



**HM NUCLEAR INSTALLATIONS INSPECTORATE
SELLAFIELD, CALDER HALL, WINDSCALE AND LOW LEVEL WASTE
REPOSITORY**

WEST CUMBRIA SITES STAKEHOLDER GROUP

QUARTERLY REPORT FOR 1 April 2008 – 30 June 2008 (REVISION 2)

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 Sellafield, Calder Hall, Windscale and the Low Level Waste Repository.

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/nsd/nsdhome.htm> under "Local Liaison Committee Reports"

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1 INTRODUCTION

NII Inspectors made a total of 73 visits to the Sellafield, Calder Hall, Windscale and Low Level Waste Repository sites during the quarter. This involved a total of 286.5 days on site (see Table 1 for details). The more significant issues identified during these inspections are summarised below.

2 SELLAFIELD LTD

2.1 GENERAL SITE MATTERS

2.1.1 Intervention to Review the Close-out of NII 1999 Team Inspection of Control & Supervision at Sellafield

In May NII received the final documentation from Sellafield Ltd associated with its review of the close-out of the NII 1999 Team Inspection. We are now in the process of finalising our review of this documentation and will write to the licensee once we have completed the review to confirm the status of the licensee's work in this area.

2.1.2 Stobbarts Ltd - Improvement Notice

Following HSE's formal investigation of the event in July 2007 in the Central Waste Handling Facility (CWHF) within the Product Finishing and Storage facility at the Sellafield, which resulted in the exposure of two Stobbarts Ltd employees to ionising radiation, an Improvement Notice has been served on Stobbarts Ltd, the employer of the two contractors exposed.

The Improvement Notice was served due to the ongoing contravention of the Health & Safety at Work etc. Act 1974, Section 2(1) and the Management of Health and Safety at Work Regulations 1999, Regulation 5(1) since Stobbarts Ltd has not made and given effect to arrangements appropriate for the effective organisation and control of preventative and protective measures required for the work activities undertaken by them on the Sellafield licensed site.

HSE's investigation of the incident is still ongoing and formal enforcement action is being considered for Sellafield Ltd.

2.1.3 Safety Performance Indicators (SPI's)

Further to previous statements to the WCSSG on this topic, NII is now in receipt of SPI data from Sellafield Ltd. It is anticipated that the licensee will continue to provide data in this respect, which will then be analysed by NII and used to inform our future intervention activities.

2.1.4 Sellafield PBO Transition

Work towards the Parent Body Organisation (PBO) transition has progressed steadily over the recent months and NII has been in discussion with both Sellafield Ltd and the NDA to ensure that every effort is made to make for a smooth transition and continued safety on the licensed site. NDA is working hard completing its final assessments of the tender returns with the announcement of the preferred bidder scheduled for July 2008.

One of the main areas of regulatory interest has been the 6 to 8 week induction training programme that the licensee has been preparing, which the PBO secondees will complete to ensure that they are able to effectively take on the responsibility of senior executive roles with the site licence company. HSE is pleased at the degree of effort being applied by Sellafield Ltd in this area and we will be undertaking a selective review of the content of the induction training over the next few weeks. It is also NII's intention to invite the prospective secondees to Bootle during this period, again as part of the induction phase, providing them with an insight into current regulatory issues.

A set of PBO Transition Indicators have been agreed with the licensee, which will be used on a bi-monthly basis to monitor for adverse trends during the transition period. They cover environmental, health and security at Sellafield with the aim of being targeted, not excessive in number and utilising leading indicators wherever possible.

The Senior Regulatory Forum continues to meet on a regular basis, with senior management attendance from NII, EA NDA and Sellafield Ltd, to ensure that the existing Site Licence Company has sufficient support during this period of significant change and that an effective and efficient transition ensues.

2.1.5 Lifetime Plan 08

Sellafield Ltd has now shared the content of Life Time Plan (LTP) 08 with NII and it does indicate a significant shortfall in funding between the costs of the in year programme of work identified by the licensee for the Sellafield site and the level of funding available from NDA. LTP08 also states that it does not fully meet the regulator's Specifications for legacy ponds and silos and the need to recover and pacify the waste prior to storage by specific dates. NII is working with the licensee to fully understand the implications of this, but the issue of timely delivery of major safety improvements, key risk mitigation projects, needs to be reconciled with reasonable practicability. Consequently, we are considering our regulatory options on this issue, considering the availability of funding at Sellafield and across the nuclear industry for decommissioning and clean-up and its impact on what are considered to be key milestones in terms of hazard and risk reduction on the licensed sites.

