

## Introduction

This report covers the Environment Agency's regulation of Dungeness A and B sites and related environmental matters.

## Nuclear regulation

Phil Fahey is the lead regulator for the Dungeness A site. Andrew Stone is the lead regulator for the Dungeness B site, assisted by Eddie Osondu.

Phil, Andrew and Eddie work in the Nuclear Regulation Group (South). Officers from the Kent Area Environment Agency team also visit the site for general environmental protection matters such as groundwater, contaminated land, waste management and water abstraction.

We work closely with other regulators such as the Office for Nuclear Regulation (ONR) in areas of common interest.

## Attendance at site

We regulate radioactive waste disposals through environmental permits that contain limits and conditions aimed at minimising wastes and protecting the environment. We check compliance with the permit by making regular inspections. These are recorded on Compliance Assessment Reports which detail our inspections and any non-compliance(s) found; these are placed on our Public Register.

We visited Dungeness A on 20<sup>th</sup> March 2019. We visited Dungeness B on 18-19 March and 8-10 April.

Regular contact is also maintained with the sites by telephone and e-mail in addition to formal correspondence.

## Discharge reports

Both sites are required to report to us liquid and gaseous discharges to the environment and transfers of radioactive waste to other sites on a

regular basis. These reports are placed on the public register. Liquid and gaseous discharges from both Dungeness sites remain within the limits set by the Environmental Permits.

Update of discharges from Dungeness A.  
Gaseous discharges from Dungeness A are mainly constant.

Aqueous discharges do tend to fluctuate more. There was an increase in the amount of "any other radionuclides" (i.e. those apart from Caesium-137 and tritium) in aqueous waste discharged as the pond drain continued in October and December 2018. The trend continued into 2019.

Further work by the Operator on the source of the raised activity indicates that the remaining ponds sludgy water is the source and the main radionuclide is Strontium-90. The ponds drain is nearly complete with only small volumes of liquid remaining.

We have questioned if more could be done to reduce discharges through abatement and asked if the remaining material could be grouted rather than discharged. The abatement is not considered as best available techniques by the Operator due to issues of cost and the feasibility to retrofit abatement into the current system of pipes and tanks for the limited volume still to be drained. The Operator looked at grouting but an optimisation study by the Operator found direct discharge remained best available techniques.

An estimate made by the Operator is that approximately 8% of the annual permitted limit for the "any other radionuclide" category of aqueous radioactive waste will be discharged in 2019. Hence the amount of the increase will not threaten any permit limit or notification level.

Once the pond drain is complete, aqueous discharges will reduce as the major source term will have been removed.

We will continue to monitor all site discharges.

## Environmental monitoring

The Operators carry out monitoring of various environmental samples at periodic intervals and report the information to us. Dungeness B staff carry out the work on behalf of both sites. The programmes are slightly different to reflect the radionuclides that are being discharged, the historical discharges and the operational activities taking place at each site.

In addition to the Operators' environmental monitoring programme the Environment Agency participates in an independent UK-wide monitoring programme. The results of these monitoring programmes are published annually and are used to assess the dose received by members of the public in the vicinity of nuclear licensed sites. Radiation doses to people living around nuclear licensed sites from authorised releases of radioactivity were well below the UK national and European limit of 1000 micro Sieverts ( $\mu\text{Sv}$ ) per year in 2018.

Occasionally, radionuclides are detected in environmental samples at very low levels.

### Update of strontium-90 measurement in marine sediment.

Following our report to the last SSG meeting We are still awaiting further results from September 2018 and more recent results from 2019.

Dungeness B which performs the sampling for both sites did not send the September samples for analysis at the time and due to a contractual process error no samples were taken in October or November 2018. Processes have improved between the Operators to prevent a repeat of these issues going forward. The results from December 2018 were all below detectable limits. We had one positive result from Pilot sands that was just above the level of detection (0.987 +/- 0.536 Bq/kg) in January 2019. The rest of the results from January 2019 were all below levels of detection. There is no danger from this very small level of radioactivity. Our Environment Agency monitoring showed results below limits of detection for the most recent samples taken in quarter 3 2018.

We will inform the SSG of any issues highlighted by the environmental monitoring programmes.

## Current regulatory issues

### Dungeness A

We are in regular contact with the Head of Radiation Protection and Environment to ensure that we are kept in touch with progress on actions and any emerging issues at the site. We have been liaising recently with several projects such as the continuation of ponds draining and ILW retrieval, processing and dispatch to Bradwell.

