



# Closure Director's Report Dungeness A Site

May – October 2015



## Round-up from the Closure Director

In July, an individual narrowly escaped serious injury. Upon manually opening a large RCA gate, the gate came free from its mountings and fell to the ground, narrowly missing the health physics operative. Fortunately, the operative was not injured. Immediately following the event I conducted a site stand-down. A full investigation has taken place and learning disseminated.



Workshops and a site stand-down briefing have been held to raise the level of awareness for **working safely at height**, together with increased management visibility.

The end of March saw the last of the **turbine hall building structures demolished**. All waste processing has been completed and the basement area has been in-filled with inert crushed concrete from the demolition of the ancillary buildings.

The **Waste Projects Programme**, formerly the Intermediate Level Waste (ILW) programme, has restarted. The Principal Contractor Balfour Beatty, has commenced construction of the ILW Conditioning Facility.

The **Ponds Programme** made good progress during the period, with a further 14 fuel skips retrieved from the ponds for low level waste co-disposal. Enabling works were completed on Reactor 2 pond to facilitate one metre draining, treatment and discharge of water. We are now preparing for decommissioning activities using divers. Work has commenced on preparations to remove ILW IONSIV cartridges and filters from Reactor 1 pond.

The **Fuel Element Debris (FED) programme** has loaded the last of the Dungeness FED into the dissolution vessel for processing.

Modifications to allow **site separation** from Dungeness B, including security are proceeding.

From May, briefings have been held across the company detailing a Magnox organisational **restructuring programme**. The process of consultation with staff on structures is underway. Support and advice has been made available to staff from a number of internal sources as well as an independent employee assistance programme. CJ Redmayne, HR Director, has been assigned as site executive sponsor and provides a route for questions and feedback into the executive on the key issues and challenges for the site. As part of the consolidation phase, a set of programmes has been confirmed to deliver the new Lifetime Plan. Site Directors will remain responsible for ensuring the site licence compliance and for the integration and control of work on the site, and will be referred to as Closure Directors. Regionalisation brings together a closer relationship with Bradwell and Sizewell A, and I have been appointed as one of the five regional leads.

We received ONR approval for the **new emergency contingency arrangements**, and the Licence Instrument was issued in September. A demonstration exercise of the new scheme is due to take place on 20 October 2015.

After 50 years of continuous operation the **central control room** was de-manned in September, as this is no longer required for operational purposes.

On 8 October, the site hosted the **European Construction Institute**. Presentations included: minimising construction during decommissioning and demolition, and CDM in the decommissioning and demolition environment and its success in the turbine hall demolition. A site tour concluded the workshop.

Magnox continues to support local socio-economic projects. Details on how to apply for funding is at the end of this report.

A handwritten signature in blue ink, appearing to read 'P. Wilkinson'.

**Paul Wilkinson**  
Closure Director

## 1. SAFETY

### SAFETY

During the period an individual narrowly escaped serious injury. Upon opening a Radiological Control Area access Gate (Gate 16) for fork lift truck access, the top hinge of the gate failed, causing the gate to fall forward and crash to the ground narrowly missing a health physics operative. A full investigation report has been written and learning promulgated. A Red Brief has since been sent to all sites in response.

The 'Slips, Trips and Falls' campaign has been a success in raising hazard awareness. Recognition, elimination and reduction of these hazards continue.

The Operational Services (Human Performance (HuP) / Behavioural Based Safety / Operational Experience Feedback) Peer Assist Team visited Site on April 13 to 15. The visit confirmed that the majority of the workforce are using the HuP tools and techniques subconsciously, proving that it is well embedded. They concluded that the site was operating at the high end of the 'Operational' area of the World Association of Nuclear Operators (WANO) HuP Matrix, with peaks into the 'Leading Edge' area. The team were particularly impressed with the site's task observation and behavioural safety strength along with the safe coordination of works in the Work Coordination office. Site embedment of human performance continued in the period with training for knowledge workers.

Following a number of work at height events within Magnox, Dungeness has refocused its staff and contractors on safe work at height utilising a hard hitting video in a Closure Director's stand-down and follow up toolbox talk. The leadership community have been briefed to place extra vigilance in the field when conducting project safety reviews and task observations on activities involving work at height. These will be reviewed by the safety management team.

