

Document 9: Justifying of Compliance with BAT/Appropriate Measures (Areera Ltd, Bury St Edmunds WTEE Storage Installation)

Best available techniques (BAT) for this activity are detailed in the EA's Appropriate Measures for WTEE (Waste Temperature Exchange Equipment). This can be accessed via the following link:

<https://www.gov.uk/guidance/waste-temperature-exchange-equipment-appropriate-measures-for-permitted-facilities/4-waste-storage-and-handling-appropriate-measures>

Also of relevance is the EA's Regulatory Position Statement (RPS375) which details extra allowances for storage of WTEE - including relaxing of the 3-month maximum storage duration limit:

<https://www.gov.uk/government/publications/temporary-waste-temperature-exchange-equipment-wtee-storage-due-to-national-treatment-capacity-constraints-rps-375/temporary-waste-temperature-exchange-equipment-wtee-storage-due-to-national-treatment-capacity-constraints-rps-375>

The key principles of the appropriate measures are as follows, with justification of compliance in the right-hand column of Table 1.

Conformance to BAT Conclusions (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018D1147-20180817>) is detailed in Table 2, below.

Table 1: Appropriate Measures Conformance

Requirement as set out in the Appropriate Measures:	How this is complied with:
1. You must store and handle WTEE in a way that protects and prevents damage to cooling circuits, compressors, the appliance casing and foam insulation. WTEE must not be tipped.	WTEE will be subject to storage only, and within the storage configurations set out in RPS375, i.e. maximum storage piles of 3.6m in height and 450m ² in volume. Additionally, WTEE will be stored upright and will be placed in the above configurations via fork-lift truck and will not be tipped.
2. You must store and handle WTEE that has not been degassed whole. You must not store or handle it in a way that could damage the cooling circuit, for example, by storing or resting it horizontally on its back or in a way that could cause the cooling circuits to interlink or entangle.	The units will be stored whole and stored upright and will be handled in such a way to protect the cooling circuit.
3. You must make sure that sufficient space is maintained between WTEE, and between it and other structures (for example, storage bay walls), This is so: • it can be picked up and handled safely and easily • it minimises the need to handle or move it, or WTEE next to it	There will be at least 3m separation distance between each storage block and other structures for external storage and 6m for internal storage, allowing the WTEE units to be picked up and handled safely and easily and to minimise required handling.
4. Any mechanical equipment you use to handle WTEE (for example, forklifts and their associated attachments) must be designed and used in a way that makes sure they do not damage the cooling circuit, appliance casing or insulation foam of the equipment. You must control and minimise any force or pressure applied to WTEE during handling whilst ensuring it is done safely (for example, that it will not slip or fall).	This will be the case – movement of WTEE units will be via fork-lift truck and they will be handled appropriately to prevent damage.
5. Following visual inspection (during initial waste acceptance or routine site inspection), if WTEE is found to be damaged to the extent that insulation foam can be seen exposed or it is assessed as posing a significant risk of releasing refrigerant gas or oil, you must:	A quarantine area is in place for any non-compliant WTEE - such as that which has potential leaking of refrigerant gas or oil or with exposed insulation foam - for prioritised removal off-site for processing and with feasible fixing of any leaks where safe and practicable. The quarantine area is away

• move it to a well-ventilated area, away from potential sources of ignition and other combustible wastes • store it under weatherproof covering • prioritise its treatment or transfer, where it is safe and possible to do so Before treatment or transfer, if safe and practicable to do so, you may be able to fix leaks from the cooling circuit or compressor of the WTEE by applying an epoxy resin or similar material.	from potential sources of ignition or other combustible wastes.
6. You must not store WTEE for longer than 3 months before treatment or off-site transfer. You should remove all other wastes from your site within a maximum of 6 months from receipt.	It is intended to have a maximum storage duration of 3 months before treatment or off-site transfer. It is noted, however, that under RPS375, a regulatory position statement from the EA, this storage duration limit is rescinded. As such, WTEE (fridges/freezers and wider WTEE) will be moved off site within 3 months only when technically and economically feasible - and otherwise the RPS375 position of non-time-bound storage will be adopted.
7. You must store WTEE and any combustible waste materials resulting from the treatment of WTEE (for example, plastic, foam and waste packaging) in line with an approved fire prevention plan. This includes: • maintaining adequate fire breaks between waste storage areas • making sure there is safe access in and around storage areas and storage containers and vessels to allow inspection	Storage will be in line with the Fire Prevention Plan detailing adequate fire breaks between waste storage areas and storage to allow inspection of the stored material.
8. You must store WTEE in a safe and stable manner on level ground and on an	This is the case - level ground and impermeable surface for storage with a

