CALDER VALLEY SKIP HIRE

ENVIRONMENTAL PERMIT APPLICATION REFERENCE \$13/006

OBJECTION FROM

5TH JUNE 2024

RELEVANT REGULATIONS AND GUIDANCE

- 1. The following are relevant for the determination of applications for a SWIP:
 - Environmental Permitting (England and Wales) Regulations 2016 ("Permit Regulations")
 - Regulation 13
 - Part 1 Schedule 5
 - o Schedule 13
 - o Schedule 6
 - Defra.2020. Environmental Permitting: Core Guidance. For the Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No 1154) ("**Core Guidance**")
 - Defra.2012. Environmental Permitting: General Guidance Manual on Policy and Procedures for A2 and B Installations: Local Authority Integrated Prevention and Control (LA-IPC) and Local Authority Pollution Prevention and Control (LAPPC) ("LA Guidance")
 - Environment Agency.2009. How to comply with your environmental permit additional guidance for: The Incineration of Waste (EPR 5.01) ("EPR Incineration Guidance")

SUMMARY OF MAIN GROUNDS OF OBJECTION

- 2. Schedule 13 provides that the regulator must ensure that every application for the grant of an environmental permit includes the information specified in Article 44 of the Industrial Emissions Directive. It is my view, supported by the information in the Objection from 1017 Residents submitted for Appeal reference APP/EPR/603 that this requirement has not been satisfied and therefore a permit should not be granted.
- 3. Further in relation to Schedule 13, and on the basis of the information contained in EPR Guidance, I do not consider that the application for the permit includes sufficient description of the measures which are envisaged to guarantee that the plant is designed, equipped and will be maintained and operated in such a manner that the requirements of Chapter IV of the IED which sets special provisions for waste incineration and co-incineration plant are met taking into account the categories of waste to be incinerated or co-incinerated.

- 4. On the basis of the information contained in EPR Guidance, I do not consider that the application meets the requirements under Schedule 13 that requires that the waste gases from waste incineration plants and waste co-incineration plants shall be discharged in a controlled way by means of a stack the height of which is calculated in such a way as to safeguard human health and the environment.
- 5. Under Paragraph 13 of Part 1, Schedule 5, the regulator has a positive obligation to refuse an application for an environmental permit if it considers that the following two conditions will <u>not</u> be satisfied. The conditions are that the applicant for the grant of the permit <u>must</u>:
 - be the operator of the regulated facility.
 - operate the regulated facility in accordance with the environmental permit.

On the basis of the information set out in this Objection I consider that the regulator could not be reasonably satisfied that the facility either can or will be operated in accordance with the permit conditions proposed. Therefore, a permit should not be granted.

- 6. Schedule 13 provides that the regulator must ensure that every application for the grant of an environmental permit includes the information specified in Article 44 of the Industrial Emissions Directive. It is my view, backed up by the information in the Objection from 1017 Residents submitted for Appeal reference APP/EPR/603 that this requirement has not been satisfied and therefore a permit should not be granted. (First Main Ground of Objection)
- 7. Paragraph 5.9 of the Core Guidance states

"Where proposals involve substantial expenditure, whether on construction work, equipment, software, procedures or training, operators should normally make an application when they have drawn up full designs but before any work commences (whether on a new regulated facility or when making changes to an existing one)."

8. The LA Guidance Page 42 paragraph 4.12 states

"In the majority of cases, operators should apply for a permit when they have drawn up full designs, but before starting construction work. Where installations are not particularly complex or novel, the operator should usually be able to submit an application at the design stage containing all information the local authority needs to make a determination. This would include proposals for management of the installation and training of operational staff."

9. The LA Guidance Page 45 paragraph 4.24 states

"Authorities will need to know the precise nature of the installation they are being asked to permit and how the operator proposes to deal with the environmental effects of the installation. It is essential that the application is sufficiently detailed and with sufficient supporting maps and diagrams to allow an authority to examine all elements of the activities and installation for which a permit is being sought, covering everything from receipt of material to the despatch of waste and finished products." 10. I refer to the Objection from 1017 Residents against the previous permit application which stated

At paragraph 38 "The majority of information that would explain how the main plant items in the SWIP will operate is not provided. There is no information at all for the heat exchanger or for the dryer. The incinerator and pollution control information is limited to brochures with very basic technical data. Other than the information sheet for the ORC unit there is nothing provided to explain what is included in the key plant items or how they relate to or connect together in terms of process, heat transfer, heat balance, steam system, and electrical system."

