British Nuclear Group report
to the West Cumbria Sites Stakeholder Group
on Thursday 5th October 2006

This report is issued as part of British Nuclear Group's commitment to ensure information is available to members of the public. It is for distribution to members of the West Cumbria Sites Stakeholder Group (WCSSG) and covers activities associated with:

Operational performance
Progress against British Nuclear Group's clean up activities
Safety and Security
Socio economic issues and employment trends
Forward programme

The reports will be distributed on a 6 monthly basis prior to the West Cumbria Sites Stakeholder Group main scrutiny meetings and will be available in local libraries, local council offices and on the WCSSG website: www.wcssg.co.uk

Representatives from British Nuclear Group attend the WCSSG meetings and will be happy to field any questions raised there.

OPERATIONAL PERFORMANCE:

Sellafield MOX Plant

It has been a busy period for the Sellafield MOX plant with continued fabrication of fuel for the NOK reactors in Switzerland. All NOK powders and pellets have now been fabricated and sufficient rods are available to manufacture the next batch of four assemblies. The pelleting area is now being prepared to start the fabrication of the next customer's fuel.

Other highlights include working more than 2 million man hours without a Lost Time Accident and the successful transition to 24/7 working.

Magnox Reprocessing

Magnox operations have delivered broadly in-line with its production targets. There have been a number of equipment failures within Magnox that have impacted on our decanning performance but we expect to recover most of these losses in the remainder of the year. A significant failure that has been overcome was the failure of the Plutonium Finishing and Storage (PF&S) Calciner Screw. The failed screw has been removed and a new screw has been installed and successfully commissioned.

Thorp Reprocessing

All the necessary work to enable Thorp to restart is nearing completion. Modifications to the Feed Clarification Cell (the site of the pipe failure) have been completed and commissioning trials have been undertaken to confirm the operability of the plant in its changed configuration. Extensive retraining of plant personnel has been completed. This has covered both technical training and behavioural/cultural training. A thorough review of the organisational structure has been completed and changes implemented where appropriate to ensure absolute clarity of accountabilities during plant operations. Instructions covering the operation and maintenance of the plant have also been reviewed and improved where appropriate.

Several internal reviews of readiness for restart have been completed, concluding that the plant, procedures and personnel are now ready for the plant to be returned to service. The remaining package of work involves the final closure of recommendations and other actions placed by NII. Both BNGSL and NII are working hard to complete this work as quickly as possible. However, it is now clear that this will take some time yet and hence a restart of operations is unlikely before the end of the year.

High Level Waste Plants

The end of last Financial Year saw record performance from the Vitrification Plants. In total 482 containers were produced and 503 placed to store, records in both cases. It was particularly pleasing that Line 3, the newest line, produced 230 containers in a year, the most ever produced from a single line with the plant exceeding its design capacity (225) within two years of receiving consent to operate from the Regulator.

In WVP this year the key objective is to sustain the performance improvements achieved over the last 2-3 years by installing new equipment developed via the Vitrification Test Rig at Sellafield and through our collaboration with COGEMA. A major outage on Line 1 is planned at the end of the year to begin equipment installation. In terms of operations this year all three lines have suffered from some equipment reliability issues, particularly in-cell cranes. However, 175 containers have been produced and the year end target of 480 is still achievable, although challenging.

During the last financial year the Highly Active Evaporation Storage plants operated successfully in supporting both Magnox Reprocessing and WVP operations. By the year end Highly Active Liquor (HAL) stocks were more than 200m3 below the specification limits set by the NII. Successful operation has continued into the financial year. In addition to supporting site activities and driving to sustain the good reductions in HAL stocks, the key focus for the plant operating teams is to ensure a high level of plant asset care is achieved. This will be required to maintain both the evaporative capacity and HA storage tanks, in a condition which allows safe operation throughout their anticipated life. An intensive programme of plant inspections is underway and a significant number of improvement projects are being completed to ensure good asset care in this area.