impermeable surface provided with sealed drainage. You must not stack or store equipment more than 3.6m high.	sealed drainage system and storage limited to 3.6m in height.
9. Where WTEE has been dismantled into panels (for example, cold room panels or large commercial refrigeration units), you must make sure you store and handle them in a way that prevents damage to the foam (for example, fragmentation or compaction). If you stack panels, you must do this in a way that makes sure the stack is stable and the panels are not damaged, particularly those at the base of the stack. You must protect dismantled foam panels from the weather (wind and rain) and sources of heat – for example, by storing them in a dedicated area of a roofed building or under weatherproof covering.	This is not relevant as whole items of WTEE (predominantly fridges/freezers) only.
10. You must store compressors removed from equipment in containers or heavy-duty bags that are secure, weatherproof and leak-proof, and on an impermeable surface with sealed drainage. This is to contain any spills from the small residual quantities of oil they may contain and to minimise handling. The containers or bags must be: • closed or kept under cover to prevent the accumulation and contamination of rainwater • kept away from sources of heat (for example, direct sunlight)	This is not relevant as whole items of WTEE (fridges) only.
11. You must collect and store blowing agents, refrigerants, and compressor oil that has not been degassed in appropriate gas-tight containers that are sealed. Recovered blowing agents and refrigerants sent for off-site destruction should be collected and stored in pressurised collection vessels suitable for road transportation.	This is not relevant as whole items of WTEE (fridges) only.
12. You must store degassed oil, recovered from compressors and cooling circuits, in	This is not relevant as whole items of WTEE (fridges) only.

above-ground storage tanks or sealed containers. These must: • have appropriate secondary containment systems • be located on an area of impermeable surfacing provided with sealed drainage	
13. If you treat different types of WTEE in separate batches or by using different plant or processes (for example, based upon refrigerant or blowing agent type), you must sort them by type and store them separately before treatment. If you are not permitted to treat certain types of WTEE and only accept them for storage and transfer (for example, you are not permitted to treat WTEE containing volatile fluorocarbon (VFC) blowing agents through your stage 2 process, or you are unable to degas ammonia refrigerants) then you must identify and store these wastes separately from those that you are permitted to treat (for example, based upon blowing agent or refrigerant type). You must label the areas of a site where you store different types of WTEE (using signs or markings), so it is clear what WTEE is to be stored where.	Not relevant as no treatment on site. Where additional categories of WTEE (other than fridges/freezers) are stored, these will be labelled accordingly to detail storage of fridges / air conditioning systems / water coolers / heat pumps / dehumidifiers / dryers and washing machines with heat pumps / ice cream makers. Though fridges will account for almost all of the wastes stored there (95 - 100%).
14. You must clearly mark and label storage areas, containers and storage vessels – for example, with the relevant LoW (List of	Storage areas will be labelled with relevant information on wastes stored there (EWC codes and hazardous properties).

Waste) or EWC (European Waste Catalogue) codes and any hazardous properties – and store hazardous wastes in accordance with their hazardous properties.	
15. You must store and manage any food waste, biodegradable waste, or waste with potential for releasing fugitive emissions (including dust or odour) in a way that prevents and minimises such emissions. For example, by storing them within a building or closed container and prioritising them for treatment or transfer.	All fridges and freezers will be checked for food, drink and other residual contents before unloading and final acceptance at the site. This check will form part of the waste acceptance procedure and will be recorded where required. Where food or drink waste remains within an appliance, the load or affected appliances may be rejected and will not be accepted into storage until the issue has been appropriately resolved. Rejected loads will be managed in accordance with the site rejection procedure, with the reason for rejection recorded and communicated to the customer or haulier as appropriate.
16. You must regularly inspect storage containers, vessels and drums and keep them in sound condition.	Regular (weekly) visual inspection of storage infrastructure will take place.
17. You must conform to Health and Safety Executive (HSE) safety standards where relevant, specifically: • <u>HSG51: The storage of flammable liquids in containers</u> • <u>HSG103: Safe handling of combustible dusts: Precautions against explosions</u> • <u>HSG140: Safe use and handling of flammable liquids</u> • <u>HSG176: The storage of flammable liquids in tanks</u> • <u>L117: Rider-operated lift trucks: Operator training and safe use</u> • <u>INDG139 Using electric storage batteries safely</u>	It is agreed that these relevant Health and Safety Executive (HSE) safety standards will be complied with.

