

# Closure Director's Report Dungeness A Site

January 2020





## Round-up from the Closure Director

In line with the company values and improvement plan to deliver a 'Target Zero' approach to safety, the site continues to promote monthly themed campaigns including 'Transport Safety', 'Sustainability', 'Safety Representatives', 'Mental Health and Wellbeing' and 'Travel Safety'. The site has now exceeded 1343 days since its last Lost Time Accident.

Magnox continues to support local socio-economic projects. Magnox Socio-economic Scheme has been allocated £1,012,874 by the NDA for 2019/20. As of 21 January 2020, five applications from the Dungeness area have been successful and received funding for their projects.

**The Ponds Programme:** Both pond drain, decontamination and radiological survey activities have now all been completed. The Modular Effluent treatment plant installation has been completed and entered its inactive commissioning phase.

**Plant & Structures:** The Thermal Insulation Removal Project continues to progress well with a completion date of July 2020. Work has started in R1 and R2 ponds buildings to investigate earlier access for insulation removal. A total of 20 springs have been cut in 2A Blower Hall which enables progress to be made on the insulation removal in this area.

Structural inspection of the boiler annexes has revealed significant deterioration due to environmental conditions and defective roof structures. The boilers are also showing signs of structural degradation and a keep the boilers up seismic safety case is expected to require significant assessment and site modifications. A cost / benefit analysis has shown that the best option is to remove the boiler annexes and the boilers.

**Waste Projects:** The design and installation of the Wet Waste Transfer Facility (WWTF) is now complete. Equipment testing is underway prior to inactive commissioning starting in April 2020.

The Borderline Wet Waste (BWW) Project has progressed well and the detailed design phase is now complete. The project team is now preparing to start the procurement and manufacturing phase.

It is expected that retrievals will commence in November 2020.

A handwritten signature in blue ink, appearing to read 'P. Wilkinson', written in a cursive style.

**Paul Wilkinson**  
**Closure Director**

## 1. SAFETY

### SAFETY

In line with the company values and improvement plan to deliver a 'Target Zero' approach to safety, the site continues to promote monthly themed campaigns including 'Transport Safety', 'Sustainability', 'Safety Representatives', 'Mental Health and Wellbeing' and 'Travel Safety'. The site has now exceeded 1,343 days since its last Lost Time Accident.

The reporting culture remains strong with 943 learning capture forms submitted over the last year.

There have been five events of conventional safety significance in the last quarter:

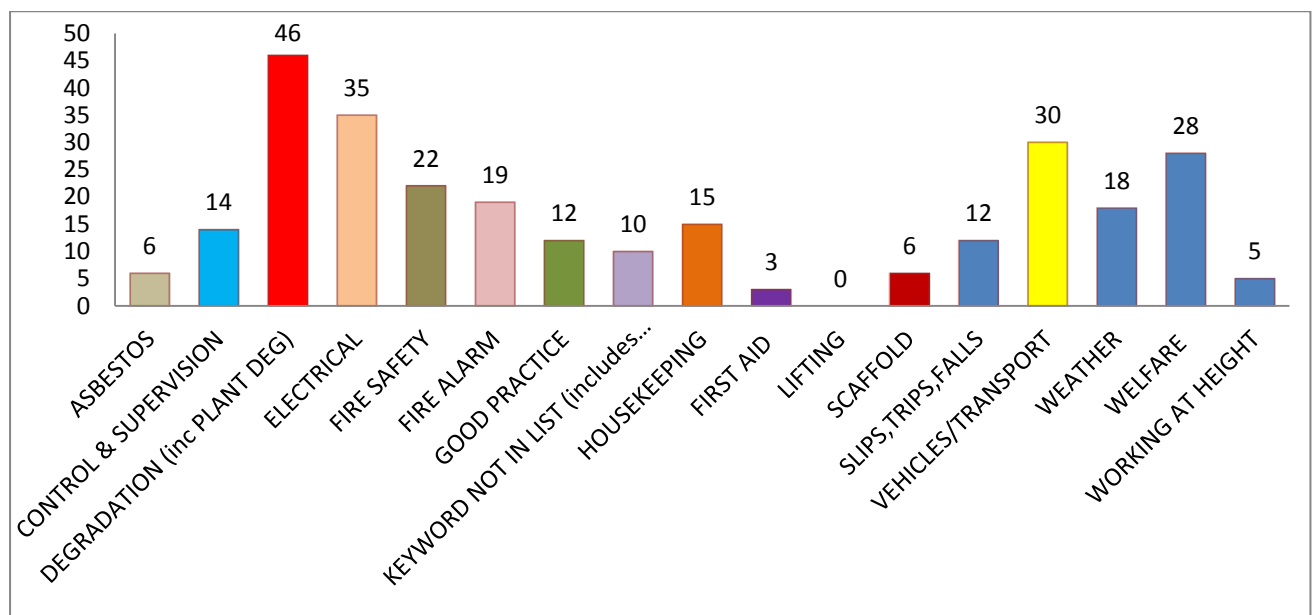
- Work on the rear of a flatbed lorry without fall protection.
- Potentially exposed live cable in Low Level Active Waste Plant.
- Inappropriate work at height method selected.
- Reactor cladding detached in high winds.
- Light fitting cover fell to floor narrowly missing operatives beneath.