2.1.6 Operational Experience Feedback

In April 2008 NII reviewed Sellafield Ltd's progress against the issues identified during the Operating Experience Feedback inspection conducted in Autumn 2007. We were encouraged with what was found, in that the momentum in rolling out the new corporate arrangements and the ATLAS system had been maintained. We plan to conduct a further inspection of the OEF process later in 2008 to examine how well the revised arrangements are being implemented and embedded in parts of the site which were not included in our earlier sample.

2.1.7 Sellafield Level 1 Emergency Exercise Greenfinch

Level 1 Emergency Exercise "Greenfinch" was carried out on the 8th May 2008 to demonstrate the Sellafield Ltd (Sellafield Ltd) response, under the Emergency Plan, to an incident associated with B211. A team of NII inspectors observed the exercise

from a variety of locations. It was judged that, on the whole, the Sellafield Ltd response was in accordance with the sites emergency response arrangements and as such an acceptable demonstration. However, the team was concerned that the scenario offered a fairly limited challenge. Consequently, NII will expect the scenarios for future Level 1 demonstration exercises to present a much more demanding challenge to all aspects of the Sellafield site emergency response organisation.

During the exercise, there was an issue regarding prior knowledge of a participant fulfilling a role within the Incident Control Centre (ICC), as the individual also had involvement in developing the exercise scenario. Consequently, NII has informed Sellafield Ltd that it will need to undertake a satisfactory re-demonstration of the ICC response as part of an Operating Unit local exercise.

The recent change to the sites Emergency Plan, involving sounding of the site siren once for a site incident and twice for an off site nuclear emergency, was not fully demonstrated during the exercise. However, having spoken to a number of individuals during the exercise NII is concerned that there is potential for confusion, particularly amongst members of the public. NII is encouraging Sellafield Ltd to progress the project to replace the existing siren with new a system, which will provide increased capability in terms of the variation of alarm noises that can be emitted/sounded, providing an opportunity to use distinctly different alarms to signal a site incident and an off site nuclear emergency can be pursued. The licensee has also been asked to look at the effectiveness of its communications strategy in communicating changes to its Emergency Plan to the public.

2.2 INCIDENTS

2.2.1 THORP Flask Incident

On 10th April a crane operator was manoeuvring a 60Te cuboid flask containing fuel to be reprocessed. During the operation the operator was crushed between the flask and a handrail and suffered serious injuries. Following discussions between Sellafield Ltd and HSE/NII the crane was put back into service on 2 May, initial investigations revealing that this is a conventional safety issue. A full investigation by HSE's Field Operations Directorate is currently ongoing.

2.2.2 HALES contamination event, 20 June 2008

Sellafield Ltd reported to NII that radioactive contamination had been detected on two operators who had been working on the compressed air system in HALES. Subsequent checks found that the source of the contamination was a quantity of liquid on the floor area where the operators were working. The radiological implications for the operators were not significant. An assessment of the type of activity and quantity of liquid spillage indicated that it was below that amount requiring notification under the Ionising Radiations Regulations 1999 but exceeded 10% of the notification level and thus the Company level trigger for reporting.

NII decided not to undertake its own investigation into this incident but is monitoring the licensee's investigation closely. NII will confirm any regulatory action when the licensee's investigation report is completed and will convey the outcome to the WCSSG in a later quarterly report.

2.3 MAGNOX REPROCESSING OPERATIONS

2.3.1 General

In June NII, with EA, held the annual meeting with the Magnox Reprocessing Operations Unit to review its safety performance over the past year. NII indicated a number of topics that would be given particular regulatory attention in the coming year such as the Magnox outage and asset care in support of the MOP.

The planned outage of plants in this Operations Unit will begin with the shutdown of reprocessing in September. The outage, which is scheduled to last 14 weeks, allows an extensive programme of inspection and maintenance to be carried out, equipment to be modified or replaced, and accumulated waste to be reduced. NII has continued its work to ensure that this programme will enable the plants to restart better able to fulfil their task of completing the reprocessing of Magnox fuel safely.

2.3.2 Magnox Product Finishing and Storage Facility (Magnox PF&S)

Permanent Neutron Monitoring System

The Permanent Neutron Monitoring System is now installed and connected to plant, but with elevated trip settings so that the plant does not trip spuriously during the initial period of operation. The licensee intends to submit reduced trip settings that will provide appropriate operational protection to its modification control approvals process shortly, with the hope of implementing the trip setting changes by the end of July. The system will then be operating as intended, although it will not be declared as the Basket Safety Measure until suitable reliability data has been obtained and safety documentation approved. Until this is achieved the interim neutron monitoring arrangements will continue to be used in parallel with the permanent system.