18. You must make sure that plant and equipment in which compressed gas (including, for example, nitrogen gas) is stored or used, are designed, operated and maintained in line with relevant industry standards and guidance. You can find further information on the British Compressed Gases Association and HSE websites.	Any on-site equipment with compressed gas will be appropriately maintained.
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Table 2: BAT Conclusion Conformance: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018D1147-20180817>

BAT Conclusion	Areera Response (07.09.2026)
BAT 1 – Environmental management systems AT 1. In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features: I. commitment of the management, including senior management; II. definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation. III. planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment; IV. implementation of procedures paying particular attention to: (a) structure and responsibility, (b) recruitment, training, awareness and competence, (c) communication, (d) employee involvement, (e) documentation, (f) effective process control, (g) maintenance programmes, (h) emergency preparedness and response, (i) safeguarding compliance with environmental legislation; V. checking performance and taking corrective action, paying particular attention to: (a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations – ROM), (b) corrective and preventive action, (c) maintenance of records,	Certificate of the ISO14001 accreditation is pending. At present, Areera Ltd operates its Own Management System for the site, as detailed in Appendix 4. This adheres to the requirement of BAT 1 – i.e. to implement a compliant environmental management system (EMS).

(d) independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained;

VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness;

VII. following the development of cleaner technologies;

VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life;

IX. application of sectoral benchmarking on a regular basis;

X. waste stream management (see BAT 2);

XI. an inventory of waste water and waste gas streams (see BAT 3);

XII. residues management plan (see description in Section 6.5);

XIII. accident management plan (see description in Section 6.5);

XIV. odour management plan (see BAT 12);

XV. noise and vibration management plan (see BAT 17).

Applicability The scope (e.g. level of detail) and nature of the EMS (e.g. standardised or non-standardised) will generally be related to the nature, scale and complexity of the installation, and the range of environmental impacts it may have (determined also by the type and amount of wastes processed).

BAT 2. In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques given below: a) Set up and implement waste characterisation and pre-acceptance procedures b) Set up and implement waste acceptance procedures c) Set up and implement a waste tracking system and inventory d) Set up and implement an output quality management system e) Ensure waste segregation f) Ensure waste compatibility prior to mixing or blending of waste g) Sort incoming solid waste	Waste pre-acceptance and acceptance controls and waste tracking system and inventory as set out in the written management system (Appendix 4) Outputs are identical to inputs – with no processing on site so an output quality management system is not applicable. Wastes will be segregated and stored by type as detailed in the written management system. There will be no mixing or blending of waste. All incoming waste is solid and will be sorted according to type.
BAT 3. In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1)	Not Applicable: No emissions to water or air arising from the Installation activities.
BAT 4: In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below:	Storage complies with the requirements set out in RPS375, the Environment Agency's regulatory position statement on "Temporary Waste Temperature