In the projects area, the main focus of activity, in addition to asset care, has been the provision of the Revised Export Facility (REF) which will be used to export vitrified waste to overseas customers and the early stages of provision of a new HA Evaporator, Evaporator D. In relation to REF the plant is now well into inactive commissioning after suffering some delays associated with the completion of construction. We are now making arrangements to drive the programme to completion to facilitate the earliest possible return of vitrified waste. The contact for the provision of Evaporator D has now been let and groundwork has started. Evaporator Design will start in earnest this year against a completion timescale 2011.

Effluent and Encapsulation Plants (E&EP)

Liquid Effluent Plants

The liquid effluent plants have continued to provide a high availability, high reliability, service in support of Thorp and Magnox reprocessing operations on the Sellafield site. A number of plants provide this service for low and medium-active liquid effluents. The high availability of the plants has meant that there have been no delays to our "upstream" customers.

Remediation of Historic Liquid Waste

The liquid effluent plants also continue to provide real progress towards delivering clean-up of historic liabilities on the site. Currently the Solvent Treatment Plant is rapidly reducing the stocks of medium active organic solvent which has been stored on site for a number of years, and the Enhanced Actinide Removal Plant is working in conjunction with a floc retrieval plant, and an encapsulation plant, to continue to develop capability to make safe a huge legacy of significantly active sludges which have been stored on site for decades. These plants use a number of unique engineering features and technologies, and this has not been without difficulty, but a significant amount of the historic sludges have already been safely incorporated into a cement matrix in stainless steel drums. This work is set to continue for a number of years, and will, when complete, represent a huge transfer of radiological inventory from a mobile form stored in ageing tanks to a safe, immobile waste ready for ultimate disposal in the UK repository.

Magnox and Waste Encapsulation Plants

The Magnox Encapsulation Plant has continued to be available for Magnox reprocessing operations on the Sellafield site providing minimal delays to upstream customers.

The Thorp Waste Encapsulation plant has continued to receive and process small amounts of slurry type waste streams and preparations continue in support of an anticipated start up of THORP.

During the shutdown of THORP, WEP has received a small amount of solid waste from the wet bays in the B30 ponds area and work is in hand to encapsulate this material –

work is also in hand to introduce a trial encapsulation of sludge from the B30 pond area through WEP.

Encapsulation Plant Stores

The EPS2 store has continued to be available to support Magnox reprocessing, transfer of graphite and stainless steel wastes from CAGR dismantling operations together with WPEP processing operations.

Work has also commenced on the Site preparation work for the provision of the EPS3 product store, works undertaken so far are on road finishes and road diversions, together with the diversion of plant services (domestic water complete).

Calder Hall

It is five months since the last recordable incident and approaching 250,000 man hours of asbestos related operations without a Lost Time Accident.

The key decommissioning focus for Calder Hall has continued to be the removal of asbestos lagging from the reactor heat exchangers and from within the turbine halls, this both reduces the site hazard potential and enables further decommissioning work. To date, 1½ heat exchangers and 2 dump condensers have been fully stripped and additional plant has been scaffolded and tented as part of the ongoing programme. Treatment of removed asbestos is an issue that is attracting National attention.

The second significant decommissioning focus has been the continued preparations for the demolition of the 4 cooling towers, reported separately later. Awaiting
NII approval of the Safety Case.

Lower priority work has continued on the preparation of ancillary buildings for demolition including both the removal of materials and services. Characterisation work has been undertaken of each of the building's construction materials to determine the optimum routes for disposal after demolition. Size reduction and disposal of other equipment no longer required has continued.

No decommissioning work has been undertaken on Reactor 1 or Turbine Hall A, (apart from hazard removal work such as asbestos), pending the decision on listing of these buildings.

Final de-fuelling of the Calder reactors is due to commence in March 2007. Prior to de-fuelling, the fuel routes are being modified to increase the safety standards and to enable fuel to be despatched to the Fuel Handling Plant in skips of at least 160 fuel elements rather than in baskets of 24 elements. Installation work of the new equipment on the fuel routes has continued with Reactor 4 as the lead reactor.

‘CLEAN UP’ PROGRESS:

Calder Hall Cooling Tower Demolition

Following the completion of the Safety Case and the safe removal of all of the internal materials the project has now moved into the final preparation phase.