Stores Inventory Retrieval Project (SIRP)

SIRP has experienced delays since March 2008 following the identification of a fault scenario that had not been addressed during production of the safety case. This omission is being addressed and additional engineered interlocks are being introduced to equipment involved in the transfer process. HSE expect to receive a Plant Modification Proposal in during July 2008 from Sellafield Ltd for consideration and formal acknowledgement before transfers are resumed.

2.3.3 Fuel Handling Plant (FHP)

The AGR dismantler and its associated waste store were shut down in May when the licensee discovered that some safety systems that protect against inadvertent exposure of workers to high dose rates had not been installed in the configuration assumed by the safety case for the plant. The licensee is to make proposals for recovery from this position, which NII is monitoring and it has undertaken not to restart operations without consultation with NII.

2.3.4 Reprocessing Operations

A Licence Instrument No 701 was issued to allow an accumulation of used radioactive air filters to be removed from the plant, for long-term storage.

2.4 THORP OPERATIONS

2.4.1 THORP Restart

Shearing and dissolution of AGR fuel continued during April and ended in late May. The resulting 40Te of fuel liquor was held in the three HEP/SEP buffer tanks as Sellafield Ltd was awaiting a Licence Instrument (LI) that would allow the reprocessing of the liquor. The LI was issued in mid May and permits the processing of limited amounts of raffinate liquors, arising from fuel reprocessing, utilising evaporator C in HALES, which will allow the reprocessing of up to 300Te fuel.

Sellafield Ltd had planned to resume reprocessing in late May however, due to plant problems, reprocessing did not begin until 11 June. Reprocessing continued until 30 June when the plant was shutdown as part of the preparations to replace the medium active salt free evaporator (MASFE). Around 55Te AGR fuel was reprocessed in the June campaign, and the remainder of the 300Te will be reprocessed when the plant is brought back to service when the new MASFE commences active commissioning.

On 24 June shearing recommenced and, at the end of the quarter, an additional 14 te AGR fuel had been sheared and dissolved and the resulting liquor held in the HEP/SEP buffer tanks.

Caesium levels within the receipt and storage ponds are higher than normal due to AGR fuel corrosion. A caesium removal skip was utilised during the quarter to reduce the caesium levels and the results to date look encouraging.

Inspections by HSE raised issues about the claims made by Sellafield Ltd on the integrity of pond structures. HSE was satisfied in the short term by arguments provided by Sellafield Ltd, and the issues will be progressed during the next quarter.

2.4.2 Multi-Element Bottle Export Facility (MEBXF)

The active commissioning of this facility continued throughout the quarter. During the quarter 6 MEBs were decontaminated and removed from the receipt and storage ponds via the MEBXF, and 4 of these had been transferred to the MEB interim store. Sellafield Ltd is planning to complete active commissioning before the end of this financial year

2.4.3 Replacement Of Medium Active Salt Free Evaporator

During the quarter Sellafield Ltd completed the installation of equipment associated with the new evaporator. At the end of the reporting period the licensee was preparing to undertake plant wash outs prior to making active connections to the new evaporator equipment. Active commissioning of the new evaporator is planned to commence around the end of October.

2.4.4 Oxide Operating Strategy Regulatory Forum (OOSRF)

In June the third meeting of the OOSRF was held. The forum, which considers and advises on the management of spent oxide fuel, was attended by representatives

from the plant owners (NDA), the licensee (Sellafield Ltd), and regulators (HSE/NII, OCNS and EA).

The NDA gave a presentation on the first edition of the Oxide Fuels Strategy which is currently under development. Sellafield Ltd gave a presentation on the various options available for spent oxide fuel management, taking into account the performance and lifetimes of associated plants and facilities, such as THORP, that would be required to deliver the various options. NII believes that the strategy document is an encouraging start in developing a coherent industry approach to spent oxide fuel management, but all parties recognise it will require continued effort and focus before this is fully realised.

2.5 HIGH ACTIVE LIQUOR WASTE PLANTS

2.5.1 HALES: Matters of strategic regulatory concern

In previous reports to the WCSSG, NII recorded that strategically significant concerns associated with HALES had been raised in relation to the integrity of evaporators and HASTs, and to staffing levels in HALES. Matters related to evaporators and HASTs are covered in more detail below.

As regards staffing levels, NII has continued to press for improvements through regular discussions with Sellafield Ltd senior management, and NII expects to see Licensee improvement proposals later in 2008. These discussions have included the development of an improved governance framework, organisational structure, and oversight arrangements. We note that additional staff have been transferred permanently into HLWP to assist with project oversight and delivery of key safety improvements in the HALES evaporators and HASTs. Nevertheless staffing levels continue to cause regulatory concern (the issues associated with overdue PMS maintenance on HALES, referred to elsewhere in this report, reinforce this concern) and NII is now considering its regulatory position in this respect in accordance with its Enforcement Management Model.

