



# Site Director's Report Dungeness A Site

May – October 2014



## Round-up from the Site Director

As we move towards the end of the summer, it's been a busy period for us and we've seen lots of work going on across the site. Dungeness A continues to safely deliver the decommissioning programme.

On 1 September 2014, we welcomed our new owners Cavendish Fluor Partnership (CFP) who bring together a world-class team with unrivalled capability; with proven expertise in both international decommissioning and nuclear site management. More than £1.5 billion of savings for the public purse are anticipated as CFP begins to implement its plans to decommission 10 of the UK's first generation of nuclear power stations, and two pioneering research facilities.



The South Side of Site Clearance (SSSC) project is making good progress. All bulk asbestos has been removed from the turbine hall and deplanting of turbines three and four is well underway. Externally a 300 tonne crane was used to remove four surge tanks weighing approximately 20 tonnes each from the turbine hall roof.

The Intermediate Level Waste (ILW) Programme delivery at Dungeness has been put on hold while CFP carry out a grass-roots strategy review. CFP have asked Magnox to investigate the potential use of other ILW disposal boxes and passivation techniques to determine the most cost effective solution for disposal of ILW. The ILW Conditioning Project and IONSIV Retrieval Project will complete the current design phases through to the next Design Authority Review (DAR4) in October, and the Active Laundry Demolition Project will be closed out. These projects will then be put on hold until the new strategy for Dungeness ILW is clear.

As part of the Ponds Programme, preparation and enabling work has continued well to meet the primary objective to commence draining of the lead reactor two pond in January 2015. This includes completing the design and specification for a new ventilation system for which installation work is planned from October 2014. The biggest challenge in the coming months to support the ambitious programme will be the removal and disposal of all redundant Low Level and some Intermediate Level Waste fuel skips from site. Following successful trials to date, this work commenced in September, with completion expected in December 2014.

The Fuel Element Debris (FED) programme has continued well with the Magnox Dissolution Plant (MXD) completing the processing of Bradwell FED over the last six months. A modification has been made to the plant to improve the dissolution rate of FED.

In response to a report submitted entitled: Summary of the Magnox Ltd Response to Lessons Learned from March 2011 Japanese Earthquake and Tsunami, I am pleased to report that at the beginning of August, Magnox received a letter from Mr Campbell, Superintending Nuclear Inspector, Office for Nuclear Regulation (ONR) which states that the ONR is satisfied that the recommendations and findings have been satisfactory addressed.

Magnox continues to support local socio-economic projects and so far this year has committed £212,557 from the Magnox socio-economic fund. 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**  
Site Director

# 1. SAFETY

## SAFETY

Dungeness A remains focussed on completing work safely and compliantly with heightened vigilance following a serious accident at Sizewell A site due to a fall from height. There have been nine minor first aid events reported since 1 April 2014, but none in August or September.

Scenario based workshops are being conducted by the safety team to promote safe working at height and to understand and meet the company's standards and expectations with regards to controlling high risk work areas, exclusion zones and laydown areas. There have been a number of high risk demolition work activities undertaken in the period involving work at height and work planned in areas which have advanced degradation. This is to further embed the awareness of hazards and to highlight how we all interpret situations and their associated hazards in different ways.

A number of our long term contractors on site underwent training in Human Performance Fundamentals to assist in error avoidance, office personnel also received 'Knowledge Worker' training. Some Dungeness staff was also involved in a Human Performance benchmarking / peer assist exercise at Chapelcross to share learning. Magnox site staff has conducted Behavioural Based Safety Observation training.

The company hosted an Asbestos Audit on Dungeness A's arrangements. Results were positive with a small number of improvements identified.

## ENVIRONMENT

The site received a Revised Permit from the Environment Agency (EA) in early June following an application to remove a number of approved gaseous discharge systems. This has resulted in dramatically reducing the amount of monthly reporting required as well as the associated environmental benefits.

The team continues to support the site to ensure radioactive waste management and the application of Best Available Techniques (BAT) is applied during all phases of decommissioning. Currently the ponds programme is an area of focus with regular consultation and discussion held with the EA.

The EA Themed Inspection on Radioactive Waste Management Arrangements is scheduled for the end of October.

The Dungeness A Site Environmental Management Plan Issue 9 has now been issued.

## EMERGENCY SCHEME

Dungeness has taken the lead on the development of new Contingency Arrangements within Magnox. Employees and contractors have been taking part in exercises over the past months designed to develop the proposed changes, particularly to improve the efficiency of first response and first aid skills. Volunteer groups, Amputees in Action and St John's Ambulance, also attended the exercises, ensuring a high degree of realism to the injuries and testing the

new procedures as far as possible. The first exercises have demonstrated the command and control ability of Shift Leaders during an incident. The new arrangements are already proving successful by speeding up the recovery of a casualty as well as containment of the hazard.

