed. The programme of work for the rewrite and reissue of work instructions is scheduled to continue until December 2005 and two engineering improvements are funded in the NTWP but are on hold pending safety case assessment. The NII will confirm continued progress in these areas as part of his routine inspection duties over the coming months.

### **2.3.6 Magnox PF&S - Improvement Notice I/2005/NSD/MF/01, dated 22<sup>nd</sup> March 2005, on Magnox PF&S**

The NII has been monitoring BNGSL's progress against the requirements of Improvement Notice I/2005/NSD/MF/01 on LC 22 – Modifications to Existing Plant, against which compliance was required by 30<sup>th</sup> June 2005. NII has inspected the revised arrangements put in place by PF&S and is content that they have satisfied the requirements of the Improvement Notice. However, at the time of writing this report BNGSL has not been formally advised that the requirements placed upon it by the Improvement Notice are discharged.

## **2.4 THORP OPERATIONS**

### **2.4.1 Thorp Periodic Safety Review**

Thorp has produced the strategy for delivery of the Periodic Safety Review (PSR) under Licence Condition 15 and there have been regular meetings between the Thorp Project team members and NII representatives to monitor progress. A phased delivery of the PSR has been agreed, with final delivery of the last sections scheduled for December 2006. The Thorp Project team recognise the need to take on board lessons learned from the Feed Clarification Cell leak and will be incorporating these into the review.

## **2.5 HIGH ACTIVE LIQUOR WASTE PLANTS**

### **2.5.1 High Active Liquid Evaporation & Storage (HALES)**

BNGSL continues to comply with the specification limiting the total volume of HAL and are in compliance with the specification limit on oxide HAL.

HALES continues to face a number of challenges including: the issues arising from the failure of evaporator B, the need to consider the future strategy for providing evaporation capacity, the activity break through in HAST 13, and to engineer the return to service / recovery of evaporators A and B. NII is closely monitoring this large volume of work because it has significant safety implications.

### **2.5.2 High Active Storage Tanks (HAST)**

BNGSL has continued to report, under the agreed process, the results of monitoring of the activity in cooling water of the HAST tanks. Good progress has been made with the engineering modifications to HAST13 to automatically route the jacket coolant to the active drains. This should allow continued use of the HAST in the near term but the condition of the HAST and integrity of its jackets will continue to be monitored.

### **2.5.3 HAL Operations**

HAL operations have continued this quarter and are still constrained by only evaporator C being available. Processing of mixed oxide / Magnox batches has continued to support reprocessing. A seal failure on the clean cooling water system of evaporator C occurred at the end of this quarter. The operator reacted promptly and correctly to bring the plant to a safe state. The cause of the leak was quickly identified and repaired returning the evaporator to service.

The engineering modifications to evaporator A to allow it to be returned to service have progressed well and evaporator A should be available to support Magnox reprocessing when it restarts. The Inspectorate is looking at the justification for the return to service and will discuss the longer-term use of the evaporator once this phase of work is complete.

Investigation and recovery of evaporator B following the coil failure at the end of 2004 has continued; progress to date is judged satisfactory.

NII is also in discussion with BNGSL on the need for increased evaporation capacity to ensure delivery of the Magnox Operating Plan.

### **2.5.4 Cooling Integrity**

Continuing work on the cooling integrity projects progress is slower than NII hoped.

### **2.5.5 Windscale Vitrification Plant (WVP)**

The Vitrification Plant performed well during the first part of the quarter. However, local and site issues including management of the air flow depression through the plant and availability of steam supplies have resulted in the throughput falling at the end of the quarter.

### **2.5.6 Residue Export Facility**

The steps taken by BNGSL to improve the safety performance are successfully improving safety awareness; safety performance remains under review.

## **2.6 MOX OPERATIONS**

### **2.6.1 Sellafeld MOX Plant (SMP) Commissioning and Operation**

SMP completed the manufacture of the first 4 fuel assemblies and these were shipped to the customer overseas. Thus, for the first time, MOX commissioning operations were carried out over the full spectrum of plant activities, including rod manufacture, fuel assembly and inspection and fuel export. The commissioning information and learning from it will be used during the review of the Safety Case, prior to its submission as part of the Consent to Operate submission later in the year. No significant commissioning difficulties were noted, nor were there any significant safety concerns. NII was kept informed of progress throughout the period. Plant inspection was limited due to NII priorities elsewhere on site.