Event trends and improvement actions continue to focus on improving fire safety, plant degradation, electrical safety, welfare and transport safety.

We launched a safety campaign at the end of May, aiming to reduce injuries across the site. There were only four minor first aid injuries in the last nine months. This is a big improvement as the site strives to target zero. We have rolled out 'safety conversation' training to all personnel to help reduce injury, raise situational awareness and encourage individuals to challenge unsafe acts and behaviours. It has been very well received.

The Days Away Case Rate (DACR) remains at zero and the Total Recordable Incidents Rate (TRIR) is 0.29.

The chart below shows the keyword areas in which 'learning capture' forms have been raised over the last 12 months at Dungeness A:



## **RADIOLOGICAL PROTECTION AND ENVIRONMENT**

Radiation doses remain as low as reasonably practical and below dose limits. The total dose received by all persons in 2018 was slightly below estimate. Performance against the 2019 will be monitored as the year progresses, but is showing close correlation to that estimated.

Following a successful selection process, three radiological protection technician apprentices have begun work at Dungeness A.

We made an application to the Environment Agency to vary the radiological EPR permit to include a number of additional gaseous discharge routes as a result of upcoming project work in December 2018. We also expect to submit a variation for a change to the conventional effluent discharge permit to include the new Modular Active Effluent Treatment Plant as an authorised discharge route, following completion of further sample analysis.

## **EMERGENCY SCHEME**

Dungeness A has held the following exercises in the last six months:

24/07/2019 – Exercise Aqua – admin area fire evacuation exercise  
24/07/2019 – Exercise Landsat - confined space emergency exercise  
02/08/2019 – Exercise Eye-pro – work-at-height emergency exercise  
03/09/2019 – Exercise Zusaku – work-at-height emergency exercise  
04/09/2019 – Exercise Echo – security exercise  
25/09/2019 – Exercise Seasat – site-wide fire drill  
30/10/2019 – Exercise Scisat - work-at height emergency exercise  
27/11/2019 – Exercise Skylab – joint safety and security exercise

Training and exercising continues through 2020 with a demonstration exercise scheduled for 25 February 2020.

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

### **PONDS PROGRAMME**

Pond bay decontamination activities have continued since the last report. The removal of all waste and sludge's from the ponds bays has now been completed and radiological surveys of all bay wall and floor surfaces were completed for both ponds in November 2019.



R1 Pond Floor Decontamination

To enable full decommissioning of the Active Effluent Water Treatment Plant (AEWTP) an alternative contaminated water treatment facility is required. Since the last report, a Modular Active Effluent Treatment Plant (MAETP) has been installed on site, inactive commissioning has commenced in December 2019. A new discharge line has been installed and connection into the sites existing discharge line has also been completed. To allow progress to active commissioning requires a new discharge permit to be agreed by the EA.