Controlled Demolition Inc, the demolition contractors have begun the drilling of the 5200 holes required for the placement of the explosives, and the mechanical removal of the distribution bridges will shortly commence.

Dialogue has continued with Cumbria Constabulary and the Highways agency to ensure that a robust traffic management plan has been developed in order to execute the demolition with minimum disruption to the local community.

The Nuclear Installation Inspectorate are continuing their assessment of all of the safety case documentation and only when approval is received will a date be confirmed for this historic demolition.

Uranium Purification Plant Demolition

Preparations are also underway for the demolition of one of the first generation reprocessing plants in the separation area. Conventional techniques will be used to demolish the structure located in one of the most heavily congested areas of the site. Located next to other nuclear facilities and sensitive services, meticulous planning and preparation has been required by Clean Ups Demolition Group to ensure this demolition will be executed in a safe manner.

Sealine Recovery Project

The complex and challenging project to recover 5702 metres of redundant pipelines adjacent to Sellafield has been safely completed by Decommissioning Groups, Site Projects Team. Working in partnership with specialist maritime contractor Land and Marine, Atlas divers, AMEC, NNC, Eurest catering and Ashcroft Plant, the team has overcome many challenges both on land and at sea to bring the project to a successful conclusion. The project included the removal of two mild steel pipelines installed in 1949 and the recovery of a plastic temporary sealine installed in the early 1990s.

Original Reprocessing Plant - Decommissioning

The Decommissioning team has recently conducted successful trials of a foam grouting technique that will be used to stabilise vessels within the Highly Active North Cell, HANO, allowing essential decommissioning operations to go ahead.

In 1966, due to unacceptable levels of radiation emitting from the Street 3 Ventilation duct ,which ran up the outside of the plant, it was decided to route the flow through the HANO Cell to provide a shielded route to the Stack. This ventilation stream was both acidic and moist which corroded the mild steel vessel supports and degraded the cell concrete. This meant many of the stainless steel vessels within the cell were no longer adequately supported and posed a significant safety hazard which suspended decommissioning operations within the Medium Active North cell directly below.

After the usual optioneering process, the innovative solution of encapsulating the in-cell areas with a foamed grout was the chosen. Working with Dundee University a foam grout has been engineered with a dry density of 500kg/m3 which can later be easily removed and can be crushed to a quarter of it's original size to minimise disposal costs.

The decommissioning process will be completed in two stages, cell stabilisation and then decommissioning of the upper sections and cell

Decommissioning Groups proud safety record.

The decommissioning group has recently exceeded 12 months working without a single lost time accident. Given the variety of work Decommissioning are tasked with, this is an exemplary achievement for the 300 plus workforce.

Throughout the year many varied projects have been delivered, each with their own unique challenges and constraining environments. Many innovative, and some 'tried and tested' techniques have been used ranging from major size reduction and retrieval work with air fed suits, to final building demolition and even diving operations on the Sealine Recovery project. Therefore to achieve over 1 million hours without an LTA is highly commendable.

Excellent progress is being made in many projects across the portfolio including the decommissioning of redundant laboratories, the historic plutonium production and finishing plants and many other legacy structures.

Land and Ground Water Clean Up

The latest addition to the decommissioning portfolio is the transfer of the Land and Ground Water Clean Up Group. Historically the Contaminated Land team has operated under a different business group but this move will ensure that in future a holistic approach can be taken when developing future decommissioning strategies, with consideration being given not just to the structure itself but also the land surrounding it and underneath it.

The group will soon be placing a contract to undertake a two year programme of site investigation work in Separation Area which will provide the necessary data to assess options for a programme of leak detection work at key source term locations. This work will also generate a series of decision calendars to indicate how long it will take to reach

a range of key options for the end-state of the site and the implication each would have on UK Radioactive Waste Management.

