



IP 0006/13

WEEE TREATMENT FACILITY AT WEEE RECYCLE 4U Co. LTD, HAL FAR

APPLICATION FOR IPPC PERMIT

VOLUME 5: RESPONSE TO FEEDBACK ON IPPC APPLICATION



Version 4: September 2020



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Quality Assurance

WEEE Treatment Facility at WEEE Recycle 4U Co. Ltd, Hal Far
Application for IPPC Permit: Volume 5
 September 2020

Report for: WEEE Recycle 4U Co. Ltd

Revision Schedule

Rev	Date	Details	Prepared by	Reviewed by	Approved by
00	Nov. 2018	Submission to client	Rachel Decelis Senior Consultant	Rachel Xuereb Director	Adrian Mallia Managing Director
01	May 2019	Final consolidated IPPC application	Rachel Decelis Senior Consultant	Rachel Xuereb Director	Adrian Mallia Managing Director
02	Mar. 2020	Updates to company name, operational details, addition of public consultation feedback	Rachel Decelis Senior Consultant	Rachel Xuereb Director	Adrian Mallia Managing Director
03	Sep. 2020	Inclusion of additional input from regulatory consultees	Rachel Decelis Senior Consultant	Rachel Xuereb Director	Adrian Mallia Managing Director

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RESPONSE TO FEEDBACK ON IPPC APPLICATION

Updates to Drawings (March 2020)

1. There have been some modifications to the drawings over the original IPPC application¹ and later versions, to include:
 - Receipt of incoming waste inside the WEEE treatment building. This is an improvement over the original proposal, which saw the receipt of goods outdoors where it would be sorted for storage in the appropriate area. In the current proposal the incoming waste storage and sorting will be carried out indoors;
 - Storage of certain WEEE / WEEE components in a covered outdoor area instead of a shed;
 - Relocation of the crushers;
 - Updating of surface water / wastewater management arrangements, including increasing the capacity of reservoir 2; and
 - A garage for maintenance of the Scheme's vehicles; activities in the garage will include servicing, oil changes, and replacement of certain vehicle parts as needed. This is also an improvement over the earlier application, where maintenance of vehicles was proposed to be carried out under cover inside the shed, as a dedicated space will now be provided for this activity. The garage will also be linked to an oil-water separator.
2. A gasification plant was formerly proposed as a possible future wood treatment option. Details of the gasification plant are, however, not currently available as the plant model has not yet been selected. Therefore, in consultation with ERA, the gasification plant has been removed from this consolidated IPPC application. The reference to the gasification plant in the comments in the following sub-sections has been retained for completeness. Should the gasification option be considered further in the future, a separate application for variation of the IPPC permit will be submitted to ERA.
3. The latest drawings are included in **Appendix 1**.
4. Surface water and wastewater management arrangements will now be as follows:

¹ Reference to the previous / original proposal / IPPC application are to be taken to refer to the following report:

En-Sure Ltd, 2015. *WEEE Treatment Facility at WEEE Recycle Ltd, Hal Far: IPPC Application (Version 1)*. San Gwann, November 2015; viii + 145 pp. + 14 Annexes.

- As in the original proposal, the flooring of the entire site will still be constructed of concrete with an impermeable geotextile underlay.
 - Gutters will be installed at the sides of the new shed to collect any spills and used wash water from this area. The gutters will lead to the WEEE treatment building cesspit (cesspit 2, having a capacity of 26.5 m³). As in the original proposal, this cesspit will also receive wastewater from washing of floors inside the WEEE treatment building (including the CRT breaking room); this cesspit will be connected to a wastewater treatment system to remove trace contaminants before reuse, as described in the original IPPC application.
 - All rainwater reaching the roofs (including of the new buildings) will be collected through down pipes and diverted to an underground reservoir (reservoir 1, now having a capacity of 100 m³). This reservoir will be exclusively reserved for firefighting purposes. There is no treatment of this water since it is clean rain water.
 - The new garage will have a gutter leading to an oil-water separator, to treat any oily spills and used wash water; the treated effluent will be discharged to a new reservoir 2 (capacity of 476m³).
 - Road surface water and surface water from the covered storage area (on the southwest corner of the site), as well as any spills in these areas), will first be treated in the oil-water separator located in front of the garage before being received in the new reservoir 2. It is noted that the location of the separator and the falls of outdoor areas have been changed from the original proposal.
 - Reservoir 2 overflows to the road (the overflow will only be installed when PA 6212/19 is granted); however, under normal operations this overflow would be of clean / treated water.
 - The separate wastewater management system for the fluorescent tube crusher room will be retained, as described in the original IPPC application.
 - The use of Cesspit 1 for domestic effluent will be retained.
5. The generation of used firefighting water has also been considered:
- In the case of a fire in the WEEE treatment building, the water will be received in Cesspit 2. As stated in the original IPPC application, there will be a level gauge in this cesspit to ensure that 30 minutes' spare capacity (22.5 m³) is always available. If the fire is not put out after 30 minutes, the cesspit will overflow to a 50 m³ weighbridge pit; if this fills up, the spillover would go through the outdoor area to reservoir 2, after treatment in an oil-water separator.

- In the emergency condition of a fire in the WEEE treatment building that lasts more than 30 minutes and where both the capacity of the weighbridge pit and reservoir 2 is exceeded, used firefighting water would be discharged to the road untreated (the overflow will only be installed when PA 6212/19 is granted). However, this is a remote scenario, since the capacity of reservoir 2 is far in excess of the fire-fighting water capacity of the site.
 - In the case of a fire in the outdoor area or the garage, the used water will go to the separator and then to reservoir 2. As mentioned, the overflow is to the road (and will only be installed when PA 6212/19 is granted); however, this scenario is a remote possibility and even if discharge occurs, the water will be treated before discharge.
 - As in the original proposal, used firefighting water will not be generated in the fluorescent tube crushing room, as this room will be equipped with an automatic gas suppression system that uses aragonite rather than water.
6. There are also other minor changes to the IPPC application as a result, as follows:
- Section B2.3 (*Raw materials*): Raw materials relevant to maintenance, as well as diesel, will be stored in the new garage; and
 - Section B3.1.1 – B3.1.3 (*Waste*): Waste from maintenance of on-site vehicles and machinery will be stored in the new garage.
7. These amendments have been authorised by planning permit PA 05335/18. Planning application PA 6212/19 has also been submitted to cover a future proposed extension to the site, and an extension to the garage.

Comments made by ERA

Form A

Section	Duly made?	ERA Comments 26 th September 2014 ²
A1.1	✓	Noted.
A1.2	✓	Noted.
A1.3	✓	Noted.
A1.4	✓	Noted.
A2.1	✓	Noted.
A2.2	✓	Noted.
A3.1	✓	Noted.
A3.5	✓	Noted.

Form B

Section	Duly made?	ERA Comments 26 th September 2014 ²	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
B1.1	✓	Reference to the incinerator should be moved from the column on Directly Associated Activities to Activities in the “stationary technical unit”	It is understood that the incinerator will not be utilized on site (page 50, paragraph 3.97.)	Confirmed. The proposal for an incinerator has been removed from the application, as stated in paragraph 3.58.	Noted.
B1.2	✓	Please expand a little further on the WEEE dismantling aspect of the activity - what types of WEEE will be accepted, and a basic description of what will be ‘treated’ on site and what is being dismantled for further processing (or ‘recycling’) offsite	Noted.	-	-

² ERA’s comments in this column refer to a previous version of the IPPC application that had been prepared by another consultant.

Section	Duly made?	ERA Comments 26 th September 2014 ²	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
B1.3	✓	Noted.		-	-
B1.4 B1.4.1	✓	<p>In view of this letter, kindly provide additional information on any activities carried out on site between 1968 and today (this may include but not be limited to storage of containers, incidences of illegal dumping and incineration, etc.). Also, please update report to include a detailed description of the current state of the site with photos.</p> <p>This research will also need to be included as part of the Risk Assessment (Section B2.8), on which the Authority will determine whether a Baseline Report in accordance with the Industrial Emissions Directive, would be required before starting operations on site.</p> <p>Official guidance from the European Commission on the preparation of the baseline report titled “European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions” can be found online</p>	The land and groundwater risk assessment and the method statement for the baseline land monitoring together with analytical results will have to be provided as part of the consolidated version of the application.	Noted.	-

Section	Duly made?	ERA Comments 26 th September 2014 ²	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		on the Commission's website.			
B1.4.2	✓	Noted		-	-
B1.4.3	✓	Noted		-	-
B2.1	✓	Noted. Since the ISO certification for the Zabbar site needs to be updated to be compatible with operations at the new site, please be informed that obtaining this update within a specified timeframe will feature as part of the Improvement Programme for the IPPC permit.	-	-	-
B2.2 B2.2.1	✓	The information provided here is insufficient, particularly related to the processes to be carried out on site. This document should be submitted in the form of a complete report, which includes a description of all waste management activities to be carried out on site, technical specifications, and any other relevant information related to the site's operations.	Noted. Further information and technical specifications regarding the gasification plant and the connected CHP shall be included in the Improvement Program items section of the IPPC permit.	Noted.	-
B2.2.2	✓	No attachment provided	1. With reference to paragraph 3.34. in section B2.2.2 (page 31) kindly provide specification of the oil-water interceptor including details of the volume of wastewater which can be treated. Kindly clarify whether	1. The requested specifications, including drawings, are provided in Appendix 2 . The model number that will be installed will be the NSBP003, which has a flow rate of 3 L/s and an oil storage capacity	Noted.

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
			<p>the oil-water interceptor will be in line with EN 858 standard.</p> <p>2. With regards to wastewater collected in the underground cesspit kindly clarify the type of treatment which will be carried out.</p>	<p>of 107 L. The separator conforms to the EN 858 standard.</p> <p>2. These details are already included in section B3.3, and cross-referred to in this section.</p>	
B2.2.3	✓	No attachment provided	<p>Regarding Figure 3.10 (page 35.) kindly indicate whether any testing will be done so as to determine that EWC code for wood is 19 12 07 or its hazardous mirror entry 19 12 06*.</p> <p>Moreover reuse of the shredded wood animal bedding/briquettes shall not be considered as a permitted activity until such time that all issues related to the end-of-waste status as per communication by ERA on 03.03.2017. are sorted. Until such time all shredded wood shall be regarded as waste and table 4.3 has to be amended accordingly.</p>	<p>As indicated in Table 4.1, wood from old TVs has already been confirmed to be non-hazardous through testing. For other types of wood waste (e.g. pallets, off cuts), a visual check of the material will be carried out. This is considered to be sufficient.</p> <p>However, in light of recent test results indicating contamination by lead of the tested sample of wood from old TVs, retesting will be carried out once the IPPC permit is issued and the new site is operational. An end-of-waste application will be submitted to ERA at that stage. The Applicant expects that the improved operational controls at the new site will reduce the risk of contamination. In the interim and until the end-of-waste application is approved by ERA, such waste will be sent to a</p>	Noted.