2.5.2 Highly Active Liquor evaporative capacity

There are currently three evaporators within HALES (referred to as Evaporators A, B and C). They are used to evaporate High Active (HA) raffinate produced during reprocessing and to process effluent from WVP. Once concentrated through evaporation, the raffinate is called Highly Active Liquor (HAL). HAL is stored in the HALES facility prior to feeding to WVP for vitrification, which immobilises the waste for long term storage and eventual disposal. The status of the evaporators (as of July 2008) is:

Evaporator A: A Licence Instrument was issued to Sellafield Ltd in April to permissioning the restart of the evaporator using only the base jacket for routine heating/cooling duty (three failed coils are permanently isolated and pressurised, one is available for emergency cooling duty). It is anticipated that this unit will be restricted to WVP effluents. This is a low-volume but essential activity as ultimately the reprocessing chain would come to a halt if WVP were not able to operate due to full effluent tanks. The evaporator is also permissioned to process Magnox raffinates.

Evaporator B: This was shut down in December 2004 following failure of a heating/cooling coil. During the quarter NII completed its assessment of an application to enable the restart of the evaporator with only the top two heating/cooling coils operational (the two lower failed/suspect coils are isolated and pressurised). The Licence Instrument permissioning this activity was issued on 1st July 2008. It is likely that the evaporator will become the main processor of Magnox raffinates. The operational life of the evaporator in this mode could be quite considerable, provided that waterside corrosion does not cause premature coil failure.

Evaporator C: This unit has recently received a Licence Instrument from NII to extend its permissioned activities from Magnox fuel and WVP effluents to include an additional quantity of oxide fuel.

The completion of the Evaporator B permissioning represented a significant milestone for HALES with all three existing evaporators now operational. However there is no room for complacency because the evaporators are relatively old and their long term integrity is questionable.

NII continues to engage Sellafield Ltd on the provision of new evaporative capacity. Groundworks for Evaporator D are completed but the expected start to work on the base slab at the beginning of 2008 has been delayed. The pre-construction safety case for Evaporator D is now expected towards the end of 2008. NII is working closely with Sellafield Ltd, the Environment Agency and the Nuclear Decommissioning Authority on opportunities to accelerate Evaporator D whilst ensuring that the safety of design and construction is not compromised. Sellafield Ltd is also considering the need for further evaporative capacity (Evaporator E).

2.5.3 HAL Stocks

NII's HAL stocks Specification provides a limit on the amount of Highly Active Liquor (HAL) that can be stored at any time and promotes HAL stocks reduction. Following the 2006 biennial review of HAL stocks, NII made a public commitment to revise Specification 343. NII has ensured the gains in HAL stock reductions arising from the unplanned THORP shutdown have been consolidated by issuing a revised HAL stocks Specification (No 679) on 29th October 2007, which replaced Specification 343. The revised Specification is available on HSE's HAL Storage web page (<http://www.hse.gov.uk/nuclear/halstorage.htm>).

The latest (2008) biennial review of HAL stocks has now commenced. In this review, NII will consider, among other things, whether the long-term steady state (post 2015) limits used in the Specification are appropriate. The review will assess evidence from Sellafield Ltd that this aspect of the Specification is set too tight to allow HALES to operate efficiently. The review will also consider, in the light of Sellafield Ltd's operational experience working with the new Specification, whether the forms of limit used therein can be improved upon in the interests of safety. Specifically, the review will consider adopting limits based on the mass of Uranium in the unprocessed fuel from which the HAL was derived (as per the Oxide limit in Specification 679) rather than limiting the volume of HAL.

Sellafield Ltd continues to provide NII with monthly reports summarising the quantities of HAL contained in the Highly Active Storage Tanks (HASTs). These figures, supported by our inspection activities, are used by NII to judge whether Sellafield Ltd continues to meet the HAL Stocks Specification.

2.5.4 Highly Active Storage Tanks (HAST)

Previous NII reports have indicated that HAST cooling components have suffered over the years from corrosion, with a number of cooling coils have been declared failed. HAST cooling coil failure rates and (specifically) the location of the most recent failed coils has led to uncertainties over the ability of the newer HASTs to continue to service the needs of the HAL stocks strategy.

Sellafield Ltd's contingency plans had until recently placed considerable reliance upon a project to dose the cooling water circuits with nitrates as a way of stopping, or at least reducing the rate of, corrosion failures. Following a review of the technical information relating to nitrate dosing Sellafield Ltd has decided not to pursue this strategy further. In the light of this significant development, NII has written requesting a revised statement of Sellafield Ltd's strategy for the future safe storage of HAL, and NII is currently anticipating receipt of this document. It is NII's expectation that the strategy will include proposals for the installation of replacement HASTs.

