

Environment Agency Report to the Dungeness Site Stakeholder Group

February 2021

Introduction

This report covers our regulation of Dungeness A and B Sites and related environmental matters over the period November to January 2021.

Coronavirus: Nuclear site regulation operational update

The Environment Agency's priority remains to protect people and the environment. We have set out how we are doing this (i) across the many areas we regulate, advise or interact with the public, for example, flood defence, flood warning, environmental sampling, permitting, angling and fisheries, waterways management and billing (see [GOV.UK](https://www.gov.uk)).

In brief:

- We are fully operational, with the majority of our staff working from home.
- Our frontline staff have returned to near normal regulatory work including physical inspections.
- We have published a series of temporary regulatory position statements (RPSs). RPSs are national arrangements that allow for limited relaxations of regulatory requirements provided Operators meet certain circumstances and conditions. They clearly set out the standards that Operators must meet. We will continue to review the RPSs issued at the beginning of the pandemic and will extend or withdraw as necessary.

Please see our published statement for further information (i).

Radioactive Substances Regulation

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 undertaking regular inspections. These are recorded on Compliance Assessment Reports which detail our inspections and any non-compliance(s) found.

We last visited Dungeness A on our asset management inspection with ONR on 12th to 14th October 2020.

We undertook a regulatory visit to Dungeness B on the 16th and 17th of December 2020.

We also maintain regular contact with the sites by remote means in addition to formal correspondence and visits to the sites.

Site Regulation

Dungeness A

We are in regular contact with the Head of Radiological Protection and Environment to ensure that we are kept in touch with progress on decommissioning, progress on actions and recommendations and any emerging issues at the site.

Inspections:

In December 2020, we wrote to the Operator to request information to assure ourselves that the Operator is maintaining adequate arrangements and the highest standards of environmental protection for any remaining period of the COVID emergency. We asked for information on 5 themes:

1. Capacity and capability of the Radioactive Waste Advisor/Environmental SQEP resource
2. Impact of prioritisation of EMIT (Examination, Maintenance, Inspection and Testing) for environmental equipment, and plans to maintain EMIT going forward
3. Discharge monitoring and reporting techniques: adequacy of any modified arrangements due to depleted resource for sample collection (e.g. filter changes), and/or reduced analytical capacity
4. Environmental monitoring programme: adequacy of any modified arrangements due to resourcing, availability of supporting capabilities, staff protection measures.
5. Waste consignments: adequacy of any modified arrangements due to resourcing, availability of supporting capabilities.

We have received the responses from the Operator and are reviewing these.

Response to COVID 19.

We are still maintaining contact with the Operator on a regular basis. We have regular updates of the COVID situation at site.

The Environment Agency has created regulatory position statements (RPS) to assist Operators with issues of non-compliance with specific permit requirements that are unavoidable because of the emergency.

In November 2020, we agreed an RPS corporately with Magnox to cover all their English sites that may be used if required (RPS C-21, reporting for installations, radioactive substances and waste permits). This was in case there were any issues arising with delayed reporting of any required environmental information to us because of the COVID emergency.

Dungeness A is not using any RPS at the present time.

Aqueous waste discharges and the MAETP.

Dungeness A is preparing to use a new modular active effluent treatment plant (MAETP) to meet its ongoing waste treatment needs and facilitate decommissioning of the existing active effluent pond water treatment plant.

We received initial waste acceptance criteria for the modular active effluent treatment plant (MAETP) in January 2021. We have made some comments and are awaiting a response from the Operator to these comments. We are still liaising regarding environmental performance criteria for the plant.

We are having a meeting planned for February 2021 with the Operator to review the aqueous waste strategy going forward.

The Operator has made an application for a permit variation to permit aqueous waste from the reactor voids to enter a discharge route direct to the surface water drains (see below). Our national permitting service are determining this application.

Engagement with the Operator regarding the turbine hall void.

The Dungeness A turbine hall void was partially filled with crushed concrete and rubble following the demolition of the turbine hall in late 2014. The Operator needs to complete filling in the turbine hall void to facilitate the safe siting of a crane to enable the decommissioning of the boilers.

Water has been pumped from the void since the material was placed there in order to prevent high pH leachate from entering and mixing with groundwater.

Following a review of risk assessments provided by the Operator we have reached an agreement in principle to allow the material in the void to remain and to stop pumping out the water that collects there. The Operator's risk assessments suggest that the risk to the environment is low. We have asked the Operator to continue to monitor the situation and to ensure there are no unexpected environmental concerns.

We are still in conversation with the Operator regarding the proposed way forward. We have reserved the right to look again at the regulatory status of any agreement if the Operator does not put adequate arrangements in place to manage any change to the environmental risk. We believe this may represent a pragmatic solution to the problem of what to do with the material in the void.

We have asked the Operator to present this issue to the SSG at this meeting.

Joint EA/ONR meetings with the Operator.

We had a remote regulatory meeting with the Operator and ONR on 14th December 2020. We discussed future strategies and lifetime plans for the site, waste projects and various other decommissioning topics. These meetings ensure the regulators can discuss issues at site together with the Operator.

We also have monthly meetings to discuss COVID issues, significant events and learning over the past month, a brief update on projects and programmes and upcoming Regulator inspections.

Other issues.