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
			<p>Kindly note that Metalco is not permitted to accept non-ferrous waste (EWC 19 10 02) and non-ferrous metal (19 12 03).</p> <p>Kindly confirm whether 14 01 02 was the intended EWC code for plastic. (Smart Recycling)</p>	<p>licensed facility.</p> <p>Noted. As mentioned in the IPPC application, alternative licensed facilities may be used as the need arises.</p> <p>This is a typo, and should have been 15 01 02 (as stated in Table 4.3).</p>	
B2.2.4	✓	A report must be provided assessing the proposed activities against the BREFs which are relevant to the site's operations. In this case, one would have to look at the Waste Treatment BREF and the Waste Incineration BREF.	<p>EMS: Point 1. The requirement to obtain the standardised EMS at the Hal Far site will be included as part of the Improvement Program of the IPPC Permit with a timeframe which will be agreed upon with the operator. Activities carried out - Point 9.: As per comment above, further details regarding the gasifier are to be submitted in the Improvement Programme of the permit.</p>	Noted.	-
B2.2.5	✓	This needs to be submitted	Noted.	-	
B2.3	✓	Noted.	Kindly identify the location of the gasification plant in Figure 3.16.	This is already labelled in Figure 3.16 (see the 'covered storage' area towards the bottom left-hand corner of the site).	Noted.
B2.4	✓	Noted.		-	-
B2.5	✓	Noted. Please note that corresponding records of this maintenance will need to be kept by the company. This will		-	-

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		be a condition in the IPPC permit.			
B2.6 B2.6.1	✓	As described in this section in the application form, this should also include the main sources of energy consumption, particularly those which consume the most energy. The rationale behind the assumed increase in energy consumption at the new site should also be included.	Noted.	-	-
B2.6.2	✓	This needs to be submitted	Noted.	-	-
B2.7	✓	No attachment provided Please note that we will require confirmation whether any rainwater is harvested. Harvested rain water and any second class water which may be proposed to be collected / stored in the reservoirs should not to be used for human consumption and/or personal use. Water intended for human consumption and/or personal use should be potable, from an approved source and in accordance with the provisions of Water Intended for Human Consumption Regulations, 2009-L.N. 17 of 2009 as amended by L.N. 242 of 2009.	Noted. Regarding the reverse osmosis system used to treat wastewater generated from floor washings kindly indicate the final disposal location of any brine produced from such treatment. Regarding paragraphs 3.82-3.84 test results of the resultant effluents are to be submitted to ERA once these are available.	As indicated in Table 4.3 , this waste will be exported to an authorised facility for disposal. Noted.	Noted.
B2.8	✓	No attachment provided	Noted. Submission of a	Noted.	-

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		Please note that the risk assessment is required in order to determine whether a baseline study will be needed. If it is determined that the baseline is required, this will need to take place prior to operations and certain monitoring may potentially need to be carried out even prior to construction.	certification from a competent company or engineer that the relevant fire safety procedures and equipment are in place will be requested as part of the Improvement Programme.		
B2.9	✓	Noted. Please note that corresponding records of this training will need to be kept by the company. This will be a condition in the IPPC permit.	Noted.	-	-
B2.10	✓	This needs to be updated to also cater for removal of equipment, fuels, and any other material relevant to the operations. The decision taken regarding the geomembrane should also be included in the update.	Noted. Regarding the geomembrane and as previously communicated by ERA by e-mail (02 February 2017) once the geotextile is in place certification from an independent warranted engineer confirming the impermeability of the installed membrane is to be submitted.	Noted.	-
B2.11	✓	Noted.	-	-	-
B3.1.1, B3.1.2, B3.1.3	✓	There is insufficient information provided here. The information requested in this section in the application form should be provided (ideally in table format) and shall include: waste type, projected annual waste	Noted. Regarding the EWC code for wood kindly refer to comment in section 2.2.3.	Please refer to the response in section B2.2.3 above.	Noted.

Section	Duly made?	ERA Comments 26 th September 2014 ²	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		throughput, projected maximum site quantities, method statements for each type of waste whether this will be processed or stored only, etc. This table should also have a corresponding site layout plan, indicating the areas where each waste will be stored/processed.			
B3.2	✓	A decision needs to be taken on this and the requested information provided accordingly	Noted.	-	-
B3.3 B3.3.1	✓	Noted		-	-
B3.3.2	✓	Noted	-	-	-
B3.3.3	✓	Noted. Obtaining a sewer discharge permit will be a requirement in your IPPC permit	-	-	-
B3.3.4	✓	In view that process effluent from the neon tube crushing machine which may potentially be contaminated with mercury (which fall under Schedule A of LN 139 of 2002) and will require disposal (either in the sewer if permitted by Water Services or at authorised facility), kindly provide feedback from the Water Services in relation to your Sewer Discharge Application so as to confirm your statement that no Schedule	In view that process effluent from the neon tube crushing machine which may potentially be contaminated with mercury (which fall under Schedule A of LN 139 of 2002) and will require disposal (either in the sewer if permitted by Water Services or at authorised facility), kindly amend the reply to section B3.3.4. Moreover kindly indicate whether an application for a sewer discharge permit was submitted to WSC and submit a	Noted. An application to WSC has been submitted; a copy of the receipt and relevant communication with WSC is included in Appendix 3.	Noted.

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		A and Schedule B substances shall be released into the sewer.	copy of the application and relevant communication with WSC regarding the discharge of wastewater to sewer. The submission of certifications will be required upon construction.	Noted.	
B3.4	✓	Noted.		-	-
B3.5	✓	No attachment provided	Noted.	-	-
B3.6	✓	Noted	With regards to paragraph 4.58 kindly clarify whether the proposed treatment system shall be incorporated as part of the internal room and ultimately vented through a stack or whether it will be incorporated in the form of the portable equipment identified in Annex 12. Kindly indicate whether the proposed filtration system will be connected to a differential pressure gauge including normal operating pressures and over- and underpressure detection limits. Moreover such a pressure gauge shall be connected to an acoustic and visual alarm to detect over- and underpressure of the exhaust filters to ensure detection of any abnormalities.	The equipment identified in Annexes 12 & 13 will be used, which will exhaust through a stack (labelled as PS1 in Figure 4.8). As stated in paragraph 4.66 of the IPPC application, the fluorescent tube breaking room will be equipped with a pressure differential recorder (magnehelic gauge or similar), to indicate whether the filtration system is working effectively. The recorder will be visible to operators such that an out of range incident can be easily and immediately identified. Additionally, in light of ERA's request an acoustic and visual	Noted.

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
				<p>alarm will also be fitted.</p> <p>However, it is clarified that the CRT dismantling room will not be equipped with a pressure differential recorder as the room will be fitted with thick HDPE curtain panels (rather than a door) and this is unlikely to be sufficient to generate sufficient negative pressure to be detected by a pressure differential recorder. Nevertheless, as mentioned, the room will be fitted with an air extraction unit equipped with a HEPA filter. It is noted that this arrangement is already accepted by ERA for the Applicant's existing operations at Ta' Maggi.</p>	
B3.7	✓	Noted - Has the potential from odour arising from the incinerator while operational been investigated? Kindly confirm.	Noted.	-	-
B3.8	✓	Noted.		-	-
B3.9	✓	Please indicate distance from nearest residences (this includes individual households in the area such as farmhouses)	Noise monitoring shall be carried out once the plant is fully operational as specified in the IPPC permit.	Noted.	-
B3.10	✓	No attachment provided. Please note the proposals must cover all emissions to air, water or sewer arising from the	Noted. The monitoring frequency and associated emission limit value for Hg monitoring will be determined	Noted.	-

Section	Duly made?	ERA Comments 26 th September 2014	ERA comments 14 th December 2017	Applicant response 1 st June 2018	ERA comments October 2018
		installation's operations.	in the IPPC Permit.		
B3.11	✓	No attachment provided	Noted.	-	-
B4.1	✓	No attachment provided	Noted.	-	-
B4.2	✓	A rationale as to why this does not apply to this site should be provided, ideally in conjunction with the information provided in Section 4.1	Noted.	-	-
B5.1	✓	Please submit as soon as this is available	Noted.	-	-
B6.1	✓	Noted.		-	-
B6.2	✓	Please review following update being requested to Section 4.2 (and update if required)		-	-
B6.3	✓	Noted.		-	-
B7.1	✓	Noted		-	-
B8.1	✓	Noted		-	-
B8.2	✓	Please provide CVs and any qualifications	Noted.	-	-
B8.3	✓	Noted		-	-
B9.1	✓	Please give a brief explanation as to how these figures were reached	Noted. Kindly note that additional costs might arise from the implementation of various monitoring programmes.	Noted.	-

Feedback Received following the Statutory Consultation carried out for the Application

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
External Consultees Feedback				
Environmental Health Directorate	The necessary mitigation measures are to be taken regarding all identified pollutants during the operation of the facility and especially regarding air emissions from the release of mercury vapour and phosphor/glass dust from the crushing and storage of fluorescent tubes, noise impacts from plant/machinery (crushers, compressor and gasification plant) and from the dump trucks transporting waste to and from the site and regarding potential adverse impacts on groundwater due to mercury deposition. Periodic operational monitoring, especially the air monitoring programme, is to be implemented. Proposed cesspits are to be duly registered with the Superintendent of Public Health and reservoir harvested rainwater should not be used for human consumption or for personal use.	Such issues will be addressed as part of the IPPC Permit.	Noted.	-
Regulatory for Energy and Water Services	The diesel to be used by the forklifters and trucks and all other vehicles on site should be diesel found at petrol stations which conforms to MSA EN 590. If the limits denoted in L.N. 249/2008 (Liquefied Petroleum Gas Market Regulations) for LPG or LN 53/2010 (Petroleum for Inland Retail Fuel Market Regulations) for diesel, are at any one time going to be exceeded by the operator, than it is the duty of the operator to inform the REWS beforehand to be guided through the appropriate applications for any fuel storages.	Operator to note comment regarding fuel storage capacities. The requirements for fuel quality will be included in the IPPC Permit.	Noted.	-

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
Civil Protection Department	<p>Applicant stated that the site will have a fire fighting water capacity for 30 minutes, CPD suggests that this should be a minimum of 60 minutes and by means of a pressure fed supply i.e. fire pump and hydrant system.</p> <p>The site should also have adequate access for fire trucks especially to the fire fighting water supply system and that adequate measures to detect and inform of any fire starting within the buildings as well as the usual emergency exit signs, fire extinguishers, means of emergency egress etc.</p>	Operator to provide feedback.	<p>The capacity for firefighting water has been increased to 100 m³ in reservoir 1 (Appendix 1). This corresponds to 2.5 hours of firefighting, which exceeds CPD's requirements. Additionally, a pressurised fire hydrant will be installed to meet CPD's requirements.</p> <p>The site layout includes a clear buffer for fire truck access. A fire detection & alarm system will also be installed. Emergency exit signs, means of emergency egress and fire extinguishers will also be provided.</p>	Noted.
Water Services Corporation	<ol style="list-style-type: none"> 1. An application for a Public Sewer Discharge Permit should be made prior to start of construction of the premises. A detailed internal drains layout should be supplied. 2. The 1 m³ sealed Cesspit being proposed to receive the liquid waste from the fluorescent tube crushing room should have a storage capacity of at least 30 days so to be able to give ample time for samples to be collected and analysis to be performed. 3. Moreover in the event that permission to discharge to sewer is denied, arrangements should be made for the waste to be disposed of through an approved waste carrier/collector. The contents of this cesspit should be tested for a list of parameters issued by WSC 	<ol style="list-style-type: none"> 1. Operator to provide feedback. 2. Operator is to liaise directly with WSC to discuss this issue. 3. Operator is to note comment by WSC. Such provisions will be included in the IPPC Permit. 	<ol style="list-style-type: none"> 1. This application has been submitted; refer to Appendix 3. 2. A sewer discharge permit application has been submitted to the WSC. Additionally, as mentioned in the IPPC application the treated wastewater in this cesspit will be recirculated for reuse, and so capacity will not be an issue. 3. Noted. As stated in the application, treated process effluent will normally be reused in the same process. However, if any discharge is required, the treated wastewater will first be tested in accordance with WSC requirements and: <ul style="list-style-type: none"> • Discharged to the sewerage 	Noted.

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
	<p>prior to every disposal to be performed. This requirement may be lifted if sufficient historical data proves that no contamination is present in this effluent.</p> <p>4. Waste movement documents for the transfer of hydraulic oil should be made available and presented with the application for a public sewer discharge permit.</p> <p>5. RO brine reject can be accepted to be discharged to sewer as long as the feed of the RO is mains water and the chloride content does not exceed the 1000 mg/L above the mains water levels. Discharge to sewer of backwash from a water softener unit will not be allowed.</p> <p>6. Oil/water interceptor located in the car park should not discharge to sewer but rather to road surface as per Building Regulations Technical Guidance Document F.</p>	<p>4. Operator is to liaise directly with WSC to discuss issue.</p> <p>5. Operator is to note comment by WSC.</p> <p>6. It is understood that the oil-water separator will discharge to an underground reservoir and not to sewer. Operator kindly confirm.</p>	<p>network if found to be below the WSC discharge limit/s; or</p> <ul style="list-style-type: none"> Exported to an authorised facility if not. <p>4. The Scheme is still under construction and therefore this comment does not apply at this stage.</p> <p>5. Discharge of brine reject to sewer is not foreseen.</p> <p>6. Confirmed.</p>	
Internal Consultees Feedback				
Ambient Quality and Waste Unit	Ambient values of Hg are not regulated by a limit value, we are obliged to monitor for gaseous Hg only. Background levels of Hg are expect to be below detection limit in Malta, because there are no sources of Hg e.g. coal fired plants. In this context it is not suggested that the applicant	In stack mercury monitoring as proposed in the application will be requested as part of the IPPC Permit.	Noted.	Noted.