<table><tr><th>Technique</th><th>Description</th><th>Applicability</th></tr><tr><td>a. Optimised storage location</td><td>This includes techniques such as: - the storage is located as far as technically and economically possible from sensitive receptors, watercourses, etc.; - the storage is located in such a way so as to eliminate or minimise the unnecessary handling of wastes within the plant (e.g. the same wastes are handled twice or more or the transport distances on site are unnecessarily long). </td><td>Generally applicable to new plants.</td></tr><tr><td>b. Adequate storage capacity</td><td>Measures are taken to avoid accumulation of waste, such as: - the maximum waste storage capacity is clearly established and not exceeded taking into account the characteristics of the wastes (e.g. regarding the risk of fire) and the treatment capacity; - the quantity of waste stored is regularly monitored against the maximum allowed storage capacity; - the maximum residence time of waste is clearly established. </td><td rowspan="3">Generally applicable.</td></tr><tr><td>c. Safe storage operation</td><td>This includes measures such as: - equipment used for loading, unloading and storing waste is clearly documented and labelled; - wastes known to be sensitive to heat, light, air, water, etc. are protected from such ambient conditions; - containers and drums are fit for purpose and stored securely. </td></tr><tr><td>d. Separate area for storage and handling of packaged hazardous waste</td><td>When relevant, a dedicated area is used for storage and handling of packaged hazardous waste.</td></tr></table>	Technique	Description	Applicability	a. Optimised storage location	This includes techniques such as: - the storage is located as far as technically and economically possible from sensitive receptors, watercourses, etc.; - the storage is located in such a way so as to eliminate or minimise the unnecessary handling of wastes within the plant (e.g. the same wastes are handled twice or more or the transport distances on site are unnecessarily long).	Generally applicable to new plants.	b. Adequate storage capacity	Measures are taken to avoid accumulation of waste, such as: - the maximum waste storage capacity is clearly established and not exceeded taking into account the characteristics of the wastes (e.g. regarding the risk of fire) and the treatment capacity; - the quantity of waste stored is regularly monitored against the maximum allowed storage capacity; - the maximum residence time of waste is clearly established.	Generally applicable.	c. Safe storage operation	This includes measures such as: - equipment used for loading, unloading and storing waste is clearly documented and labelled; - wastes known to be sensitive to heat, light, air, water, etc. are protected from such ambient conditions; - containers and drums are fit for purpose and stored securely.	d. Separate area for storage and handling of packaged hazardous waste	When relevant, a dedicated area is used for storage and handling of packaged hazardous waste.	Exchange Equipment (WTEE) Storage, specifically with maximum storage pile sizes of 450m³ and maximum height of 3.6m. There are no immediately adjacent sensitive receptors and storage (in line with RPS375) minimises the unnecessary handling of wastes. Furthermore, maximum storage levels will be set and adhered to.
Technique	Description	Applicability												
a. Optimised storage location	This includes techniques such as: - the storage is located as far as technically and economically possible from sensitive receptors, watercourses, etc.; - the storage is located in such a way so as to eliminate or minimise the unnecessary handling of wastes within the plant (e.g. the same wastes are handled twice or more or the transport distances on site are unnecessarily long).	Generally applicable to new plants.												
b. Adequate storage capacity	Measures are taken to avoid accumulation of waste, such as: - the maximum waste storage capacity is clearly established and not exceeded taking into account the characteristics of the wastes (e.g. regarding the risk of fire) and the treatment capacity; - the quantity of waste stored is regularly monitored against the maximum allowed storage capacity; - the maximum residence time of waste is clearly established.	Generally applicable.												
c. Safe storage operation	This includes measures such as: - equipment used for loading, unloading and storing waste is clearly documented and labelled; - wastes known to be sensitive to heat, light, air, water, etc. are protected from such ambient conditions; - containers and drums are fit for purpose and stored securely.													
d. Separate area for storage and handling of packaged hazardous waste	When relevant, a dedicated area is used for storage and handling of packaged hazardous waste.													
BAT 5: In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures. Description Handling and transfer procedures aim to ensure that wastes are safely handled and transferred to the respective storage or treatment. They include the following elements: — handling and transfer of waste are carried out by competent staff; — handling and transfer of waste are duly documented, validated prior to execution and verified after execution; — measures are taken to prevent, detect and mitigate spills; — operation and design precautions are taken when mixing or blending wastes (e.g. vacuuming dusty/powdery wastes). Handling and transfer procedures are risk-based considering the likelihood of accidents and incidents and their environmental impact.	Wastes will be unloaded and configured into storage piles using a fork-lift truck with suitably-authorized, competent staff. This will also be the case for the loading procedures (for transfer). Waste transfer (incoming waste, storage stock and outgoing waste) will be documented on the FRED software and will be used to inform the required data under the Digital Waste Tracking System (DWTS). The waste will be stored to prevent spills by storing the WTEE appropriately and without having the exposed coolant system facing down. Spill kits will be provided to mitigate against any spills.													