Safe work continues to be delivered on the Waste Projects Programme, Intermediate Level Waste (ILW) project with construction of the conditioning facility about to commence. The ponds programme are preparing for safe diving trials in the Reactor 2 pond and removal of IONSIV cartridges in Reactor 1.

Work is well underway with the asbestos enclosures nearing completion for thermal insulation removal within boiler cell 1. A recent demonstration of the contractors rescue arrangements was seen as a strong demonstration.

### ENVIRONMENT

The tenth issue of the Dungeness A Environmental Management plan has been issued this month, this is a requirement of the conditions attached to the consent to decommission Dungeness A Site under regulation 8(4) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999. Hard copies are available upon request or can be viewed at local libraries. An electronic copy will be available online at <https://magnoxsites.com/>.

The last of the fuel element debris has been loaded into the dissolution vessel for processing.

The site has applied to the Environment Agency for an administrative change to the trade effluent permit, this is as a result of a new package sewage treatment plant being installed as part of site separation where welfare facilities will be provided at the new security gatehouse.

A Marine Management Organisation Permit was granted last month to allow the site to perform cleaning activities on the active effluent discharge line and sewage discharge line. The work is planned to take place before the new year with a specialist contractor employed to survey and remove any material which has built up in the pipeline.

### **EMERGENCY SCHEME**

The new contingency arrangements have been written into the site's Quality Management System and have been briefed, exercised and are now embedded into day-to-day site activities. This has prepared the site well for the new accident and emergency arrangements that were adequately demonstrated to the Office for Nuclear Regulation (ONR) on 9 June. Dungeness A received approval of the new arrangement in the form of a license instrument on 21 September. The transition to the new arrangements took place on Thursday, 8 October. A level 1 demonstration of these arrangements is to be conducted on 20 October.

### **RADIOLOGICAL PROTECTION**

Radiation doses to workers remain as low as reasonably practical and below dose estimates. Radiological protection improvements have been made within the ponds project and this is demonstrated by successful progression of activities. Continual improvement remains the overall focus for the team.

## **2. SITE AND PROJECT NEWS**

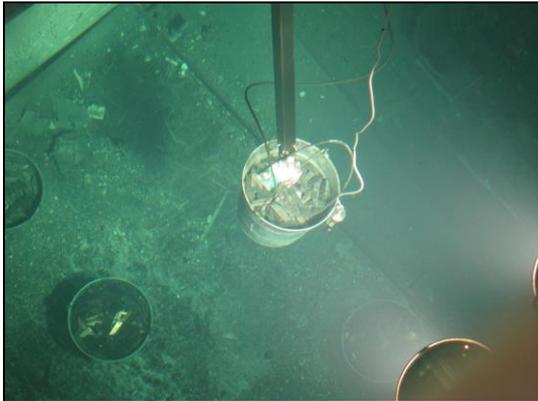
### **PONDS PROGRAMME**

The Ponds Programme continues to make good progress with decommissioning activities. A further 14 fuel skips have been retrieved from the ponds for Low Level Waste (LLW) co-disposal. Enabling works were completed on Reactor 2 pond to enable one metre draining, treatment and discharge of water. Detailed radiological surveys were completed and core samples taken from the exposed pond wall surface. Analysis of this data will inform the level of decontamination required to achieve a passively safe configuration for Interim Care and Maintenance.

A bay of Reactor 2 pond is being prepared for decommissioning activities using divers. The initial trial phase will involve size reduction of Intermediate Level Waste (ILW) fuel skips (up to three) and some deplant and size reduction of wetted steel furniture within the bay. The anticipated benefit of using divers is improved productivity by being close to the point of work but still benefiting by the shielding properties of water. If the trial, is successful further works will follow.

In Reactor 1 pond temporary installed ventilation arrangements have enabled the team to remove LLW fuel skips and consolidate and retrieve two drums of fuel element debris for processing within the site dissolution plant.

