

Permitting decisions

Part surrender

We have decided to accept the surrender of part of the permit for Alderley Park Energy Centre operated by Veolia Energy & Utility Services UK Plc.

The permit number is EPR/XP3139BM.

The part surrender number is EPR/XP3139BM/S005.

We are satisfied that the necessary measures have been taken to avoid any pollution risk and to return the site to a satisfactory state. We consider in reaching that decision we have taken into account all relevant considerations and legal requirements.

Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

This decision document provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account

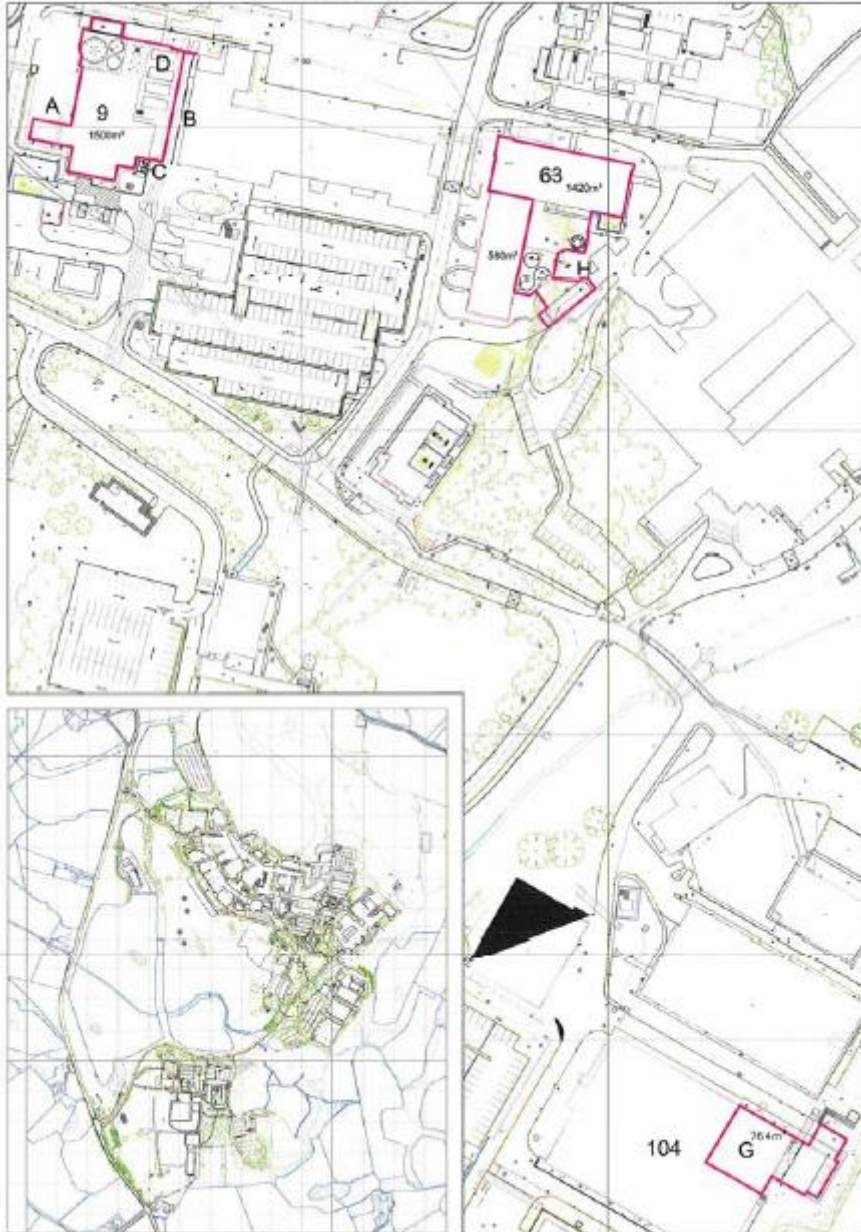
Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the surrender notice. The introductory note summarises what the notice covers.

Key issues of the decision

Pollution Risk

Alderley Park Energy Centre is located at Alderley Park at Alderley Edge, approximately five kilometres northwest of Macclesfield. Prior to the development of the combustion plant the site was a green field site. The original installation boundary within which the boilers were located was obtained from the permit. See map below for site layout plan.



The principal permitted activity carried out at the installation is the burning of natural gas (gas oil for back up) in high pressure hot water (HPHW) boilers and steam boilers with a combined rated thermal input of over 50 megawatts thermal (MWth). There are three boiler buildings within the permit boundary, Block 63 (five HPHW boilers and four steam boilers), Block 9 (seven HPHW boilers and four steam boilers) and Block 104 (two steam boilers).

Block 104 boiler house and all plant and land associated with the boiler house has been surrendered. The emission points to air (A11 and A12), water (Block 104 drainage) and sewer (S2) associated with the boiler house have also been surrendered.

