

Ventilation Statement
Heineken UK, Manchester

Client: Norder Design Associates Limited

Reference: 7630-1r1

Date: 27th September 2024



Report Issue

Report Title: Ventilation Statement - Heineken UK, Manchester

Report Reference: 7630-1

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Authored by	Lauren Casey			
Position	Senior Air Quality Consultant			
Reviewed by	Callum Cecil			
Position	Air Quality Consultant			
Authorised by	Jethro Redmore			
Position	Director			
Date of Issue	27 th September 2024			
Comment	-			

Serendipity Labs, Building 7, Exchange Quay, Salford, M5 3EP

info@red-env.co.uk | 0161 706 0075 | www.red-env.co.uk

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1.0 INTRODUCTION

1.1 Background

- 1.1.1 Redmore Environmental Ltd was commissioned by Norder Design Associates Limited to produce a Ventilation Statement to address a planning condition for a new development at Heineken UK, Manchester.
- 1.1.2 Planning consent has recently been granted by Manchester City Council (MCC) for the replacement of two Mash Conversion Vessels (MCV) and the installation of a new cereal cooker at Heineken UK, Manchester, subject to a number of conditions. These include a requirement to produce a Ventilation Statement.

1.2 Site Location and Context

- 1.2.1 The site is located at Heineken UK facility off Denmark Road, Manchester, at approximate National Grid Reference (NGR): 383892, 395917. Reference should be made to Figure 1 for a map of the site and surrounding area.
- 1.2.2 Planning consent was granted for the replacement of two MCVs and the installation of a new cereal cooker by MCC (reference: 139675/FO/2024 on 24th May 2024) subject to a number of conditions. These include the following which relates to the production of a Ventilation Statement:

"5)a. Fumes, vapours and odours shall be extracted and discharged from the premises in accordance with a scheme to be submitted and approved in writing by the City Council as local planning authority before the use commences. Mixed use schemes shall ensure provision for internal ducting in risers that terminate at roof level. Schemes that are outside the scope for such developments shall ensure that flues terminate at least 1m above the eave level and/or any openable windows/ventilation intakes of nearby properties.

b. Prior to commencement of the use hereby approved confirmation shall be submitted for the approval of the City Council as local planning authority that the approved scheme has been implemented."

1.2.3 A Ventilation Statement has therefore been produced in order to address the above condition. This is detailed in the following report.

2.0 PROCESSES

2.1.1 It is proposed to replace two MCVs alongside the installation of an additional cereal cooker vessel within the brewing building at the Heineken UK facility. The proposed replacement MCVs will be smaller in volume and diameter than the original vessels. Reference should be made to Figure 2 for a site layout plan.

2.1.2 The processes that are undertaken inside the MCVs are as follows:

- Malted barley and unmalted cereals (e.g. maize) are mixed with warm water at approximately 55°C to begin the process to form a 'mash'. Ratios of material and water are dependent on the recipe;
- The mash then undergoes a programmed sequence of heating and stand times at desired temperatures for liquefaction of starch and activation of natural enzymes. Typical stand temperatures are approximately 64°C to 68°C and the mash is stirred throughout via an internal mixer;
- The final temperature of the MCVs is approximately 78°C. Steam emissions produced from the process are therefore limited and volatile odours are not driven off at this temperature; and,
- The mash is then transferred to a subsequent process stage (pumped under controlled flowrates) to separate the liquid and solids portions.

2.1.3 The cereal cooker vessel installed at the site will be placed between the two MCVs. The cereal cooker operates at a final temperature of approximately 99°C and will mainly produce steam vapour.

3.0 VENTILATION ARRANGEMENTS

- 3.1.1 The two MCVs and cereal cooker processes are contained within the brewing building. The existing flues will be replicated which allow waste steam to be extracted from the vessels and pass through the roof via the flue and prior to discharge to the atmosphere. An additional flue will be installed to extract air from the cereal cooker.
- 3.1.2 Consultation with Jürgen Rohrbach, Lead Processing Engineer at Ziemann Holvrieka GmbH¹, the Technology Supplier, confirmed that the exhaust from the proposed vessels and cereal cooker will be odourless and mainly consist of water vapour.
- 3.1.3 The two MCVs and the cereal cooker flues will terminate on the roof of the building at a height of 49m. This is at least 1m above the eave level and/or any openable windows/ventilation intakes of nearby properties, in accordance with Condition 5. Reference should be made to Figure 3 for drawings showing the flue arrangements at roof level.

