XXXXXXXX RAD Pilots – WAGR – Bat Survey Report

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Remediation Accelerated Decommissioning,
Sellafield Ltd,
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Executive Summary

Integrated Decommissioning Solutions (IDS) was commissioned by Sellafield Limited (SL) to undertake nocturnal bat surveys in connection with the proposed demolition of the Windscale Advanced Gas-Cooled Reactor Turbine Hall (AGRTH) within the Sellafield Site.

The Proposed Scheme is located within the north-western area of the Sellafield Site, near Seascale, Cumbria.

All species of bats and their roosts are protected under UK and European legislation. A summary of relevant legislation is provided in Appendix C.

The AGRTH was assessed as providing Moderate suitability for roosting bats and, as such, were subjected to two dusk emergence surveys, in line with good practice guidelines. Where potential roosting features were located at a height that was accessible from ground level, these features were inspected using an endoscopic camera and scoped out (if applicable) via this method.

No bats were recorded emerging from the AGRTH during either of the dusk emergence surveys. In addition, no foraging or commuting bats were recorded during either of the dusk emergence surveys.

Given the likely absence of roosting bats within the AGRTH, no further recommendations are provided.

Circulation List

Purpose of issue: 1 For comment
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History Sheet

Issue	Date	Reason for issue	Issued by
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Purpose

This Bat Survey Report details the scope, methodology, and results of detailed inspections and bat dusk emergence surveys on the AGRTH building and recommendations for further survey, mitigation, and licensing requirements (where required).

This report is intended to inform design development, site layout and/ or site investigations.

Abbreviations

IDS	Integrated Decommissioning Solutions	PRF	Potential Roosting Feature
SL	Sellafield Limited	TN	Target Note
PEA	Preliminary Ecological Appraisal		
PBRA	Preliminary Bat Roost Assessment	AGRTH	Advanced Gas-Cooled Reactor Turbine Hall
OSNGR	Ordnance Survey National Grid Reference		
CIEEM	Chartered Institute of Ecology and Environmental Management		

1 Introduction

Terms of Reference

Integrated Decommissioning Solutions (IDS) was commissioned by Sellafield Limited (SL) to undertake dusk emergence surveys in connection with the proposed demolition of tthe Windscale Advanced Gas-Cooled Reactor Turbine Hall (AGRTH) within the Sellafield Site (hereafter referred to as the Proposed Scheme). The Proposed Scheme is located within the north-western area of the Sellafield Site, near Seascale, Cumbria, as shown on Figure A.1 in Appendix A (hereafter referred to as the Site).

This report has been undertaken with reference to current good practice guidance[1,2,3] and details the scope, methodology, and results of detailed inspections and dusk emergence surveys on structures and recommendations for further survey, mitigation, and licensing requirements (where required).

This report is intended to inform design development, site layout and/ or site investigations.

Previous Reports

The Preliminary Ecological Appraisal (PEA) Report[4] details the Preliminary Bat Roost Assessment (PBRA) of the AGRTH at the time of the walkover survey, which was undertaken on 29 November 2023.

The Site

The Site is centred at Ordnance Survey National Grid Reference (OSNGR) NY 02530 04408 within the north-western extent of the Sellafield Site. Sellafield is located on the west Cumbrian coast, approximately 1.25 km to the north-west of Seascale and approximately 1 km south-west of Calder Bridge and the A595 Road.

The Site is approximately 4,760 m^2 in extent, plus the immediate surrounding environ (i.e. hardstanding made up of footpaths and roads). The turbine hall and associated office building are adjoined and comprise one single combined structure.

The building is five storeys tall and of brick and corrugated sheet construction. At the fifth storey, a walkway of metal construction on the eastern aspect links the building to the neighbouring nuclear reactor building. The surrounding habitat is predominantly hardstanding, with minor areas of modified grassland and introduced shrub present.

[1] Collins J. (ed.) (2024) *Bat Surveys for Professional Ecologists: Good Practice Guidelines. Fourth Edition.* Bat Conservation Trust, London.
[2] CIEEM (2013) *Competencies for Species Survey: Bats.* CIEEM, Winchester.
[3] Natural England & Defra (2015) *Bats: Protection and Licences.* Available at: https://www.gov.uk/guidance/bats-protection-surveys-and-licences
[4] AtkinsRéalis (2023) *DDP00720 RAD Pilots – WAGR. Preliminary Ecological Appraisal Report.*

The Proposed Scheme

At this stage, there is no detailed plan/ programme for the demolition, nor any facilitative works that may be required in the immediate area surrounding the Site. However, it is understood that the demolition footprint will include the AGRTH only. The reactor building immediately northeast of the Site will not be demolished at this stage, however, the walkway connecting the buildings located on the fifth storey, will be removed during the demolition. Once finalised, any plans or programme should be reviewed in line with the findings of this report.