Work has commenced on preparations to remove ILW IONSIV cartridges (14) and filters (4) from Reactor 1 pond and consolidate this waste stream with items at Oldbury. The transportation of these items will be by fuel flasks and this activity will involve re-commissioning the Reactor 1 fuel route for flask import and export. Movement of the cartridges is planned for December 2015 and January 2016.



Reactor 1 pond FED recovery



Reactor 2 pond sampling

### **WASTE OPERATIONS PROGRAMME**

Between May and the end of September, 8.8 tonne of metallic Low Level Waste (LLW) in two half height ISOs have been sent to Studsvik for metal recycling with a further 38.2 m<sup>3</sup> of LLW sent to Tradebe for Incineration under the Low Level Waste Repository Framework contract.

The site also shipped and disposed of around 55 non-radioactive waste shipments comprising of mainly metallic and general waste but also wood, plastic and Man Made Mineral Fibre (MMMF).

Also in this period, 14 LLW Ponds kips have been retrieved from the ponds, characterised and loaded into HHISO's awaiting disposal to the LLW facility near Drigg.



Metallic LLW loaded into HHISO



Drums of waste for incineration

## **WASTE PROJECTS PROGRAMME (Formerly ILW Programme)**

The Waste Projects Programme at Dungeness A is now reinstated with a strategy confirming Ductile Cast Iron Containers (DCIC) as the standard disposal package for this site so that the available capacity at the Bradwell Interim Storage Facility (ISF) can be fully utilised.

The scope of waste projects portfolio for this financial year is:

- construction of the ILW Conditioning Facility building. Balfour Beatty started 28 September 2015 and will be complete by end February 2016;
- place the contract for the ILW Conditioning equipment – Advanced Vacuum Drying System (AVDS);
- design work for interim storage and packaging of IONSIV filters;
- design work for the spent IX resin retrieval system;
- characterisation of ILW and LLW/ILW borderline wastes. Sampling the IX resins in ST3 is the highest priority for this campaign and will be sampled in October 2015;
- design work for DCIC buffer stores at the delivery, retrieved awaiting conditioning and conditioned awaiting disposal stages of the waste process.

## **PLANT AND STRUCTURES**

### **South Side of Site Clearance**

All waste processing has been completed and the turbine hall basement area has been in-filled with inert crushed concrete from the demolition of the ancillary buildings which has been graded and back filled in compliance with environmental requirements.

Erith has now demobilised from this project and have commenced on the boiler asbestos project. The total income from the sale of scrap on the project was £2.6 Million returned back to the NDA.

The project is going through the final stages of the paperwork and final account with the contractor and this should see the project fully completed by the end of October 2015.



The project team stand in the area of the old turbine hall

## Control and Instrumentation Overlay

All commissioning works have now been completed and the system has been put into operation which has also delivered a key enabler after some 50 years, to allow the central control room to be de-manned as this is no longer required for operational purposes. The new alarm system transfers all the original alarms to the control room to a pager and radio which the shift manager has access to anywhere on the site, removing the need for him to be located at any fixed point on the site.

## Boiler Asbestos

Scaffolding has been completed in boiler cell 1 with asbestos enclosures being created. Asbestos stripping from boiler cell 1 should commence in the next couple of weeks. Scaffolding is also well underway in boiler cell 2.

Most of the external cladding and lagging has been removed from the external south elevation steam and feed pipework with preparations underway to ensure the pipes can be safely cut and removed. This work is weather dependant but planned to complete in March 2016.



Mast climber and scaffolding erected to give access for boiler asbestos stripping



Scaffolding erected on Reactor 1

## Asset Management and Enablers for Entry into the Interim C&M Period

Work continues to progress well with the electrical de-wire project with significant work completed on the 240, 110 and 50 volt systems, which has allowed a lot of the old redundant plant to be de-energised, reducing the overall sites electrical risk and only keeping supplies available for essential services.

All of the site's 488v DC batteries have now been removed from the site, again reducing the overall hazards. Work is progressing to enable the 240v and 110v DC batteries to be removed before the end of the financial year.

The contractor has mobilised to site to carry out the site security separation in both civil and electrical modifications to allow separation from the Dungeness B Power Station. The new security cabin is currently being internally fitted out and wired to accommodate all the security monitoring equipment.

