



ASHTON KEYNES – AD PLANT AVIATION SAFETY NOTE

YORK AVIATION

1. York Aviation is a specialist air transport consultancy that focusses on airport planning, demand forecasting, strategy, operation and management. York Aviation offers a broad range of services to airports, airlines, governments, economic development organisations, and other parties with an interest in air transport.
2. York Aviation has a breadth of experience in General Aviation (GA) sector, having been commissioned in 2014 by the Department for Transport (DfT) to undertake a study into the economic value of GA in the UK that informed the Government's General Aviation Strategy published in March 2015. York Aviation has completed two further studies on GA for the DfT in 2018 and 2021 and has continued to advise on matters relating to the operation, development and safeguarding of GA aerodromes for a range of clients. More broadly, York Aviation regularly advises both aerodrome operators and third-party developers on aviation safeguarding and operational safety matters.

OVERVIEW

3. This note considers whether the proposed anaerobic digestion facility (the “Proposed Development”) at Land West of Ashton Road, Ashton Keynes (the “Site”), gives rise to any material aviation safeguarding risk in the context of Cotswold Airport/Kemble and RAF Fairford as well as grass strip aerodromes at Oaksey Park and South Cerney/RAF South Cerney. Typically, new development effects of interest to aerodromes are conventional aerodrome safeguarding matters: physical obstruction, interaction with approach or missed-approach procedures, lighting or visual confusion, thermal plume effects, and wildlife hazard.
4. In summary the Proposed Development is considered acceptable in all these respects (see below), and it does not pose an aerodrome safeguarding or wider aviation safety risk.

SAFEGUARDING CONSIDERATIONS

5. The aviation safeguarding considerations have been undertaken by reference to the established CAA civil aerodrome safeguarding framework, principally CAP 168 Licensing of Aerodromes, which sets out the standards for licensed aerodromes, including the assessment and treatment of obstacles and associated safeguarded surfaces (Obstacle Limitation Surfaces – OLS), and CAP 738 Safeguarding of Aerodromes, which provides guidance on assessing whether proposed development or construction could affect the safe operation of an aerodrome or technical site. Regard has also been had to CAP 772 Wildlife Hazard Management at Aerodromes in relation to the consideration of potential bird strike and wildlife-attraction risk. While detailed safeguarding matters for RAF Fairford are controlled by the MOD/RAF rather than the civil licensing regime, the CAA framework provides a recognised basis for considering conventional safeguarding issues such as obstacles, lighting, plumes and wildlife hazard.

6. The Site lies broadly between Cotswold Airport/Kemble and RAF Fairford, approximately 7.8 km east of Kemble and 10.8 km west-south-west of RAF Fairford. Cotswold Airport/Kemble and RAF Fairford both have runways aligned broadly east west, but not in close proximity to either runway threshold. The grass strip aerodromes of Oaksey Park and South Cerney are approximately 6km to the south-west and approximately 3km to the north-west respectively. Appendix A provides the locations of the aerodromes in the context of the Site.
7. The Proposed Development itself is very modest in aviation-height terms when its distance from the aerodromes is considered: the tallest identified component is the post-digester tank at 16.5m, with the principal digesters at 9m and other stacks generally around 9–10.2m.
8. A desktop review indicates that the Proposed Development would sit substantially below the relevant obstacle limitation surfaces for both Cotswold Airport/Kemble and RAF Fairford. At the distance the Site is from both aerodromes, the lowest estimated OLS envelope is associated with the outer horizontal surface, which sits 150m above runway level and is, as such, far above the highest part of the Proposed Development. Therefore, we conclude that there would not be any physical safeguarding issues linked to the OLS.
9. South Cerney is a former RAF airfield now associated with Duke of Gloucester Barracks and appears, on publicly available information, to have only limited/specialist aviation use rather than routine general aviation circuit activity. While the runway at South Cerney is the closest aviation runway to the Site, its scale and apparent operational role mean that the Proposed Development would not be expected to give rise to any conventional obstacle safeguarding issue.
10. Oaksey Park is an unlicensed grass airfield and, as such, is not subject to the CAP 168 licensing standards that apply to UK licensed aerodromes. It is therefore appropriately considered as a local aviation receptor, rather than as a licensed safeguarded aerodrome with formal CAP 168 Obstacle Limitation Surfaces. Published pilot information and operating rules indicate a localised VFR operating environment, with PPR, no overhead or dead-side joins, and circuits/fly-bys not generally permitted except with airfield approval. On the basis of the publicly available information reviewed, neither South Cerney nor Oaksey Park has been identified as having published approach, departure or circuit patterns that would pass over, or be materially close to, the Site. They are therefore acknowledged as part of the wider aviation baseline but do not alter the safeguarding conclusions set out in this note.
11. Cotswold Airport/Kemble has published missed approach procedures which, in the Runway 08 direction¹, have the potential for aircraft to be directed in closer proximity to the Site, passing approximately 310 m east of it. However, a missed approach is not a routine circuit or normal training flightpath. It is a contingency procedure flown where an aircraft conducting an approach cannot continue to land, for example, due to weather, runway occupancy, an unstable approach, or another operational reason. While such procedures may be flown for instrument training or currency, they are not expected to form a routine element of flying-school circuit training. In any event, aircraft using the Runway 08 missed approach would be established in the climb out from the runway and would be at an altitude high above the level of the site, most likely between 425 m and 510 m above ground level.
12. Publicly available information identifies RAF Fairford as a USAFE bomber forward operating location supporting deployed forces and flying operations, with U-2 and bomber-related activity rather than the routine local circuit intensity associated with a general aviation training aerodrome. Detailed military instrument approach and missed-approach procedures are controlled by the MOD/RAF, but