Separation Area Ventilation (SAV) Project

The Separation Area Ventilation (SAV) comprises various active ventilation streams, feeding different stacks located in the Separation Area. The purpose of the SAV project is to proactively review the current ventilation provision against the future needs of the operating plants and the current decommissioning plans. The project will seek to divert all feeds away from the 2 main existing stacks by October 2010 thereby enabling the removal of these structures as soon as practically possible. The proposal is to build a new stack outside of the separation area with an integral plant room. The main feature of the new stack will be a multi flue design that will have spare capacity and also the ability to modulate flues to assist with future decommissioning requirements.

SAFETY:

Progress in the enhancement and visibility afforded to nuclear safety has continued with BNGSL becoming the first operator of a nuclear reprocessing facility to join the World Association of Nuclear Operators (WANO). WANO is an organisation dedicated to improving the safety and reliability of nuclear plants by creating a culture of openness.

In parallel, a 'Fair Culture' statement for the Sellafield Site has been agreed with our trade union and staff side safety representatives. This will enable the Sellafield site to make progress particularly with behavioural safety, and promote a challenge culture, encourage open reporting and reinforce team support for individuals.

Environmental performance is improving and should improve further recognising the growing environmental awareness across BNGSL. This has been facilitated by the environmental performance objectives and criteria and the environmental leadership conference held on the Sellafield Site in June 2006. There have been a number of environmental initiatives within BNGSL over the last six months notably the incorporation of Best Practicable Means considerations into plant safety cases, further development of the Integrated Waste Strategy and certification to the new Environmental Management System standard ISO14001:2004.

Slips, trips and falls continue to dominate our conventional safety performance and considerable steps are being undertaken to address contributory factors such as floor surfaces and personal responsibility for safety. Current performance is such that achievement of financial year 2006/07 targets will be challenging. It is however encouraging to see the increased awareness being given to some of the more serious hazards on site such as work at height and the strong endorsement of current EHS&Q strategies to improve conventional safety performance.

Alongside the significant advancements made in the last six months, the first International Nuclear Events Scale rated incident attributable to this financial year was

confirmed. The incident involved a tank containing clean cooling water moving from its supports as a result of water entering the holding compartment. The incident was recorded as an anomaly on the event scale and had no associated safety or environmental consequences. The first Compliance Classification Scheme event for this financial year was also received from the Environment Agency relating to elevated carbon monoxide emission concentrations from Capenhurst incinerator.

Our long term goal continues to be an injury and incident-free environment where accident rates are zero; a reassuring improvement was the fifty-nine days elapsing between lost time accidents during June/July. EHS&Q improvement initiatives are continuing to be embedded including the introduction of Monitored Workers, revision of the Radiological Protection Supervisor arrangements and radiological management workshops.

Safety Conferences at Sellafield and Capenhurst are scheduled for December 2006 to include further planned initiatives relating to slips, trips and falls, driver safety and working at heights.

SECURITY:

In February 2006, the Terrorism Bill received Royal Assent. Clause 12 of the Bill amended the Serious Organised Crime and Police Act 2005 (SOCPA) to make unauthorised access on to a licensed nuclear site a criminal offence. This came into affect as of April 2006. The amendment has been welcomed by the civil nuclear operators and the security regulator and further enhances the security arrangements at Sellafield.

In July 2006, the Home Secretary, Dr John Reid, announced as part of the Energy Review a number of changes to the National Security Alert State system and on the way in which threats from terrorism are provided to the public. Within the civil nuclear industry and with effect from 1st August 2006, the previous 4 tier 'Alert State' system (BLACK, BLACK SPECIAL, AMBER , RED) was replaced with a 3 tier 'Response Level' system (NORMAL, HEIGHTENED, EXCEPTIONAL). The new Response Level NORMAL is comparative to Alert State BLACK and requires routine protective security arrangements, HEIGHTENED is comparative to BLACK SPECIAL and requires additional and sustainable protective security measures reflecting the broad nature of the threat. EXCEPTIONAL, is the highest level and is comparative to AMBER and RED and requires maximum protective security measures to meet specific threats. The change is positive in that it is less perspective and allows the operator (BNG) more flexibility in managing their emergency arrangements at the higher level threat.

The recent increase in national threat level to CRITICAL only applied to certain UK airports, therefore the response level throughout the civil nuclear industry remained as-is at HEIGHTENED, which did not effect the security arrangements at Sellafield.

