



Operational Safety Instruction

Procedure for Approving the Operation of Cranes and other Tall Construction Equipment

21st January 2019

ASWorks_OSI_003

v2.0

It is the responsibility of all employers to ensure that relevant OSIs are brought to the attention of their staff. However, individuals remain responsible for their own actions and those who are in any doubt should consult their Supervisor or Manager.

1. Introduction

- 1.1 Heathrow is safeguarded to ensure that all temporary obstacles on and around the aerodrome, such as mobile or tower crane operations and other tall equipment, do not endanger aircraft in flight or interfere with any visual or radio aids to navigation.
- 1.2 BS 7121-1:2006, Code of Practice for the Safe Use of Cranes states that: 'The appointed person should consult the aerodrome/airfield manager for permission to work if a crane is to be used within 6km of the aerodrome/airfield and its height exceeds 10m or that of the surrounding structures or trees.'
- 1.3 The operation of other Tall Construction Equipment (TCE), such as piling rigs, man lifts, aerial platforms, or concrete pumps may also interfere with aircraft operations. This list is not exhaustive, and contractors/operators should contact the Heathrow Airside Works Approval Team for guidance and advice when such equipment is to be used on, or in the vicinity of the aerodrome.
- 1.4 A crane/TCE found to be operating without authorisation or outside the authorised parameters will be stopped at once. The Air Navigation Order allows for prosecution of individuals for endangering an aircraft.
- 1.5 Red bars have been added to the left-hand side of this document to draw the reader's attention where changes or clarifications have been incorporated.
- 1.6 This OSI will become effective from the 15th February 2019



2. Definitions

Abbreviation	Description
ADP	Airside Driving Permit
AGL	Above Ground Level
AMSL	Above Mean Sea Level
AOD	Above Ordnance Datum
ASD	Airside Safety Department
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
hrs	Hours
km	Kilometres
m	Metres
OS	Ordnance Survey
VAP	Vehicle Apron Pass
TCE	Tall Construction Equipment
WAN	Works Approval Notification

3. Safety Procedure

3.1 Application Procedure

3.1.1 The contractor/operator is required to complete an application form through one of the following methods:

3.1.1.1 Complete the application form 'Cranes and other Tall Construction Equipment' on the CMO web platform: <https://hal.cmo-compliance.com>. A CMO account will be required with (as a minimum) 'Crane Creator' permissions; this can be requested from Eng_Works_Notifications@heathrow.com. This should be the preferred method for contractors regularly applying for permits at Heathrow.

3.1.1.2 Alternatively, complete the application form 'Application for Cranes and other Tall Construction Equipment' available to download from www.heathrow.com/airside, and once completed email to Heathrow Airside Works Approval Team on Airside_Works_Approvals@heathrow.com.



3.1.2 The following details will be required for assessment:

- 3.1.2.1** Intended dates and times of operation;
- 3.1.2.2** Applicant details (name, contact details);
- 3.1.2.3** Operating supervisor details (name/role, contact details);
- 3.1.2.4** Summary description of works;
- 3.1.2.5** Equipment type (e.g. Tower Crane, Mobile Crane, Lifting Platform etc.) and pertinent details;
- 3.1.2.6** Operating details:
 - Maximum operating height of the crane/TCE above ground level;
 - Crane gross weight;
- 3.1.2.7** Location:
 - Address and/or airport location;
 - Exact location of the crane/TCE, given as an OS Grid reference (to at least 6 figures for each of eastings and northings).

3.1.3 It is of critical importance that this information is accurate.

3.2 Approval Procedure

3.2.1 Using the details supplied during the application procedure, Heathrow will determine whether the operation can proceed and what restrictions, if any, will apply. As a general guide, any crane or other equipment that is to be operated in a critical location (for example; close to a runway, below the approach or departure tracks to a runway, or in close proximity to an airfield navigational aid) will require very careful assessment.

3.2.2 The minimum approval time is 14 working days however in some complex cases the application may require up to 6 weeks to receive approval.



