Environmental Permit Variation (UP39093SG)

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July 2024- RFI

Cliniwaste Health South Limited

Cliniwaste Health South Limited
Crossgate Drive Clinical Waste Treatment Facility
Unit A, Crossgate Drive
Queens Drive Industrial Estate
Nottingham
NG2 1LW

Installation Details

Installation Name (existing):
Crossgate Drive Clinical Waste Treatment Facility

Existing Permit Reference:
EPR/UP39093SG

Address:
Cliniwaste Health South Limited
Crossgate Drive Clinical Waste Treatment Facility
Unit A
Crossgate Drive
Queens Drive Industrial Estate
Nottingham
NG2 1LW

OS Grid Reference:
SK562380, X 456263, Y 338066

Applicant Details

Applicant Name:
Cliniwaste Health South Limited

Registered Address:
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Rutherglen
Glasgow
G73 1AU

Company Number:
SC648410

Operational Contact:
Kerry Burton, Head of Compliance
Cliniwaste Health South Limited
Crossgate Drive Clinical Waste Treatment Facility
Unit A
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Nottingham
NG2 1LW

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email: Kerry.burton@cliniwaste.co.uk

Request for further information:

Boiler emissions:

Q: The application refers to optimisation of the boiler, could you confirm that the boiler and associated emissions are unchanged to those that are currently permitted or previously assessed?
A: The boiler and associated emissions remain unchanged.

Q: The current permitted boiler will require Medium Combustion Plant Directive (MCPD) emission controls in place on the permit by 1 January 2029 (with a compliance date of 1 January 2030). We can add these controls to the permit as part of a variation. This means you will not need to apply for another variation to include them for this boiler in the future. Please indicate by reply, if you would like us to include the necessary controls as part of this variation.
A: As Cliniwaste intend to vary their permit in the near future, we will consider putting this requirement in nearer to the required date and do not wish to put this into this variation application.

Emissions from LEVs and abatement plant to air:

Q: The variation will see additional: waste streams (including chemically contaminated sharps), increase in waste throughput through treatment process (shredder at location A3b) and autoclave. The application states the following: "As currently, it is considered that the emissions to air from the autoclave and waste shredder will be adequately controlled with the proposed abatement technologies and no numerical emission limit values for these emissions are proposed".
The application does not appear to include any supporting information about the changes to the: waste gas stream (based on new wastes) characteristics/ composition, fate of emissions, abatement effectiveness or include an updated air emissions inventory. Please see the following guidance on what information you should include as part of your application: Healthcare waste: appropriate measures for permitted facilities - Emissions control appropriate measures - Guidance - GOV.UK (www.gov.uk) – Point source and fugitive emissions to air.

A: My apologies, I did not include our emissions monitoring plan, this considers current and future developments. 'Nottingham Emissions Monitoring Plan' In terms of the new waste being processed, these are sharps contaminated with pharmaceutical wastes. These are residual liquids only that remain in syringes, cannulas, sharps, giving sets and IV lines, there will be no whole pharmaceuticals presented to the proposed operation, these are separated at source into the blue waste stream 180109. The 180109 wastes will continue to be transferred offsite as we currently do to an energy recovery facility or a high temperature incinerator.