Installation of the MAETP

## **WASTE OPERATIONS PROGRAMME**

### **Low Level Active Waste (LLAW) Operations**

From the beginning January 2019 until the end of December 2019, the Waste Operations Programme monitored, processed and disposed of the following waste:

- One contaminated metals shipment was processed and dispatched to Cycliffe for treatment and recycling
- Two contaminated waste shipments have been processed and dispatched to Veolia and Tradebe respectively (64<sup>m3</sup>)
- 430<sup>m3</sup> of contaminated asbestos waste (VLLW) was consigned to Augean for disposal.
- A further 636<sup>m3</sup> of non-radiological waste has been disposed of, comprising mainly asbestos and metal/general and hazardous waste.



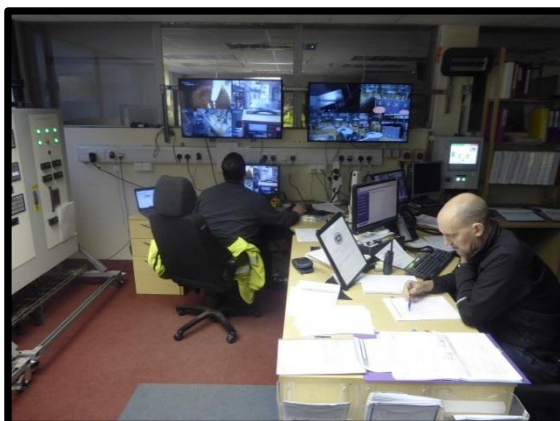


## High Activity Waste (HAW) Operations

Retrieval and conditioning of ILW (Intermediate Level Waste) resin from sludge tanks ST3 & ST4 has continued, with a further 50 MOSAIKs filled. This means we have now filled & conditioned a total of 99 MOSAIKs since the process began.

We now believe we have retrieved all we can from ST3 using the current retrieval equipment and only residue remains. This will be retrieved separately once retrievals are completed from ST4.

4 x rail shipments of nine MOSAIKs per transfer were dispatched to Bradwell for long-term storage. This means in total we have now made 8 x rail shipments containing 69 MOSAIKs.



The future scope of work up to the end of March 2020 is as follows:

- Retrieval and conditioning of 16 MOSAIKs from ST4 (ILW Resin)
- Transport of three rail shipments to Bradwell containing 18 x MOSAIKs
- Disposal 130<sup>m3</sup> of LLW/VLLW
- Continue monitoring and processing of LLW/VLLW and non-rad waste

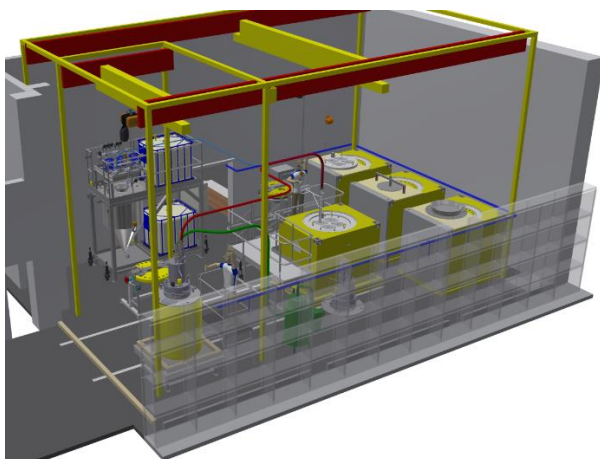
## **WASTE PROJECTS PROGRAMME**

### **Resin Pathfinders**

The strategy for this project has changed over the last year. In addition to its original design intent, this project will now provide a more generic facility to transfer a number of different wet ILW wastes in to DCIC disposal packages from a range of different containers. This facility is known as the Wet Waste Transfer Facility (WWTF).

The design and installation of the WWTF is now complete. Equipment testing is underway prior to inactive commissioning starting in April 2020.

This facility is expected to be ready for active commissioning by the end of July 2020.