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
	<p>carries out monitoring for mercury, at least before the plant is operational. It is also suggested that conditions in the permit aimed at reducing fugitive emissions of mercury during the crushing are included. The operator may subsequently be requested to monitor for ambient levels of Hg.</p> <p>1. Reference to this proposal as a “scheme” is incorrect and may be misleading, since the meaning of a ‘<i>scheme</i>’ pursuant to SL 504.75 – the Waste Management (Electrical and Electronic Equipment) Regulations, 2014 differs from that of an Authorized Treatment Facility. 2. While the title of the application is for a “WEEE Treatment Facility” it is to be noted that it appears that not all WEEE waste streams shall be treated. 3. Wood should achieve end-of waste criteria and an application for such in line with Schedule 10 of the Waste Regulations would be required such that the conditions would be stipulated in the permit. 4. Regarding fluorescent tube crushing kindly provide clarifications regarding potential exposure to employees. Is separation of leaded and unleaded glass being carried out? 5. Similarly re CRT and the breaking of the neck kindly provide clarifications regarding potential exposure to employees, and how the neck will be broken.</p>	<p>1-2. No feedback required from Operator.</p> <p>3. Kindly refer to comment in section B2.2.3 regarding end-of-waste criteria for wood.</p> <p>4-5. Operator to provide clarification.</p> <p>6. Details of such processes are included in sections B2.7, B3.6, etc.</p>	<p>1-2. Noted.</p> <p>3. Please see response to section B2.2.3 above.</p> <p>4. Operators will wear face masks and disposable overalls. Fluorescent tubes typically contain mercury (not lead), which will be treated as described in the IPPC application. Glass containing lead from CRT tubes will be handled in the CRT breaking room as described in the IPPC application. 5. Operators will wear face masks and disposable overalls. The CRT neck will be broken by applying a sharp blow (typically with a hammer).</p> <p>6. Noted.</p>	

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
	<p>6. With regards to Figure 3.11 related to the treatment of fluorescent tubes, it should be specified how the hazardous mercury and phosphor shall be removed, and their fate.</p> <p>7. The gasification plant for the production of syngas should be compliant with the Industrial Emissions Directive.</p> <p>8. The EWC code for ash in Figure 3.14 is incorrect.</p> <p>9. Scales to measure the weight of treated waste are required.</p> <p>10. It should be ensured that the treatment for selective materials and components follows Annex VII of Directive 2012/19/EU.</p> <p>11. Whereby "Batteries will also be accepted for storage prior to export", it would have to be ensured that recycling efficiencies as per</p>	<p>7. Operator to note comment, further information regarding the gasification plant and CHP is to be provided in the application if this is available.</p> <p>8. Sub-chapter 19 01 of the list of waste would apply for the ash generated from gasification.</p> <p>9. Operator is to clarify whether the proposed weighbridge is to be used for such purposes.</p> <p>10-11. Operator to note comment and provide feedback accordingly.</p>	<p>7. Noted. No further information is currently available.</p> <p>8. Noted.</p> <p>9. Confirmed, as stated in paragraph 4.26.</p> <p>10. Noted. It is noted that the Applicant is now also proposing to include degassing of equipment containing refrigerants, which will help ensure that the requirements of this Annex are met. A method statement for this procedure is included in</p>	

Comment received from	Feedback	ERA reply and comment	Applicant response 1 st June 2018	ERA comments October 2018
	<p>Commission Regulation (EU) 493/2012 are obtained throughout the recycling process, and all related information from the facility(ies) overseas is obtained as required.</p> <p>12. Final destination of rejects and amounts.</p>	<p>12. The BAT comparison submitted as part of the application includes details about procedures for quantifying the wastes which cannot be accepted on site.</p>	<p>Appendix 4.</p> <p>11. Noted.</p> <p>12. Noted.</p>	

The following Regulatory Consultation was carried out on the updated application submitted on 20th April 2020 to include additional waste streams (emptying of toner cartridge and drainage of oil from heaters).

Comment received from	Feedback	ERA reply and comment August 2020
External Consultees Feedback		
Environmental Health Directorate	<ol style="list-style-type: none"> 1. The use of second class and/ or grey water must not be used for human consumption. Where second class water and or grey water is used for washing is to be treated prior use. 2. Dripping irrigation is suggested for landscaping to prevent the formation of aerosols. 3. No contaminated water is to overflow into the street from the overflow pipe of reservoir 2 used for collection of rainwater. 4. Cesspits are to be registered with the Superintend of Public Health. 5. No Litter and/or waste is to exit the scheme 6. Pest control is to be carried out inside the scheme. 	The comments will be addressed through permit conditions.
Regulatory for Energy and Water Services	If the volumes of diesel stored and used by Forklifts and Trucks, and LPG used by Forklifter are increased, or fuel is used by some other machine or vehicle, WEEE Recycle 4U Co. Ltd. needs to contact the REWS in order to apply for the correct authorisation/notification of fuel.	The applicant will be informed accordingly.

Comment received from	Feedback	ERA reply and comment August 2020
Malta Competition and Consumer Affairs Authority	No comments.	-
Energy & Water Agency	No comments.	-
Planning Authority	No objection.	-
Occupational Health and Safety Authority	No objection.	-
Health Regulation	No objection.	-
Civil Protection Department	No objection.	-
Water Services Corporation	No objection.	-
Mata Resources Authority	No objection.	-
Internal Consultees Feedback		
Compliance & Enforcement Directorate	No comments.	
Ambient Quality and Waste Unit	No comments.	
Environmental Assessment Unit	No comments.	
European Pollutant Release and Transfer Register	No comments.	

Feedback Received during Public Consultation

Name of Installation	WEEE Recycle 4U Co. Ltd
Location	Hal Far
Proposed Activity	Storage and treatment of Waste Electrical and Electronic Equipment (WEEE) and batteries
Start of Public Consultation	13th June 2019
Close of Public Consultation	13th July 2019

No.	Date Received	Name and Surname/ Name of Entity ³	Email/ Letter/ meeting	Date acknowledged	BEAG Comment (13.07.19)	ERA Response (29.07.19)	Applicant Response (12.08.19)
1	13.07.19 15.07.19	Mr. John Grech o.b.o Birzebuga Environmental Action Group	Email, Letter	18.07.19	<p>TECHNICALLY COMPETENT PERSON/S. According to the ENSURE documentation, Mr Charles Galea, Managing Director of Electronic Products Ltd and WEEE Recycle Ltd (“who is one of the Technically Competent Persons for the Scheme”), “will be responsible for oversight of operations of operation and the company’s strategic direction, and will be visiting the site daily”.</p> <p>However, it was additionally officially declared that the Day-to-Day operational management will be the responsibility of Mr Collins Kyereme. One here assumes that the latter is one other “Techically Competent Person” who will be delicate ongoing site supervision of Hazardous Waste handling, separation and storage.</p> <p>BEAG is enquiring if ERA has actually checked on the competency of Mr Kyereme to manage a WEEE storage and treatment, and if he is actually licenced to carry out the envisaged delicate site operations for all types of WEEE, as declared, (including “imaging and radio therapy equipment”) as required by the transposed EU Waste Legislation and other similar Radio-active Materials Legislation.</p>	<p>Appendix 7 in Vol. 1 of the IPPC application indicates the competencies of both mentioned persons in the waste activities on site. A training programme is also included in section B2.9 of the IPPC application.</p> <p>Permit conditions will require the training of staff personnel in accordance with their assigned duties and various obligations of the IPPC permit.</p> <p>Such competencies will be verified through the Compliance and Enforcement process such as through site visits.</p>	No further comments.
2.					<p>WOOD SHREDDING It is being additionally proposed, subject to an eventual ERA positive approval (see Ensure Footnote 3 on Page 19 of oone of the submitted docs) that the scheme operations include the collection, interim storage, and the eventual shredding of clean wood waste to generate a product that can be used for animal bedding or briquettes.</p> <p>It appears that this is one “last minute” submission, included in the Ensure EIS submissions, without any additional relative submissions or other essential consideration, including the relative layout plans, as submitted by applicant, or otherwise covered by other PA permits. In fact, ENSURE did not submit, or otherwise propose, where such wood shredding, potentially, be carried out.</p> <p>To our mind, there is no safe and secure place where such wood shredding and other ancillary operations operations, be carried out on site, without compromising the potential contamination of the the end product with heavy metals and/or hydrocarbons.</p> <p>Moreover, one has to additionally consider the arising, and potentially compromising, fire safety</p>	<p>As per paragraphs B3.23 and B3.24 of the IPPC application, wood shredding shall only take place in the main crusher which shall only be permitted for the treatment of non-hazardous waste. Applicant is to clearly show on a layout plan the location where non-hazardous wood intended for shredding is to be stored both before and after processing.</p> <p>The classification of animal bedding or briquettes as an end-of-waste product is commensurate to an end-of-waste application being submitted and certification being issued by ERA. Until such time that this is achieved, such shredded wood is to be disposed of in accordance with the Waste Regulations, 2011.</p> <p>The permit shall including conditions in this regards.</p> <p>The applicant is proposing to keep such wood under cover in a shed.</p> <p>Furthermore, the CPD’s feedback with regards to fire safety in Vol. 5 of the IPPC application refers.</p> <p>As per Volume 3 of the application, whilst a maximum quantity of 13 tonnes of wooden waste are expected to be stored on site at any one time arising from dismantling of CRT TVs and monitors (EWC code 19 12 07), this quantity may also include non-hazardous waste wood from other activities unrelated to WEEE.</p>	<p>Wood will be stored in the covered outdoor storage area (at the south-west corner of the site). A drawing with all the storage areas labelled is included as Appendix 1.</p> <p>Noted.</p>

	monitoring			<p>hazards on site.</p> <p>BEAG is of the opinion that such wood shredding is NOT consonant with any major WEEE processing amenity.</p>	<p>In view of the above statement, applicant is to further clarify:</p> <p>a) How the fire risk from any contaminated/uncontaminated wood is being addressed</p> <p>b) How cross-contamination of clean wood with other hazardous waste is prevented, particularly with regards to heavy metals and/or hydrocarbons.</p> <p>c) How such activity does not compromise the general safety and security of other activities on site.</p> <p>d) If all treatment and storage areas are covered by PA 5335/18 or any other development consent.</p>	<p>a) As stated in paragraph 3.138 (Volume 2), a fire and explosion prevention and response plan will be commissioned by the Applicant once the Scheme has been constructed. The Applicant has also engaged a competent fire expert (Pace Fire Prevention) to advise on and install a fire detection system and any additional fire-fighting equipment that may be required. Additionally, the Civil Protection Department's requirements have been met.</p> <p>b) This will be ensured through checking the incoming waste, and through the segregated and covered storage of different wastes (see Appendix 1); given the nature of the waste to be accepted (solid WEEE) and the segregated storage planned, there is no opportunity for transfer of heavy metals or hydrocarbons to wood.</p> <p>c) Since the main shredder will only be used to shred non-hazardous waste, no compatibility issues are identified. There are also no compatibility issues with regard to storage of other materials that will be stored at the Scheme. Fire risk is being addressed as described in point (a).</p> <p>(d) Confirmed.</p>
3.				<p>FIRE SAFETY: (a) BEAG is of the opinion that, regardless of any Fire Safety expertise consulted by applicant, any and all proposals and plans are to be finally approved by the Civil Protection Department (CPD), who are the only responsible Authority in Fire Safety, as per transposed EU OHSa legislation.</p> <p>(b) More over in view of the highly hazardous nature of the proposed activities, including, amongst other, the handling of heavy metals and mercury/phosphor, BEAG strongly recommends that the two indicated Technically Competent Persons follow a Chemical Handling and Fire Safety "first aid" HAZ-CHEM certified courses, as organised by the CPD-HAZCHEM and Fire/Rescue Sections. Such courses should be regularly repeated, as recommended by CPD.</p> <p>(c) To our mind, this should be even more enforceable, in view of the proposed additional hazards as associated with the automatic argonite Fire Fighting procedures for the enclosed negative pressure mercury vapour procedures.</p>	<p>a) CPD feedback with regards to fire safety in Vol. 5 of the IPPC application refers.</p> <p>b) Following consultation with CPD, the following feedback was received:</p> <p><i>"[CPD] are in a situation where we could [provide] training both in firefighting and in HAZMAT training. If the WEEE Recycling Ltd is interested, they can write to the CPD on civilprotection.gov.mt and make an official request. I[t is] propose[d] that they should first organise a meeting, we discuss together what they want and what type of chemicals they are going to handle and the hazards associated with this nature of work and formulate a plan of training we then rope in our HAZAMT team to organise training custom made for them."</i></p> <p>Nonetheless, as indicated in question 1 above, permit conditions will require competent persons to undergo regular training as relevant to their duties.</p> <p>c) Noted.</p>	<p>No further comments.</p>
4.				<p>PROPOSED PHYSICAL SEPARATION AND SECURITY FOR ALL HAZARDOUS WASTE STREAMS (AS STATUTORY IDENTIFIED, AS</p>		