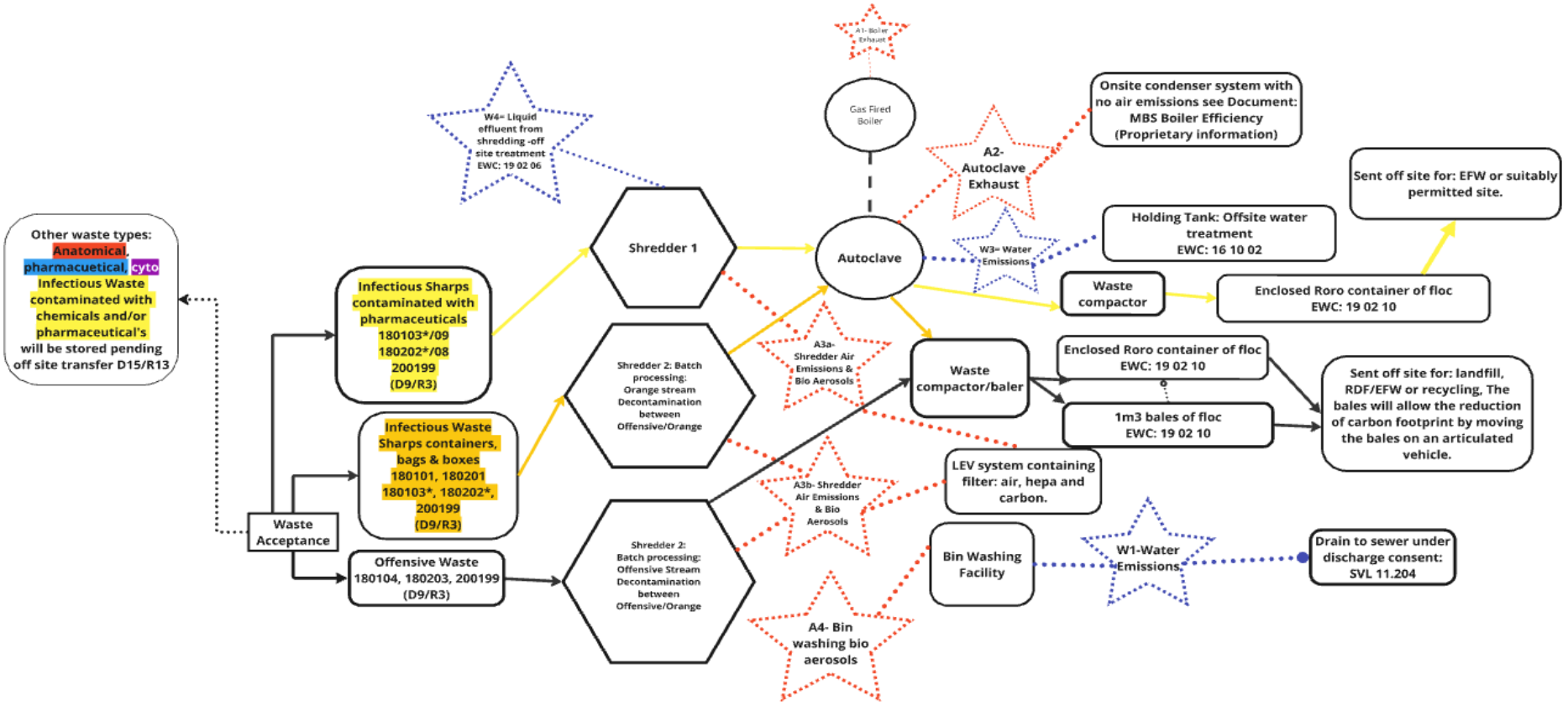
The waste producer is responsible to provide a pre-acceptance audit to encapsulate their waste stream segregation and effectiveness as described in SGN HTM07-01, it is impractical to expect the waste producer to provide an inventory of pharmaceutical waste present within each sharp, giving set or IV line, within each sharp's container at ward level.

This variation is to prove we are treating the infectious element of the sharps waste only and Cliniwaste are not currently intending to prove that we treat the pharmaceutical makeup of the waste. As such any by product that is generated as a result of this batch processing, will continue to be disposed of in a similar manner i.e. incineration or energy recovery which has suitable temperatures to destroy the residual pharmaceutical waste. Therefore, ascertaining a full suite of representative pharmaceuticals has no bearing on the current application.

EWCs to be included in this variation:

Q: In reference to process flow diagram "Cliniwaste Project Yellow: Process Map", (PowerPoint). Please include a finalised process flow diagram (PFD), identifying the changes proposed in this variation phase only which includes the processes and activities impacted by additional waste streams. (Likely to be included as part of the addendum: Section 2?)

A: An updated PFD has been included in the addendum, a copy of which is below.



Technical assessment (BAT/ appropriate measures):

Q: You are proposing to undertake waste treatment in an additional shredder. Currently the only permitted shredder is at location A3 (and emission point A3) and include new waste streams. You should provide an updated BAT/appropriate measures assessment and compare your techniques against the necessary technical guidance. Healthcare waste: appropriate measures for permitted facilities - Emissions control appropriate measures - Guidance - GOV.UK (www.gov.uk). You should provide a response to all relevant sections (including but not limited to; general waste treatment, validation, Emissions control and emissions monitoring and limits).
Healthcare waste: appropriate measures for permitted facilities - Guidance - GOV.UK (www.gov.uk)

For reference: BAT conclusions (Waste Treatment BREF/BATc). The conclusions can be found here: Waste Treatment | EU-BRITE (europa.eu)

A: The shredder installed is of the same specification as the other shredder A3a, the process flow is demonstrated in the process flow diagram and all techniques relating to HCW:AM are already described in the supporting document of the permit application.
The shredder is a fully enclosed system, housing an LEV system, that is tested to the same standard as the shredder A3a- see Nottingham Emissions Monitoring Plan.
All procedures including the decontamination of the shredder have been implemented and all associated documentation such as the OMP and aspects and impacts register have also been changed to reflect this additional shredder taking into consideration the new proposed waste types and volumes.

Emissions to sewer/transfer offsite (via holding tank)

Q: The application states that "process effluent will instead be discharged into a holding tank whilst discussions with Severn Trent Water are initiated to understand any additional testing criterion, the holding tank will be taken away for offsite disposal via a licensed waste carrier and offsite disposal facility".