3D view of the wet waste transfer facility



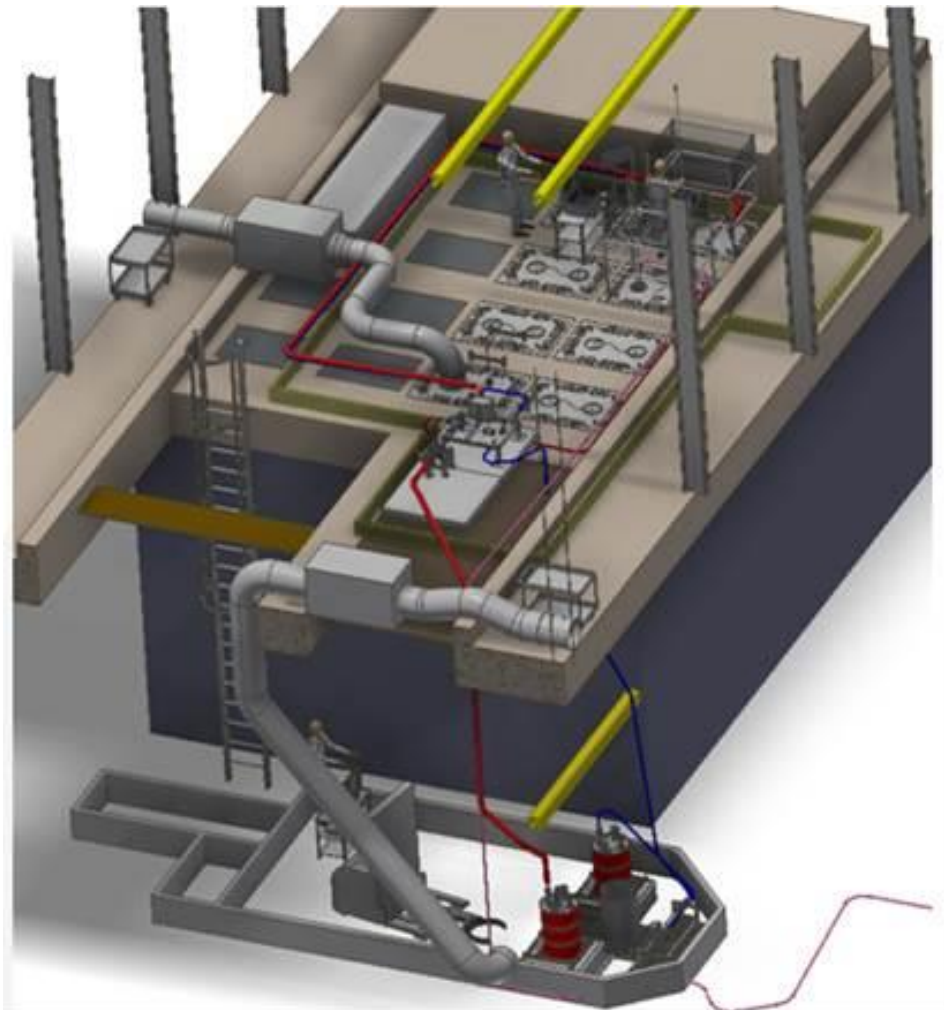
### **Borderline Wet Waste**

The Borderline Wet Waste (BWW) Project scope is to retrieve a number of wet ILW wastes that have been identified as suitable for encapsulation in cement and disposed to the Low Level Waste Repository (LLWR). The LLWR will be the final repository for these LLW packages.

The strategy is to retrieve the waste into drums, transport the drums to Tradebe/Inutec's (TI) premises in Dorset where they will be encapsulated and packaged for disposal. Wood Group is in partnership with Tradebe/Inutec (TI) to deliver this work. Wood has designed the retrieval equipment and TI has developed the encapsulation recipes and managed the disposal strategy with the LLWR.

The Borderline Wet Waste (BWW) Project has progressed well and the detailed design phase is now complete. Preparations are under way to start the procurement and manufacturing phase.

It is expected that retrievals will commence in November 2020.