Scope of the Assessment

This report presents ecological information obtained during the following:

- A dusk emergence survey of the AGRTH undertaken on 29 May 2024; and
- A dusk emergence survey of the AGRTH undertaken on 26 June 2024.

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2. Methods

Dusk Emergence Surveys

The AGRTH is identified as having potential suitability to support roosting bats (based upon the results of the PEA) and was subject to dusk emergence surveys to determine the presence/ likely absence of roosting bats.

Surveys were undertaken in accordance with good practice guidance[1] and CIEEM competencies for undertaking bat surveys[2].

Dusk emergence surveys were undertaken in the evening, from approximately fifteen minutes before sunset until up to ninety minutes after sunset. Surveyors were positioned around buildings (at ground level) to observe all visible potential roosting features (PRFs) on each building. Surveyor locations and PRF locations are included on Figure B.1 in Appendix B.

The AGRTH was assessed as providing Moderate suitability for roosting bats and, as such, were subjected to two dusk emergence surveys, accordingly.

The weather conditions and timing of the bat surveys are detailed in Table 2-1 below.

Table 2-1 – Survey conditions during dusk emergence surveys of the AGRTH.

Survey Date	Start/ End Time (Sunset time)	Start/ End Temp (°C)	Start/ End Wind (Beaufort scale)	Start/ End Precipitation	Start/ End Cloud Cover (Oktas)
29/05/2024	21:19 – 23:04 (21:34)	13 / 12	3 / 2	0 / 0	2 / 2
26/06/2024	21:38 – 23:23 (21:53)	20 / 18	3 / 3	0 / 0	8 / 8

Each surveyor was provided with a heterodyne detector, which was used to pick up bat echolocation calls and convert them into a frequency audible to humans. Detectors used were *Titley Scientific Anabat Walkabout* and *Wildlife Acoustics Echo Meter Touch 2 Pro*.

Infrared cameras were stationed alongside surveyors, focussed upon PRFs. The video footage recorded by the infrared cameras was analysed in reference to the field notes made by surveyors, to ensure that bat passes recorded audibly were not missed visually.

Endoscopic Inspection

Where PRFs were located at a height that was accessible from ground level, these features were inspected using an endoscopic camera.

Where the use of endoscopic camera could rule out the presence of bats within the respective PRF, this PRF was omitted from the dusk emergence survey effort.

Limitations

The surveys carried out were in line with good practice guidance.

Ecological surveys are limited by factors which affect the presence of animals such as the time of year, migration patterns and behaviour. Therefore, the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future

3. Results

Dusk Emergence Surveys

No bats were recorded emerging from the AGRTH during either of the dusk emergence surveys.

No foraging or commuting bats were recorded during either of the dusk emergence surveys.

During both dusk emergence surveys, it was observed that the immediate area surrounding the AGRTH was well lit with artificial lighting, to a greater extent than was expected when the preliminary bat root assessment was undertaken.

It is considered that the high levels of artificial lighting, paired with a lack of vegetated habitats or habitat corridors within immediate proximity to the building, contribute to the immediate habitat surrounding the two buildings being of limited suitability for foraging/ commuting bats.

The nearest suitable foraging/ commuting habitat for bats is considered to be a hedgerow, located approximately 110 m north of the two buildings.

Even considering the presence of suitable potential roosting features within the two buildings, the building is unfavourable for roosting bats due to its lack of connectivity to suitable foraging/ commuting habitat and well-lit surrounding environs.

Endoscopic Inspection

An endoscopic inspection of PRF 6 was undertaken immediately before each emergence survey. On both survey occasions, the endoscopic inspection allowed for full internal sight of PRF 6, and revealed that no roosting bats or evidence of roosting bats was present.

4. Constraints and Recommendations

Key Constraints

All species of bats and their roosts are protected under UK and European legislation. A summary of relevant legislation is provided in Appendix C.

As no bats were recorded roosting within the AGRTH, it is considered likely that roosting bats are absent from these buildings and do not pose a constraint upon the proposed demolition.

Further Recommendations

Given the absence of signs of bat activity within and around Bthe AGRTH, and lack of suitable surrounding foraging/ commuting habitat for bats, no further recommendations are provided.