In July 2006, the level of off-site police patrolling around Sellafield was enhanced as part of an incremental development of policing activity. This is aimed at providing reassurance to local communities and the site workforce and not in response to any increased perceived threat. On occasion, such patrolling is carried out by armed Civil Nuclear Constabulary (CNC) police officers, supported by a Memorandum of Understanding with Cumbria Constabulary. The Chairman of WCSSG has been notified. This off-site patrolling has been done in conjunction with a more overt on-site armed presence.

The security regulator, the Office for Civil Nuclear Security (OCNS) issued their annual report to the Minister of State for Energy in July 2006 titled 'The state of security in the civil nuclear industry & the effectiveness of security regulation - April 2005 to March 2006'. In summary all references to our industry and its operators are supportive and complementary for example *"I have been satisfied with the standards, procedures and commitment with regard to security within the civil nuclear industry and i again commend to him the strong sense of corporate responsibility towards security which exists at all levels" " I am also satisfied that regulation is effective and proportionate, and has been improved by the prompt response to legislation this year making unauthorised entry on to a civil nuclear site illegal"*

SOCIO ECONOMIC IMPACTS:

The NDA has endorsed the socio economic plan for 2006/07 which is available on the British Nuclear Group website (www.britishnucleargroup.co.uk under the publications/reports headings) and the site has been working on implementing the key actions/projects outlined in the plan.

Local Supply Chain and procurement support
The aim at the outset has been to work in partnership with stakeholders and to ensure that activities supported are complementary to the work of existing organisations in the area. An example of this collaborative approach is the work by the 'Supply Chain Ombudsman' with West Lakes Renaissance and West Cumbria Development Agency in supporting and strengthening the supply chain. In April a successful 'Supplier Forum' was held where over 160 suppliers attended. This was followed up in June with a supplier feedback session to Sellafield Senior Commercial Managers on the issues concerned with contracting with the Sellafield Site.

Employment/ Economic Diversification
A major investment (£1.5 million) continues to be made to the West Cumbria Development Fund (WCDF) and a significant milestone was reached in July 2006 to mark the success of the WCDF. The WCDF has provided the financing, and leveraged further funding from Europe, in establishing the Westlakes Science Park. As at July 2006, there were over 1000 people employed in 49 organisations resident on the park. The partner organisation to the WCDF – the West Cumbria Development Agency - has provided valuable business support advice to 'start-up companies' and for business expansion and has helped to create/sustain over 330 jobs so far this year.

Education and Skills/Economic and social infrastructure
Several significant projects have been supported in the education and skills agenda such as GEN II for apprentice training, 'Science week', Japanese student exchanges as well as providing school workshops for over 1000 children in the Warrington area. The Sellafield Visitor Centre has also recorded a significant increase in visitor numbers compared to last year (up by 46%). Organisations providing help to the social issues facing the area have been supported, with the most significant being the Prince's Trust and Weston Spirit.

EMPLOYMENT TRENDS:

Employment trends – totals including BNG, CSW and ASW

	Mar 06	April 06	May 06	June 06	July 06	Aug 06
British Nuclear Group SMC	54	53	53	53	53	53
Clean up	1572	1633	1665	1699	1756	1791
Functions	2586	2553	2477	2537	2567	2574
Infrastructure	2205	2179	2170	2126	2119	2093
Production Operations	2400	2398	2427	2436	2445	2444
Other business	1583	1595	1597	1591	1599	1628
Totals	**10400**	**10411**	**10389**	**10442**	**10539**	**10583**

Breakdown into BNFL, CSW, ASW

BNG - British Nuclear Group
CSW - Contract supplied workers
ASW - Agency supplied workers

Mar 06	**BNG**	**CSW**	**ASW**	**Total**
Clean up	**1135**	**75**	**362**	**1572**
Functions	**1961**	**201**	**424**	**2586**
Infrastructure	**1662**	**139**	**404**	**2205**
Production ops	**2233**	**23**	**144**	**2400**
Other business	**1387**	**10**	**186**	**1583**