### Delay in projects at site.

Due to funding issues in Magnox, several projects at Dungeness A will be delayed moving forward including some ILW retrieval. Delays in ILW retrieval will mean that it will take longer for all the packages to get to the interim storage facility at Bradwell.

### Catch up Inspection.

On 20<sup>th</sup> March we visited site to have a catch up and see what improvements have been put in place following actions from RASCARs through the year. We found processes at site and housekeeping had improved following our actions and recommendations.

### Teleconferences with area groundwater specialist.

We have had various meeting over the last few months with the Operator regarding groundwater and Land Quality Management (LQM). In March 2019 we held a teleconference with LQM experts from Magnox to further discuss groundwater monitoring at site. Magnox had previously sent our specialist the Dungeness A rationale for routine groundwater monitoring. Our recommendations and observations have been fed back to the Operator for their response.

### Application for permit variation for Dungeness A.

We have not been able to issue the permit due to a query from the Nuclear Industry Liaison Group over one of the conditions in the new permit template. This query has now been answered by

customer service line  
03708 506 506

incident hotline  
0800 80 70 60

floodline  
0345 988 1188  
0845 988 1188

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our policy team and we expect to issue the permit in due course.

#### South East sites Waste teleconference.

On 4<sup>th</sup> March 2019 we dialled into a joint Magnox, EA and ONR meeting on waste strategy at South East sites. This meeting discusses how waste disposal is optimised and managed at the sites (Dungeness A, Sizewell A and Bradwell) and provides a forum for Operator and Regulator feedback.

### **Dungeness B**

#### Low Level Waste

In March we attended to site to take some samples of low level waste that is intended for disposal to Tradebe for incineration. We intend to have these samples analysed by our own laboratory to provide independent assurance of the amount of radioactivity in the waste that is being sent for disposal.

In April we carried out an inspection jointly with ONR which focussed mainly on solid low level waste. The aim was to assess the progress the station has made to put in place and sustain improvements necessary to address the non-compliances with the Environmental Permit that we identified in May 2018.

We covered the following main topics of interest during the inspection: dispatch programme, inventory and storage; Waste Acceptance Criteria; resources; and waste characterisation.

The station has made significant progress since our inspection in May 2018 and we acknowledge that it has taken a lot of effort to achieve these improvements. Further work is essential to embed and sustain the milestones achieved so far. We are encouraged to see Senior Leadership commitment to the improvement strategies and actions.

## **Other News**

### **Implementing Geological Disposal**

On 19th December 2018, BEIS published the policy paper *Implementing Geological Disposal: Working with Communities: An updated framework for the long-term management of higher activity radioactive waste*. This document sets out the Government's overarching policy framework for managing higher activity radioactive waste through implementing geological disposal and how it will work with communities to find a location for a geological disposal facility (GDF). Alongside this policy paper, the Government also launched a new national consent-based process in England to find a site to host a GDF. Radioactive Waste Management Limited (RWM) is responsible for implementing geological disposal and it will lead the siting process.

The Environment Agency will regulate a GDF jointly with the Office for Nuclear Regulation (ONR). The Environment Agency is responsible for making sure that the developer and operator of a geological disposal facility (GDF) in England meets the high standards we have set to protect people and the environment, both now and in the future. Our role is described in more detail at:

<https://www.gov.uk/guidance/regulating-the-geological-disposal-of-radioactive-waste-environmental-protection>.

The Environment Agency will not be involved in the decision to select a potential site for a GDF although we will be available to provide information and advice to communities on environmental protection and the regulatory process.

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General Enquiries Tel. 03708 506 506

Floodline Tel. (24 hour service) 0345 988 1188

Pollution incidents should be reported to our Incident Hotline on 0800 80 70 60 (24-hour service).  
<https://www.gov.uk/report-an-environmental-incident>

## Flood Alert



What it means  
Flooding is possible. Be prepared.

### What to do

- Be prepared to act on your flood plan.
- Prepare a flood kit of essential items.
- Monitor local water levels and the flood forecast on our website.

## Flood Warning



What it means  
Flooding is expected. Immediate action required.

### What to do

- Move family, pets and valuables to a safe place.
- Turn off gas, electricity and water supplies if safe to do so.
- Put flood protection equipment in place.

## Severe Flood Warning



What it means  
Severe flooding. Danger to life.

### What to do

- Stay in a safe place with a means of escape.
- Be ready should you need to evacuate from your home.
- Co-operate with the emergency services.
- Call 999 if you are in immediate danger.

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