	monitoring			<p>ARISING ON SITE.</p> <p>(a) Applicant is proposing an “open plan” activity and storage at the main activity area, the daily storage, the shed “covered storage” and the Fleet Maintenance Garage (where hydro-carbon storage is being considered. BEAG is of the opinion that, as part of the IPPC processing, ERA should ask applicant to identify storage areas for each particular hazardous waste stream arising, and the relative physical security measures to be undertaken to preclude any eventual cross contamination and/or potential Fire Hazards.</p> <p>(b) At Table 9 Pollution Pathway and Mitigation Measures, ENSURE are proposing “Unauthorised waste to be stored in indoor quarantine area”. ENSURE has failed to identify what it means by “unauthorised waste”. Are we to understand that this refers to potential hazwaste streams, or to non-WEEE streams, as might arise or otherwise purposely processed, such as “clean wood”, i.e. industrial wooden pallets. Similarly ENSURE and applicant have failed to identify where this “indoor quarantine area” is being proposed, and what are its surface dimensions and associated security measures; similarly, applicant should spell out what he intends to “do” in this “quarantine” area.</p>	<p>a) Applicant is to provide a layout plan showing segregation of all waste storage areas, per waste stream, in such a way to prevent cross contamination and maintain safe fire and security conditions. Such a plan is to be submitted by the operator prior to issue of permit and included as an approved document.</p> <p>The above and the requirement to have such areas adequately labelled will be addressed through permit conditions.</p> <p>b) During the public consultation, the Authority received that attached BAT Comparison document for waste treatment industries 2018, in which BAT No. 2 addresses waste pre-acceptance procedures.</p> <p>Furthermore, the permit will require:</p> <ul style="list-style-type: none"> • A quarantine area to be designated within the site boundary to temporarily hold unpermitted waste that may enter the site. A non-leaking skip or similar contained structure can be utilised for the temporary storage of unpermitted waste. Such wastes may not be mixed with other wastes on site. • The Permit Holder shall develop and maintain risk-based pre-acceptance procedures which consider: <ol style="list-style-type: none"> i) The hazardous properties of the waste ii) The risks posed by the waste in terms of process safety, occupational safety and environmental impact iii) The information provided by the previous waste holder • The permit holder shall only accept waste for which a permitted disposal/recovery route for the output of the treatment is determined. • The permit holder shall ensure that any incoming waste shall be visually inspected to check compliance with the description received during the pre-acceptance process. • Only waste streams as set out in the European Waste Catalogue codes will be accepted and processed on site as per an approved document in the permit. • The permit holder to have a procedure in place so that all unauthorised waste is disposed of off-site in a safe, secure and timely manner. <p>BEAG to note that Table 2. Vol. 3 of the IPPC application includes the treatment of other clean wood which may not necessarily be related to WEEE streams, e.g. industrial wooden pallets.</p> <p>The applicant is required to provide the clarifications requested in No. 2 above, and provide the following clarifications on the management of the quarantine area</p> <ol style="list-style-type: none"> i. Dimensions 	<p>a) Please refer to Appendix 1.</p> <p>b) Noted.</p> <ul style="list-style-type: none"> • Noted. This will be implemented. • Please refer to Appendix 5. <p>i. The quarantine area will consist of a closed skip or similar (approximately 1 m x 1 m x 1 m). Given the pre-acceptance and acceptance procedures that will be in place (as described in Appendix 5), this capacity will be sufficient since the</p>
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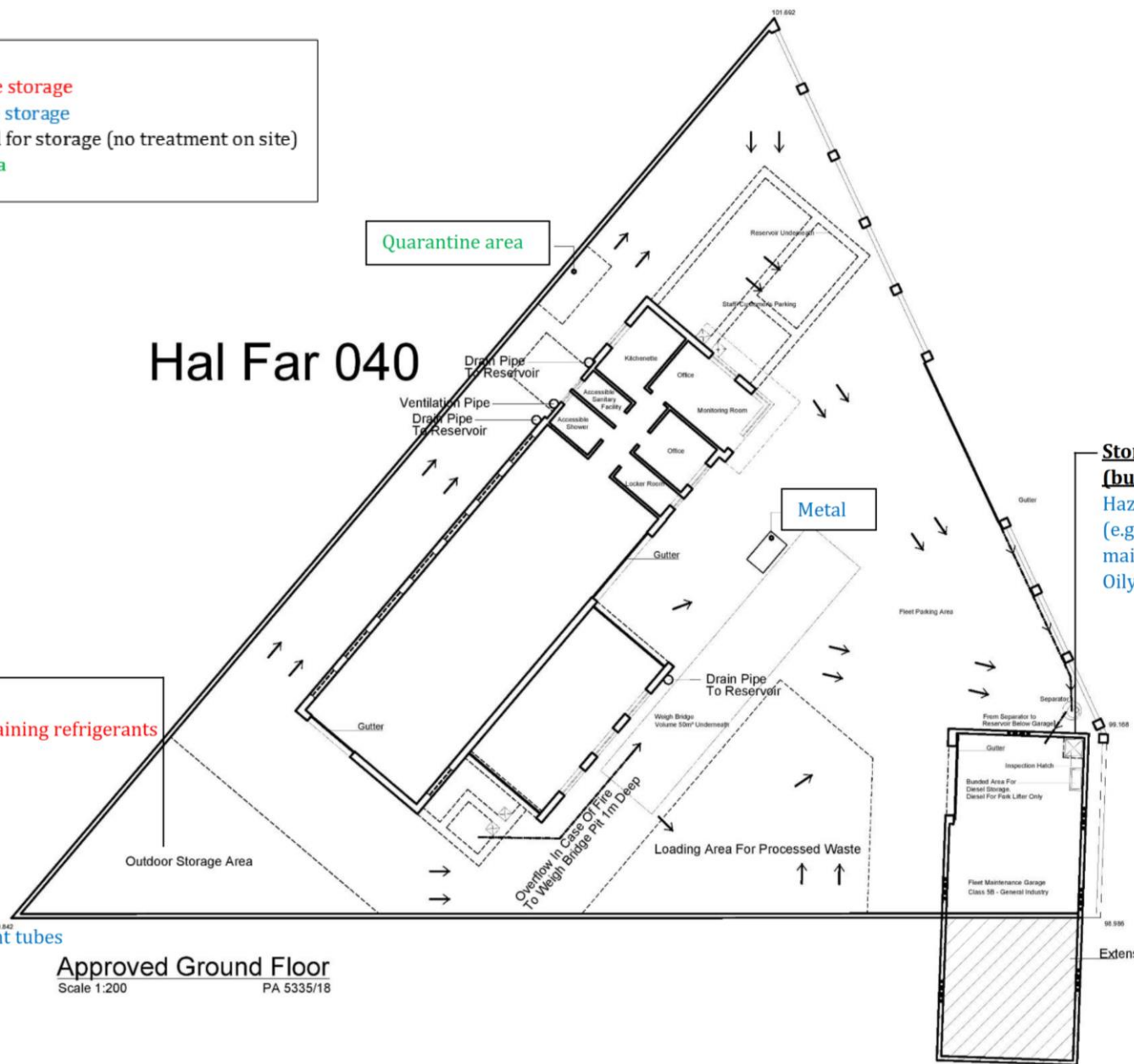
	monitoring				<p>ii. Security measures</p> <p>iii. Procedures</p> <p>Furthermore, in line with BAT No. 16 in Vol. 2 of the IPPC application, the applicant has indicated that “in the office / monitoring room close to the weighbridge, relevant permits will be inspected, and trucks will be weighed upon entry and exit at the weighbridge to ensure accurate records are kept. The Scheme also issues delivery receipts to clients for each waste consignment received. Any unauthorised waste that may enter the site is stored in the indoor quarantine area prior to removal to authorised facilities. Such waste will also be recorded.”</p>	<p>procedures in place will enable most unauthorised waste to be rejected rather than being placed in the quarantine area.</p> <p>ii. The quarantine area will be located just outside the WEEE treatment building (within the site boundary), to ensure that only trained site operatives are able to access it.</p> <p>iii. Please refer to Appendix 5.</p>
5.				<p>PURPOSELY DEFEATING PLANNING AUTHORITY APPROVED PLANS</p> <p>At the planning stage, in view the potential contamination with hydro-carbons and other heavy metals as arising on site, BEAG had argued that all foul and other rain/storm waters should not be drained onto the public roadway, but drained onto a specific reservoir. This principle was officially accepted and applicant made to correct the surface falls at the facility entrance and all around the concreted flooring. This is even confirmed in the IPPC submitted surface drainage plans and invert levels.</p> <p>However, BEAG notes one simple plan addenda that purposely defeats the earlier planning process. One now notes that reservoir No. 2 below the “Fleet Maintenance Garage” has an added “overflow to road”.</p> <p>Although no drains are indicated on plans for level 0 and -1, it now results that reservoir No.1 will be draining onto reservoir No. 2 and then eventually drained onto the road. This is confirmed in the ENSURE Risk Assessment, Management and Mitigation Measures for Used Firefighting Water AND overflows. BEAG strongly objects to this type of by-pass solutions, especially when it was considered that a simple oil-trap would be enough to do away with all the otherwise dirt and heavy metal contaminated concrete flooring. Moreover, any and all drains, whether for white, grey or black waters should be clearly indicated on freshly submitted plans.</p>	<p>ERA observes that any potentially contaminated runoff shall be treated by an oil-water interceptor prior to road discharge. The permit will require periodic monitoring of this oil separator overflow discharge to land, besides other conditions related to the maintenance of the same oil separator.</p> <p>Applicant is to clarify how the proposed drainage system shall ensure that no heavy metals shall be discharged to the surrounding roads or the environment.</p> <p>The drainage plan in pages 33-35 of Vol. 5 and associated “response to feedback on IPPC application” describes all the requested drainage arrangements.</p>	<p>Noted.</p> <p>As described in the IPPC application (Volume 5), the following areas are connected to an oil-water separator: garage, road surface water, outdoor covered storage area. The treated effluent will be discharged to reservoir 2 (capacity of 476 m³). Reservoir 2 overflows to the road (the overflow will only be installed when PA 6212/19 is granted); however, under normal operations this overflow would be of clean / treated water; additionally the possibility of the overflow being used is remote, due to the large size of the reservoir. In these areas any contamination would likely consist of oil, hence the use of an oil-water separator is appropriate, and standard practice. As described in section B3.3 of the IPPC application (Volume 2), process wastewater from the WEEE treatment building, including the CRT breaking room and fluorescent tube crushing room, will be treated to remove relevant metals.</p>
6.				<p>Underground cesspits, reservoirs and other tanks and all types of drains, including oil traps are to be inspected and certified annually by a warranted engineer. Similarly equipment for negative</p>	<p>The permit will require certification and registration of industrial effluent cesspits (i.e. 1m³ sealed cesspit within cesspit 2, cesspit 2 and its overflow) in accordance with Activity 43 of S.L. 549.63. Domestic effluent cesspits are to be registered with the</p>	<p>Noted.</p>

