

# Environment Agency Nuclear Regulation Report to Dungeness Site Stakeholder Group



October 2015 – January 2016

## Introduction

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

## Nuclear regulation

Phil Fahey is the lead regulator for the Dungeness A site.

Jo Moakes is the lead regulator for the Dungeness B site.

Phil and Jo work in the Nuclear Regulation Group (South) and liaise with colleagues based in Kent in regulating the Dungeness sites.

## 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 Radioactive Substances Compliance Assessment Reports (RASCAR) which details our inspections and any non-compliance found; they are placed on the Public Register.

We undertook site visits to Dungeness A on 20 and 21 October and 20 and 21 January 2016.

We made site visits to Dungeness B on 22-23 October, 3-4 December 2015 and 11-12 January 2016.

Regular contact is also maintained with the site by telephone and email in addition to formal correspondence.

## Discharge reports

Both Dungeness sites are required to report to us liquid and gaseous discharges to the environment and transfers of radioactive wastes 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 our Environmental Permit.

## Environmental monitoring

The operator carries out environmental monitoring for various media at set intervals and reports the information to us. One of the media that the operator samples using 'passive shades' is particulate (dust) on a monthly basis. Passive shades comprise of sticky paper/fabric which are suspended on a pole approximately 1.5 m from the ground. There are eight of these within the site boundary and a further seven within 1 km of the site. Particulate (dust) blowing around the site which sticks to the paper is analysed in the laboratory.

We received a notification from both sites in relation to one of the passive shades showing slightly elevated although still very low levels of cobalt-60 in November 2015. The operator has carried out an investigation and we are satisfied that it indicates that the passive shade was likely to have been cross-contaminated.

## Current regulatory issues

### Dungeness A

In October we undertook an inspection of asset management at Dungeness A on 21 October 2015. There were some recommendations but no non compliances noted during the inspection.

### Ponds decommissioning

The human diver trial has been put back until at least February 2016. However removal of low level waste skips from the ponds continues. Pond skips were used to store fuel and other material in the ponds. The skips are radioactive due to their time in the ponds and need to be disposed of as radioactive waste. The skips are removed and disposed of off-site. Skips that are at an intermediate level waste level will be removed from the pond at a later date.

We are still having discussions with Magnox as to the final disposal routes of waste from the ponds.

#### Fuel Element Debris (FED) treatment plant

The last amount of FED from Dungeness is still being processed in the FED plant. This will continue until there is no residue remaining. Once finished, the plant will be placed into a safe state.

#### Sewage treatment plant

It is planned that a new sewerage plant for Dungeness A will be in place by the end of the financial year. The old works will still take discharges from Dungeness B for the present.

### **Dungeness B**

#### Control of Major Accident Hazards (CoMAH)

The ammonia tank on the site which was observed the joint CoMAH inspection with the Health and Safety Executive in 2014 to have visible corrosion present has now been replaced. Some repairs have also been made on the associated pipe-work as some was found to be corroded when the lagging was removed.

The operator has revised their Emergency Plan in relation to incidents involving chemicals and oils. The operator is planning to test these arrangements in 2016 which we fully support.

#### Liquid radioactive waste

The operator contacted us in November as the contractor that was booked to carry out the third party Monitoring Certification Scheme (MCERTs) monitoring of the flow meters to comply with the environmental permit was unable to attend site. We now expect that the inspection will be carried out either this month or early February 2016.

#### Combustion plant inspection

We carried out an inspection of the combustion plant and noted some areas of good practice in the areas of resource efficiency so that nuclear safety testing of plant coincides with gaseous monitoring and the application of diagnostic tools to determine plant health.

We did note that some of the plant was visibly corroded in places and made some recommendations on how the operator might best address this.

#### Environmental Maintenance System

We carried out a joint inspection with the Office for Nuclear Regulation (ONR) on 3-4 December 2015. We observed that there was a discrepancy in the implementation of the Environmental

Maintenance System (EMS). We are going to re-examine the EMS and how this links with usual station procedures in a joint inspection with the ONR in February 2016 to assure ourselves that this is being managed appropriately.

#### Essential Cooling Water recirculation system leak

The operator has carried out a thorough investigation into a leak of essential cooling water which is dosed with anti-fouling chemicals. The operator has produced a comprehensive list of actions including management controls and a design modification to the plant which we are satisfied will prevent a reoccurrence of this event.

#### Tritium in groundwater – July 2014

As discussed in previous SSG meetings, the operator notified us and ONR in July 2014 that groundwater samples taken from borehole 66 was well above the investigation level of 100 Bq/l. [It should be noted that the investigation level is not a limit set in the Environmental Permit but an agreed level of activity that the operator will investigate based on the UK Drinking Water Inspectorate guidance]. The last five weeks of results that has been supplied by the operator show that levels of tritium have fallen below 100 Bq/l. We will be liaising with ONR and the operator in relation to revising the sampling programme based on these results.

#### Actions following the Dump Water Storage Tank leak in December 2014

We followed up on the outstanding actions that were placed on the operator following the leak from the DWST's in our inspection this month. It should be noted that the actions related to revising operating procedures, repairing one of the leaks identified and inspecting de-lagged pipe-work. This was completed to our satisfaction. One outstanding action was to complete the permanent repair on the DWST pipe-work by end of December 2015. Due to nuclear safety requirements the plant isolation could not be progressed so we have therefore agreed a new deadline of the end of this January to complete this work. In the meantime the operator confirmed that the leak site would continue to be managed so as to prevent any discharge into groundwater.

#### Tritium in groundwater – November 2015

We received a notification from the operator that the borehole [109] adjacent to the DWST had elevated levels of tritium above the investigation level. We are currently investigating this to understand whether this is related to the current

pipe-work leak or whether there is the potential of another leak site.

## **Eels Regulations**

We reviewed the Eels Regulations submission in September 2015 in compliance with the time-scale specified in the permit. We asked the operator for further clarity on specific sections of the report a copy of which we received at the start of December 2015. We are expecting to complete our assessment by the end of this month and issue all the relevant paperwork by March 2016. We will report the outcome of this in the next SSG meeting.

## **Beach Feeding**

We commenced beach feeding in the first week of January after liaising with EDF E NGL, Kent County Council, Shepway District Council and Natural England. The shingle recycling works will be ongoing until the end of March 2016.

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