In mid June, the SMP Annual review of safety was held, attended by NII and EA representatives. The review paper was well structured and included both a look back at activities over the preceding year and learning points for taking forward in the forthcoming year. Safety performance had generally been good, though a few isolated events had marred this generally positive picture.

The next major regulatory milestone will be the delivery of the Consent to Operate Safety Case and the formal request for Consent to Operate under Licence Condition 21(8) towards the end of the year. NII and EA are liaising and monitoring the delivery.

## **2.7 WASTE TREATMENT & DECOMMISSIONING**

### **2.7.1 Contaminated Land/Groundwater**

For some time both NII and EA have had concerns over the current progress being made by the licensee on issues relating to Contaminated Land and Groundwater . During the quarter, NII has initiated a process to require BNGSL to come forward with a more cogent and comprehensive plan of work in this area. The issues partly relate to long term concerns, such as the site end states, but is also related to the day to day management of historical disposals and leaks, including the monitoring of these disposals and leaks, and the underpinning scientific modelling to allow sensible decision making processes.

BNGSL has established a project board to manage the preparation of material for the consultation process, and has also clarified management roles for Contaminated Land and Groundwater. The meeting has not yet been held, because of the effort in preparing material and will now not be programmed until after the summer holiday season.

### **2.7.2 Waste Treatment Complex**

BNGSL has requested a move to the next phase of commissioning during the period. This is expected to be the last phase of commissioning of the compactor before WTC moves into operations. BNGSL has applied for a Consent to Operate and this is being considered by HSE.

### **2.7.3 Engineered Drum Store 3.**

Construction of this new store has advanced well over the period and is now close to

completion. Commissioning is expected to start in the next quarter.

#### **2.7.4 Decommissioning**

Several facilities on site, most notably North Group Compound and Finishing Line 3 have had decommissioning operations underway over the period. The Finishing Line Decommissioning Team has progressed work significantly and successfully discharged the Improvement Notice that required them to break-down and remove the contents of the co-precipitation crates by the end of May. The PFR Fuel Line Decommissioning team has sought permission to continue with the next phase of decommissioning within the building.

### **2.8 LEGACY PONDS & SILOS**

#### **2.8.1 Legacy Silos**

During the period BNGSL has been pressed to release funds so that the good progress made on Silos over the last few years could be maintained. NII has continued to monitor progress to establish whether it is adequate to meet the specification on ILW sludge removal. NDA has supported the principle of transferring funds so that these legal requirements are met. The transfer of ownership responsibilities and funding uncertainties has had an effect on progress over the last few months, but BNGSL is now developing plans to recapture any lost ground. The new plans are substantially better underpinned than previous plans, which should reduce the likelihood of "stop-go" funding in the future, and they will be reflected in future Life Cycle Baseline plans (LCBLs) and Near Term Work Plans (NTWPs).

Despite the funding issues, BNGSL has continued the programme of improvements on the Wet Silos, including preparation for remediation (i.e. Silo emptying). Work currently being carried out includes improvements to instrumentation and preparation for installation of a new crane within the building. This will replace a redundant crane and will be used to install retrievals plant and move flasks during silo emptying. A minor contamination incident during the quarter has reminded the licensee of the need for rigorous identification of risks during the project work.

The Dry Silos has recently submitted a periodic review of their safety case resulting in a new Baseline Safety Case. The NII assessment recognised that the facility is undergoing remediation and that progress with Silo emptying will deliver significant safety benefits. NII issued a Decision Letter on completion of the assessment, accepting the adequacy of the review. BNGSL is preparing to amend operating and maintenance practices to implement the Baseline Safety Case.

#### **2.8.2 Piles Fuels Storage Pond and Magnox Storage Pond**

BNGSL's inspection of the beams that support the skip handler rails has found them to be in a better condition than anticipated. This finding offers the prospect of accelerating the project to bring the skip handler back into operation and BNGSL are

considering what can be done to provide a satisfactory safety case for refurbishing rather than replacing the beams. Further testing of Magnox Decanning and Pond Facility contingency arrangements to contain any leakage from the north pond wall has been carried out and this has identified the need to improve some of the equipment being tested.

The availability of B13 on the UKAEA Windscale site to accept material from the Piles Fuel Pond remains a concern and BNGSL are being encouraged to consider how best to progress in the absence of B13 in the short term.