	monitoring			pressure areas and glass-scrubbing should be similarly certified.	<p>Superintendent of Public Health.</p> <p>The oil separator will be required to be periodically certified by an independent warranted civil engineer or engineer that it has been constructed in accordance with EN 858, including inspection of the efficiency of operation.</p> <p>The permit will require regular maintaince of the negative pressure areas and associated filtration systems. All filtration systems shall be replaced according to the submitted maintainance schedule. Monitoring for emissions to air from such areas will be required by permit conditions.</p> <p>BEAG is to confirm if the term 'glass-scrubbing' is referring to the process of washing of contaminated glass. In such a case, BEAG to note that as described in 3.73 of Vol. 2 of the IPPC application water from the glass scrubbing is treated on site and recirculated within the same glass washing process. In view of the above, maintainance of the equipment and record keeping of such maintainance will be a condition of the permit and relevant documentation to be shown to ERA during inspections.</p>	
7.				The regular temporary storage of the Industrial Vacuum Cleaners being proposed are to be clearly indicated on site layout plan to be submitted to ERA Such vaccum cleaners are also to be certified by a warranted engineer Similarly all Spill Kits and HazWaste Bins (disosable overalls and used spill kits) are to be similarly iindicated in this layout plan.	Applicant is to provide the requested layout plan.	Please refer to Appendix 1 .
8.				A ledger should be kept on site, recording any and all testing/replacing of air, oil. Sand, carbon or other filters, including HEPA.	This shall be addressed through permit conditions and such maintenance of such records inspected during site visits.	Noted.
9.				Regular six-monthly monitoring for mercury (including vapours), phosphor emissions, and heavy metals in the reservoir waters should be carried out at least for a period of five (5) calendaar years, by, or at the expense of applicant, and forwarded to ERA within 48 hours of receipt by the permit holder. ERA SHOULLD ACTIVELY CONSIDER IMPOSING OTHER air, and water MONITORING, as it deems fit under the ccircumstances.	<p>Monitoring requirements will be addressed through permit conditions and shall subsist throughout the duration of the permit. These shall be mainly based on the requirements of the BAT Conclusions for Waste Treatment Industries 2018, which has recently been published by the Commission.</p> <p>Immediate notification to ERA on such results is normally required in cases of an abnormal emission or an exceedance in any specified emission limit value.</p>	Noted.
10.				In conclusion, BEAG reserves the right to present further comments in the event of public hearing.	Noted. Notification of the date of ERA board decision in public will be provided in due course through media.	Noted.



Appendix 1: Updated drawings

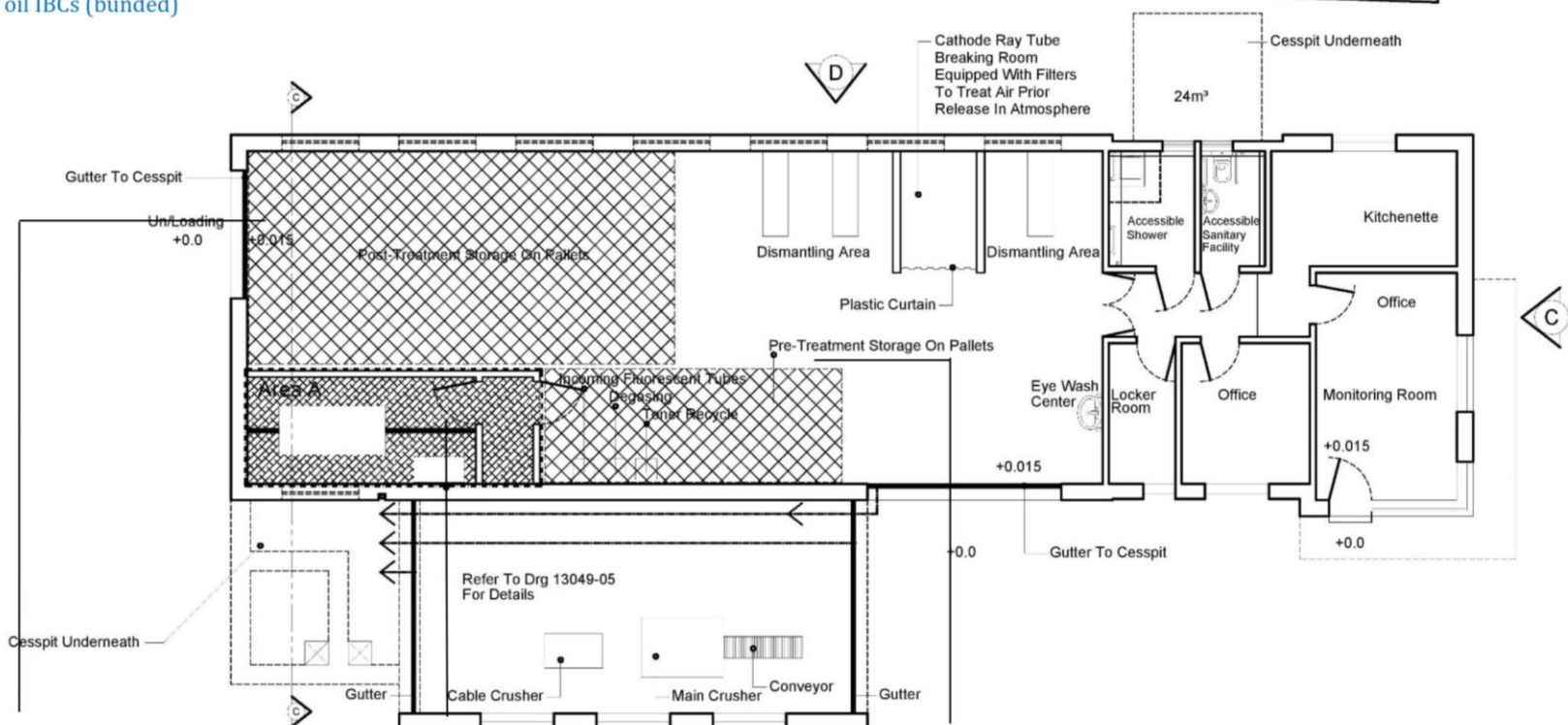
Legend:
 Incoming waste storage
 Outgoing waste storage
 Waste accepted for storage (no treatment on site)
 Quarantine area



Approved Ground Floor
 Scale 1:200 PA 5335/18

- Storage outdoors:**
- Fridges / freezers
 - Discarded equipment containing refrigerants
 - Wood items
 - WEEE-related packaging
 - Refrigerants
 - Plastic
 - Rubber
 - Metal
 - Packaging
 - Clean glass from fluorescent tubes
 - Shredded wood
 - Glass
 - Concrete blocks
 - TFT screens (covered)
 - Waste oil IBCs (bunded)

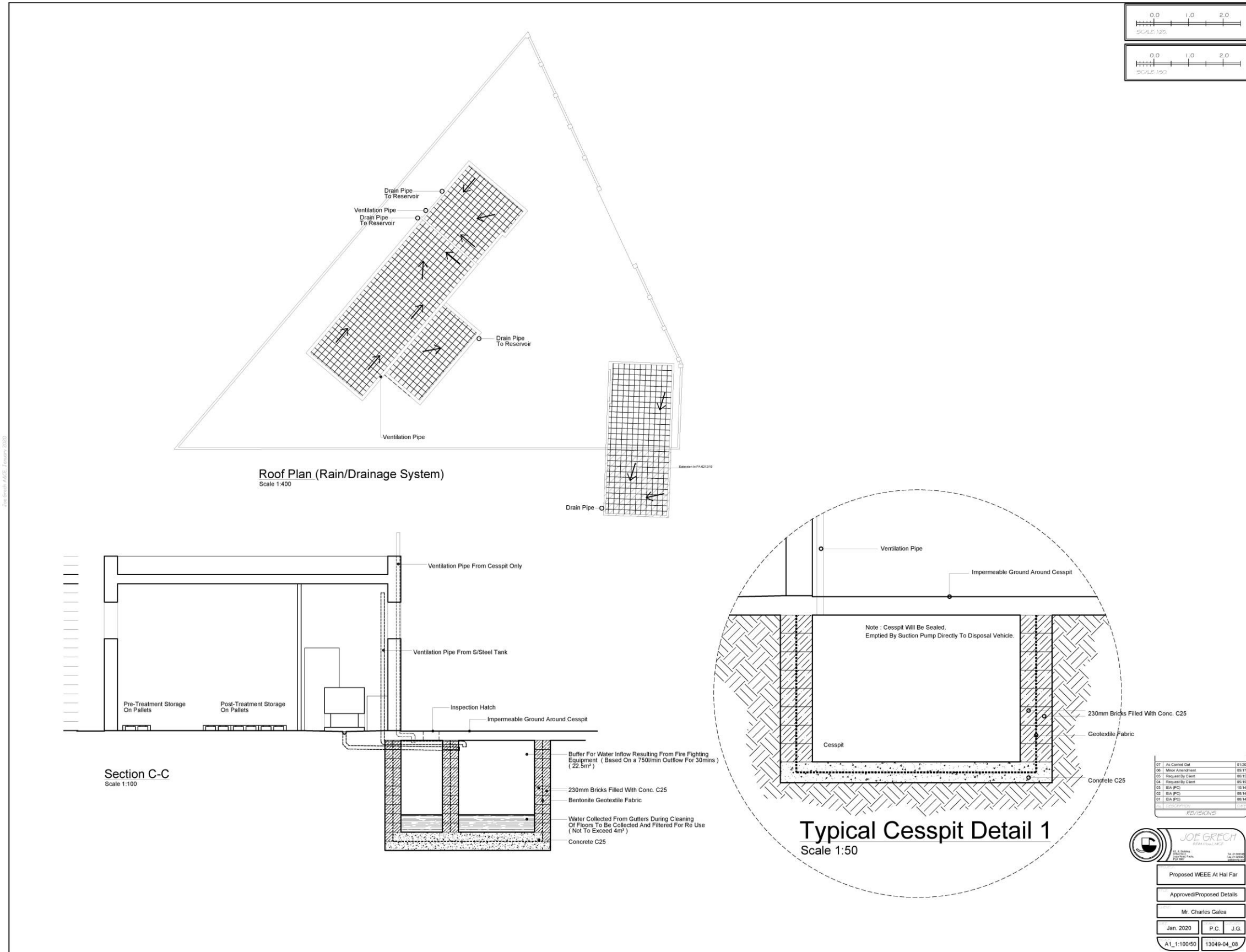
Storage in garage (bunded area):
 Hazardous liquid waste (e.g. waste oils from maintenance)
 Oily rags



- Post-treatment storage:**
- Aluminium
 - Copper
 - Wires
 - Printed circuit boards
 - Toner powder
 - Hard drives
 - Glass from CRT TVs / monitors
 - Used overalls
 - Clean glass from fluorescent tubes
 - Used HEPA / carbon filters
 - Batteries

Fluorescent tube room:
 Broken fluorescent tubes & bulbs

Pre-treatment storage:
 WEEE & WEEE components / parts
 CRT TVs / monitors



Joe Grech & Associates Limited 2020

07	As Called Out	01/20
08	Minor Amendment	05/17
09	Revised By Client	06/19
10	Revised By Client	05/19
11	EA (PC)	10/14
12	EA (PC)	08/14
13	EA (PC)	06/14
14	EA (PC)	05/14
15	EA (PC)	04/14