The ONR in August approved a new Emergency Plan that allowed the removal of offsite responsibilities and allows Kent County Council to remove the need for an Off Site Plan for Dungeness A. The proposals have been presented to the Nuclear Safety Committee and have been endorsed. Work continues with the ONR ahead of the demonstration exercise in October 2014.

## **RADIOLOGICAL PROTECTION**

The site continues to manage doses to the public and personnel on site within legal dose limits and to be 'As Low As Reasonably Practicable'. Routine radiological surveys have not highlighted any areas of concern. The team continues to support the project work taking place on site to ensure compliance with relevant legislation. The Radiological Protection Team recently assisted the police in the recovery of some radioactive material from a residential address on behalf of the Environment Agency as part of the National arrangements for incidents involving radioactivity (NAIR).

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

### **PONDS PROGRAMME**

The major objective for 2014/15 is to commence a trial drain of the Reactor Two Pond. To achieve this challenging target, several enablers have to be completed:

- The consolidation of all IONSIV and filter cartridges into the Reactor One pond was successfully completed to schedule.
- A major programme of work to remove all Low Level Waste and a high proportion of ILW ex-fuel skips from both ponds, conduct a full radiological survey and then sort skips into half height ISO containers (HHISO) for optimal disposal off-site started in September and expected to continue until December 2014.
- Design and specification work has been completed for a new pond ventilation system with the contract placed in September and work commencing in October 2014. This is a requirement for completion and commissioning before pond draining can commence in January 2015.

In addition, a non-nuclear issue with clamps on three Fuel Route crane rails was identified in June following which the site took a conservative decision to place controls on movement. Repairs were completed in early September 2014 and the cranes returned to service two weeks later.

## INTERMEDIATE LEVEL WASTE (ILW) PROGRAMME

### IONSIV Retrievals

Please note the MiniStores, or “yellow boxes” are also referred as Ductile Cast-Iron Containers (DCIC), of which there are two types: cylindrical (internal volume of  $\sim 0.5 \text{ m}^3$ ) and cuboid (internal volume  $\sim 2.7 \text{ m}^3$ ).

Retrieval Work-package:

- IONSIV is a cylindrical container (cartridge) that has a special resin inside with an affinity for absorbing Caesium from our ponds water. The IONSIV process includes a pre filter, pumping unit, cartridge and post filter all contained within a skip in the ponds. The disposal strategy for this waste stream will be to retrieve into a DCIC, dry the contents in situ, followed by temporary storage until the national repository is available.
- Both Dungeness and Chapelcross have similar solid waste streams within their respective ponds, which will be placed into DCICs. Therefore, the sites are working very closely together in conjunction with a contractor SAS (Spencer Atkins Studsvik) on producing the designs for Retrieval and DCIC handling systems at both sites.
- In preparation for 15 October Design Authority Review (DAR4) the substantiation report has been circulated for comments and is due for issue on 8 October. Other supporting documents and drawing production have been actively managed through detailed Magnox oversight and daily progress reviews leading to a high level of confidence that they will be ready for the design review.
- Safety Case substantiating the design has been assessed by Independent Nuclear Safety Assessment (INSA) and their approval form 5B was received on 1 October 2014
- Preparations for the next phase of the project are being placed on hold.

### Intermediate Level Waste (ILW) Conditioning

The demolition of the site’s Active Laundry and Clearance Monitoring buildings has been safely and successfully completed. The demolition was carried out by Squibb/LVI, who was appointed Principal Contractor (PC) for the works and it is believed that this is the first time a contractor has been appointed as PC within a Magnox Radiation Controlled Area. The demolition took 10 weeks and was delivered without any accidents or significant events.

The buildings were demolished to provide a  $375\text{m}^2$  footprint for the construction of an ILW Conditioning Facility. However, the construction of the new building has been deferred while the ILW disposal strategy for DNA is reconsidered.



Clearance monitoring area before demolition



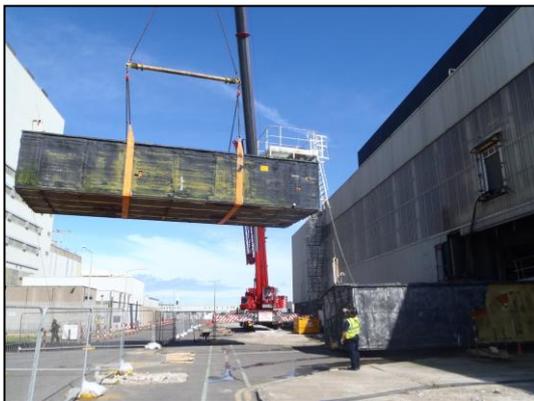
Clearance monitoring area after demolition

## PLANT AND STRUCTURES

### South Side Site Clearance

Good progress is being made on this project, with approximately 540 tonnes of asbestos containing material removed from the turbine hall and work is now well underway with the internal de-plant on turbine three and four.