## **2.9 SITE & PLANT SERVICES, INCLUDING RESEARCH & DEVELOPMENT**

### **2.9.1 GSL Transfer**

During May, BNGSL submitted Management of Change proposals to NII for the transfer of Geoffrey Schofield Laboratories (GSL) from BNGSL to BIL Solutions Ltd. GSL's activities are complementary to those that BIL is charged with delivering to UK customers. There are significant opportunities for maintaining the current work carried out for BNGSL and also to increase the activities undertaken for BNGSL and other UK nuclear sites.

The Management of Change proposals and their supporting documents were assessed and evidence was provided that the prerequisite actions for the transfer of GSL from BNGSL to BIL Solutions Ltd had been completed. It has been recommended that a Licence Instrument should be issued under SLC 36(1) to give agreement to the transfer of GSL from BNGSL to BIL Solutions Ltd. The Licence Instrument was issued during early July.

## **2.10 EFFLUENT & ENCAPSULATION**

### **2.10.1 Sea Line Pipe Bridge Refurbishment**

The Site Inspector is pleased that BNGSL has now developed contingency arrangements should the integrity of the sea discharge route be compromised during implementation of this project.

### **2.10.2 Floc Retrieval – Floc Storage Facility**

Since NII issued formal Consent on the 15<sup>th</sup> February 2005, BNGSL has reported successfully processing 5 batches of floc within EARP. BNGSL is currently proposing to maximise the efficiency and effectiveness of the floc retrievals and encapsulation process by increasing the final concentration of the floc processed within EARP and WPEP. This will significantly reduce the number of waste drums produced by WPEP, an initiative that the Site Inspector supports.

### **2.10.3 ILW Storage Strategy**

BNGSL is currently working on providing a more robust business case for a new Encapsulated Product Store. The Site Inspector has advised both the Licensee and NDA that a regulatory decision on partial aisle filling of an Encapsulated Product store will not be favourable unless a firm commitment is given to deliver additional drum storage provision for operational Magnox and Thorp wastes in a reasonable timescale, over and above the current storage capacity provided by existing encapsulated product stores.

### **3 BNGSL CALDER HALL**

#### **3.1 ROUTINE MATTERS**

##### **3.1.1 Fuel Route Transition Project**

The NII has continued to assess the programme of modifications to improve the Calder Hall and Chapelcross fuel routes. We have had the opportunity to witness the new equipment at the manufacturers and this has provided us with confidence that the modifications should meet the design intent. Implementation is underway at both sites and sampling inspections of this have raised no concerns.

#### **3.2 NON – ROUTINE MATTERS**

##### **3.2.1 Magnox Relicensing**

Following inspections at Calder Hall, the NII was satisfied that BNFL had taken adequate steps to address the effect of the reorganisation of BNFL on Calder Hall. One of the main issues concerned the Nuclear Safety Committee. We advised that it is important that Calder Hall continues to maintain contacts with the reactor sites. The relicensing of Chapelcross to Magnox Electric meant that there was a need to change the Calder Hall and Chapelcross Reactor Nuclear Safety Committee. BNGSL decided that Calder Hall should retain its own nuclear safety committee to maintain continuity with its position as a reactor site. Under Condition 13 of the Nuclear Site Licence, the NII issued an approval for the terms of reference of the new Calder Hall Nuclear Safety Committee in Licence Instrument No 528. At the same time under Condition 13, it issued a Specification in Licence Instrument No 529 requiring Calder Hall to provide NII with documents it provides to the new Committee.

##### **3.2.2 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning (EIAD)) Regulations 1999**

On 21 June, the HSE granted a Consent to Calder Hall under the Environmental Impact Assessment for Decommissioning Regulations that will allow it to begin decommissioning. The basis for the Consent is contained in a public report that sets out HSE's decision after consultation and consideration of the licensee's Environmental Statement that the Regulations require as part of an application to begin decommissioning. The only physical activities to have taken place at Calder Hall since ending generation are those either underway prior to the ending of generation or those necessary in the interests of safety.

### **4 UKAEA WINDSCALE**

## **4.1 B13**

NII has completed its initial assessment of the new B13 Safety Case.

The high level conclusions are that there is a general lack of adequate analysis and justification to support the claims presented in the safety case. The key areas of weakness from NII's assessment findings are summarised as: -

The Civil and Structural engineering (Building steel work and cave concrete structures)

Mechanical systems

Electrical systems

Human Factors

Criticality and Radiological protection

Control and Instrumentation

Radioactive waste.