JOE GRECH
DESIGN & CONSULTANTS

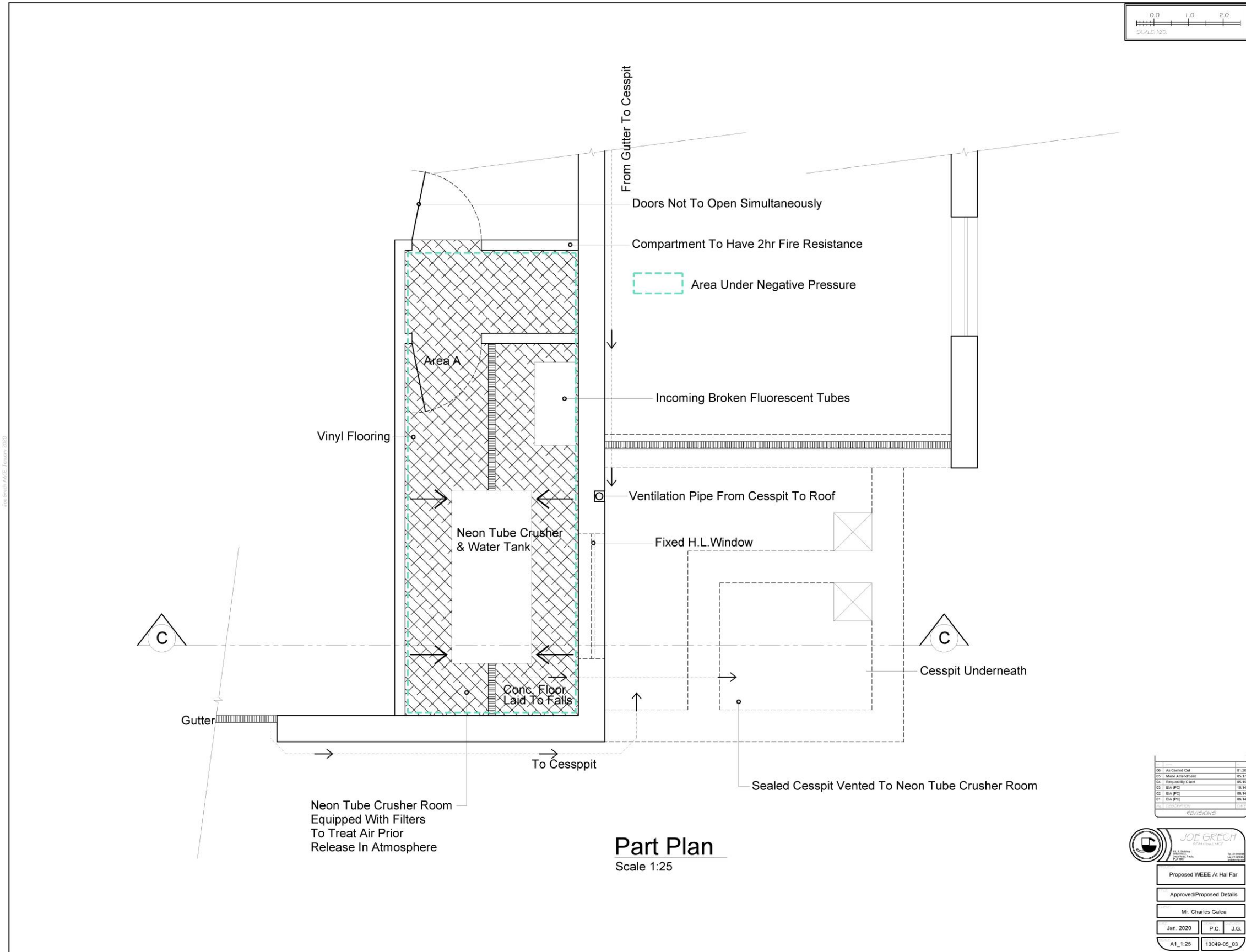
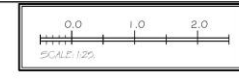
Proposed WEEE At Hal Far

Approved/Proposed Details

Mr. Charles Galea

Jan 2020	P.C.	J.G.
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A1_1:100/50 13049-04_08



01	As Carried Out	01/20
02	Minor Amendments	05/17
03	Revised By Client	05/18
04	EAH (PC)	10/14
05	EAH (PC)	06/14
06	EAH (PC)	06/14
07	EAH (PC)	07/17

JOE GRECH
REGISTERED ARCHITECT

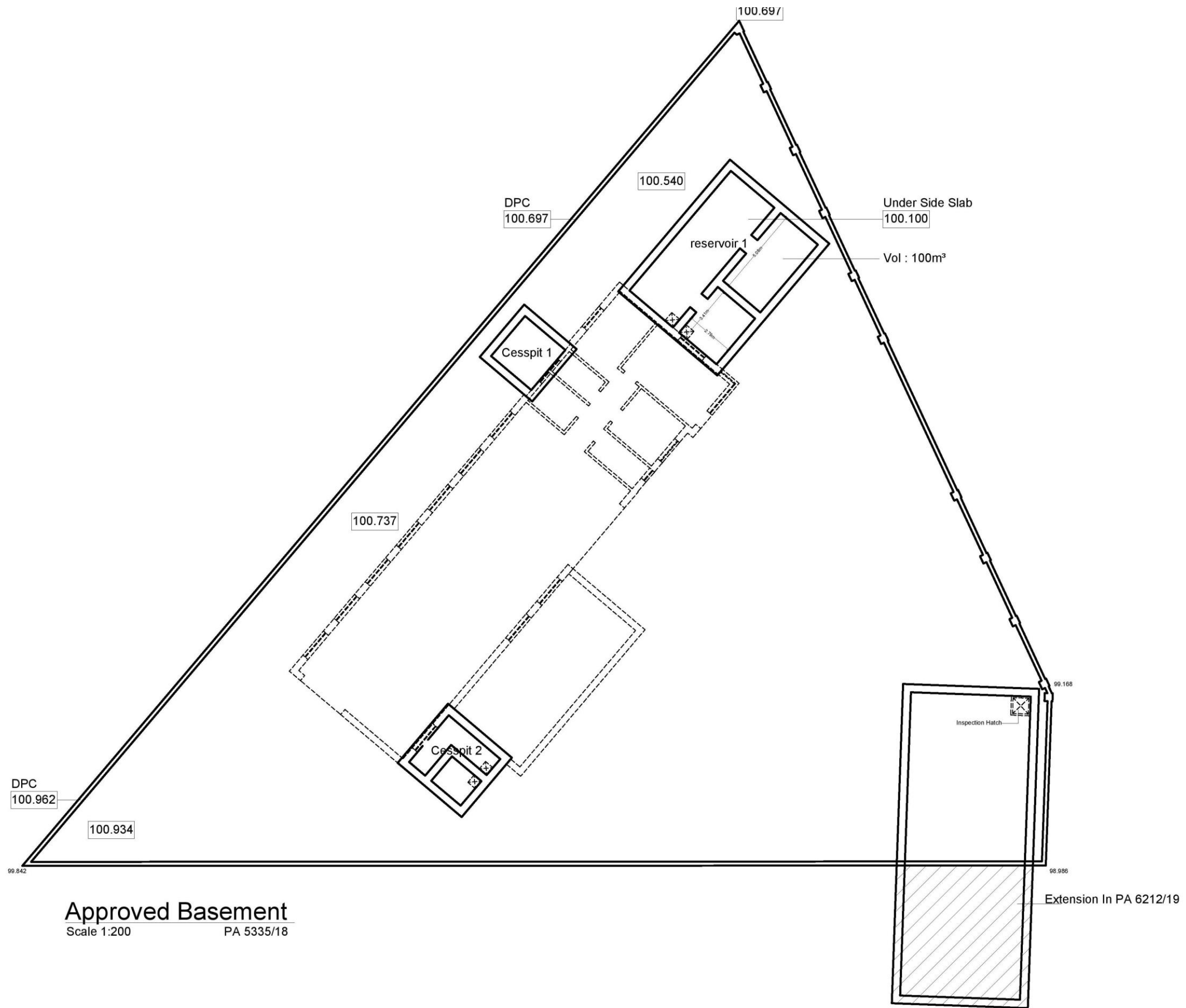
Proposed WEEE At Hal Far

Approved/Proposed Details

Mr. Charles Galea

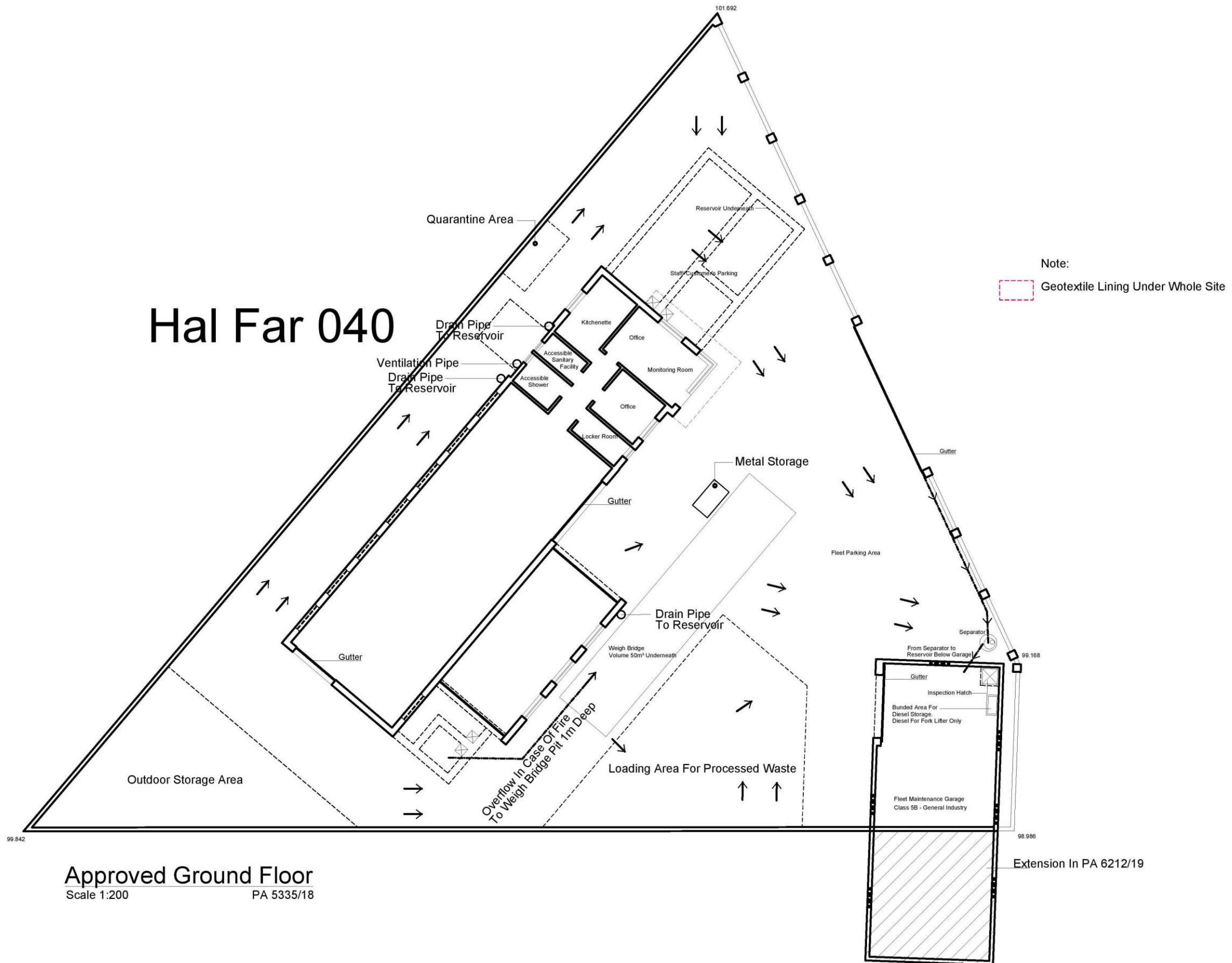
Jan. 2020	P.C.	J.G.
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Approved Basement
Scale 1:200 PA 5335/18

Hal Far 040





Appendix 2: Oil-water separator details

No. KEL-CPR-010

1. Unique identification code of the product-type:

**Separator Systems for Light Liquids, Plastic Construction
NSBP003, NSBP004 & NSBP006**

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4) of the CPR:

**Serial Number/Works Order Number printed on the Product Information Label
& affixed to product**

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

Collection & Separation of Light Liquids from Waste Water by means of gravity and/or coalescence

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

**Kingspan Environmental Ltd
College Rd North
Aston Clinton, Aylesbury, Buckinghamshire
HP22 5EW**

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):

N/A

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:

System 3

7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:

**EN 858-1:2002
BSI, Maylands Avenue, Hemel Hempstead, Herts HP2 4SQ
Has executed initial type testing according to system 3 and delivered the test report**