	There will be no mixing or blending of wastes and handling and transfer procedures will be risk-based and in line with best practice guidance.
BAT 6: For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	Not Applicable: No emissions to water
BAT 7: BAT is to monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	Not Applicable: No emissions to water
BAT 8: BAT is to monitor channelled emissions to air with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	Not Applicable: No emissions to air
BAT 9: BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques given below.	Not Applicable: No diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value
BAT 10: BAT is to periodically monitor odour emissions. Description Odour emissions can be monitored using: —	Not Applicable: Odour nuisance at sensitive receptors is not expected, given the odour-free nature of the waste streams. There is no history or likelihood

EN standards (e.g. dynamic olfactometry according to EN 13725 in order to determine the odour concentration or EN 16841-1 or -2 in order to determine the odour exposure); — when applying alternative methods for which no EN standards are available (e.g. estimation of odour impact), ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. The monitoring frequency is determined in the odour management plan (see BAT 12). Applicability: The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.	of substantiated complaints over odour.
BAT 11: BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year.	The installation activities will not result in the consumption of water (water will be used for welfare activities only). The only consumption of energy and raw materials will be the use of gas for the gas-powered fork-lift truck(s). This will be recorded on an annual basis.
BAT 12: In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1)	Not Applicable: Odour nuisance at sensitive receptors is not expected, given the odour-free nature of the waste streams. There is no history or likelihood of substantiated complaints over odour.
BAT 13: In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques given below.	Not Applicable: Odour nuisance at sensitive receptors is not expected, given the odour-free nature of the waste streams. There is no history or likelihood of substantiated complaints over odour.

Technique	Description	Applicability
a. Minimising residence times	Minimising the residence time of (potentially) odorous waste in storage or in handling systems (e.g. pipes, tanks, containers), in particular under anaerobic conditions. When relevant, adequate provisions are made for the acceptance of seasonal peak volumes of waste.	Only applicable to open systems.
b. Using chemical treatment	Using chemicals to destroy or to reduce the formation of odorous compounds (e.g. to oxidise or to precipitate hydrogen sulphide).	Not applicable if it may hamper the desired output quality.
c. Optimising aerobic treatment	In the case of aerobic treatment of water-based liquid waste, it may include: — use of pure oxygen; — removal of scum in tanks; — frequent maintenance of the aeration system. In the case of aerobic treatment of waste other than water-based liquid waste, see BAT 36.	Generally applicable.

BAT 14: In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below.

Depending on the risk posed by the waste in terms of diffuse emissions to air, BAT 14d is especially relevant.

Not Applicable: No diffuse emissions to air.

Technique	Description	Applicability
a. Minimising the number of potential diffuse emission sources	This includes techniques such as: — appropriate design of piping layout (e.g. minimising pipe run length, reducing the number of flanges and valves, using welded fittings and pipes); — favouring the use of gravity transfer rather than using pumps; — limiting the drop height of material; — limiting traffic speed; — using wind barriers.	Generally applicable.
b. Selection and use of high-integrity equipment	This includes techniques such as: — valves with double packing seals or equally efficient equipment; — high-integrity gaskets (such as spiral wound, ring joints) for critical applications; — pumps/compressors/agitators fitted with mechanical seals instead of packing; — magnetically driven pumps/compressors/agitators; — appropriate service hose access ports, piercing pliers, drill heads, e.g. when degassing WEEE containing VFCs and/or VHCs.	Applicability may be restricted in the case of existing plants due to operability requirements.
c. Corrosion prevention	This includes techniques such as: — appropriate selection of construction materials; — lining or coating of equipment and painting of pipes with corrosion inhibitors.	Generally applicable.
d. Containment, collection and treatment of diffuse emissions	This includes techniques such as: — storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or enclosed equipment (e.g. conveyor belts); — maintaining the enclosed equipment or buildings under an adequate pressure; — collecting and directing the emissions to an appropriate abatement system (see Section 6.1) via an air extraction system and/or air suction systems close to the emission sources.	The use of enclosed equipment or buildings may be restricted by safety considerations such as the risk of explosion or oxygen depletion. The use of enclosed equipment or buildings may also be constrained by the volume of waste.
e. Dampening	Dampening potential sources of diffuse dust emissions (e.g. waste storage, traffic areas, and open handling processes) with water or fog.	Generally applicable.
f. Maintenance	This includes techniques such as: — ensuring access to potentially leaky equipment; — regularly controlling protective equipment such as lamellar curtains, fast-action doors.	Generally applicable.
g. Cleaning of waste treatment and storage areas	This includes techniques such as regularly cleaning the whole waste treatment area (halls, traffic areas, storage areas, etc.), conveyor belts, equipment and containers.	Generally applicable.
h. Leak detection and repair (LDAR) programme	See Section 6.2. When emissions of organic compounds are expected, a LDAR programme is set up and implemented using a risk-based approach, considering in particular the design of the plant and the amount and nature of the organic compounds concerned.	Generally applicable.
BAT 15: BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below.		
BAT 16: In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below: ➤ Correct design of flare ➤ Monitoring / recording of flare		
BAT 17: BAT 17. In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the		