All the peripheral buildings have been demolished and the rubble crushed and used as infill within the turbine hall to create a ramp to allow the big demolition machines to access the turbine hall basement from the ground level. All the site's redundant generators and station transformers have been cut up and removed from site. A 300 tonne crane was used to lift and remove the four surge tanks from the turbine hall roof. Each tank weighed approximately 20 tonnes and were removed individually negating the need to size reduce these structures at height.



One of the surge tanks is lowered down from the roof



A turbo generator stripped down to the steam chest

### Control and Instrumentation Overlay

Work is progressing well to complete the installation of a system that "piggy backs" onto the original alarms to the Central Control Room (CCR) and transmits these alarm out to remote outstations and then transmits the alarm out to a radio or pager carried by the duty shift lead therefore allowing the main CCR to be de-manned.

## **Boiler Asbestos**

Work to complete the characterisation and asbestos surveys required under current legislation in this financial year is progressing in both reactor buildings. Reactor one is weeks away from completion of these surveys and physical removal of thermal insulation containing asbestos is scheduled to commence in January 2015

## **Asset Management**

Work is currently underway to carry out re-cladding of the Low Level Active Waste (LLAW) facility and Damal Lab to ensure the fabric and material condition of the building remains functional, water tight and safe until the buildings are eventually demolished.

Work is also on-going to carry out repairs, where required, to various drains on site and a review of the sewage plant and its long term investment and operational requirement is also being undertaken.

## **FED PROGRAMME**

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

At the start of 2014/15 Dungeness carried out a modification to the plant to improve the dissolution rate of FED. This modification was to put a piece of equipment called a Carbonator into the water feed system. This was a simple modification which allows CO<sub>2</sub> to be mixed with water prior to it entering the reaction vessel. This equipment is used widely in the beer making industry to add carbonated water to beer. The modification was successful and has seen a small increase in the amount of magnesium dissolved.

Over the last six months the MXD plant has continued to carry out dissolution at Dungeness. This has taken the form completion of the remaining Bradwell FED which completed loading at the end of 2013/14, and then recently the emptying and dissolution of the remaining corrosion products from the Reactor 2 Lug Vault.

## **3. CAVENDISH FLUOR PARTNERSHIP**

### **Consolidation and Transformation plan**

A plan is being developed which details the consolidation and transformation work that will be undertaken within Magnox and Research Sites Restoration Ltd (RSRL). Consolidation is a contractual phase where the new Lifetime Plan is fully integrated into the baseline to reflect the Cavendish Fluor Partnership bid. The transformation phase will extend beyond that and will include a number of initiatives to ensure that the new plan can be delivered. Several different work streams will be set up to support this and more detailed plans will be developed over the coming weeks.

### **Management of Change (MoC) process**

The final stages of the review and approval process to enact MoC2 are being progressed. Once approved, this will see Kenny Douglas, Managing Director of Magnox, also become Managing Director of RSRL.

## Site visits

At the beginning of September presentations to each site was delivered by Kenny Douglas, Pete Knollmeyer and members of the Executive team, to introduce the new company to the Magnox and Research Sites Restoration Limited (RSRL) workforce.

## 4. STAFFING

- As of 31 August 2014 there were 217 full time members of staff at Dungeness A. There are also an additional 23 members of staff who have a central role but are based at Dungeness A.
- There are also 22 agency supplied workers, 3 contract supplied workers and 29 individuals employed through Framework Agreements.
- The number of contractors fluctuates according to the work being undertaken.
- Twelve members of staff left the company through a combination of resignation, retirement and voluntary severance between April and the end of August 2014.

## 5. COMMUNITY RELATIONS

### Socio-economic Spend for April to September 2014

Applicant	Reason	Amount
New Romney Country Fayre	Event entertainment and programme	£585
The Varne Boat Club	Two small dinghies for free sailing taster sessions	£4,632
The Marsh Academy	Apprenticeships on the Romney Marsh	£43,000 Over three years

### Magnox's socio-economic approach

Magnox is committed to providing and enabling socio-economic support for the communities in which it operates.

A new Magnox socio-economic plan, developed to take into account the impacts of decommissioning was produced and agreed in 2011 following an assessment of the socio-economic implications for local communities, 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

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.

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