2.5.5 HALES Alarm Management

NII wrote to Sellafield Ltd during the quarter restating its concern regarding the findings of the inspection earlier this year and asking Sellafield Ltd to respond with proposals to increase the scope of the alarms review, to include the effects of ageing and obsolescence of the instrumentation in the original parts of the facility. Sellafield Ltd has responded to this and the matter will be progressed in July.

2.5.6 HLWP Emergency Arrangements

NII reported to the WCSSG in 2007 that an inspection for compliance with Licence Condition 11 (Emergency Arrangements) had revealed that the resources applied to HLWP emergency arrangements and the management focus afforded by HLWP to this topic were not fully adequate. NII expressed concern given the potential significance of accident scenarios within HALES. Since then the licensee has made considerable improvements to its arrangements, including the provision of dedicated staff and improved line management accountability. In addition Sellafield Ltd has agreed to undertake an annual demonstration emergency exercise on HLWP starting in 2009, to be witnessed by NII.

2.5.7 HALES Overdue Plant Maintenance Schedule items

On 28 November 2007 NII was informed that a significant number of activities on the Plant Maintenance Schedule (PMS) for HALES were overdue. Some had been overdue over an extended time period.

NII sought formal consultations with Sellafield Ltd in accordance with the Nuclear Site Licence to ensure that HALES has adequate arrangements for the regular and systematic examination, inspection, maintenance and testing (EIM&T) of all plant

which may affect safety. The consultation, held on 27th May, demonstrated that the licensee is making good progress dealing with issues arising from the HALES overdue PMS event. NII is satisfied that the HALES PMS is now under tight control and the licensee has made significant improvements to the management of the facility. However a number of other (non-PMS) EIM&T activities are overdue and the licensee is driving to ensure that all items are completed promptly. NII remains concerned as to the capability within the engineering teams and are not convinced that the initiatives to stem the flow of experienced engineers from HALES will be fully effective.

NII's formal investigation of the incident is close to completion. We will convey our conclusions in the next quarterly WCSSG report.

2.5.8 Waste Vitrification Plant Operations

At the start of the quarter WVP Lines 2 and Line 3 were in HAL feed with Line 1 undergoing a planned outage together with repairs to plant faults. Line 2 operated fairly consistently during the quarter; Line 3 was out of service during the quarter but returned to HAL feed at the end of June. Line 1 suffered a plant malfunction in February which resulted in the need to undertake significant repair work. The opportunity was taken to carry out planned work coincidentally on Line 1 with the result that it is not now expected to return to HAL feed until autumn 2008.

Reliable operation of the vitrification lines is an essential component of the drive to reduce HAL stocks, and NII continues to engage Sellafield Ltd on issues associated with plant reliability. During 2008/09 NII intends to engage with Sellafield Ltd to better understand the issues associated with the reliability of plant operations.

NII observed a WVP training emergency exercise. This was one of a series that HLWP is planning to undertake to familiarise staff with the appropriate response to emergency scenarios and the various emergency management roles. This was considered to have been a well constructed training event that HLWP staff responded to positively: it was a reasonable test of HLWP's emergency arrangements. NII commented on the need for WVP to satisfy itself that services required in an emergency will function on demand.

2.5.9 Residue Export Facility (REF)

REF continues to progress reasonably well. Inactive commissioning is close to completion. NII is maintaining regular contact on this strategically important project in advance of the start of active commissioning later this year. Regulatory issues include the necessary interfaces with other facilities at Sellafield to ensure the safe and timely export overseas of containers of high level waste (in accordance with government policy on waste substitution).

NII issued a Licence Instrument to permission the commencement of phase 1 active commissioning, work which is now underway. As part of our consideration of the safety case for REF phase 2 active commissioning, NII observed a demonstration emergency exercise in late June. There were a number of positives arising from this demonstration exercise, not least the enthusiasm of the participants and the desire of Sellafield Ltd to maximise the learning potential. However, the performance at the

Access Control Point (ACP) was not fully acceptable and NII welcomed the licensee's suggestion to arrange a second exercise in September (ahead of the Phase 2 Licence Instrument) to facilitate demonstration of ACP control. It is expected that Sellafield Ltd will shortly submit a request for permission to commence phase 2 in autumn 2008.

2.6 MOX OPERATIONS

2.6.1 Sellafield MOX Plant (SMP) Commissioning and Operation

The period has seen production halted due to problems with plant equipment. SMP has responded by re-allocating experienced personnel from other parts of the plant into the problem areas with the intention of re-establishing production. The current focus is on the mixing and blending part of the process and potential internal wear of components. NII is monitoring this issue.