Not applicable: No flaring

Not applicable: No flaring

Not applicable: A noise or vibration nuisance at sensitive receptors is not expected and/or has not been substantiated.

environmental management system (see BAT 1), that includes all of the following elements: I. a protocol containing appropriate actions and timelines; II. a protocol for conducting noise and vibration monitoring; III. a protocol for response to identified noise and vibration events, e.g. complaints; IV. a noise and vibration reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. Applicability: The applicability is restricted to cases where a noise or vibration nuisance at sensitive receptors is expected and/or has been substantiated.	
BAT 18: In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given below:	Not applicable: A noise or vibration nuisance at sensitive receptors is not expected and/or has not been substantiated.

Technique	Description	Applicability	
a. Appropriate location of equipment and buildings	Noise levels can be reduced by increasing the distance between the emitter and the receiver, by using buildings as noise screens and by relocating building exits or entrances.	For existing plants, the relocation of equipment and building exits or entrances may be restricted by a lack of space or excessive costs.	
b. Operational measures	This includes techniques such as: (i) inspection and maintenance of equipment; (ii) closing of doors and windows of enclosed areas, if possible; (iii) equipment operation by experienced staff; (iv) avoidance of noisy activities at night, if possible; (v) provisions for noise control during maintenance, traffic, handling and treatment activities.	Generally applicable.	
c. Low-noise equipment	This may include direct drive motors, compressors, pumps and flares.		
d. Noise and vibration control equipment	This includes techniques such as: (i) noise reducers; (ii) acoustic and vibrational insulation of equipment; (iii) enclosure of noisy equipment; (iv) soundproofing of buildings.	Applicability may be restricted by a lack of space (for existing plants).	
e. Noise attenuation	Noise propagation can be reduced by inserting obstacles between emitters and receivers (e.g. protection walls, embankments and buildings).	Applicable only to existing plants, as the design of new plants should make this technique unnecessary. For existing plants, the insertion of obstacles may be restricted by a lack of space. For mechanical treatment in shredders of metal wastes, it is applicable within the constraints associated with the risk of deflagration in shredders.	
BAT 19: Emissions to Water: In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given (in BAT 19).			Not Applicable: No emissions to water
BAT 20: In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques given (in BAT 20)			Not Applicable: No emissions to water

BAT 21: In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1): <table border="1" data-bbox="156 416 1082 703"> <thead> <tr> <th>Technique</th><th>Description</th></tr> </thead> <tbody> <tr> <td>a. Protection measures</td><td>These include measures such as: — protection of the plant against malevolent acts; — fire and explosion protection system, containing equipment for prevention, detection, and extinction; — accessibility and operability of relevant control equipment in emergency situations. </td></tr> <tr> <td>b. Management of incidental/accidental emissions</td><td>Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.</td></tr> <tr> <td>c. Incident/accident registration and assessment system</td><td>This includes techniques such as: — a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections; — procedures to identify, respond to and learn from such incidents and accidents. </td></tr> </tbody> </table>	Technique	Description	a. Protection measures	These include measures such as: — protection of the plant against malevolent acts; — fire and explosion protection system, containing equipment for prevention, detection, and extinction; — accessibility and operability of relevant control equipment in emergency situations.	b. Management of incidental/accidental emissions	Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.	c. Incident/accident registration and assessment system	This includes techniques such as: — a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections; — procedures to identify, respond to and learn from such incidents and accidents.	As described in the Written Management System, the open storage yard, which is approximately 5 acres, will be protected by CCTV coverage to provide monitoring of the open storage area and the perimeter of the Areera site. A secure site cabin will also be provided as part of the site security arrangements. CCTV arrangements will be maintained and reviewed as part of the site management system to support the prevention and detection of unauthorised access and other security incidents. The site has secure fencing around its perimeter and secure access. The site operates in accordance with a Fire Prevention Plan. As detailed in the Written Management System, any notifiable incidents or accidents will be logged/recorded.
Technique	Description								
a. Protection measures	These include measures such as: — protection of the plant against malevolent acts; — fire and explosion protection system, containing equipment for prevention, detection, and extinction; — accessibility and operability of relevant control equipment in emergency situations.								
b. Management of incidental/accidental emissions	Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.								
c. Incident/accident registration and assessment system	This includes techniques such as: — a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections; — procedures to identify, respond to and learn from such incidents and accidents.								
BAT 22: In order to use materials efficiently, BAT is to substitute materials with waste.	Not applicable as 100% of inputs into the Installation activities will be waste								
BAT 23: In order to use energy efficiently, BAT is to use both of the techniques given below:	The only use of energy for the Installation activities will be the use of gas for the gas-powered fork-lift trucks (FLT's). Energy use will be recorded.								