An order has now been placed to modify the Dungeness A Site sewage system and this will take both sites a step closer to total separation of the aged common sewage plant. Both sites are working together to ensure this happens smoothly. This work will be completed on the Dungeness A Site before the end of March 2016.

## **FED PROGRAMME**

### **Magnox Dissolution (MXD)**

The site has loaded the last of the Dungeness fuel element debris into the dissolution vessel for processing.

## **3. STAFFING**

- As of 7 September 2015 there are 191 full time equivalent members of staff at Dungeness A. There are also an additional 19 members of staff who have a central role but are based at Dungeness A.
- There are six agency supplied workers, and 25 individuals employed through Framework Agreements.
- The number of contractors fluctuates according to the work being undertaken.
- 18 members of staff left the company through a combination of resignation, retirement and voluntary severance between 1 April up to and including 30 September 2015.

### **Organisational Restructure**

As the Magnox fleet ceases generation, defuels and finally decommissions staff numbers would inevitably reduce. In addition, there has been an added impetus to provide a more streamlined operating model to more effectively deliver the decommissioning programme at the 12 Magnox sites.

As a result there has been a programme of voluntary redundancy over the summer which will see 17 staff leave Dungeness by Christmas 2015.

Thereafter there will be further restructuring which will include individual consultation and collective consultation with Trade Unions, and further staff reductions. This phase of restructuring will conclude in September 2016.

This is an unsettling time for staff and support is provided by way of organisational support, an employee assistance programme and specialist outplacement advice for individuals leaving Magnox.

## **4. COMMUNITY RELATIONS**

### **Socio-economic spend from March to September 2015**

Since February, £240,340 is still to be released through the gating process for projects that mitigate the closure of the site and these are expected to progress in the coming weeks.

	Organisation	Funding aim	Funding awarded	Description/outcome
1	New Romney Country Fayre	Sustainable Communities	£1,983	To provide equipment that will be used by the Country Fayre over a number of years including: Radios, First Aid Grab Pack, Spectator Chairs, Folding Tables, Gazebo, Fire Blanket
	<b>Total</b>		<b>£1,983</b>	

The Marsh Million Loan Scheme, launched in September 2013, has so far approved 21 loans totalling £261,843. The loan scheme offers interest free loans to local businesses of between £2,500 and £50,000.

The Marsh Million Economic Projects Scheme (EPS), launched in November 2014 (currently closed to new applications), has supported 8 successful applications totalling £395,988. For further information please go to: [www.kent.gov.uk/business/business-loans-and-funding/marsh-million-business-loan-scheme](http://www.kent.gov.uk/business/business-loans-and-funding/marsh-million-business-loan-scheme)

### **Magnox's socio-economic approach**

Magnox is committed to providing and enabling socio-economic support for the communities in which it operates in-line with the requirements of the Energy Act 2004 to mitigate the effects of decommissioning on the surrounding communities and develop opportunities for socio-economic development.

### **How to apply for funding**

After several weeks of issues with the portal, it is now back up and running. However it will still take a few weeks to get the manual applications back onto the system and align everything – please bear with us.

Go to <http://www.magnoxsites.co.uk/about-us/community/> or click on [www.magnoxsocioeconomic.com](http://www.magnoxsocioeconomic.com) to access the socio-economic web portal where you can apply for funding. Please read the funding guidelines and other documentation to assist you with your application and to make sure your project meets the required criteria.

### **Draft Magnox Socio-economic Plan consultation – POSTPONED**

After discussions with the Nuclear Decommissioning Authority (NDA), we have agreed to postpone consultation on the draft Magnox Socio-economic Plan 2016-18.

The reason for temporarily postponing publication of the draft Magnox Socio-economic Plan is to coincide with the NDA's consultation on its draft Strategy, this is expected to begin early January 2016. As I'm sure you will appreciate the draft NDA Strategy, which includes its socio-economic strategy, is fundamental to our own and aligning our consultation with theirs is appropriate.

Your contact is: Haf Morris, Dungeness A Site Tel: 01797 343549

Email: [haf.e.morris@magnoxsites.com](mailto:haf.e.morris@magnoxsites.com)