The MXD Sludge retrieval equipment layout

## Sludge and Sand

Site installation works are complete. The Fill House building is fitted out with the retrieval and packaging equipment and preparations are underway to start inactive commissioning.

All the retrieval and packaging equipment had been assembled and tested, last year, at NSG's works in Preston, Lancs.

The Sludge and Sand Project is now expected to be ready for active commissioning in August 2020.



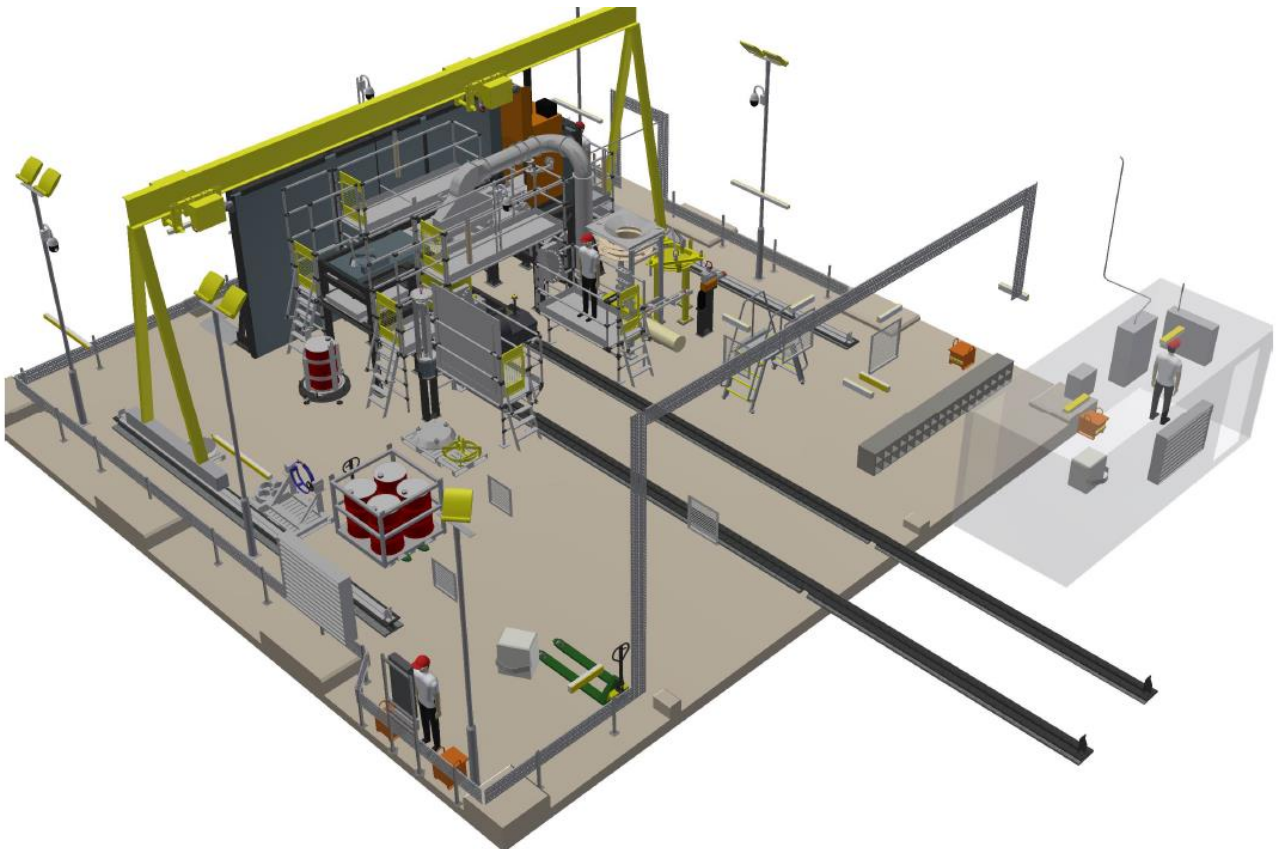


The Fill House building being equipped with retrieval and DCIC filling equipment

### Miscellaneous Contaminated Items (MCI)

The detailed design for the Waste Transfer Area is complete. This is where Miscellaneous Contaminated Items (MCI) and Miscellaneous Activated Components (MAC) will be taken for size reduction and packaging in to DCICs prior to conditioning.