NII is concerned at the range of weaknesses that are in both engineering and management controls. NII has therefore issued a Specification under Licence Condition 13, Licence Instrument 512, that requires UKAEA to seek advice from its Southern Nuclear Safety Committee on

The adequacy of UKAEA's procedures for the production and assessment of safety cases, and

The adequacy of the endorsement of the Safety Report that describes the B13 safety case taking into account the range and importance of the issues raised by NII.

NII will be meeting with the UKAEA Director of Safety to discuss this in the very near future.

## **4.2 Pile 1**

The Pile 1 project is continuing to gather additional data on the physical status of the Pile 1 core. As part of this work UKAEA submitted a safety case for an intrusive visual survey of part of the Pile 1 graphite core. Pile 1 has an Operating Rule that prevents any operation that might disturb the core unless there is written justification. This survey fell within this exclusion. NII was satisfied with the arguments made in this safety case, and issued a Licence Instrument that allowed the work to progress.

## **4.3 Safety Cases**

B52 has completed writing its Decommissioning Safety Case; the initial case provides the overarching management arrangements to allow a number of campaigns to complete the work. This is the same type of arrangement that NII has found satisfactory for the WAGR Decommissioning Safety Case.

## **4.4 Emergency Exercises**

The annual exercise to demonstrate Emergency Arrangements to NII was held on 22<sup>nd</sup> June. A transport accident was used for the exercise scenario. It was agreed that a full site muster was not done on this occasion. Nevertheless BNGSL did operate the main site emergency room, and UKAEA did send a team to take control of events on Windscale site. Overall NII was satisfied that UKAEA adequately demonstrated its

emergency arrangements in relation to the exercise scenario.

#### **4.5 Life Cycle Baseline/Near Term Work Plan (LCBL/NTWP)**

NII is continuing to monitor progress with working under the Near Term Work Plan. It was clear when the Plan was reviewed at the end of March that some aspects, such as the Regulatory Schedule needed attention during the early stages of using the new NTWP. NII worked with Environment Agency and UKAEA to develop the Regulatory Schedule to make it useable by regulators. With the exception of the Leased Operations part of Windscale this work has been completed.

#### **4.6 Team Inspections**

NII carried out a team inspection at Windscale as part of an inspection across the four UKAEA licensed sites to look at arrangements and implementation of training and appointment of Suitable Qualified and Experienced People (SQEP), and Duly Appointed Persons (DAP) for safety emergency and control and supervision roles.

UKAEA is implementing a new policy and arrangements for managing competence and training across its sites. NII recognises the benefit of the new system in providing consistent and clear linkage between post profiles, required competencies, and the necessary training and experience.

NII was satisfied with the evidence at Windscale for supplying and recording training to comply with Licence Condition 10.

Arrangements for compliance with Licence Condition 26, Control and Supervision of Operations should be improved. Although all the supervisors who were interviewed during the inspection were clear that they had responsibilities to control and supervise operations that may affect safety, almost none were formally appointed by UKAEA as SQEPs under LC 26. Also NII is of the view that UKAEA needs to re-think how many people need appointing as DAP, particularly in the larger facilities, and look again at the appointment by UKAEA of all people holding safety or emergency posts to comply with Licence Condition 12(2), Appointment of DAPs and SQEPs. These comments apply to not only the Windscale site but also other UKAEA facilities.

### **5 BNGSL Drigg**

#### **5.1 Vaults 8 & 9**

There have been two "stakeholder" meetings (April & June) between BNGSL, regulators (NII, EA, Local Authorities) and the NDA to discuss BNGSL's options for continuity of LLW operations in the event that vault 9 is not available when vault 8 is full. BNGSL accept that the responsibility is theirs but welcomed the advice they received allowing them to close in on a preferred strategy.

#### **5.2 Backlog Waste Incident**

The Backlog Waste Facility is now back in operation with an updated safety case for all but one of the remaining containers. A specific case will be prepared for that container and any additional measures implemented before it is processed.

