



Demolition of FCHP Units 2&3: Ecological Survey

NOVEMBER 2023
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Title: Habitat and Ecology Survey and Consideration of Environmental Impacts of Proposed Demolition Methodology: Demolition of Fellside Power & Steam Generating Units 2 and 3 comprising of (Waste Heat Recovery boiler (WHRB) & Gas turbine (GT) at Fellside Combined Heat and Power (FCHP) Plant

Introduction

Units 2 and 3 are situated at the southeast of the Fellside site and have been redundant since 2019 and 2020 respectively. Until recently, a decision on whether to retain or demolish has been deferred due to various factors, including competing cost constraints, and consideration that preservation in-situ could provide additional resource/ spares for the remaining operational Unit 1. However, rates of degradation on the redundant units have resulted in increasing maintenance costs and re-evaluation of this position on conventional safety grounds. Therefore there is now some urgency to reduce the height of the WHRB towers back to ground level to improve this situation.

Site Description and Scope of Survey

The purpose of this report is to record the findings of a preliminary ecological assessment of the demolition site and surrounding area; and to identify any potential constraints/ controls recommended to mitigate potential negative ecological impacts.

This report does not consider other environmental aspects/impacts of demolition work. Lloyds Engineering Report [Ref 1] and px OMST report summary [Ref 2] include information on the method of demolition and consideration of wastes. The contractor RAMS will be reviewed, and environmental aspects/impacts of the demolition work itself is expected to be addressed within these.

The demolition site is situated within Fellside Combined Heat and Power Plant (FCHP) which is near the Sellafield (SL) Calder Gate entrance. Its position on the Fellside site is outlined in Appendix One and is an area of less than 3000 square meters, covering a compact footprint well within the boundaries of the FCHP facility. It is situated on made tarmacked/ gravelled land between Unit 1 and the Steam Turbine Hall.

The FCHP site is situated only a couple of kilometres from the coast of the Irish Sea, and is bordered from the South-West, West, North to North-East by the main Sellafield site. The Eastern and South-Eastern land adjoining the site comprises of some rough pasture, and heathland with some sparse tree cover. A portion of this land is SL-managed landfill area, and the remainder is farmland.

There are two structures to be demolished: units 2 and 3.

These are both approximately 42 meters in height, and comprise of semi open steelwork, aerial emissions stacks, and boiler components.



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At ground level, the direct demolition site and surrounding areas are prepared surfaces, being a mixture of predominantly tarmacked areas with some smaller gravelled areas.

Survey Findings Discussion

All accessible areas of both structures, from ground level up to and including the uppermost 32-meter level have been inspected for signs of habitation in November 2023.

Relevant legislation is noted in Appendix Two, and consideration of potential impacts to animal and plant species is discussed below.

Corvids and gulls are occasionally seen to alight on all the higher structures at Fellside, and the nearby Sellafeld site buildings. Although some very minor evidence of bird guano was seen on some open parts of the structures, which is to be expected on externals of buildings, no accumulations of guano/droppings which would suggest regular roost/rest sites were observed. No nests, or nesting materials were observed on any of the levels of the two structures planned for demolition.

At ground level, no nests, burrows, holes, or droppings were observed.

No mammals including bats, mice, rats, rabbits were observed, and none have been observed in this area. There are occasional sightings of feral cats on the Fellside site, though none reported in this area. These are believed to be associated with nearby farms/ the SL site, and none are known or thought to be resident on the FCHP site.

No reptiles or amphibians or evidence of habitats were observed at the demolition site.

It is known that adders are common on nearby open heathland and rough pasture grassland near the coast and an adder has been observed on the Fellside site in the past.

Natterjack toads and newts are known to populate areas along the River Calder including at Sellafeld, but no evidence of habitats exist on the FCHP main site or at the nearby px managed aqueous outfall, which discharges to a short length of unnamed beck before returning to an SL managed engineered drainage route to the Calder Interceptor Sewer. This in turn is discharged to the Irish Sea.

Protected species of animals / plants

As discussed above, the lack of any evidence of habitat formation of any kind indicates that the demolition poses no risk to any species of animals, and therefore any protected species of animals.

Plant life is minimal and limited to very small amounts of lichen, grasses. No protected or invasive species of plants were observed at the demolition site or immediately surrounding area of the FCHP site.

Proposed Demolition Methodology: Impacts on surrounding environment/ wildlife.

The demolition is not planned to produce any effluents requiring disposal, being limited to dismantling and removal of already redundant assets, largely steelwork structures. Therefore, no impacts to the outfall unnamed beck are expected. Work will be carried out in day working hours, minimising effects of light/ noise pollution at night which may disrupt animal behaviours in the wider surrounding areas.