We continue to liaise with the Operator regarding other projects at site including environmental awareness, the borderline wet waste project and the waste in the reactor voids. We have been pursuing the report from the national grid on the fire that took place in the substation in June 2020.

Dungeness B

Radioactive Substances Regulation

Site Inspections

In December 2020, we conducted a solid low level radioactive waste inspection, during which we assessed:

- i. The adequacy of waste segregation and storage arrangements
- ii. The condition of waste containers

There was good housekeeping in all the areas inspected. The waste containers we inspected appeared to be in good condition with no evidence of damage or degradation. We were concerned about some waste segregation activities in the Fuel Route Facility. We identified two non-combustible waste drums containing very small quantities of combustible paper and plastic waste. As these were minor cases of inadequate segregation, we did not record a permit non-compliance but left a recommendation for Environmental Safety Group to work with Fuel Route Group to develop workable options to improve waste segregation. We will track the implementation of our recommendation to ensure waste management practices improve in the Fuel Route Facility. We reiterated that our position might change if we found similar or worse waste management practices during future inspections.

Events and Enforcement

Dungeness A.

Nothing to report.

Dungeness B

Nothing to report.

Annual Review of Safety and Environment

Nothing to report.

Environmental Permitting

Dungeness A

Radioactive Substances Regulation

Water discharge permit

Our National Permitting Service (NPS) are determining a variation to place the discharge from the turbine hall void water onto the permit. We have determined that this water which is discharged to sea needs to be included in the site water discharge permit. This application is also considering the proposal to discharge waste from the reactor voids to the surface water drains (see above).

Compilation of Environment Agency Requirements and Specifications (CEAR).

In January 2021, we issued version 8 of the Dungeness CEAR. The CEAR provides information on how to comply with permit conditions with specific details of our requirements for compliance. This changes to the CEAR were to specify when a waste management plan and site wide environmental safety case are required under the GRR (Management of radioactive waste from decommissioning of nuclear sites: Guidance on Requirements for Release from Radioactive Substances Regulation) conditions and to clarify the procedure in the event of the Environment Agency contactor not being available when the witness samples are due.

Dungeness B

Nothing to report

Discharge Reports

Both sites are required to report to us liquid and gaseous discharges to the environment on a monthly basis. Liquid and gaseous discharges from both Dungeness sites remain within the limits set by the Environmental Permits.

Dungeness A

Dungeness A has submitted the gaseous and liquid waste discharge returns required to us. We have reviewed discharge returns covering the period November 2020 to January 2021 and did not identify any unusual trends.

Dungeness B

Dungeness B has submitted the gaseous and liquid waste discharge returns required to us. We have reviewed discharge returns covering the period November 2020 to January 2021 and did not identify any unusual trends.

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 for the two sites are slightly different to reflect the radionuclides that are being discharged, the historical discharges and the operational activities taking place at each site. Dungeness B continued with the taking of samples for both of the programmes during the COVID-19 emergency.

Dungeness A

Dungeness A has submitted the Environmental Monitoring returns required to us. We reviewed the environmental monitoring returns for the period November 2020 to January 2021 and did not identify any unusual trends.

Dungeness B

Dungeness B has submitted Environmental Monitoring returns required to us. We reviewed the environmental monitoring returns for the period November 2020 to January 2021 and did not identify any unusual trends.

Radioactivity in Food and the Environment (RIFE)

Nuclear sites are required to carry out a rigorous environmental monitoring programme that requires the operator to monitor and assess the impact of their discharges on the environment.

Additionally, the Environment Agencies and Food Standards Agency carry out independent environmental monitoring around nuclear sites. The results of this work are published in our annual RIFE report (ii).

In the RIFE report, the Dungeness sites are considered together for the purposes of environmental monitoring because the effects of both are on the same area. The report presents a yearly assessment of radiological dose to the group of people in the local population who are most exposed to radiation from the sites. In the latest report for 2019 (RIFE-25), the total radiation dose to this group of people as a result of discharges and radiation shine from the sites was very low at 0.037 mSv/year.

As in previous years, the 0.037 mSv/year dose at Dungeness in 2019 was almost entirely from direct radiation shine. In comparison, the doses from 2008 – 2019 ranged between 0.014 mSv/year and 0.040 mSv/year.

The dose of 0.037 mSv/year is less than 4% of the Government dose limit of 1 mSv/year and an even smaller percentage of the average amount of radiation we all receive from natural sources, which is approximately 2.2 mSv/year.

Further information

Further information on our role in regulating the use of radioactive substances and related activities on nuclear licensed sites can be found on the Environment Agency section (iii) of the GOV.UK website.

The Environment Agency's Lead Regulator for the Dungeness A site is Phil Fahey. The Environment Agency's Lead Regulator for the Dungeness B site is Eddie Osondu.

Eddie and Phil are Nuclear Regulators and part of the Nuclear Regulation Group (South) based at the Environment Agency's Wallingford office in Oxfordshire.

The EA's Nuclear Regulators undertake environmental regulation of radioactive substances on nuclear licensed sites in southern England. They work closely with the local Environment Agency teams in those areas as well as external bodies such as the Office for Nuclear Regulation.

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i. <https://www.gov.uk/government/news/coronavirus-environment-agency-update>

ii. <https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-rife-reports>

iii. <https://www.gov.uk/government/publications/nuclear-regulation-in-the-environment-agency>