And at paragraph 39 "The plant diagram, contrary to its title of "process diagram", does not explain the processes or how they link together. The plant equipment, other than the ORC unit, are not explained at all in terms of process or what they include or exclude."

And at paragraph 40 "Nearly all process and technical information is missing, a long way distant from the requirement to draw up full designs before making the permit application. In fact, there is no information to suggest that there has been any meaningful process and engineering design or any meaningful space planning or any design health and safety risk assessments, or any designer appointments in this respect."

- 11. The information that was missing from the previous environmental permit application reference S13/005 is missing from the current Permit Application reference S13/006. I consider that the Permit Application has not, therefore, complied with Paragraph 5.9 of the Core Guidance, and has not complied with paragraphs 4.12 and 4.14 of the LA Guidance, and the non-compliance is substantial.
- 12. Calderdale Council has not refused the Permit Application on the basis of insufficient information. However, Paragraph 7.7 of the Core Guidance states one of the reasons for regulator refusal is that the operator information does not provide a reasonable basis to determine the permit conditions. I consider that the evidence provided in this Objection that the Permit Application does not provide a reasonable basis to determine the permit conditions is substantial, and that this should be considered as a key reason for refusal of the Permit Application.
- 13. One consequence of lack of design is that the plans for the equipping including the appointment of installation contractors for the equipping cannot be determined. The Industrial Emissions Directive Article 44 (a) requires that the Environmental Permit Application shall guarantee the design and equipping which I consider can only be achieved through guarantees from the designers and the installation contractors. There is no evidence that guarantees have been provided.

- 14. The Permit Application paragraph 1.5.5 states that "the application is being submitted on the same basis as the original application" and that "further information is provided to inform the redetermination in 2022 and certain documents from the hearing sessions in two appeal hearings in November 2022 and May 2023 have been incorporated." However, the only plan drawing of the installation reference JER1902-PER-001 Rev D which was included in the permit application S13/005 is missing from the Permit Application S13/006.
- 15. There now appears to be less information than in the previous application. For example, the clearly defined site boundary shown on plan drawing reference JER1902-PER-001 Rev D has been replaced by a less defined site boundary indicated on drawing reference JER1902-0002-02. It significantly increases the site area for the installation which is a material change from the original application which puts substantial parts of the installation outside the site boundary that was approved in the Planning Appeal. The application is not submitted on the same basis as the original application.
- 16. I refer to the Objection from 1017 Residents against the previous permit application paragraphs 69 to 81, based substantially on review of drawing reference JER1902-0002-02, which demonstrated that the plant and equipment could not be contained within the existing building or within the boundary limits of the site of the regulated facility.
- 17. Paragraph 4.2.3 of the Environmental Permit Application states that *"The ORC unit will be skid mounted and therefore can be made mobile as necessary to facilitate routine maintenance."* This statement contradicts the manufacturers information which requires that *"the skid requires at least 1.5 metres of free space on all sides for easy maintenance access."* The movement of the skid for routine maintenance would require disconnection of multiple pipes and cables that are integral to the operation of the incinerator. For example, the disconnection of the condenser that facilitates the cooling of the incinerator would necessitate complete shutdown of the plant, a matter that has not been considered in any risk assessments to support the Permit Application. It is far removed from easy access for routine maintenance.
- 18. Paragraph 4.2.2 of the Environmental Permit Application states that "as set out in Article 42(1) of the IED, the ORC unit is not part of the waste co-incineration plant". However, I consider by reference to Article 42(1), it is part of the "devices and systems for controlling incinerator or co-incinerator operations", since cooling of the plant cannot be achieved without the ORC unit being in operation.
- 19. As stated in the Objection from 1017 Residents paragraphs 69 to 81, the ORC unit is just one of a number of items of plant and equipment that could not be contained within the existing building. The insufficiency of the space within the existing building to contain the plant and equipment as indicated is substantial. The Permit Application is non-compliant with the requirement of Planning Appeal reference APP/A4710/W/18/3205776 Procedural Matters Paragraph 3 to contain the plant installation within the existing building.