8. Declared performance:

Essential Characteristics		Performance			Harmonised technical specification
Crushing Resistance (vertical load test)		Pass (also wet conditions)			EN 858-1:2002
Structural Behaviour		Pass			
Resistance to fire		Class E			
Water Tightness (water test)		Pass			
Material Durability		MFR (190/2,16) = 3.0± 1g/10 min (ISO 1133)			
		Density ≥ 939 kg/m ³ (ISO 1872)			
		Yield Stress ≥ 19 Mpa (ISO 527-2)			
		Pressure A1 = 1 (EN1778)			
		Pressure A2K = 1 (EN1778)			
Treatment Efficiency	Sample	Specified Maximum Light Liquid (mg/l)	Actual Light Liquid (mg/l)		
	1	≤10	0.37	Pass	
	2	≤10	0.22	Pass	
	3	≤10	0.35	Pass	
	4	≤10	0.23	Pass	
	5	≤10	0.35	Pass	
	Average	≤5	0.30	Pass	
Electrical Consumption		n/a			

Signed for and on behalf of the manufacturer by:

Paul Copping – Technical Director

.....
(Name and function)

Aylesbury – 13th May 2013

.....
(Place and date of issue)



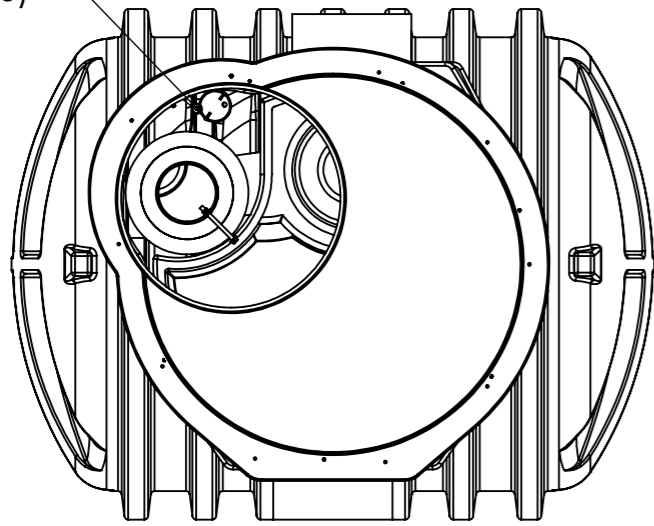
.....
(Signature)

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Alarm Probe Tube
(see note 6)



Unit Ref No	Nominal Flow	Dim L (mm)	Approx Empty Weight (kgs)	Fall across unit	Inlet Size 'A'	Outlet Size 'B'
NSBP003	3 L/s	1700	180	100	Ø160 mm	Ø160 mm
NSBP004	4 L/s	1700	180	100		Ø315 mm
NSBP006	6 L/s	1700	180	100	Ø315 mm	Ø315 mm

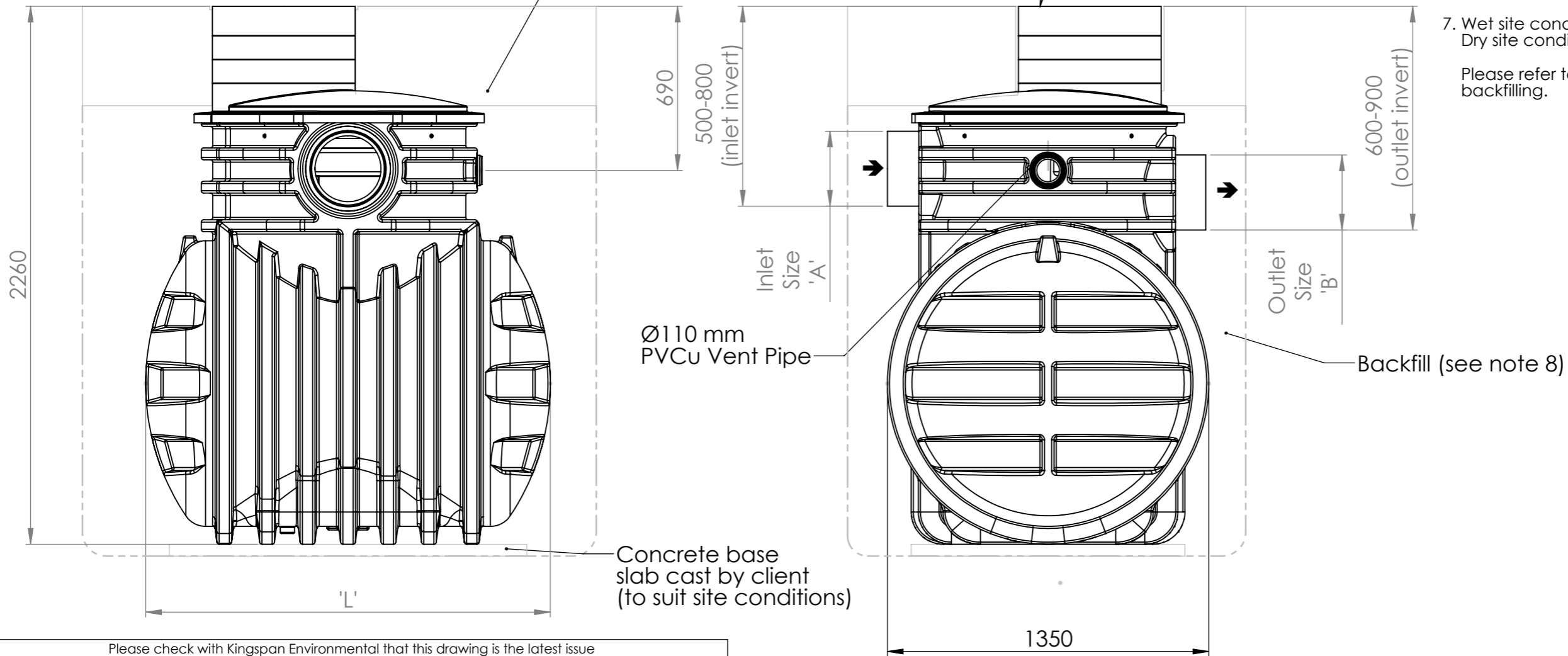
** Inlet/Outlet size A must equal B**

Notes:-

1. Inlet/Outlet pipes are plain pipe Ø315 mm PVCu. The standard EN 858 states minimum connection sizes, units ordered with different sized connections are not fully compliant with the standard.
 2. Extension necks for deeper inverts can be provided. These can be cut in 200 mm sections. Max 2.0m Invert recommended. Please ask our sales department for further details.
 3. All units require appropriate cover and frame to suit applied loadings.
 4. This drawing should be used for dimensional information only. It is essential that this drawing is read in conjunction with the installation guidelines supplied with the unit. (Copies are available from our sales dept.).
 5. This drawing is also available on our website www.kingspanenv.com.
 6. A Ø76 mm tube (internal) is supplied to house an oil alarm probe.
 7. Wet site conditions - Concrete Backfill
Dry site conditions - Pea Shingle Backfill
- Please refer to installation manual for details of correct backfilling.

Concrete cover slab cast by client
(to suit wet site conditions)

Neck can be trimmed
down to required invert



Please check with Kingspan Environmental that this drawing is the latest issue

Issue	Date	Drawn by	Approved by	Description
07	15/12/11	S.Gill		CC1020
06	15/12/10	S.Gill		CC 934
05	24/03/10	S.Gill		CC817
04	24/02/10	S.Gill		CC794
03	23/02/10	S.Gill		Table Edited
02	23/09/09	S.Gill		Drawing Description Changed
01	19/03/09	S.Gill		Initial Release

Material : n/a
Finish : n/a
Weight : Kgs n/a

Tolerance : n/a
Thickness : n/a
Surface Area : n/a

Drawing : NSBP003,004 & 006 Sales Drawing

Page 1 of 1

Drg No: DSO993

All dimensions in mm

Scale: Not to scale

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001372

**NSBP003 – NSBP006 Class 1 & 2 Bypass Separator
Installation & Operation Guidelines**



Kingspan Environmental Service Contact Numbers:

GB: 0844 846 0500

NI: 028 3025 4077

IRL: 048 3025 4077

Enclosed Documents

DS0993P	NSBP003 – NSBP006 Class 1 & 2 Bypass Separator
DS1013P	NSBP003 - NSBP006 Installation Drawing
NSBEXT1zz	NSBP Neck Extension Assembly

Issue	Description	Date
04	CC1091	September 2012

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1 Introduction

- 1.1.1 These Guidelines represent Best Practice for the installation of the above Separator Units. Many years of specialist experience has led to the successful installation of thousands of separator units. It must be noted, however, that these Guidelines are necessarily of a general nature. It is the responsibility of others to verify that they are appropriate for the specific ground conditions and in-service loads of each installation. Similarly, any information or advice given by our employees or agents regarding the design of an installation must be verified by a qualified specialist (e.g. Civil engineering consultant).
- 1.1.2 For guidance of Separator selection and application, please refer to the most recent issue of Environment Agency Guidelines pollution prevention guidelines No. 3 (PPG3).and BS EN 858.

1.2 Handling & Storage

- 1.2.1 Care must be taken to ensure that units are not damaged during delivery and handling on site. Please take care and place unit so that it cannot fall and become damaged
- 1.2.2 The design requirements of these products will frequently mean that the centre of gravity of the unit is "offset". Care must therefore be taken to ensure that the unit is stable when lifting. Rainwater may also collect inside units, particularly if they have been stored on site prior to installation, adding weight and increasing instability. Check units before lifting and pump out any excess water.
- 1.2.3 When lifting units, use webbing slings of a suitable specification. Do not use chains.
- 1.2.4 A suitable spreader bar should be used to ensure that units are stable and that loads are evenly distributed during lifting. When lifting separators, a spreader bar should be used where the slings would otherwise be at an angle > 30 degrees to the vertical.
- 1.2.5 Lifting equipment should be selected by taking into account the unit weight, length and the distance of lift required on site.
- 1.2.6 We accept no responsibility for the selection of lifting equipment.
- 1.2.7 Whenever units are stored or moved on site, ensure that the storage location is free of rock, debris and any sharp objects, which may damage the unit. The units must be placed on ground, which is flat, and level and the unit orientated onto its side with even support. Do not roll separators.

1.3 Site Planning

The following points should be considered before installation of the equipment:

- 1.3.1 The discharge must have the consent of the relevant Environmental Regulator.
- 1.3.2 The installation should have Planning and Building Control approval.
- 1.3.3 Consider installing flow cut-off valves to isolate the separator in an emergency or during site cleaning operations. See Environment Agency Guidelines PPG3.
- 1.3.4 We will fit a tube to receive the alarm probe. This tube provides protection and ensures that the probe is positioned at the correct level to sense the oil build up. The tube design and probe level setting assumes the use of our standard oil alarm system and may not be suitable for other alarm supplier's equipment. The probe tube may be fitted either within the neck or within the body of the unit. It should be extended to ground level when fitted in the body of the tank and you should make provision to extend the tube to the required height before backfilling. Consult the alarm supplier's instructions for they're detailed fitting installation instructions.
- 1.3.5 Consider venting of the unit. Comply with local regulations. In the UK, comply with the following regulations. For Petrol Stations: Health and Safety Guidance Note 41 (HS(G)41). For other applications: BS8301: 1985 (obsolescent) BS EN 752 Building Drainage. Adequate ventilation should be provided to the separator. The ventilation pipe should be as short as is practicable and be terminated not less than 2.5m above paving nor less than 1m above the head of an openable window or other opening into a building within a horizontal distance of 3m. Each neck should be vented independently, we advise against joining these below ground prior to their rising as vent stacks.
- 1.3.6 Consider installation of a sampling point downstream of the separator. There is no suitable facility to effectively sample the wastewater from inside the unit.