April 06	**BNG**	**CSW**	**ASW**	**Total**
Clean up	**1181**	**67**	**385**	**1633**
Functions	**1943**	**190**	**420**	**2553**
Infrastructure	**1647**	**81**	**451**	**2179**
Production ops	**2230**	**24**	**144**	**2398**
Other business	**1395**	**10**	**190**	**1595**

May 06	BNG	CSW	ASW	Total
Clean up	1186	60	419	1665
Functions	1942	145	390	2477
Infrastructure	1648	80	442	2170
Production ops	2252	21	154	2427
Other business	1393	10	194	1597

June 06	BNG	CSW	ASW	Total
Clean up	1209	55	435	1699
Functions	1991	156	390	2537
Infrastructure	1629	76	421	2126
Production ops	2255	22	159	2436
Other business	1393	9	189	1591

July 06	BNG	CSW	ASW	Total
Clean up	1250	52	454	1756
Functions	1992	176	399	2567
Infrastructure	1639	61	419	2119
Production ops	2261	20	164	2445
Other business	1392	10	197	1599

Aug 06	BNG	CSW	ASW	Total
Clean up	1266	50	475	1791
Functions	1999	182	393	2574
Infrastructure	1628	56	409	2093
Production ops	2258	17	169	2444
Other business	1420	10	198	1628

Forward Programme:

A lot of good progress has been made over the last 6 months since we met. The main challenge for the coming year ahead is to bring Thorp back into operation.

The demolition of the Calder Cooling Towers will be a high profile visible event and engagement will be carried out with the local authorities and community on progress made in this area.

Ultimately, we need to deliver our Life Time Plan objectives for the Nuclear Decommissioning Authority and continue to look for savings and acceleration of our decommissioning challenges.

It goes without saying that all of the above will only move forward if it is considered safe to do so. Safety is a top priority and it will be maintained at all costs. We will be aiming for the important target of zero accidents in everything that we execute.

List of Acronyms:

ASW	-	Agency Supplied Worker
BNGSL	-	British Nuclear Group Limited
CAGR	-	Civil Advanced Gas Reactor
CNC	-	Civil Nuclear Constabulary
CSW	-	Contractor Supplied Worker
DACR	-	Days Away Case Rate
EARP	-	Enhanced Actinide Removal Plant
E&EP	-	Effluent and Encapsulation Plant
EHS&Q	-	Environmental Health, Safety and Quality
EPS	-	Encapsulation Plant Stores
FHP	-	Fuel Handling Plant
HAL	-	High Active Liquor
HANO	-	Highly Active North Cell
HLWP	-	High Level Waste Plant
ILW	-	Intermediate Level Waste
LLW	-	Low Level Waste
LLWR	-	Low Level Waste Repository
LTA	-	Lost Time Accident
MA	-	Medium Active
MAC	-	Medium Active Concentrate
MOX	-	Mixed Oxide
NDA	-	Nuclear Decommissioning Authority
NII	-	Nuclear Installations Inspectorate
NOK	-	Nordostschweizerische Kraftwerke AG - Swedish Utility
OCNS	-	Office of Civil Nuclear Security
PCM	-	Plutonium Contaminated Material
PF&S	-	Plutonium Finishing and Storage
REF	-	Revised Export Facility
ROV	-	Remotely Operated Vehicle
SAV	-	Separation Area Ventilation
SMP	-	Sellafield Mox Plant
SOCPA	-	Serious Organised Crime and Police Act
SPP1	-	Sludge Packaging Plant 1
THORP	-	Thermal Oxide Reprocessing Plant
UKAEA	-	United Kingdom Atomic Energy Authority
VIT	-	Vitrification
WANO	-	World Association of Nuclear Operators
WCDA	-	West Cumbria Development Agency
WCDF	-	West Cumbria Development Fund
WCSSG	-	West Cumbria Sites Stakeholder Group
WEP	-	Waste Encapsulation Plant
WPEP	-	Waste Packaging and Encapsulation Plant
WTC	-	Waste Treatment Complex
WVP	-	Waste Vitrification Plant