## HM NUCLEAR INSTALLATIONS INSPECTORATE

**TABLE 1**

**QUARTERLY RETURNS FOR  
SELLAFIELD, CALDER HALL, DRIGG AND WINDSCALE**

**DURING THE QUARTER**

**1 APRIL TO 30 JUNE 2005**

	BNFL SELLAFIELD <sup>1</sup>	BNFL CALDER HALL <sup>2</sup>	BNFL DRIGG	UKAEA WINDSCALE
NUMBER OF VISITS	52	2	2	10
INSPECTION DAYS ON SITE	236	13	3	47.5
ENFORCEMENT ACTIONS <sup>3</sup>	3	0	0	0
Incidents in the quarter likely to be published in HSE's quarterly "Statement of Nuclear Incidents at Nuclear Installations"	0	0	0	0
CONSENTS, APPROVALS	2	0	0	1
LICENCE INSTRUMENTS	9	1	0	1

<sup>1</sup> The figures shown for BNFL Sellafield are those for BNFL's chemical plants. They do not include figures for the plants within the Electricity Generation Group (see note 2 below)

<sup>2</sup> The figures shown for BNFL Calder Hall are those for the plants on the Sellafield site operated by (or for) the Electricity Generation group, primarily Calder Hall nuclear power plant.

<sup>3</sup> An enforcement action may be a Direction issued by HSE under the nuclear site licence, an Improvement Notice, or a Prohibition Notice, or the laying of information in pursuit of a prosecution.

**TABLE 2****APPROVALS, CONSENTS, DIRECTIONS AND WITHDRAWALS  
ISSUED DURING THE QUARTER****1 APRIL TO 30 JUNE 2005**

<b>Date</b>	<b>Type</b>	<b>Ref. No.</b>	<b>Description</b>
<b>BNFL DRIGG Nuclear Site Licence no. 29A</b>			
<b>BNFL Sellafield (and Calder Works) – Nuclear Site Licence no. 31G</b>			
12/04/05	<b>Approval</b>	528	Approval of NSC Terms of Reference
23/05/05	<b>Direction</b>	536	Direction to halt the feed of Plutonium Nitrate to the conditioning vessels of Plutonium Finishing Line 5
<b>BNFL Windscale – Nuclear Site Licence no. 46B</b>			
27/05/05	<b>Consent</b>	511	Request for consent to lease part of Building B7 to RWE Nukem
<b>Instruments issued under other legal requirements</b>			
21/06/05	<b>Consent</b>	001	Consent issued to Calder Hall under EIADR99 Reg 4(B)

**TABLE 3****LICENCE INSTRUMENTS ISSUED DURING THE QUARTER****1 APRIL TO 30 JUNE 2005**

<b>Date</b>	<b>Type</b>	<b>Ref. No.</b>	<b>Description</b>
<b>BNFL DRIGG Nuclear Site Licence no. 29A</b>			
<b>BNFL Sellafield (and Calder Works) – Nuclear Site Licence no. 31G</b>			
11/04/05	<b>Acknowledgement</b>	526	Acknowledgement of receipt of safety documentation for modification to B209 safety case
12/04/05	<b>Specification</b>	529	Specification - hereby specifies that the licensee shall furnish the Executive with all documents considered or advised on at the Calder Hall NSC
25/04/05	<b>Acknowledgement</b>	530	Acknowledgement of receipt of safety documentation for plant modification proposal PSU/2004/29 Issue 2 Pipebridge Structures COSR Implementation PMP Phase 1
21/04/05	<b>Acknowledgement</b>	531	Acknowledgement of receipt of safety documentation - Plant Modification Proposal - THORP PMP Number 1000/335P
25/04/05	<b>Acknowledgement</b>	532	Acknowledgement of receipt of safety documentation for implementation of Phase 2 of the shield door improvement project, lines 1&2 B355
05/05/05	<b>Acknowledgement</b>	533	Acknowledgement of request for acknowledgement of receipt of safety documentation for modification to design of plant under construction - Sellafield product and residue stores
05/05/05	<b>Agreement</b>	534	Agreement to commence construction of B556
27/05/05	<b>Acknowledgement</b>	538	Acknowledgement of safety documentation for transfer of acid during calibration of the level measuring system in B299 and notice of intention to examine.
22/06/05	<b>Agreement</b>	539	Agreement to implementation of PMP's B299/235, B299/241 and B205/2760 - tank calibration acid disposal
21/06/05	<b>Acknowledgement</b>	540	Acknowledgement of PMP B205/2729 - Implementation of B205 Continued Operations Safety Report (COSR) Phase 1 and Associated Documents
28/06/05	<b>Acknowledgement</b>	541	Acknowledgement of Receipt of Safety Documentation : B389 COSC Implementation - Implementation PMP
<b>UKAEA WINDSCALE – Nuclear Site Licence no. 46B</b>			
28/06/05	<b>Specification</b>	512	Licence Condition 13 Specification