- 20. Further in relation to Schedule 13, and on the basis of EPR Guidance, I do not consider that the application for the permit includes sufficient description of the measures which are envisaged to guarantee that the plant is designed, equipped and will be maintained and operated in such a manner that the requirements of Chapter IV of the IED which sets special provisions for waste incineration and co-incineration plant are met taking into account the categories of waste to be incinerated or co-incinerated. (Second Main Ground of Objection)
- 21. The **LA Guidance** Page 22 para 1.20 states "Where an installation falls under more than one Directive each set of Directive requirements must be met. For example, a waste incinerator must meet the requirements of the IPPC, Waste incineration and Waste directives."
- 22. The **"EPR Incineration Guidance"** states at page 3 paragraph 3 that the Guidance applies to regulated activities related to *"the incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne per hour or more"*. The introduction to the **EPR Incineration Guidance** on the GOV.UK website states *"This guidance document is still current and how the Environment Agency regulates you and your legal requirements have not changed."* And *"Some of the documents referred to in this guidance have been withdrawn and replaced with new versions."* I note that the Industrial Emissions Directive ("**IED**") supersedes the Waste Incineration Directive ("**WID**") in this respect.
- 23. Page 6 paragraph 3 of the **EPR Incineration Guidance** states "You will need to comply with WID when thinking about the following aspects of your installation:
 - waste reception
 - feedstock composition
 - waste charging
 - furnace types and requirements
 - combustion conditions
 - dump stacks and bypasses
 - cooling systems
 - boiler design
 - emissions to air, water, sewer, groundwater and land
 - odour
 - monitoring and reporting of emissions
 - emissions benchmarks
 - residues handling and disposal"
- 24. In respect of furnace types and requirements on the above list, the Permit Application paragraph 3.3.5 states "The waste feed system for the installed SWIP uses an updated Autoloader design from Inciner8 specifically suited to solid waste feeds such as RDF. Whilst the original standard Inciner8 I 1000 unit includes a top loaded feature the updated Inciner8 design allows for waste to be side loaded (see Appendix D). The side loaded feed of RDF will increase the performance capacity of the plant compared to that of the previously top loaded design. RDF will be transferred from the waste reception into the primary chamber via an Autoloader, providing a regular feed supply to the SWIP."

- 25. And paragraph 3.4.5 states "Bottom ash remaining following combustion of the RDF drops down from the primary container and is collected in three storage compartments which correspond to the three compartments of the primary chamber. The bottom ash storage compartments are equipped with robust metal doors which remain closed at all times during the combustion process. The ash storage compartments are spacious and are considered to be sufficient to store 5 days' worth of ash. In accordance with the manufacturer's instructions the ash will only be removed at the end of the incineration process when the ash has cooled down."
- 26. However, the Solid Solutions Flow Simulation Report in Appendix F to the Permit Application states on page 2 "The SWIP has a primary combustion chamber for the combustion of wastes" and the several diagrams throughout the Flow Simulation Report and a photograph of the incinerator on page 27, show a single fixed grate and primary chamber, with only the ash storage compartmentalised. In my opinion it is a fixed hearth incinerator.
- 27. The **EPR Incineration Guidance** at page 44 Table 2.1 states that fixed hearth combustion is not suitable for combustion of RDF.
- 28. The **EPR Incineration Guidance** page 45 paragraphs 1 and 2 states "while fixed hearth incinerators have been used for clinical waste they are now normally only acceptable for the incineration of consistent wastes whose combustion has a low pollution potential. They are in use for animal carcass incineration where the containment offered by the fixed hearth may help to ensure unburned liquids (eg fat) do not leak out." and

"The design may have difficulty in meeting WID standards, mainly due to the semi-batch nature of the waste travel on the grate and de-ashing operations."

29. With regard to de-ashing operations, my previous objection dated 1 April 2024 to the Permit Application is attached to this Objection. The 1 April 2024 Objection calculated from the incinerator dimension information in the Solid Solutions Flow Simulation Report and from the ash content described in the Permit Application, that the plant would have to be stopped and cooled down to allow ash removal then restarted between 1 and 3 times per day.

I consider that the fossil fuel burning through additional use of the burners during additional shutdowns would increase significantly. The time lost for RDF incineration because of frequent shutdowns would be significant. The potential for increased emissions exceedances from the more frequent unplanned shutdowns and the difficulty of controlling the incinerator while it is filling up with ash would be significant. The plant could not operate for 5 days (or even one day) continuously to meet the requirements of the Permit Application.