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Adjacent and Nearby Sites of Ecological Interest, including Designated Sites

Adjacent to the FCHP site, as discussed above, consists mainly of separately managed SL facilities/ land which is part of the main industrial site and a landfill area. Some of this is characterised by the open rough pasture and area of sparse tree cover mentioned. Beyond this is farmland, mainly pastureland. These areas do present some ecological value with trees and the rough pasture / heathland providing favourable habitats for numerous species; however the demolition work is not expected to impact any wildlife outside the site boundary.

Appendix 3 includes a list and an annotated diagram, of all designated sites within approximately 5 km radius of the FCHP site taken from The 'MAGIC' website [Ref 3], which provides authoritative geographic information about the natural environment from across government. The information covers rural, urban, coastal, and marine environments across Great Britain. As is shown in the diagram which forms part of the appendix, there are no directly adjacent designated sites, and as discussed above, the demolition activity is not expected to cause any impact outside the site boundary.

Conclusion

Based on the evidence and considerations as discussed, there are no ecological constraints that would prevent the demolition of Units 2 and 3, in accordance with the scope and methodology of the demolition plan references [Ref1 and Ref 2].

The potential for wildlife incursion is currently low but the longer these structures remain in a disused state with restricted human access, the more likely wildlife incursion is. Therefore, the demolition of these now-redundant assets supports best practice in preventing wildlife incursion and will also support improved wildlife management capability of the remaining operational aspects of the FCHP facility and surrounding area.

Recommendations

Consider scheduling the work as soon as possible: nesting season is officially 01 March – 31st July, although birds may look to nest earlier /later than this. There are currently no observed nests, although birds are occasionally seen to alight upon the structures. Should the work continue into nesting season, special attention should be paid to examining areas before phases of work continue, and consideration be given to employing deterrent measures. The contractor should be asked to specify in their Risk Assessments and Method Statement what action they will take in terms of pre checks of areas and of halting work, informing px and contacting a competent resource to advise, should any wildlife or habitats be discovered in the course of their work. Rentokil are the current contractor associated with pest and wildlife management for px on the Fellside site, and work should be stopped and Rentokil should be consulted if any nests/ other habitat or animals are found by px staff.

Operatives working on the demolition project shall be provided with toolbox talks and start of work briefs to ensure they are aware of appropriate action to take on the discovery of wildlife/ nests/ other habitats during of their work.



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References

1. Lloyds British Engineering Report A.8856 Rev A 10/05/2023
2. FELLISIDE CHP PLANT Demolition of WHRB's and GT's 2 / 3 November 2023
FCHP-OMST-REP 002 Rev 0
3. <https://magic.defra.gov.uk/magicmap.aspx>
4. Wildlife and Countryside Act 1981 (As amended) and associated guidance and schedules



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Appendix One

Fig 1 Site layout (excerpt from Lloyds Engineering Report A.8856 Rev A 10/05/2023)

shows the area in which the demolition will take place.