¹ Correspondence: 9062 MCV Vessel & Cereal Cooker information from Supplier, Ziemann Holvrieka GmbH, 2024.

4.0 CONCLUSION

- 4.1.1 Redmore Environmental Ltd was commissioned by Norder Design Associates Limited to produce a Ventilation Statement to address a planning condition for a new development at Heineken UK, Manchester.
- 4.1.2 Planning consent has recently been granted by MCC for the replacement of two MCVs and the installation of a new cereal cooker, subject to a number of conditions. These include a requirement to produce a Ventilation Statement.
- 4.1.3 The findings of the report have confirmed the following:
- The two MCVs and cereal cooker processes are contained within the Brewing Building. The flues will allow waste steam to be extracted from the vessels and pass through the roof via the flue and prior to discharge to atmosphere;
 - The exhaust from the proposed vessels and cereal cooker will be odourless and mainly consists of water vapour; and,
 - The two MCVs and the cereal cooker flues will terminate on the roof of the building at a height of 49m. This is at least 1m above the eave level and/or any openable windows/ventilation intakes of nearby properties, in accordance with Condition 5.
- 4.1.4 Based on the findings of the report, it is recommended that the planning condition is discharged.

5.0 ABBREVIATIONS

MCC

Manchester City Council

MCV

Mash Conversion Vessel

NGR

National Grid Reference

Figures



Legend



Site Boundary

Title

Figure 1 - Site Location Plan

Project

Ventilation Statement
Hieneken UK, Manchester

Project Reference

7630-1

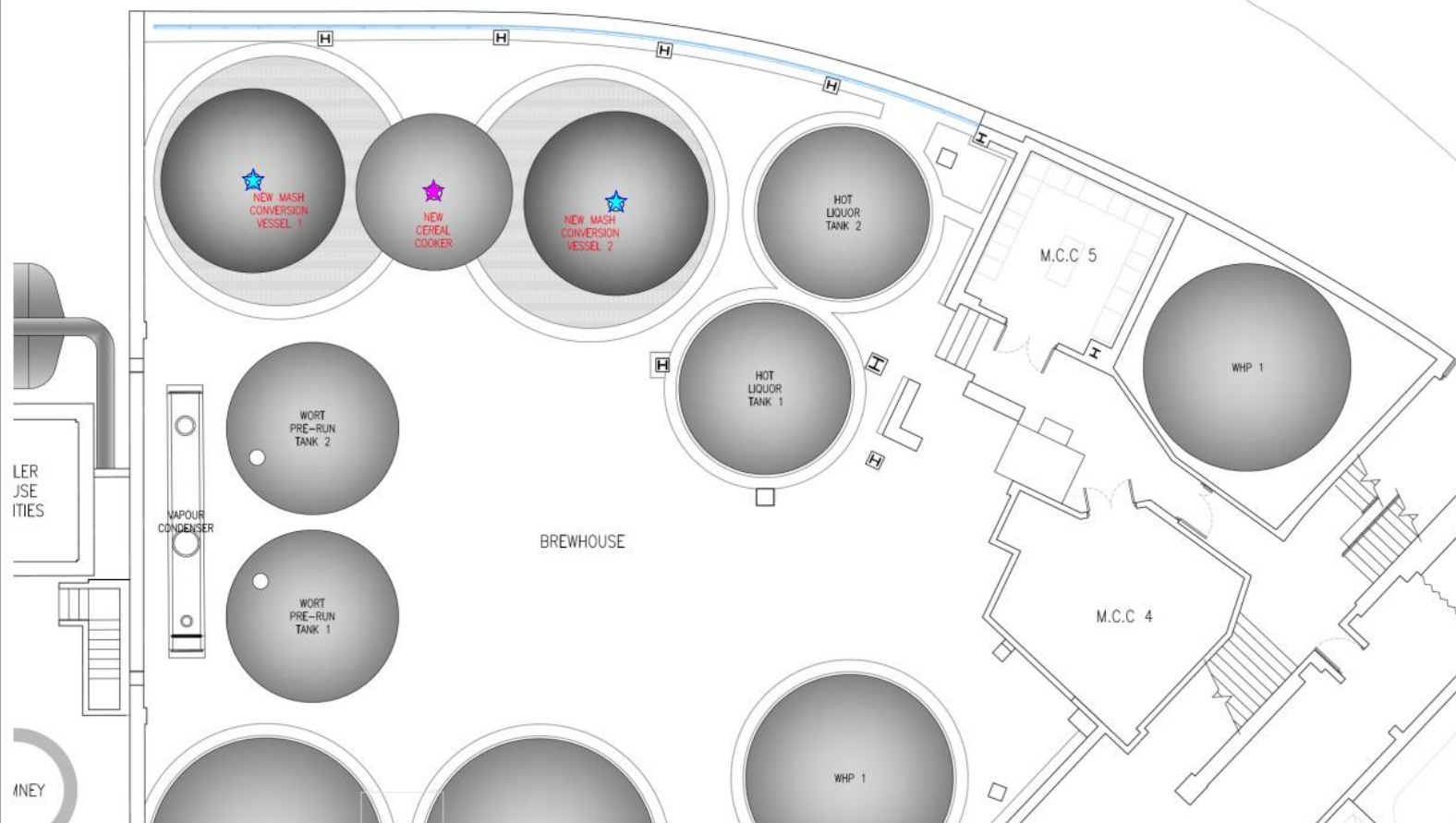
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Legend