30. The **EPR Incineration Guidance** at page 41 Item 5 states "Charging rates outside the installation design capacity undermine environmental performance. The capacity will vary according to the calorific value (CV) of the waste feed. The design should be declared in the Application and a firing diagram included. At all installations close attention should be paid to the procedures that are in place to ensure that the designed charging rate is not exceeded. You should record throughput rates and not exceed that declared in the application. You should alter mass throughput rates in order to ensure optimum combustion conditions are achieved, whilst ensuring that waste residence in the chamber is sufficient to secure ash burn out requirements."

- *31.* The Permit Application Non-Technical Summary paragraph 2 states *"The SWIP will process up to 2 tonnes per hour of refuse derived fuel. The maximum annual throughput will be 10,000 tonnes per annum of RDF, all of which will come from the existing adjacent WTS facilities."*
- *32.* The Permit Application paragraph 3.4.2 states *"The SWIP will operate at a RDF feed rate of up to 2 tonnes per hour with a maximum throughput of 10,000 tonnes per annum."*
- 33. And paragraph 3.3.5 states "The waste feed system for the installed SWIP uses an updated Autoloader design from Inciner8 specifically suited to solid waste feeds such as RDF. Whilst the original standard Inciner8 - I 1000 unit includes a top loaded feature the updated Inciner8 design allows for waste to be side loaded (see Appendix D). The side loaded feed of RDF will increase the performance capacity of the plant compared to that of the previously top loaded design. RDF will be transferred from the waste reception into the primary chamber via an Autoloader, providing a regular feed supply to the SWIP"
- *34.* There is no evidence provided in the Permit Application that the plant can be operated at up to twice the design capacity of 1 tonne per hour. The autoloader will increase the waste feed but the ability of the plant to withstand the additional loading has not been assessed, and in this respect the **EPR Incineration Guidance** at page 41 Item 5 to declare the design and provide a firing diagram has not been followed.
- *35.* This Objection has also demonstrated at paragraphs 29 and 30 that the proposed level of waste input that is double the design capacity will lead to severe problems with de-ashing to the extent that the plant cannot operate continuously to meet the requirements of the Permit Application, and control of emissions will be compromised.
- *36.* The **EPR Incineration Guidance** at page 58 states that the operator should "Only operate dump stacks for safety reasons or to prevent damage to gas cleaning plant; and operational frequencies greater than once per year are unlikely to be acceptable; and when a dump stack or emergency bypass operates this will be considered to be a period of abnormal operation and the process should be reduced or closed down; and dump stacks are to be routed to the main stack thus forming a bypass which will improve dispersion and allow monitoring equipment to quantify the release; and the reliability of heat removal systems should be demonstrated to be adequate."
- 37. The Permit Application makes no reference to a dump stack, but the Solid Solutions Flow Simulation Report page 28 shows a photograph of a dump stack describing it as an emergency outlet. The emergency outlet has no bypass to the flue stack which means that flue gas emissions which have not been cleaned can go to atmosphere without monitoring of frequency or extent of operation of the dump stack and emissions exceedances, or the ability to shutdown the plant when the emergency outlet is used. The 99% + efficiency of ceramic filter gas cleaning suggests potential emissions of multiple times the legal limit from the emergency outlet, with significant implications for the environment and human health.
- *38.* The Permit Application has not been clear about its provision of a dump stack and it is noncompliant with the **EPR Incineration Guidance** to provide a bypass to the flue stack.