At this stage, there is no detailed plan/ programme for the demolition, nor any facilitative works that may be required in the immediate area surrounding the Site. Once finalised, any plans or programme should be reviewed in line with this report.

If works as part of the Proposed Scheme are not undertaken within twelve months from the date of this report, the survey effort should be revisited and the data updated to reflect this.

Appendix A. Site Location Plan

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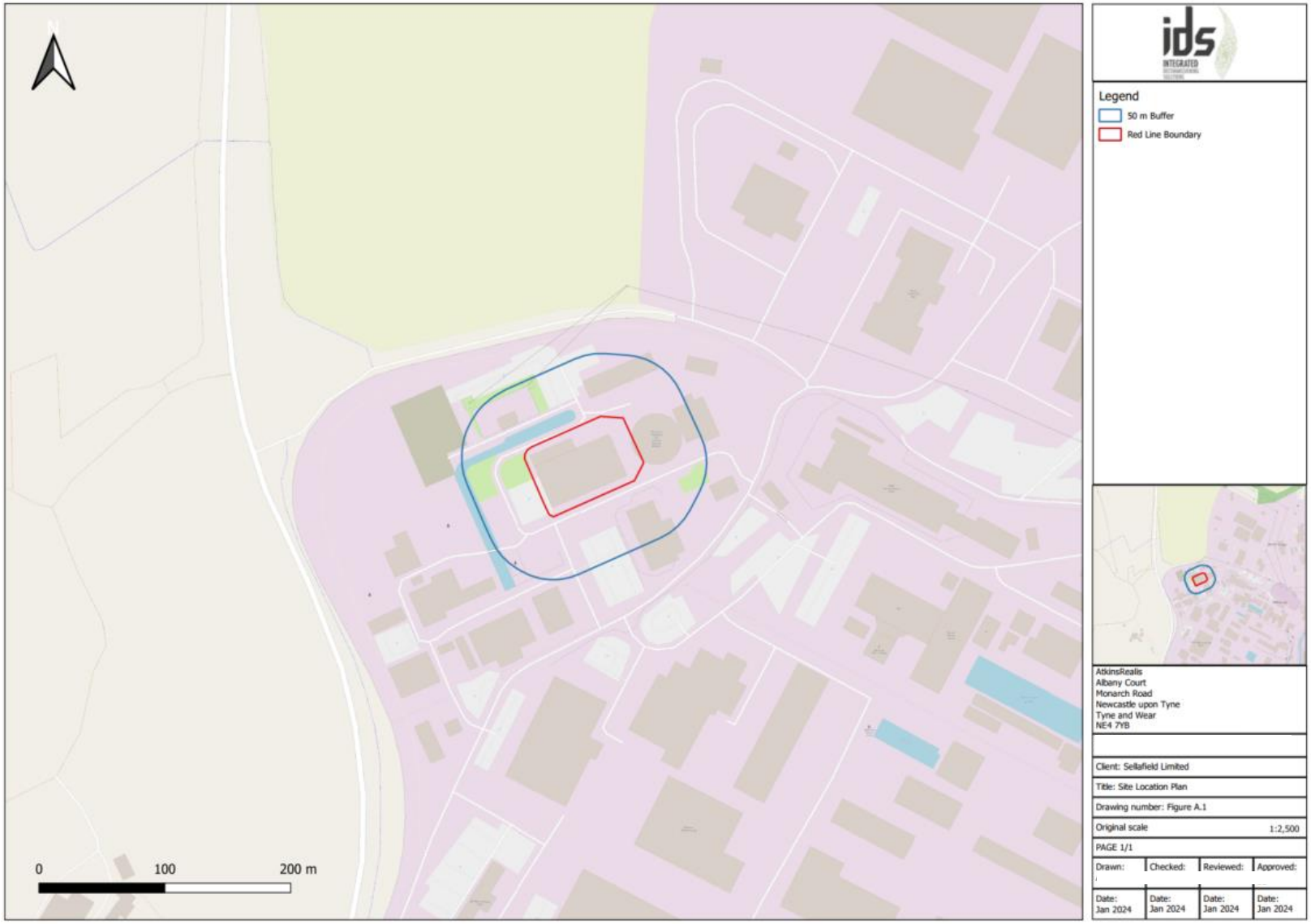