MCV



Cereal Cooker

Title

Figure 2 - Site Layout Plan

Project

Ventilation Statement
Hieneken UK, Manchester

Project Reference

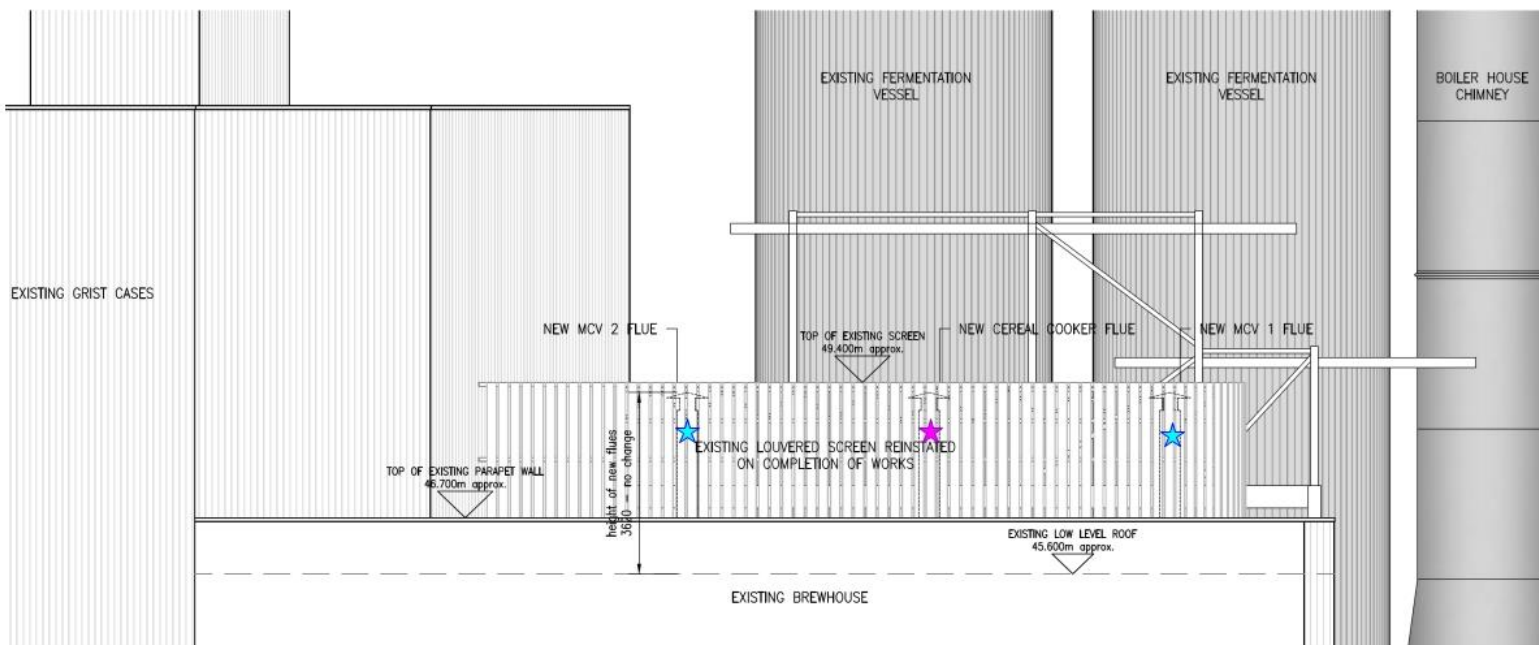
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MCV Flue



Cereal Cooker Flue

Title

Figure 3 - Flue Arrangements at Roof Level

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