

From: [Nicola Kerr](#)
To: [Wilson, Stuart](#)
Cc: [David Brookes](#)
Subject: RE: Permit Improvement Condition - IC2
Date: 25 May 2023 12:24:00
Attachments: [GC Data Li ion Headspace.png](#)
[image001.png](#)
[Shredder Input & Output.xlsx](#)

Hi Stuart

Hope you are well.

Following on from the below regarding IC2, attached is a sample on a lithium-ion battery (similar to those processed in the small-scale shredder), test completed by Ecobat laboratory in the US. Benzene did not show up in that sample composition, and after discussions with Ecobat's technical team, it cannot determine any source or mechanism in the process that would produce benzene in the exhaust stream.

To allow us to confirm this, we have two available options which we will be completing:

- Complete tests on the (currently being installed) large scale shredder based in Ecobat Solutions Hettstedt (plant is same as will be in Darlaston Q4 2023). Stack testing can be performed following commissioning. At the earliest, we believe this could occur sometime in late July/August.
- Re-complete the testing at Darlaston when contractor available, currently in communication with them for estimated date.

For Darlaston, the small-scale shredder is currently only processing limited quantities when needed for samples.

Attached is the production for the plant (only operational for the emissions testing).

To allow Ecobat to declare the composition of the VOCs and accurately assess the risk, we request an extension of the IC2, provisionally until 29th September (this can be confirmed on confirmation from our contractor).

This will support the future application of installation of the large-scale shredder, gain accurate and updated information with a low risk of pollution due to the minimal processing of the current small-scale shredder.

Kind Regards,
Nicola Kerr



Nicola Kerr | QHSE Compliance Officer
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Ecobat Solutions UK Ltd | Crescent Works Industrial Park | Willenhall Road | Darlaston | West Midlands | WS10 8JR | UK

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From: Wilson, Stuart <stuart.wilson@environment-agency.gov.uk>

Sent: Thursday, May 11, 2023 3:09 PM
To: Nicola Kerr <nicola.kerr@ecobat.com>
Cc: David Brookes <david.brookes@ecobat.com>
Subject: RE: Permit Improvement Condition - IC2

Good afternoon, Nicola,

I hope you have had a good break and I find you well.

I am writing to you today regarding our communication on IC2 which requires you to characterise and assess via a report an updated Environmental Risk Assessment (H1), (including both short and long term process contribution (PC) for emissions to air, and for emission which do not screen out and the predicted environmental concentration), for your onsite activities. As your process onsite is likely to include releases of volatile organic compounds the associated emission limit, mandated by BAT, is Benzene. The Environment Agency guidance states "If you release volatile organic compounds into the air and do not know what all the substances in them are, treat them all as 100% benzene in your risk assessment." However this this guidance goes onto state "If you want to treat them as something else, you'll need to explain why."

In view of this if you are able to provide a justification for using a speciated alternative to total benzene, the Environment Agency will review your justification for using an alternative within the H1. We will still also require you to provide the emission data on total benzene, as well as the speciated alternatives to characterise the 'complete' emissions.

Once you have had an opportunity to discuss this approach with your internal experts, can you please contact me as to agree a new completion date for the IC.

Regards

Stuart

Stuart Wilson

Industrial Regulatory Officer-West Midlands

Environment Agency | Riversmeet House, New Town Industrial Estate, Northway Lane, Tewkesbury, Gloucestershire. GL20 8JG

✉ **Environment Agency, Riversmeet House, Newtown Industrial Estate, Northway Lane, Tewkesbury, Gloucestershire. GL20 8JG**

☎ External 02030251572.

☎ 31572 (Internal).

📧 stuart.wilson@environment-agency.gov.uk

From: Nicola Kerr <nicola.kerr@ecobat.com>

Sent: 28 April 2023 16:04

To: Wilson, Stuart <stuart.wilson@environment-agency.gov.uk>

Cc: David Brookes <david.brookes@ecobat.com>

Subject: FW: Permit Improvement Condition - IC2

Hi Stuart

Following on from the below and our discussion, can we please extend the date for the IC2. This is whilst we await guidance from the EA on progressing with the H1 assessment ensuring it is as accurate as can be.

Kind Regards,
Nicola Kerr



Nicola Kerr | QHSE Compliance Officer

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From: Nicola Kerr

Sent: Friday, April 28, 2023 11:25 AM

To: Wilson, Stuart <stuart.wilson@environment-agency.gov.uk>

Cc: David Brookes <david.brookes@ecobat.com>

Subject: Permit Improvement Condition - IC2

Good morning, Stuart,

Hope you are well!

Regarding IC2 we have now received our emissions results, and I have completed H1 assessment.

During the H1 process we must report total VOCs as Benzene, we are aware however, it is very unlikely Benzene to be present as it is C6 carbon and likely VOCs will be C1 & C2.

We will be looking to complete further testing / investigation, either with our lab in Dallas or UK contractor to confirm contents of the VOC to allow us to procedure forward.

For your information, the shredder plant on site has only been run to complete the emissions testing and no further processing has taken place.

Please advise how the EA envisage us moving forward with this as I am aware timeline of IC2 is 8th May and the IC does state total VOCs not broken into different substances.

If detailed modelling is requested for 'Benzene', we will be unable to fulfil this request by 8th May (I am on annual leave from today until 9th May).

Kind Regards,
Nicola Kerr



Nicola Kerr | QHSE Compliance Officer

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