<table><tr><th>Technique</th><th>Description</th></tr><tr><td>a. Energy efficiency plan</td><td>An energy efficiency plan entails defining and calculating the specific energy consumption of the activity (or activities), setting key performance indicators on an annual basis (for example, specific energy consumption expressed in kWh/tonne of waste processed) and planning periodic improvement targets and related actions. The plan is adapted to the specificities of the waste treatment in terms of process(es) carried out, waste stream(s) treated, etc.</td></tr><tr><td>b. Energy balance record</td><td>An energy balance record provides a breakdown of the energy consumption and generation (including exportation) by the type of source (i.e. electricity, gas, conventional liquid fuels, conventional solid fuels, and waste). This includes: (i) information on energy consumption in terms of delivered energy; (ii) information on energy exported from the installation; (iii) energy flow information (e.g. Sankey diagrams or energy balances) showing how the energy is used throughout the process. The energy balance record is adapted to the specificities of the waste treatment in terms of process(es) carried out, waste stream(s) treated, etc.</td></tr></table>		Technique	Description	a. Energy efficiency plan	An energy efficiency plan entails defining and calculating the specific energy consumption of the activity (or activities), setting key performance indicators on an annual basis (for example, specific energy consumption expressed in kWh/tonne of waste processed) and planning periodic improvement targets and related actions. The plan is adapted to the specificities of the waste treatment in terms of process(es) carried out, waste stream(s) treated, etc.	b. Energy balance record	An energy balance record provides a breakdown of the energy consumption and generation (including exportation) by the type of source (i.e. electricity, gas, conventional liquid fuels, conventional solid fuels, and waste). This includes: (i) information on energy consumption in terms of delivered energy; (ii) information on energy exported from the installation; (iii) energy flow information (e.g. Sankey diagrams or energy balances) showing how the energy is used throughout the process. The energy balance record is adapted to the specificities of the waste treatment in terms of process(es) carried out, waste stream(s) treated, etc.	
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BAT 24: In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan (see BAT 1)		Not applicable as no packaging associated with the Installation activities.						
BAT 25 -28 (Section 2) apply to the mechanical treatment of waste and are therefore not relevant to this Installation.		Not applicable.						
BAT 29 – 30 Apply to the treatment of WEEE containing VFCs and/or VHCs and are therefore not relevant to this Installation.		Not applicable.						
BAT 31: BAT conclusions for the mechanical treatment of waste with calorific value and is therefore not relevant to this Installation.		Not applicable.						
BAT 32: Applies to the mechanical treatment of WEEE containing mercury and is therefore not relevant to this Installation.		Not applicable.						

BAT 33-35: Apply to the biological treatment of waste and are therefore not relevant to this Installation.	Not applicable.
BAT 36 -37: Apply to the aerobic treatment of waste, and are therefore not relevant to this Installation.	Not applicable.
BAT 38: Applies to the anaerobic treatment of waste, and is therefore not relevant to this Installation.	Not applicable.
BAT 39: Applies to the mechanical biological treatment (MBT) of waste, and is therefore not relevant to this Installation.	Not applicable.
BAT 40 – 51 : Apply to the physico-chemical treatment of waste, and are therefore not relevant to this Installation.	Not applicable.
BAT 52 – 53: Applies to the treatment of water-based liquid waste, and are therefore not relevant to this Installation.	Not applicable.