3.2.3 The contractor/operator will be notified when the application gets approved or rejected by Heathrow:

3.2.3.1 Through the CMO portal if used for application;

3.2.3.2 By email otherwise (in this case a PDF of the permit will be attached).

3.2.4 If for any reason a crane permit has not been received in a timely fashion please contact the Airside Works Approval Team.

3.3 Other Approvals

3.3.1 In addition, if a crane/TCE is to be operated Airside at the airport, the company sponsoring the hiring of the equipment will need to:

3.3.1.1 Obtain approval and an associated Heathrow Works Permit at least three weeks prior to any work. For more details please consult ASWorks_OSI_004 Control of Works Airside.

3.3.1.2 Check whether all vehicles involved in the equipment operation have a Vehicle Apron Permit (VAP) or arrange for them to be issued. This is arranged through the Heathrow Airport ID Centre. A VAP will only be issued to a mobile crane/TCE when the ID Centre has received a signed copy of the 'Authorisation Permit for Cranes and Other Tall Construction Equipment'.

3.3.1.3 Check whether the driver(s) of a mobile crane/TCE is/are in possession of an appropriate Airside Driving Permit (ADP) or arrange for that person to be escorted when using Airside roads by a suitably qualified member of staff.

3.3.1.4 Check whether all staff involved with the operation have a valid Airport ID card with appropriate Airside access, or arrange for the issue of temporary ID passes.



3.3.2 Separate applications may be required via the WAN system if:

3.3.2.1 The crane needs to be brought to the central terminal area through the main tunnel; and/or

3.3.2.2 The crane will be operated on Heathrow Property in which case Service Clearance will be required.

3.4 Operational Procedures

3.4.1 Applicants must ensure that a copy of the approved permit is passed to the crane/TCE operator and must remain with the crane/TCE for the duration of its operation. The Permit must be produced for examination on request by a Police Officer or airport official.

3.4.2 Applicants are reminded to operate the equipment in accordance with details supplied at application (and reproduced on Page 1 of the permit) and the Operating Restrictions and Lighting Requirements specified on Page 2 of the Permit. Any changes to the application details shown on Page 1 invalidate the Permit and the operation must stop and a new approval and Permit authorised.

3.4.3 When specified on the Permit, the Heathrow ASD must be contacted by telephone on 020 8745 6459, prior to commencing and immediately after all approved lifting operations.

3.4.4 Operators may be asked at any time by ASD to cancel or to suspend the lifting operation immediately if they believe there is a danger to aircraft.

3.4.5 Wherever practicable, the jib of a crane/TCE must be lowered when not in use. Heathrow ASD will require that the crane/TCE is lowered in periods of low visibility (whether caused by fog or low cloud) or when there is a change in runway mode (as per permit).

3.4.6 Any crane/TCE may be required to be fitted with obstacle lights (will be specified on the permit), details of which are as follows:

3.4.6.1 Objects lower than 45m AGL: steady red light at minimum 32 candelas (EASA Low Intensity Type B);



- 3.4.6.2** Objects higher than 45m AGL: steady red light at minimum 2000 candelas (EASA Medium Intensity Type C);
- 3.4.6.3** The object must be lit whenever it is raised (both day and night);
- 3.4.6.4** The light is to be omni-directional with a vertical coverage of +5 to +8 degrees;
- 3.4.6.5** For a fixed crane/TCE, if the object extends more than 45m above ground level of the top of adjacent buildings/structures, intermediate lighting must be provided with spacing between lights not exceeding 52m. The light must emit whenever the crane/TCE is raised (both day and night).

3.5 Enquiries

- 3.5.1** Any questions concerning this Instruction should be addressed to the Heathrow Works Approval Team via email; Airside_Works_Approvals@heathrow.com or contact the Airfield Duty Manager on 020 8745 7373.
- 3.5.2** Heathrow Airside Operations reserve the right to charge for the issue of crane permits in the future.

4. References

Air Navigation Order
 BS 7121-1:2006, Code of Practice for the Safe Use of Cranes
 ASWorks_OSI_004 Control of Works Airside

5. Forms / Records

Form #	Record / Form / Activity Name	Responsibility
001	Authorisation Permit for Cranes and other Tall Construction Equipment	Airside Works Approval Team