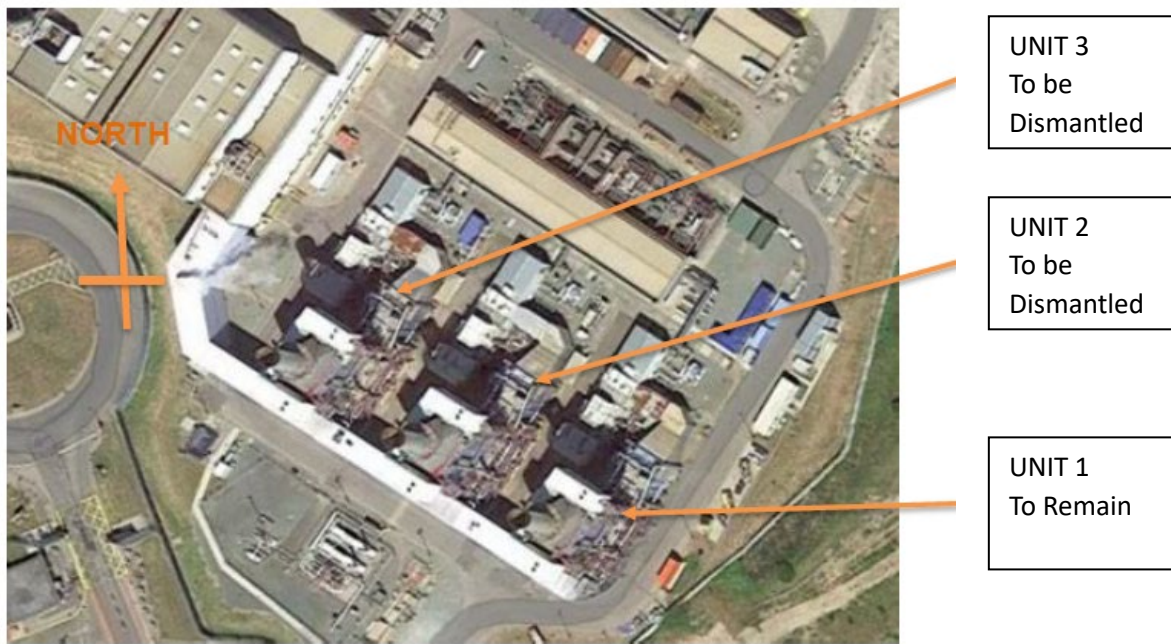


Fig 1 – Site Layout



Appendix Two

Relevant Legislation - Protected Species of Plants and Animals

Bats

Bats and their roosts are protected in England and Wales, the relevant legislation is the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010). It is an offence to:

Deliberately capture, injure, or kill a bat.

Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.

Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)

Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.

Intentionally or recklessly obstruct access to a bat roost.

Nesting Birds

The primary legislation for Protection of nesting birds in England and Wales is the Wildlife and Countryside Act 1981 (As amended) Part 1. It is an offence to:

Intentionally kill, injure, or take any wild bird.

Intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built.

Intentionally take or destroy the egg of any wild bird.

Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nestbuilding or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

The nesting season is officially 1st March to 31st July; however, it may extend beyond those dates.

Reptiles and amphibians

European Protected Species (which include the smooth snake, sand lizard, natterjack toad, pool frog and great crested newt) are protected via a combination of Regulation 41 of the Conservation of Habitats and Species Regulations 2010 and Sub-sections 9(4) b & c and Section 9(5) of the Wildlife & Countryside Act 1981 (as amended). These prohibit possession, deliberate capturing, injuring, or killing; deliberate disturbance of the animals themselves or habitats/ resting/ sheltering places / structures.

Small Mammals/rodents

Water voles are protected under the Wildlife and Countryside Act 1981. It is an offence to intentionally: kill, injure, or take them, possess, or control them (alive or dead). This includes disturbance or destruction of burrows or habitat. Due to lack of proximity to watercourses, it is unlikely any presence would be found. **Wildlife and Countryside Act Penalties:** Penalties that can be imposed for criminal offences contrary to the Wildlife and Countryside Act 1981 (as amended) are an unlimited fine, up to six months imprisonment or both. Similar penalties are set out under the Conservation of Habitats and Species Regulations (2017).



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Appendix Three

Magic maps nearby designated Sites – land and sea.

Site Check Report Report generated on Fri Nov 17 2023	
You selected the location: Centroid Grid Ref: NY04070368	
National Nature Reserves (England)	
Name	Reference
HALLSENNA MOOR	1006067
Sites of Special Scientific Interest Units (England)	
Name	Reference
SILVER TARN HOLLAS AND HARNSEY MOSSES	1058888
HALLSENNA MOOR	1058794
SILVER TARN HOLLAS AND HARNSEY MOSSES	1058889
HALLSENNA MOOR	1058795
LOW CHURCH MOSS	1084565
SILVER TARN HOLLAS AND HARNSEY MOSSES	1058890
HALLSENNA MOOR	1058796
SILVER TARN HOLLAS AND HARNSEY MOSSES	1058891
DRIGG COAST	1058708
DRIGG COAST	1058705
Special Areas of Conservation (England)	
Name	Reference
DRIGG COAST	UK0013031
Marine Conservation Zones (England)	
Reference	Name
UKMCZ0005-01	Cumbria Coast - Zone 1
UKMCZ0005-02	Cumbria Coast - Zone 2



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Special Areas of Conservation (Marine Components GB)	
UK Site Code	Site Name
UK0013031	Drigg Coast
Areas of Outstanding Natural Beauty (England)	No Features found
Ramsar Sites (England) - points	No Features found
Ramsar Sites (England)	No Features found
Special Areas of Conservation (England) - points	No Features found
Special Protection Areas (England) - points	No Features found
Special Protection Areas (England)	No Features found
Biosphere Reserves (England) - points	No Features found
Biosphere Reserves (England)	No Features found
Special Protection Areas (Marine Components GB)	No Features found



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MAGiC

Stat land and marine designations