Site works are expected to commence in autumn 2020.



3D view of the MCI Waste Transfer

## **PLANT AND STRUCTURES**

### **Boiler house asbestos removal**

The thermal insulation removal project continues to progress well, with a c block and is progressing well within 1B boiler annexe and drum house. This area was delayed due to safety concerns. Additional protection has been installed to make the area safe to allow work to commence. Work has started in R1 and R2 ponds buildings to investigate earlier access for insulation removal.

A total of 20 springs have been cut in 2A blower hall which enables progress to be made on the insulation removal in this area. Work had previously stopped in this area due to the degradation of the springs.

### **Reactor Building deplant and demolition**

Structural inspection of the boiler annexes has revealed significant deterioration due to environmental conditions and defective roof structures. Structural assessments have identified significant work to secure these until final site clearance. A cost / benefit analysis demonstrates that the best option is to remove annexes. The boilers are also showing signs of structural degradation and a keep the boilers up seismic safety case is expected to require significant assessment and site modifications. Again a cost / benefit analysis has shown that the best option is to remove the boilers.

## **3. STAFFING**

- As at 31<sup>st</sup> December 2019, there are 124.17 full time equivalent (FTE) members of staff at Dungeness A Site. There is also an additional 28.97 FTE who have a central role but are based at Dungeness A.
  - 41 agency-supplied workers and 25 individuals are employed through framework agreements or as contract-supplied workers.
  - The number of contractors fluctuates according to the work being undertaken.
  - Since the last report to 31<sup>st</sup> March 2019, there have been ten leavers (five resignations, four transfers to other sites and one who left on Selective Voluntary Severance - SVS).

## **4. COMMUNITY RELATIONS**

Magnox Socio-economic Scheme has been allocated £1,012,874 by the NDA for 2019/20. As of 21 January 2020, five applications from the Dungeness area have been successful and received funding for their projects:

| <b>Organisation</b>     | <b>Funding awarded</b> | <b>Description/outcome</b>                                                                       |
|-------------------------|------------------------|--------------------------------------------------------------------------------------------------|
| Romney Marsh Responders | £828                   | Purchase of new CPR Manikins                                                                     |
| Turn the Tide Festival  | £1,000                 | Arts based workshops and performances as well as sporting events in Dymchurch.                   |
| South Kent MIND         | £699                   | Mobile IT equipment for Wellbeing Activity Coordinator to enable support for people on the Marsh |

|                                              |                      |                                                                                   |
|----------------------------------------------|----------------------|-----------------------------------------------------------------------------------|
| Romney Marsh Community Church                | £891                 | Pulse Youth Club – traditional games and electronic gaming to create competitions |
| Light Up New Romney Community Lantern Parade | £300                 | Light up New Romney 2019                                                          |
|                                              | <b>Total: £3,718</b> |                                                                                   |

Magnox continues to allocate £6,000/site from the total available for Good Neighbour Applications (up to £1,000). Dungeness still has £2,282 available to spend. Closing date for this year is 20/02/20.

The system will be changing in April to a new provider across the whole of the NDA estate but the principles and funding will be very similar.

Currently for Good Neighbour applications, you will only need to complete the first three questions, all applications must complete an End of Project Report and submit good quality photographs to demonstrate that the money was spent as specified in the application which will in turn secures future funding for the scheme. The closing date for this year's applications is 14 February 2020.

Please go to <http://www.magnoxsites.co.uk/about-us/community/> or [www.magnoxsocioeconomic.com](http://www.magnoxsocioeconomic.com) to access the socio-economic web portal where you can apply for funding then go to Can I Apply? (to see if you are eligible).

If you would like to discuss a potential application please contact: Haf Morris:  
[haf.e.morris@magnoxsites.com](mailto:haf.e.morris@magnoxsites.com) or tel: 01797 343549