

TECHNICAL NOTE

Project name Ball Beverage Kettering Environmental Permit
 Project no. 1620011745-001
 Client Ball Beverage Europe Limited
 Technical Note no. 1
 Version 1
 To Rowan Castle
 From Richard Wood

1 Duly Made Information Request

Date 12/09/2022

In response to the request from Rowan Castle of North Northamptonshire Council (NNC), the following information is provided to support the application for a Part A(2) Environmental Permit for Ball Beverage Packaging UK Limited, Maynard Road, Kettering, Northampton NN15 5ZS.

1. *Please provide a more detailed description of the techniques applied for printing*

The decorator receives cured basecoated cans from the conveying system and applies the desired label graphics using a dry offset printing process with up to eight-colour capability. An overvarnish application improves the can abrasion resistance and enhances can graphic quality with a glossy appearance.

Cans are fed into a mandrel wheel which rotates against a blanket wheel. This blanket wheel accumulates layers of the different coloured inks from the ink station before applying the completed colour plate onto the can, which rotates round on the wheel to transfer the full image. An overcoat varnish is then immediately applied to seal and protect the printed image.

2. *BAT Review – please review the responses for the following:*

a) *Table 6.1, point f: Capture of VOC vapour during solvent-containing material delivery. When delivering solvent-containing materials in bulk (e.g. loading or unloading of tanks), the vapour displaced from receiving tanks is captured, usually by back-venting.*

As the materials used are primarily water-based, the solvent concentrations within the vapour space during delivery are expected to be minimal and as a consequence back-venting is not proposed.

b) *Table 11.1 point a (solvent mass balance) - Full identification and quantification of the relevant solvent inputs and outputs, including the associated uncertainty.*

Yes, the information collated within the solvent mass balance will include the inputs and outputs calculated based upon

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materials solvent content and control measures. This will include a consideration of uncertainty.

c) *Table 18.1 point b: Use of Low-NOx burners on the RTO.*

The RTO is designed to a Guaranteed Emission Limit significantly below the BAT-AEL of 130 mg/Nm³ NOx. This is achieved through avoidance of nitrogen bearing VOC's entering the RTO from the process, and use of a large combustion chamber with an overall residence time of >1 sec. As a consequence, the inclusion of a low-NOx burner is not required to achieve the BAT-AEL.

3. *To provide support to conditions to discharge for planning a D1 stack height calculation is requested.*

A technical note covering the D1 calculation and discussion of its suitability is included with this submission.

I trust this closes out your queries in relation to the application and allows the application to be duly made. If you have any further questions, please let me know.

Kind regards

A handwritten signature in black ink, appearing to read 'Richard Wood', with a stylized flourish extending from the end.

Richard Wood
Principal, Ramboll UK Limited