The remaining Block 63 consisting of the five HPHW boilers and four steam boilers with a combined thermal input of 85 MWth. Block 9 consists of seven HPHW boilers and four steam boilers but is currently mothballed and not in operation.

The potential sources of contamination associated with the activities permitted for operation in Block 104 are listed below:

- gas oil stored in the boiler house; and
- boiler water chemicals stored in the boiler house.

No other liquid materials were stored in the boiler house.

Spillage during delivery and failure of containment leading to spillage onto land were the primary hazards associated with the potentially contaminating substances.

The 56,000 litre oil storage tank had an external bund with a 125% tank capacity. The bund was inspected on a daily basis and an annual bund integrity test was carried out in line with the Site Protection Monitoring Plan (SPMP). There was an ultrasonic level monitor in the tank to prevent overflow.

Site Condition

The operator submitted a Site Condition Report, dated August 2016, in the partial surrender application which included details of the condition of Block 104 at closure. The main elements of the report are summarised below.

Environmental Setting

The site is situated within the North Cheshire greenbelt and the majority of the site is parkland and woodland.

Changes to Activities

There have been no changes to the activities since permit issue. No additional dangerous or potentially polluting substances were introduced to the site during the operation of Block 104.

Measures Taken to Protect Land

The permit required the development of a SPMP and maintenance of the installation during operation. The Environment Agency considers that the preventative measures implemented during the operation of Block 104, including those incorporated into the SPMP, were satisfactory and demonstrate that significant pollution of the land at the installation has been prevented.

The site operates an Environmental Management System (EMS) certified to ISO 14001 and all infrastructure is subject to preventative maintenance inspection incorporated into the EMS.

Pollution Incidents

In November 2003 an oil spill occurred at Block 104. Between 6,000 and 7,000 litres of oil leaked from a corroded underground pipe leading from the storage tank. A large volume of the oil was contained within an oil interceptor; however an unknown quantity passed through. Initial investigative and remediation works took place immediately after the event. A trench was dug along the underground leaking fuel pipe and all contaminated soils were removed into skips for disposal offsite. Fuel oil was found to have contaminated made ground around the pipe and was lying on top of a natural clay layer in the base of the trench. The underground oil pipeline was replaced with an above ground pipe.

No sampling of shallow made ground at Block 104 was proposed, therefore no data to ascertain the lateral extent of fuel oil from the leak was collected at the time. Previous reports found that fuel oil was pooling on the surface of the clay at around 0.5m below ground level (bgl) but the lateral extent of this contamination was never reported.

Follow-up Investigations

Repeat intrusive investigation was undertaken in 2016, in accordance with SPMP requirements, to monitor soil and groundwater contamination in Block 104 fuel storage area for the permit surrender. New sampling locations were drilled as the tubes used for previous investigations could not be located. Wells were located as near as possible to the previous locations. Soil samples were therefore not of previously disturbed ground and considered to be representative of the surrounding soil conditions.

Low concentrations of hydrocarbons were detected in soils at three of the five sampling locations to a maximum sampled depth of 9.5m bgl.

Groundwater concentrations of hydrocarbons were shown to have increased slightly since sampling in 2008. However, the results were of a similar order of magnitude and did not show any concentrations likely to pose a significant risk to the wider environment. The results did demonstrate that 13 years after the spill there was an ongoing slight impact to the soil and groundwater in the area of Block 104. Therefore the land was not in the condition that it was at the time of permit issue.

A Contaminated Land Exposure Assessment (CLEA) model was used in order to assess the risk to human health from the hydrocarbons in soils; however no controlled waters risk assessment was carried out. The CLEA assessment concluded no risk to human health.

As there was the potential for residual shallow hydrocarbon contamination to be present in the shallow made ground in the area of Block 104, which could be mobilised by the removal of hardstanding and tanks during decommissioning, the Environment Agency considered that additional data was required in order to demonstrate the land could be considered to be in the same condition that it was at the time of permit issue (i.e. greenfield with no hydrocarbon contamination suspected).

Although it was considered that low levels of hydrocarbons detected in deeper soil and groundwater samples were unlikely to pose a risk to the wider water environment under current site conditions, removal of the tank and hardstanding could potentially increase rainfall infiltration and therefore the possibility that a hotspot of hydrocarbon contamination remaining in the shallow made ground in the area around and below the tanks could be mobilised. Therefore the surrender of the land could not be agreed without further investigative work. It was recommended to the operator that for the purposes of permit surrender, further soil sampling and analysis should be carried out once the tank was decommissioned and removed in order to determine whether the site could be considered to be in a similar condition to as it was at time of the permit surrender.

To address the above concerns, the operator provided a proposal to undertaken additional intrusive works. The scope of the requirements was agreed with the EA at a meeting held on 7 March 2017.

Following the completion of decommissioning works on site, additional intrusive works were undertaken on 14 July 2017. Six trial pits were dug to investigate whether any residual contamination was present in shallow soils located beneath the former underground oil pipe which leaked.