2.6.2 Sellafield Product And Residue Store (SPRS)

NII has continued with visits to SPRS to check the installation of nuclear safety related equipment. There is nothing of significance in this period that warrants reporting to the WCSSG.

2.7 WASTE TREATMENT & DECOMMISSIONING

We have almost completed our investigation into the incident that occurred within WT&D late last year, where an operator received a puncture wound during plutonium decommissioning work. NII recognises that Sellafield Ltd had already started to consider the adequacy of safety measures for its employees when carrying out decommissioning of plutonium contaminated plant and equipment. However, a licensee has a duty to ensure that the risks from its operations are ALARP and as part of our investigation formal enforcement action is being considered.

2.8 Legacy Ponds & Silos (LP&S)

In previous reports to NuSAC we highlighted the need for further improvements in day to day operational nuclear safety across LP&S. This was fully accepted by Sellafield Ltd and to help facilitate some early improvements they took the decision, supported by NII, to suspend actions leading to permissioning requests to NII until sufficient improvements have been made. Since then a significant programme of improvements have been progressed across these plants in areas such as: control of plant modifications, configuration control, plant labelling, operator rounds etc.

NII inspections and discussions of progress to date have resulted in the regulator supporting Sellafield Ltd's requests to restart permissioning in three of the main buildings within LP&S. However, due to the larger number of work activities, plant control activities and complexity of interactions we recognise that it may take a little longer for such a position to be attained for the Magnox Swarf Storage Silo. NII recognises that creating sustainable improvement is a long term process and to this end Sellafield Ltd has shared with us the next phase of their LP&S operational nuclear safety improvement programme. To date we are pleased with Sellafield Ltd's response to our challenge to raise operational nuclear safety standards and will

continue to monitor progress.

In year 2000 NII put in place Specification Numbers 324, 325 and 326 to help address hazard reduction and reduce risks across Sellafield, including LP&S plants. Work by Sellafield Ltd to develop an achievable plan for LP&S given current funding and resource constraints, and past project delays, indicate that they will not meet by a number of years the August 2010 Specification date relating to the removal of ILW sludge from the First Generation Magnox Storage Pond. In addition, meeting the other NII Specification dates of August 2009, August 2016 and August 2020 (the latter for the safe passive storage of historic ILW sludges across site) are at increased risk. In response NII is considering a number of regulatory options.

NII fully recognises the scale of work that is ongoing across LP&S; however, we have concerns that the delivery of certain key risk mitigation projects is not progressing as quickly as was originally anticipated. We are challenging Sellafield Ltd to ensure there is adequate management focus on the timely and safe delivery of these projects.

2.9 SITE & PLANT SERVICES, INCLUDING RESEARCH & DEVELOPMENT

Nothing to report this period

2.10 EFFLUENT & ENCAPSULATION

2.10.1 Flocculation Plant

Commissioning is proceeding and should be completed by mid 2009. NII interventions have revealed that in some areas, such as training, Operator Instructions, Clearance Certificate and proof testing of safety mechanisms, the situation is already close to that of an operating plant.

The Safety Commissioning Schedule and all but one of the Commissioning Worksheets have now been completed. Some software faults remain, so that flocculation transfers from the Buffer Tank require manual intervention. The licensee's programme of software modifications is intended to eliminate routine use of overrides by October 2008.

2.10.2 ILW

Wastes Encapsulation Plant

An inspection of safety mechanisms and maintenance at WEP found that Sellafield Ltd was complying with its arrangements although awareness of changes due to implementation of the COSR was limited. No PMS maintenance was overdue beyond the tolerance bands allowed by site procedures, although within the Encapsulation Plants there are currently 350 overdue maintenance tasks for items not covered by the Plant Maintenance Schedule, this is being pursued with the licensee. Efficiency savings of 6% are being sought year on year and a prioritisation system is in place. NII will be monitoring the effect of this.

Waste Packaging and Encapsulation Plant

Transfers of encapsulated waste from WPEP to EPS2 are running behind schedule and could eventually constrain EARP operations, with potential effects on flocculation

retrievals or reprocessing.

Salt Evaporator

Sellafield Ltd identified shortfalls in the performance of the Salt Evaporator condensate diverter Safety Mechanism, but after reviewing the situation it identified interim management controls that allowed continued safe operation of the evaporator. Sellafield Ltd has provided NII with a programme showing implementation of an engineering solution by November 2008.