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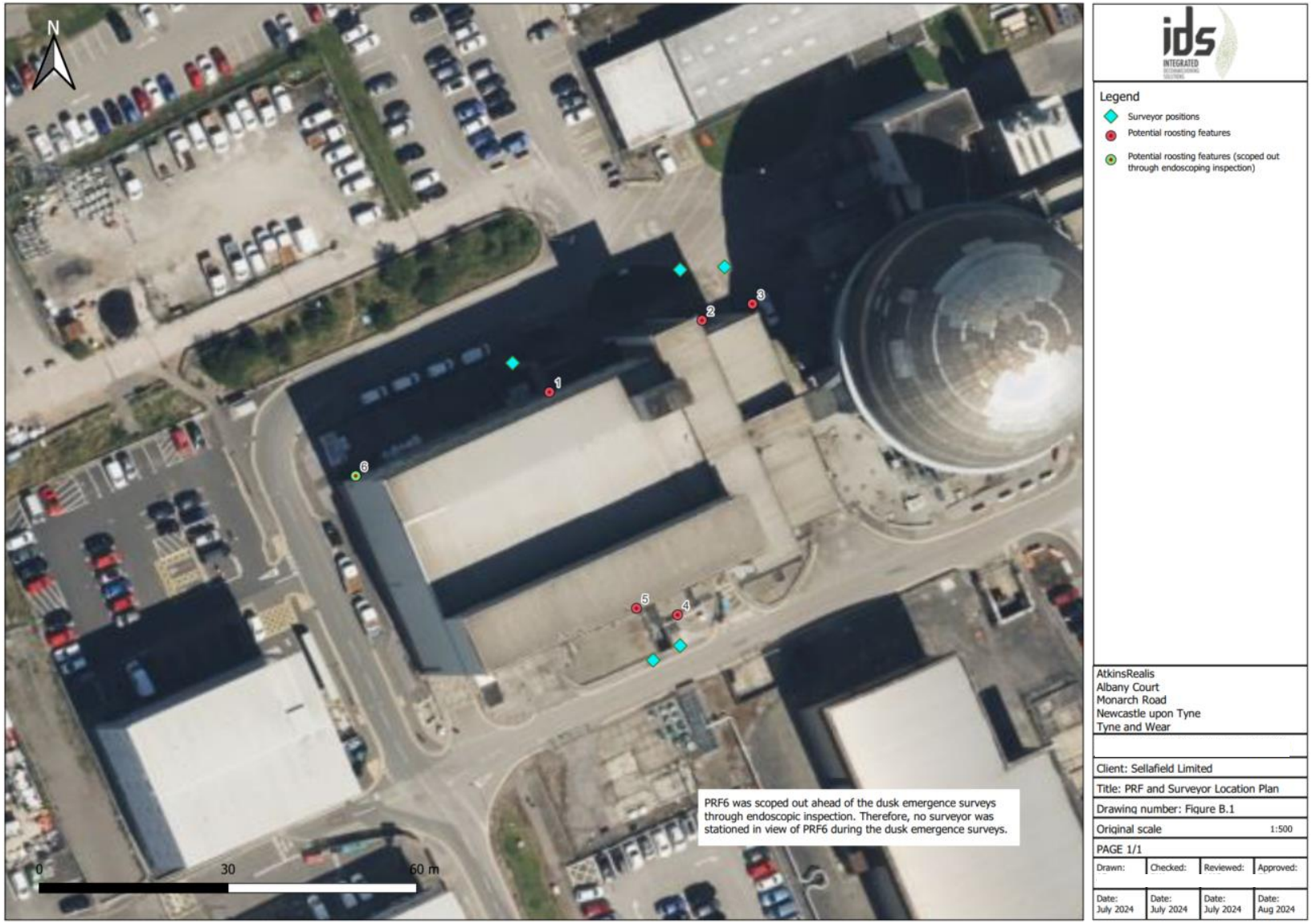
Appendix B. Bat Survey Plan – Surveyor Locations



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Appendix C. Legislation Table

Species	Legislation	Relevant offences	Licensing procedures and guidance
Bats	Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43.	Deliberately[5] capture, injure or kill a bat; deliberate disturbance[6] of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	Mitigation licences issued for development by Natural England (NE). Guidance documents: European Protected Species: Mitigation Licensing - How to get a licence (NE 2013) Bat Mitigation Guidelines (English Nature 2004) Bat Workers Manual (JNCC 2004)
	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally kill, injure or take a bat; intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or disturb[7] a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

[5] Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing.
[6] Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.
[7] Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 (as amended) remain an offence under the Wildlife and Countryside Act 1981 (as amended) although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.