¹ This runway is associated with easterly winds and would typically be used for approximately 30% of operations.

nothing in the publicly available operational profile indicates a routine low-level training or circuit environment over the Site that would give rise to concern.

13. In terms of lighting of the Proposed Development and its potential to dazzle or confuse pilots, the Proposed Development is not of the scale to introduce a street lighting arrangement that might be confused for runway approach, centreline or edge lighting. The distance the Site is away from both airfields also means there would be no risk from dazzle either and, as such, lighting would clearly not present a safeguarding issue.
14. We understand that an essential element of the design of the facility is a single emergency flare,² which enables the facility to control surplus biogas in emergency conditions or during maintenance. The flare operates only intermittently in emergency, abnormal or maintenance conditions, rather than as a continuous process emission source.
15. The flare stack is approximately 9m tall and typically heat dissipates to approximately 50 degrees centigrade at around 9m above the stack, and to ambient temperature (5-10°C) at potentially 12m above. As such, the thermal plume is both localised and intermittent in nature, and flying activity linked to either aerodrome would be significantly distanced from it even in the event of a missed approach procedure.
16. The facility is understood to be an agricultural AD plant with enclosed feedstock handling buildings, covered/abated digestate lagoons, and controlled drainage and pollution-prevention systems. As such, the Proposed Development is not considered a wildlife attractant.
17. We note that Kemble's Aerodrome Manual³ does not identify Cotswold Water Park lakes as a bird strike risk. The Proposed Development would not create a materially more attractive wildlife feature than that existing baseline, and the plant's operational design avoids the types of attractant normally relevant to aerodrome safeguarding. As such, the Proposed Development does not represent a wildlife hazard in the context of aerodrome safeguarding.
18. This assessment assumes that temporary construction plant, including cranes, would remain within the assessed Obstacle Limitation Surface height envelope. However, as the Site lies within 10 NM of nearby aerodromes, cranes or other tall temporary plant exceeding 10m above ground level should be notified in accordance with CAP 1096 and CAP 738. This is a standard aviation safeguarding notification procedure and not an area of safety concern. Rather, it provides a mechanism for the relevant aerodrome operator to be made aware of the proposed crane activity and to engage with the contractor if any coordination is required.
19. In conclusion, the Site is sufficiently low level and distant from both Cotswold Airport/Kemble and RAF Fairford and the local aviation sites at Oaksey Park and South Cerney that it does not sit within the routine low-level operating environment of any of these aerodromes. Other than the Kemble Runway 08 missed approach, which passes a few hundred metres east of the Site and would be flown well above the proposed infrastructure, no relevant circuit, approach, departure or training pattern has been identified close to the Site. The presence of Oaksey Park and South Cerney has therefore been considered as part of the aviation baseline, but neither is considered to give rise to a material aviation safety concern.
20. The Proposed Development would not infringe safeguarded surfaces or create a lighting or wildlife hazard. Furthermore, the intermittent emergency flare is localised in terms of the heat plume it creates and, as such, is not a risk to aircraft flying high above it. In summary, the Proposed

² An enclosed flare without a visible flame. Heat is dispersed from the stack as a thermal plume.

³ Cotswold Airport Aerodrome Manual, Dec 2025, para 4.16.6, page 51 (<https://cotswoldairport.com>)

Development is therefore not considered to represent an aerodrome safeguarding or wider aviation safety risk.

Matt Jones

Principal Consultant

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APPENDIX A - Site Context Plan