The findings of the additional works are documented with the report prepared by ESG Ltd reference: *Site Condition Report in Support of the Permit Surrender Application' dated July 2017 (Ref: R7315/SCR)*.

The majority of soil samples recovered from trial pits TP1 – TP6 recorded negligible concentrations of hydrocarbons apart from soil samples recovered from trial pit 3. However, the results for TP3 are of a similar order of magnitude to the results previously recorded for soil samples recovered at depth and are unlikely to pose a risk to either human health or controlled waters. Given that the concentrations recorded are not dissimilar to those recorded on greenfield sites, we are satisfied the condition of the land has not deteriorated during the life of the permit and is in a satisfactory state to be surrendered.

Decommissioning and Removal of Pollution Risk

The operator confirmed in the supporting information submitted with the partial surrender application that

- all permitting activities at Block 104 ceased in November 2016;
- all decommissioning work has been completed; and
- all pollution risk, associated with Block 104, has been removed from the site.

Block 104 and associated equipment were decommissioned in the manner outlined in the Site Closure and Decommissioning Plan. The decommissioning involved removal of the HPHW boilers which were disposed of by a specialist waste contractor. The steam boilers were removed by a hazardous waste contractor. The building fabric was removed via a contractor and recycled appropriately. The waste water from the boiler systems were drained and discharged to foul sewer.

Condition of the Site at Closure

The operator has confirmed that:

- all permitted activities at Block 104 have ceased;
- the pollution risk has been removed; and
- no significant pollution has resulted from the permitted activities indicating that the condition of the land has not deteriorated during the lifetime of the permit.

A final site visit of the area to be surrendered was completed by the site officer on 10 October 2017. This was to confirm that decommissioning work had been carried out according to the operator's decommissioning plan and to confirm that all associated infrastructure and pollution risk had been removed from the site. A copy of the Compliance Assessment Report (CAR) (Ref: BS2879IC/0294912) is available on our public register.

The site officer confirmed that Block 104 has been demolished completely along with the boilers, diesel tank, bund and all associated infrastructure including the diesel pipeline. Demolition material has been removed from the site but some soils have been retained for reuse on site. In addition, the gas, steam and electricity supply have been disconnected and pipework removed from the area. The pumped drainage to foul sewer has also been turned off. The surface water drains alongside and in front of where Block 104 was, are still in place, as is the interceptor half way down the main road that ran in front of the buildings. The road and the surface water drains are to be removed as part of the change of use to residential house building in the near future. The interceptor and surface water drains are outside of the permitted area. There are stockpiles of soils in the vicinity of the permitted area but not in or on it. These soils are clean, ready for re-use in the construction site.

Unmade ground and soil below the level of the existing access road is all that is left of the permitted area with all infrastructure removed, and there are no visible or odourous signs of any hydrocarbon contamination in this permitted area.

Conclusion

We are satisfied that the decommissioning activities were conducted in a way that the risk of pollution was minimised and that no impact on the underlying land occurred as a consequence of these activities. We therefore agree that the pollution risk has been removed and that the preventative measures in place protected the site from deterioration. We are satisfied that the necessary measures have been taken to avoid any pollution risk and to return the site to a satisfactory state.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
The facility	
The regulated facility	<p>The permitted regulated facilities have not changed as a result of the partial surrender.</p> <p>The installation still remains a scheduled 1.1 A(1)(a) activity with block 63 consisting of five HPHW boilers and four steam boilers with a combined thermal input of 85 MWth. Block 9 consists of seven HPHW boilers and four steam boilers but is currently not in operation.</p> <p>Following this variation only block 104 including associated plant and land have been surrendered as per the revised site plan.</p>
The site	
Extent of the surrender application	<p>The operator has provided a plan showing the extent of the site of the facility that is to be surrendered.</p> <p>We consider this plan to be satisfactory.</p>
Pollution risk	We are satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility. See Key Issues above for further details.
Satisfactory state	<p>We are satisfied that the necessary measures have been taken to return the site of the regulated facility to a satisfactory state.</p> <p>In coming to this decision we have had regard to the state of the site before the facility was put into operation.</p>
Permit conditions	
Changes to permit conditions as a consequence of the surrender	<p>The permit conditions have changed as a result of the partial surrender.</p> <p>Condition 1.2.1 referencing the site plan is amended.</p> <p>Table 1.1.1 referred to in condition 1.1.1 is amended.</p> <p>Table 2.2.1 referred to in condition 2.2.1.2 is amended.</p> <p>Table 2.2.2 referred to in condition 2.2.1.3 is amended.</p> <p>Table 2.2.4 referred to in condition 2.2.2.3 is amended.</p> <p>Table 2.2.7 referred to in condition 2.2.2.7 is amended.</p> <p>Table S2 referred to in condition 4.1.2.1 and 4.1.2.2 is amended.</p> <p>The site plan is amended to reflect the new installation boundary.</p>