

RUNWAY EXTENSION PLANNING CONDITIONS

Condition 16 g – i response

Report for: Southampton International Airport Limited

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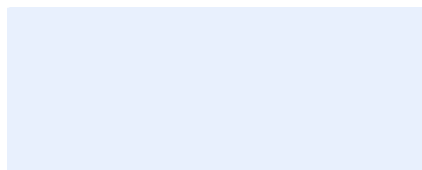
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CONDITION 16 g – i RESPONSE

The following section is a summary of the information required by Condition 16 g – i.

g. Confirmation of Environment Agency approval of variation of licence application

An application to vary the Airport's environmental (discharge) permit (EPR/CB3999EM) to include the new soakaway for the runway extension was duly made on the 23/06/2020 and determined (approved) by the Environmental Agency on the 24/07/2020. The Environment Agency determination letter and notice of variation are included in Appendix 1. The additional soakaway is to be located to the east of the runway extension at its northern end.

h. Schedule for perimeter borehole monitoring for pollutants including de-icer compounds and measures to respond to increased levels if exceedances of Environmental Quality Standards are identified, including reporting to the Local Planning Authority

The Airport operate a water quality monitoring programme of the monitoring points specified in the conditions of environmental permit, as set out in Table S3.2 (replicated below in Figure 1).

Figure 1 Environmental Permit Monitoring Points

Table S3.2 Discharge points			
Effluent Name	Discharge Point	Discharge point NGRs	Receiving water/Environment
Trade effluent consisting of site drainage	Outlet 1 (Runway northern soakaway)	SU 45469 16875	Groundwater via a series of infiltration systems
	Outlet 2 (Runway southern soakaway)	SU 45078 16104	
	Outlet 3 (Apron soakaway 1)	SU 45080 16778	
	Outlet 4 (Apron soakaway 2)	SU 45142 16929	
	Outlet 5 (Apron soakaway 3)	SU 45169 17039	
	Outlet 6 (Apron soakaway 4)	SU 45208 17153	
	Outlet 7 (Apron soakaway 5)	SU 45255 17289	
	Outlet 8 (Runway extension)	SU 45684 17766	
	Outlet 9 (Alpha taxiway)	SU 44976 16665	

In addition, the Airport also monitor their perimeter groundwater borehole network to understand the quality of water entering and exiting their boundary. The full monitoring programme for 2023 is set out below in Figure 2.

The runway soakaways (referenced as Outlet 1, 2 and 8 in the environmental permit) are monitored on a monthly frequency. All other sites are monitored on a quarterly frequency. Each site has a standard analysis suite of:

- pH
- Conductivity
- Biochemical oxygen demand (BOD)
- Extractable Petroleum Hydrocarbons (EPH)
- Benzene, Toluene, Ethylbenzene and p -xylene (BTEX)
- Methyl tertiary-butyl ether (MTBE)
- Volatile Organic Compounds (VOC)
- Polycyclic Aromatic Hydrocarbons (PAHs)

During the winter de-icing season (November – March) glycols are analysed at all sites. Heavy metals are analysed at the runway soakaways every 6 months.

During sampling, field notes are taken with respect to each samples' colour, turbidity, olfactory and presence of hydrocarbon sheen.

Field and laboratory results are provided in a results dashboard and reviewed against Environmental Quality Standards (EQS) using a traffic light system. Signs of visible oil or grease or exceedance of EQS trigger a review of spill records to identify potential sources and an increase in monitoring frequency. If a source is identified and/or increased monitoring identifies a significant issue, further investigation may be required in accordance with Environment Agency guidance to quantify the source of the contamination and potential pathways and receptors. If pollutant linkages from source to receptor were identified and the significance of impact was determined to be significant, appropriate remediation measures would be recommended

In accordance with the environmental permit conditions, the Environment Agency are notified of any breach of a limit specified in Table S3.1 (visible oil or grease) (replicated below in Figure 3) of the environmental permit or any significant adverse environmental effects as soon as reasonably practicable following detection.

Figure 3 Emissions Limits of the Environmental Permit

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
Trade effluent consisting of site drainage via Outlets 1, 2, 3, 4, 5, 6, 7, 8 and 9	Visible oil or grease	No significant trace present	Instantaneous (spot sample)	N/A	N/A	No significant trace

i. A monitoring and maintenance strategy. The development shall be implemented and maintained in accordance with the approved details.

In accordance with the environmental permit, accessible monitoring points are maintained at each of the outlets referenced in Figure 1.

The monitoring and maintenance strategy for the runway extension is detailed within paragraph 7.5 of the WSP Flood Risk Assessment, which is appended to the Mott MacDonald *Response to Runway Extension Planning Discharge Conditions relating to Drainage* document. There will be no changes to the monitoring and maintenance strategy or drainage strategy for the remainder of the airport site.

Figure 2 Schedule of Monitoring

Key:
Standard suite: pH, Conductivity, BOD, EPH, BTEX, MTBE, VOC, PAHs
Standard suite plus speciated glycols

	De-icer Season										De-icer Season	
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Perimeter boreholes												
BH1												
BH2												
BH3												
BH4												
BH5												
BH9												
BH10												
BH11												
BH12												
BH13												
RWBH6												
Runway Discharges												
New Northern Soakaway												
Northern Soakaway												
Southern Soakaway												
Northern Outfall												
Southern Outfall												
Penstocks												
Penstock 1												
Penstock 2												
Penstock 3												
Penstock 4												
Penstock 5												
Alpha Taxiway												

APPENDICES

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APPENDIX 1 ENVIRONMENT PERMIT EPR/CB3999EM



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