- *39.* The Objection from 1017 Residents to the previous permit application paragraphs 103 and 104 expressed concern about the unusual proposal to duct air from the heat exchanger to the dryer described on drawing JER1902-PER-001 Rev D as *"Clean air ducted from this outlet of the Heat Exchanger to the external dryer and separately to the ORC Unit."* which would risk further uncontrolled emissions from corrosion by acid gases that would not be monitored and would not register through the control system.
- 40. The current Permit Application Non-Technical Summary paragraph 7 states "The SWIP is intended to specifically recover energy, via combustion, from RDF. Energy will be recovered from the hot combustion flue gas. Approximately 1.28 MWth of heat will be produced and approximately 180-200 kWe of electrical energy, part of which will be utilised on site, and the balance to be exported to the Grid. The thermal energy will be transferred to the drying plant for use in the adjacent drying activities." And paragraph 1.1.3 of the main text states "Heat produced by the SWIP, which is anticipated to be 1.28 MWth, will be used within a new drying plant which is permitted as part of the WTS activities also operated by CVSH".
- 41. The heat transfer from the heat exchanger via the ORC to the dryer proposed in the Permit Application is substantially different to that proposed in the previous permit application. It appears that the large duct shown as an opening direct to atmosphere on drawing JER1902-PER-001 Rev D but stated as going from the heat exchanger direct to the dryer is no longer required, since heat to the dryer is already transferred to the dryer via the ORC. However, this is not clear from the wording of the Permit Application which also states at paragraph 1.5.5 that *"the application is being submitted on the same basis as the original application"*.
- 42. If it is still to be provided, then it will not comply with **EPR Incineration Guidance** Section 1.2 to use waste heat for the dryer, as it would be using direct heat from the heat exchanger, and it would not comply with **EPR Incineration Guidance** page 28 to provide a bypass to the flue stack.
- *43.* The thermal energy produced by the SWIP operating at the 2 tonnes per hour of waste feed and the waste calorific value of 10MJ/kg stated in the Permit Application will produce 5.56 MWth of thermal energy, the calculation being:
 - Average CV of RDF stated in Permit Application 10MJ/kg
 - Conversion rate 1MJ = 0.278 MWh
 - RDF feed rate 2 tonnes per hour (2000kg per hour)
 - Heat energy generated is 2000kg x 10MJ/kg x 0.278 conversion rate = 5.56MWh
- 44. This is around 4 times the thermal energy that appears be dissipated via the ORC and drying plant. Since the thermal energy from the incinerator falls significantly short of being removed via the ORC and dryer system, it appears that the excess thermal energy can only be removed via the dump stack or the opening shown on drawing JER1902-PER-001 Rev D, both of which are an environmental risk and both of which are not monitored.
- 45. Furthermore, since the dryer cannot operate at night due to planning condition then the ORC also cannot operate. At night there is a risk that all the heat and untreated gases from the incinerator could be released directly to atmosphere, via the dump stack or opening shown on drawing JER1902-PER-001 Rev D, without monitoring, all contrary to page 58 of the **EPR Incineration Guidance**.

- 46. The permit Application states at paragraph 4.3.1 "The parasitic load of the SWIP will be approximately 1 MW." Whilst I find it hard to believe that the parasitic load will be so high, I note that it is more than 5 times the 180-200kw electricity generated as stated in the Permit Application. At the stated parasitic load no electricity would be generated for external use and the cost of additional electricity required to operate the incinerator at the current rate of 25p per kw would be £200 per hour or approximately £1 million per annum.
- 47. On the basis of the information contained in EPR Guidance, I do not consider that the application meets the requirements under Schedule 13 that requires that the waste gases from waste incineration plants and waste co-incineration plants shall be discharged in a controlled way by means of a stack the height of which is calculated in such a way as to safeguard human health and the environment. (Third Main Ground of Objection)
- 48. **EPR Incineration Guidance** states that fixed grate incinerators are not suitable for the incineration of RDF. The Inciner8 I8-1000 incinerator stated in the Permit Application is therefore not suitable for the SWIP. (Objection paragraph 27)
- 49. **EPR Incineration Guidance** states that charging rates over the design capacity of an installation will undermine its environmental performance. The Permit Application proposes to charge the incinerator at twice the Inciner8 I8-1000 charging rate. (Objection paragraphs 31 to 36)
- 50. **EPR Incineration Guidance** states that dump stacks are to bypass the flue gas cleaning to the main flue so that fugitive emissions can be quantified. However, the Solid Solutions Flow Simulation Report shows a photograph of a dump stack that was not identified in the Permit Application and which did not have a bypass. (Objection paragraphs 37 to 39)
- 51. **EPR Incineration Guidance** states that dump stacks should be operated no more than once per year and should be regarded as abnormal operation requiring shutdown of the plant. (Objection paragraphs 37 to 39)
- 52. **EPR Incineration Guidance** states, in relation to dump stacks, that the reliability of heat removal systems should be demonstrated to be accurate. It appears that only 25% of the heat to be removed is accounted for in the heat removal systems described in the Permit Application, although the Permit Application is unclear regarding heat balance. The heat removal system does not appear to be accurate and does not appear to be sufficient to avoid repeated use of the dump stack and consequent requirement for repeated emergency plant shutdowns. (Objection paragraphs 40 to 46).
- 53. I consider that the dump stack, as identified in the Solid Solutions Flow Simulation Report, and as a consequence of operating the plant well above its design capacity and having insufficient heat removal systems, cannot be operated in accordance with **EPR Incineration Guidance.** (Objection paragraphs 40 to 46).