- Confirm under Phase 1 that all process effluent will be sent for incineration at an authorised facility only.
  A: This is correct:
  Process effluent will be discharged in one of two ways:
  - *Batch processing orange will go through the holding tank and continuously drain to sewer below 45 deg.C under the current discharge consent license.*
  - *Batch processing yellow sharps effluent will be diverted by using the three-way valve, to an empty IBC. An empty IBC will be used as it is a UN approved container that holds 1000ltrs of water, made of HDPE, it is opaque in colour and whilst we intend to fit a high-level probe that alarms, it also gives the operator visual clarity on how full the IBC is. The IBC will be housed on a bunded pallet, the bunded pallet will be housed inside on impermeable surface. The IBC will be moved via forklift truck and placed onto a vehicle that will take it to an offsite facility for energy recovery or secondary liquid fuel.*

- Are there any changes in effluent composition e.g. substance concentrations, pollutants present that are not currently assessed arising because of the additional waste streams / treatment processes proposed as part of the variation?
  A: There maybe changes to the make-up of this effluent in terms of residual pharmaceutical waste being present, however as we propose to not send this to sewer and send it to an authorised facility, on EWC 161002. Therefore, we believe only the microbial element of the emissions testing will apply.

- Provide a response to the "Emissions to water or sewer" section of the Healthcare waste: appropriate measures for permitted facilities - Emissions monitoring and limits appropriate measures - Guidance - GOV.UK (www.gov.uk)
  A: As above

- Provide an updated emissions inventory.
  A: Please see 'Nottingham Emissions Monitoring'

- If there are changes then provide a completed "Part C6" form completing the relevant installation sections.
  A: N/A
- If changes have occurred provide an updated H1/risk assessment in line with the requirements set out in the appropriate measures (see emissions to water or sewer) section of the AM guidance.
  A: I have updated the RA to include effluent as a spillage from processing the yellow sharps waste.

Holding tank DAA:

Q: Provide a technical description of the holding tank e.g. design and construction in line with BAT/Appropriate measures guidance with particular attention to sections referencing;

- Overflows
  A: The IBC will be fitted with a high-level alarm and is opaque in colour, providing visual clarity on the fill level and an audible alarm when the capacity in nearing being full, allowing the changeover of IBC's.

- Spills and drainage system
  A: The containers we intend to use, to store the effluent generated from processing yellow sharps, is an IBC. The IBC is a HDPE composite material able to store up to 1000ltrs, it is a UN approved container that when new is inspected under a certificate of conformity, to say that it has undergone a leak proofness test. Whilst this certificate lasts for 5 years, we will need to visually inspect each IBC prior to use to ensure that is has not been damaged and has a bund enclosure on the top present, ready for closing once full. Any IBC that is damaged will need to be removed.
  The IBC has two openings, of which only the upper lid will be opened during filling and whilst on a bunded pallet, once full, the lid will be closed and this will be a sealed unit, reducing the risk of any spillage. The whole of the internal flooring within the warehouse is impermeable with the nearest drain to sewer being on the opposite side of the building.

- Impermeable surfaces, containment and bund capacity (i.e. greater than 110% of the largest tank or 25% of the total tankage, whichever is the larger)
  A: As above

- Fugitive emissions to air from valves and vents etc. Healthcare waste: appropriate measures for permitted facilities - Emissions control appropriate measures - Guidance - GOV.UK (www.gov.uk)

A: The larger storage tank will be used to house the effluent from processing orange wastes only, this will continually drain to sewer, all equipment has been installed by MBS, with seals and lagging where appropriate, ensuring a completely sealed process, Cliniwaste's daily checks perform part of the daily checks prior to use and the PPM is also carried out by MBS. The pressure systems are tested for integrity under the pressure systems regulations by a competent independent person: Thurra.
In terms of any emissions generated from the IBC's which will contain the effluent from processing the yellow sharps waste. Cliniwaste do not anticipate any emissions being produced from this activity with the new condensate system that has being installed.

Form Part F1 -Declarations:

The application requires a declaration to be made by a person with authority to do so.
Relevant people mean each applicant, and in the case of a company, a director, manager, company secretary or any similar officer/employee listed on current appointments in Companies House. In the case of a Limited Liability Partnership (LLP), it includes any partner.
If you wish a manager or other employee not listed on current appointments at Companies House to fill in the declaration on behalf of the company or LLP, we will need confirmation (by letter or email) from a relevant person; that is, an officer of the company or a partner in the LLP confirming that the person has the authority to fill in the declaration.

A: Our COO has emailed you a copy of this, but I have attached a copy please see 'Form F1 Declarations Authority Letter'

Figure 1: Process Map for Proposed Variation