2.10.3 Low Level Liquid Waste

In April, NII and EA jointly investigated an escape of low active liquid effluent from the Segregated Effluent Treatment Plant. NII's investigation indicated that the root cause was failure to assess the impact on process plant of work to replace compressed air pipework. Plans for the work did not provide for contingencies should delays to implementation be encountered. Immediately prior to the tanks being due to receive effluent for processing, one of the welds forming the new compressed air pipework failed its radiographic inspection and the system could not be made available. The compressed air system was essential to allow discharge of effluent from the plant and the situation led to radioactive liquid overflowing from the tank onto a paved area within the facility. The radioactive contamination was cleaned up successfully. HSE's Enforcement Management Model indicated that formal action was not appropriate since no one had been put at risk, but a follow-up inspection is planned in July.

2.10.4 E&EP Local Emergency Exercise

A local plant emergency exercise at the Floc Storage Tanks demonstrated the ability of the local Incident Control Centre to cope with an emergency. This was observed by NII due to the issue on ICC performance raised during the last site Level 1 Emergency Exercise, reported earlier. However, the local exercise exposed short-comings in terms of: training; the location of an Access Control Point; and management resources. Sellafield Ltd has been asked to provide an action plan for completing implementation of all the components of the site procedures for emergency arrangements to address these shortfalls.

3 CALDER HALL

3.1 General

In the previous report, we explained that Sellafield Ltd wished to make changes at Calder Hall under LC 36 (changes to its organisational structure or resources which may affect safety). This was in response to safety related changes being made to the Magnox Operating Plan (MOP), which is the licensees (Sellafield Ltd and Magnox Electric) plan for the management of the end of life of the Magnox reactor programme. NII raised no objections to the main changes of a delay of about 5 years in defuelling, redeployment of some Calder staff across Sellafield, and integration of Calder Hall into Magnox Operations Unit. We have continued to monitor implementation and developments that could challenge the effectiveness of the changes. The main issue emerging is concern about general degradation of the plant due to greater than expected levels of corrosion. We are currently discussing this issue with Sellafield Ltd. Particularly, we consider that there must be no impairment to the reliability of fuel route plant and equipment that could delay or prevent Calder

Hall's part in the delivery of the MOP.

4 UKAEA WINDSCALE

4.1 New Licence

The new licence for the Windscale Site (Licence No 83) has been issued to Sellafield Ltd and became effective on 1st April 2008. A programme of work ("Embedding Project") is ongoing to progress actions arising from the initial transition from the UKAEA organisation into the Sellafield Ltd organisation. Currently the Sellafield Ltd Windscale Site operates under its own set of Licence Compliance arrangements and NII is engaged in discussions with Sellafield Ltd relating to the further integration of the Windscale site into the main Sellafield site processes and arrangements.

4.2 Sellafield Ltd Windscale LC23/LC27 Arrangements Inspection

A series of inspections relating to the Sellafield Ltd Windscale arrangements for compliance with LC23 (Operating Rules) and LC27 (Safety Mechanisms, Devices and Circuits) has been commenced during this report period. No fundamental issues/concerns have been identified to date although a number of areas for improvement have been noted.

4.3 Redundant Flasks Strategy Discussions

Discussions with Sellafield Ltd continue regarding the Sellafield Ltd plans for dealing with the significant number of redundant flasks currently "stored" across the Windscale site. Sellafield Ltd is now developing a detailed strategy/programme for dealing with the redundant flasks. Sellafield Ltd has been requested to forward a strategy for dealing with these flasks to NII by the end August 2008.

4.4 Redundant Cables

NII has raised concerns with Sellafield Ltd relating to the condition, labeling and termination of redundant cabling in a number of facilities across the Windscale site. Sellafield Ltd has now compiled a programme of work to deal with the issues raised by NII relating to the redundant cables. NII has also raised concerns with the electrical supply systems in certain facilities, and again, Sellafield Ltd has embarked on a programme of work to address the problems.

4.5 "Open" Actions

Discussions have been held with Sellafield Ltd relating to the number of "open" actions from modification proposals and from event investigation reports across the site. Sellafield Ltd has embarked on a number of initiatives to reduce the number of "open" actions and to put in place improved processes for the control and management of such actions in the future.

4.6 Piles and WAGR/Western Areas Decommissioning Projects

Progress on the Piles and WAGR/Western Area decommissioning project work has been discussed with Sellafield Ltd in various meetings and visits throughout the report period. Discussions on B14 decommissioning programme are planned with Sellafield

following the recent submission to NII of the B14 Decommissioning Safety Case. NII has indicated to Sellafield Ltd that NII is keen to see the decommissioning of the cells within B14 being progressed.

4.7 B13 Project Meetings

Meetings and visits continue to be undertaken, relating to the extensive programme of improvement projects within the B13 facility. The safety documentation for the project work continues to be considered by NII Specialist Inspectors. Many of the projects within the overall B13 Integrated Safety Improvement Programme (ISIP) are underway and successful completion of the work should allow the current constraints on operations within B13 to be lifted.