- 54. It is not clear from the Permit Application whether the vent shown on drawing JER1902-PER-001 Rev D to the previous permit application as *"Clean air ducted from the outlet of the heat exchanger to the external dryer"* is still intended to be provided. If it is, then it will not comply with **EPR Incineration Guidance** Section 1.2 to use waste heat for CHP, as it would be using direct heat from the heat exchanger. (Objection paragraphs 40 to 43).
- 55. Under Paragraph 13 of Part 1, Schedule 5, the regulator has a positive obligation to refuse an application for an environmental permit if it considers that the following two conditions will <u>not</u> be satisfied. The conditions are that the applicant for the grant of the permit <u>must</u>:
 - be the operator of the regulated facility.
 - operate the regulated facility in accordance with the environmental permit.

On the basis of the information set out in this Objection I consider that the regulator could not be reasonably satisfied that the facility either can or will be operated in accordance with the permit conditions proposed. Therefore, a permit should not be granted. (Fourth Main Ground of Objection)

- 56. As evidenced earlier in this Objection I consider that the fixed grate incinerator on which the Permit Application is based cannot be operated in accordance with the permit conditions proposed due to
 - The insufficiency of the space within the existing building to contain the plant and equipment which is substantial. The Permit Application is non-compliant with the requirement of Planning Appeal reference APP/A4710/W/18/3205776 Procedural Matters Paragraph 3 to contain the plant installation within the existing building.
 - The insufficiency of the plant cooling system since the thermal energy from the incinerator falls significantly short of being removed via the ORC and dryer system. The dryer cannot operate at night due to planning condition, therefore, the plant cannot operate at night.
 - There is potential for significant and unmonitored emissions exceedances from the opening of the emergency valve when the plant is overheating. The emergency valve does not meet the requirements of the **EPR Incineration Guidance**.
 - The plant would need to be stopped and cooled down to allow ash removal then restarted between at least 1 and 3 times per day. The fossil fuel burning through additional use of the burners during these additional shutdowns would increase significantly. The time lost for RDF incineration because of frequent shutdowns would be significant. The potential for increased emissions exceedances from the more frequent unplanned shutdowns and the difficulty of controlling the incinerator while it is filling up with ash would be significant.

- 57. The properties of the RDF to be burned in the incinerator are stated in the Permit Application as calorific value approximately 10 MJ/kg, water content 10% and ash content 10%.
- 58. The Gov.UK Digest of UK Energy Statistics (DUKES): calorific values and density of fuels states average gross calorific values in Table A 1.4
 - Textiles 29.4MJ/kg
 - Wood 17Mj/kg
 - Paper 24.2Mj/kg
 - RDF 18.5Mj/kg
- 59. Since water and ash are non-combustible, there would be a combustible content in the RDF of 80%. The ash is inert and makes little contribution to the calorific value, and the water content reduces the calorific value as it requires energy to boil off during the burning process. The EPR Incineration Guidance page 27 paragraph 1 states *"In general the waste streams produced comprise bottom ash 25% by weight and 10% by volume of input for a modern MWI."* I consider it is unlikely, therefore, that the RDF would have a calorific value of 10Mj/kg if the ash and water content were each 10%, and that the ash content is more likely to be around 25%.
- 60. The Permit Application paragraph 3.2.3 states *"CVSH have waste pre-acceptance procedures in place to ensure that only wastes that are non-hazardous will be accepted into the WTS."*

And paragraph 3.2.5 states "The mechanical treatment stage at the adjacent waste management facility will assist in mixing the incoming waste as received and assist in creating a more homogeneous material than the incoming wastes received at the WTS, albeit still variable in nature."

And paragraph 3.2.6 states "Specific chemical analysis of the RDF composition from the CVSH facility is not available."

- 61. There are no assurances given in the Permit Application that certain non-hazardous wastes that in large proportions could cause spikes in emissions will be screened as part of the preacceptance procedures to the WTS. The only assurance that is given is that the incoming waste will be mixed within the WTS and that there will be visual inspections for contraries. Two examples of potentially problematic wastes, plasterboard and plastic, are provided in the **EPR Incineration Guidance** page 28 Item 11. This issue is further complicated by the WTS being regulated under separate permit with a different regulator.
- 62. I can find nothing in the Permit Application that states how the weight and mass of the RDF will be determined, yet it is a clear request on the Councils Application Form Section 5.2 that this information is to be provided.
- 63. I can find nothing in the Permit Application that states how documentation accompanying the RDF will be checked, how the suitability for combustion will be checked in terms of chemical information, or the sampling of the RDF to check that it is suitable for combustion, yet these matters are the subject of clear requests on the Councils Application Form Section 5.3 for this information to be provided.

- 64. It is not clear in the Permit Application about the mass or composition of the RDF or about the acceptance procedures to determine and record its mass and composition. In this respect it is noted that the CVSH proposed Environmental Management System for the SWIP states at paragraph 3.1.2 that *"RDF to be burned within the SWIP has been subject to waste characterisation analysis to confirm its suitability for acceptance for treatment within the SWIP"*, a statement that contradicts paragraph 3.2.6 of the permit Application.
- 65. What is also of concern is statement at paragraph 3.1.3 of CVSH proposed Environmental Management System for the SWIP which states *"An annual waste transfer note is in place to cover waste transfers from the WTS to the SWIP for record-keeping purposes."* This is a clear non-compliance with **EPR Incineration Guidance** page 34 Item 24 which states *"If you operate a merchant incinerator, you should have systems to*
 - Ensure that waste arrives with information covering
 - Its physical and chemical composition
 - Any other information necessary to assess its suitability for incineration
 - Its hazard characteristics
 - Substances with which it cannot be mixed and
 - Handling precautions
 - Confirm the information by
 - Checking the quantity is as declared by the consignor
 - Documentation checks and
 - Sampling where appropriate"

and **EPR Incineration Guidance** page 34 item 25 which states *"If you operate an in-house incinerator you should have procedures that give the same level of protection (as a merchant incinerator). In particular, where non-hazardous wastes are being burned, your procedures should ensure that only the permitted wastes are burned."*

- 66. **EPR Incineration Guidance** Section 1.4 indicates 25% ash content in MSW. If the ash content is 25% then the furnace will fill up with ash two and a half times as quickly as I calculated in my previous objection, and the furnace would require to shut down between 3 and 7 times per day.
- 67. A higher CV would proportionately increase the thermal energy generated by the furnace. As demonstrated in my earlier analysis of waste feed that is over capacity, thermal load that is not anticipated by the plant design and equipping could lead to emergency discharges that are unmonitored and unmitigated discharges to atmosphere.
- 68. I have a number of concerns related to plant operations.
 - Incineration skills and expertise to operate the SWIP are so far removed from current WTS operations that I would have expected recruitment of a separate team to manage the SWIP. A team that has some experience of waste incineration.

- The procedures and risk assessments only cover normal operations, they do not cover plant operation to ensure emissions limits are not exceeded. There is no mention of the role of the plant operator or of a control room or its location.
- There is no of evidence provided of operator expertise in incineration or plans to address plant operations. I would have expected the person leading this to have technical expertise in the operation of an incineration plant but there is no evidence provided. In this respect I note that this information was requested on the Councils Application Form Section 7.1 which states *"describe how the person responsible for the day to day operation of the incineration plant will be selected and trained, and how the persons competence to operate the plant will be checked and reviewed."*
- By reference to the Councils Application Form Section 7.2, it appears that more detail specific to the SWIP was required related to operations than has been provided. For example, a schedule of maintenance covering all plant and equipment at the installation.
- 69. This Objection demonstrates failures of the Permit Application to demonstrate that the Applicant is competent to operate the regulated facility. Many of these failures have been repeated despite being previously informed of them in the Objection from 1017 Residents to the previous permit application. Many of these failures are failures to comply with regulatory guidance. Many of these failures are failures to comply with conditions of the Planning Approval. Many of these failures risk emissions exceedances to atmosphere and resulting plant shutdowns.
- 70. On the basis of the information set out in this Objection I consider that the regulator could not be reasonably satisfied that the facility either can or will be operated in accordance with the permit conditions proposed. Therefore, a permit should not be granted.