5 LOW LEVEL WASTE REPOSITORY

The transfer of shares to the new PBO for LLWR (UK Nuclear Waste Management Ltd) was successfully completed on the 1st April 2008.

7 STUDSVIK

Nothing to report this period.

HM NUCLEAR INSTALLATIONS INSPECTORATE

TABLE 1

QUARTERLY RETURNS FOR SELLAFIELD, CALDER HALL, WINDSCALE AND LOW LEVEL WASTE REPOSITORY

DURING THE QUARTER

1st April 2008 – 30 June 2008

	Sellafield Ltd - Sellafield¹	Calder Hall²	LLWR	Sellafield Ltd- Windscale	Studsvik
Number Of Visits	66	0	1	5	1
Inspection Days On Site	268.5	2.5	1	13.5	1
Enforcement Actions³	1	0	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	0
Consents, Approvals	0	0	0	0	0
Licence Instruments	9	0	0	3	0

¹ The figures shown for the Sellafield site are those for Sellafield Ltd's chemical plants, they do not include figures for the plants that principally form the Calder Hall nuclear power plant (see note 2 below)

² The figures shown for Calder Hall are for those plants on the Sellafield site principally associated with the Calder Hall nuclear power plant.

³ 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**CONSENTS, APPROVALS AND ENFORCEMENT ACTIONS
ISSUED DURING THE QUARTER****1 April to 30 June 2008**

Date	Type	Ref. No.	Description
Sellafield Ltd - Sellafield (and Calder Works) – Nuclear Site Licence no. 31G			
24/06/2008	Improvement Notice	I/2008/ND /NPB/001	Event on 11/7/07 in the Central Waste handling Facility within the Plutonium Finishing and Storage facility resulting exposure of two Stobarts Ltd employees to ionising radiation.
UKAEA Windscale – Nuclear Site Licence no. 46B			
Sellafield Ltd – Windscale – Nuclear Site Licence no. 83			
LLWR Nuclear Site Licence no. 82			

TABLE 3**LICENCE INSTRUMENTS ISSUED DURING THE QUARTER****1 April to 30 June 2008**

Date	Type	Ref. No.	Description
LLWR Nuclear Site Licence no. xx			
Sellafield Ltd – Sellafield (and Calder Works) – Nuclear Site Licence no. 31G			
19/05/2008	Agreement	689	B215 Evaporator C Agreement (PMP HALES/B215/0615)
28/04/2008	Agreement	692	Agreement to Phase 1 Active Commissioning of WVP Export Facility B364.1
04/04/2008	Agreement	696	Agreement to Restart Waste Treatment Complex Active Commissioning Phase Four - Stage 2 Operability and Maintainability Trials
30/04/2008	Agreement	697	Modification to an existing plant: B41 (Argon system B)
20/05/2008	Agreement	698	Agreement to Active Commissioning of Sellafield MOX Plant (B572) Phase 1 Residues Store and Notification of Intention to Examine the Phase 1 Residues Store Active Commissioning Safety Report
17/06/2008	Acknowledgement	701	Building 205: PCM Filter transfer from second floor Acknowledgement of receipt of Safety Documentation

Date	Type	Ref. No.	Description
17/06/2008	Acknowledgement	702	Acknowledgement and Notification Intention to Examine of: PMP SMP/Area500/0202 - 'Implementation of Managerial Controls to Enable Safe Grohnde Fuel Manufacture Until Permanent Engineered Solutions are in Place for Additional Five Fault Sequences, and Implementation of OSM 12451 (Identification and Assessment of Additional Fault Sequences Within the PWR Fuel Assembly Build Line for 16 X 16 Fuel Build)'. Revision 0 - PMP SMP/Area500/0203 - 'Implementation of Safety Function and Performance Requirement to Protect Against Fault Sequence 1P.530.211 and Implementation of OSM 12477 (Considerations of Fault Sequence 1P.530.211)'. Revision 0
27/06/2008	Agreement	700	Agreement to Commence Construction of the B41 Retrievals Facility Foundation (PMP Silos/B041/0345)
20/06/2008	Agreement	703	Building 205: PCM Filter transfer from second floor Acknowledgement of receipt of Safety Documentation
Sellafield Ltd – Windscale – Nuclear Site Licence no. 83			
19.05.08	Agreement	505	Agreement to proceed with Cave 5,6 & 11 Horizontal Posting Ports Interlock Modifications (B13)
19.05.08	Agreement	506	Agreement to proceed with Cave 4 & Mobile Posting Ports Interlock Modification (B13)
27.06.08	Agreement	507	Agreement to proceed with the adoption of Care & Maintenance operations under the B14 Decommissioning Safety Case