- 1.3.7 Uncontaminated run off such as roof water should be excluded from separators. (EA Guidelines PPG3.)
- 1.3.8 Ground conditions and water table level should be assessed. If the water table will be above the base of the units at any time of the year, adequate concrete backfill must be provided to avoid flotation. In poorly draining ground, consideration should also be given to the likelihood of flotation due to surface water collecting in the backfill, and an appropriate installation method devised to avoid this.
- 1.3.9 If the discharge is to a soakaway, a porosity test should be carried out as part of the assessment of suitability for sub-soil drainage.
- 1.3.10 The separator must be installed at a level, which will allow connection to the incoming drain and a free discharge at the system outlet. The water table must be below the discharge outlet.
- 1.3.11 Do not install the unit deeper than necessary, ensure that you purchase extension shaft kits. The minimum invert depth of the unit is shown on the customer drawing.
- 1.3.12 Adequate access must be provided for routine maintenance. Vehicles should not be permitted within a distance equal to the depth of the unit, unless suitable structural protection is provided to the installation.
- 1.3.13 There must be at least 1 metre of clear, level ground all around the access covers to allow for routine maintenance.
- 1.3.14 It is essential that a mains water supply is accessible for routine cleansing and refilling after removal of waste material and liquid.
- 1.3.15 Provide electrical supply for alarm system.
- 1.3.16 Installation should only be carried out by suitably qualified and experienced contractors in accordance with current Health and Safety Regulations. Electrical work should be carried out by a qualified electrician, working to the latest edition of IEE wiring regulations.
- 1.3.17 This unit is designed to operate with gravity in and out flows. The unit is not designed to operate with a pumped influent.

2 Installation

2.1 Installation - General

- 2.1.1 When units are installed in unstable ground conditions where movement of the surrounding material and/or unit may occur, the connecting pipework should be designed to minimise the risk of damage from differential movement of the unit(s) and/or surrounding material.
- 2.1.2 For separators with burial depths greater than 1000mm from cover level to the top of the unit, specific site conditions should be taken into consideration and the backfill designed to bear any loads which may be applied during and after installation to prevent the tank being subjected to these loads.
- 2.1.3 The excavation must be deep enough to provide bedding and cover depth as determined by the type of surface pavement and loading. Asphalt and concrete pads should extend a minimum of 300mm horizontally beyond the unit in all directions.
- 2.1.4 In situations where the excavation will not maintain a vertical wall, it will be necessary to shore up the sidewalls of the excavation with suitable trench sheets and bracing systems to maintain a vertical wall from the bottom to the top of the excavation. DO NOT completely remove the shoring system until the backfilling is complete, but before the concrete fully hardens.
- 2.1.5 In areas where the water table is above the bottom of the excavation and/or the excavation is liable to flood, the excavation should be dewatered using suitable pumping equipment and this should continue until the installation is complete.
- 2.1.6 During installation care must be taken to ensure that the body of the unit is uniformly supported so that point loads through the unit are avoided.
- 2.1.7 The concrete Specification is not a site specific installation design.

GENERAL CONCRETE SPECIFICATION IN ACCORDANCE WITH BS EN 206-1 (BS 8500-1)	
TYPE OF MIX	(DC) DESIGN
PERMITTED TYPE OF CEMENT	BS 12 (OPC): BS 12 (RHPC): BS 4027 (SRPC)
PERMITTED TYPE OF AGGREGATE (coarse & fine)	BS 882
NOMINAL MAXIMUM SIZE OF AGGREGATE	20 mm
GRADES: C25 /30 C25 /30 C16 /20	REINFORCED & ABOVE GROUND WITH HOLDING DOWN BOLTS REINFORCED (EG. FOR HIGH WATER TABLE) UNREINFORCED (NORMAL CONDITIONS)
MINIMUM CEMENT CONTENT	C30 C20 270 - 280 Kg/M ³ 220 - 230 Kg/M ³
SLUMP CLASS	S1 (25mm)
RATE OF SAMPLING	READY MIX CONCRETE SHOULD BE SUPPLIED COMPLETE WITH APPROPRIATE DELIVERY TICKET IN ACCORDANCE WITH BS EN 12350-1
NOTE: STANDARD MIXES SHOULD NOT BE USED WHERE SULPHATES OR OTHER AGGRESSIVE CHEMICALS EXIST IN GROUND WATER	

2.1.8 Pea Shingle - 6 mm to 10 mm rounded pea shingle, offering low point loading characteristics is considered to be the most suitable material for back filling in dry ground installation. (PEASHINGLE ONLY TO BE USED IN DRY SITE CONDITIONS).

2.2 Separator Installation

2.2.1 DRY GROUND CONDITIONS

2.2.2 Excavate the site, allowing for a minimum clearance on all sides and base of the unit of 200mm and level the base.

2.2.3 Ensure that the hole is kept dry. Should any rain or surface water collect in the hole, this should be pumped out.

2.2.4 A base of at least 200mm of lean mix concrete should be provided.

2.2.5 Lower the tank in the hole using a rope sling through the lifting points provided on the tank. Under no circumstances should the sling be attached to the inlet pipe or the outlet pipe.

2.2.6 Position the inlet pipe in line with the incoming drain. Note that the inlet and the outlet pipes are clearly embossed on the tank. The unique profile of the base will help to level the tank, but make sure the tank is in the truly upright position in order to maintain the 25mm head difference between the inlet and outlet pipes.

2.2.7 After any concrete in the base has taken up its initial set (usually after one day), ballast the tank by putting approximately 0.5m depth of water into it.

2.2.8 Backfill the space around the tank with pea gravel or similar material (PEASHINGLE ONLY TO BE USED IN DRY SITE CONDITIONS). The backfill should be free from organic material, large stones, brick or sharp objects. Backfilling should be carried out in layers, making sure that voids are not left under and around the sides of the tank and that there are no localized stress concentrations. It is most important that the installer progressively fills the tank with water to the level above the backfill in order to stabilize pressures on the tank.

2.2.9 Remove any temporary covers and connect up the tank inlet and outlet pipe to your own pipework. Do not use reducers.

2.2.10 Backfilling can now proceed up to ground level in 300mm stages ensuring tank is ballasted in all chambers as you go.

2.2.11 A galvanized lockable manhole cover (600x600mm) and frame is to be fitted to suit specific site loadings, THE TANK MUST NOT BE LOAD BEARING. The top of the manhole should not be sat

below the local ground level. If necessary a further neck extension should be added to the tank to bring the cover up to ground level (see section 6).

2.2.12 Venting can be provided through the cover or a Tee piece arrangement on the outlet/inlet.

2.2.13 WET GROUND CONDITIONS

2.2.14 Excavate a hole to appropriate depth allowing at least 300mm for lean mix concrete and hard-core base. Allow for tank width plus at least 400mm with additional allowance for any necessary shuttering.

2.2.15 De-water the excavation using suitable pumping equipment. Ensure that the pump discharge does not saturate the ground in the immediate vicinity. In wet ground conditions the installer should ensure that the base is adequate to support the weight of the tank and its contents. If the base of the excavation is unstable, i.e. running sand or similar, excavate an additional 250-300mm below concrete levels and fill up with compacted hard-core. Place a sheet of polythene over the hard-core and up the sides of the excavation before putting in the concrete cradle.

2.2.16 Lay a bed of concrete (minimum 150mm thick) on top of the polythene at the base of the excavation. De-watering is to continue until you are satisfied that the concrete has cured.

2.2.17 Lower the tank onto the concrete bed, ensuring that the inlet and outlet are in the correct position. Ensure the tank is upright and then ballast it with water to a maximum of 500mm deep.

2.2.18 Haunch up the concrete bed at least 450mm all round the base, ensuring that all voids in the concrete are eliminated and at least 150mm of concrete is left below the tank base.

2.2.19 Backfill to the invert depth with concrete. Ensure that the water level inside the tank is maintained no more than 250-300mm above concrete backfill level. It is most important that the installer progressively fills the tank with water to a level above the backfill in order to stabilise pressure on the tank.

2.2.20 Backfill evenly all round the tank, consolidating in layers. The backfilling should start before the base has hardened and be a single continuous operation so that the tank has a full concrete jacket without joins.

2.2.21 DO NOT use vibrating pokers to consolidate concrete. DO NOT discharge concrete directly on to the tank. Ensure that the concrete is not too wet and that is tamped in around the tank.

2.2.22 Align and connect pipework.

2.2.23 Build up a shell of concrete around the neck of the tank to 150-200mm thickness before completing the backfill with a suitable material. Care must be taken to avoid distortion of the neck whilst concreting this area.

2.2.24 Fit cover and frame. Apply surface finish e.g. turf

2.2.25 Do not empty tank until the concrete backfill has cured. Tanks may be left filled with water.

2.3 Pipework Connections

2.3.1 In all cases, ensure that the outlet pipework level is maintained for correct operation. (Unless specified on the order, the fall across the unit will be as per the customer drawings).

2.3.2 Small units are generally fitted with **PVCu spigots** to both the outlet and the inlet.

2.3.3 Connect using the same size PVCu socket or a suitable reducer.

2.3.4 Larger units are generally fitted with **Our GRP** manufactured sockets.

2.3.5 The connecting pipework should be pushed into the socket. Ensure that the seal is secure and watertight before backfilling the pipe.

2.3.6 Alternatively, proprietary **flex seal couplings** can be obtained to fit over the outside of the site pipework and the outside of the GRP socket. When using this connection method, please be aware that the outside GRP laminate is not perfectly regular and that you may need to use a sealant on the outside diameter of the GRP. Take care not to over tighten the coupling when connecting to the GRP and ensure that the seal is secure before backfilling the pipe. Drawing DS0185 provides the

ID of our GRP sockets. The OD is variable, as the wall thickness can be up to 15-20 mm. If purchasing a flexseal coupling for use with clay /concrete, we suggest that a size 110 mm larger than the ID is selected.

2.4 Oil Level Alarm Neck Fitting

- 2.4.1 We will fit a tube to receive the oil alarm probe. This provides protection and ensures that the probe is positioned at the correct level to sense oil build up.
- 2.4.2 See alarm supplier information and ensure that the probe is placed within the tube and can be accessed from ground level.
- 2.4.3 Continue backfilling with concrete over the tank body to the required level. Build up a shell of concrete, minimum 225mm thick, around the access shaft(s). When using pea shingle continue to back fill up to required level. Temporarily strut the access shaft to avoid distortion. Temporarily strut the access shaft to avoid distortion.
- 2.4.4 Where we supply an extension shaft to meet a deeper invert requirement, a coalescer extension tube will be required. When fitting, ensure that the tube is extended to just below the surface so that the coalescer can easily be removed. Remove the coalescer from the unit before adding the extension tube. When refitting, ensure that the coalescer is correctly inserted and fully pushed into the base fitting. This is important and you must ensure that the coalescer is correctly located before putting the unit in to operation. Reattach the bracket to the extended neck so it lines up with the hole in the coalescer. Class 2 units NSBP do not require a coalescer extension.
- 2.4.5 It is advisable to seal the joints on the extension shafts (particularly on sites with high ground water) with proprietary sealant or by GRP lamination. Temporarily strut the extension neck(s) to avoid distortion during back filling. Where more than one neck section is required to suit a deep invert, consider back-filling section by section. If the extension neck is too long, it can be trimmed using a fine-toothed saw. The original fixing hole bolting the coalescer to the neck should be sealed.
- 2.4.6 Ensure that the vent socket if cut out, is replaced elsewhere. The maximum recommended inlet invert is 2000mm (using 500mm long extension sections). If you are installing a unit deeper than this then you must make your own arrangements for removing and replacing the coalescer. Consideration must be given to the depth of lift involved.
- 2.4.7 Continue back-filling, ensuring minimum 225mm concrete thickness around the access shaft/ extension neck and alarm access tube (as applicable). When using pea shingle back fill as required.
- 2.4.8 Mains powered Alarm Systems. See alarm suppliers installation instructions. Lay 82mm diameter PVCu underground ducting between the alarm panel location and the alarm probe position. The ducting should be 500mm below ground level and fitted with a drawstring for later cable insertion. Any changes of direction should be by long radius bend. If necessary, drill a suitable hole in the access shaft adjacent to the alarm probe terminal box, to accept the ducting and seal.
- 2.4.9 In traffic areas a suitable top slab must be constructed. The top slab should bear on a suitable foundation to prevent superimposed loads being transmitted to the unit and access shafts. Loads applied to covers and frames must bear on the top slab, not the access shaft.
- 2.4.10 The unit should be filled with clean water up to the invert level of the outlet pipe. Ensure the unit identification is placed/ marked inside the neck for future information. The unit is now ready for use.

2.5 Alarm Installation

- 2.5.1 Install the alarm probe and control panel, as per the Suppliers Alarm Installation Guidelines. Ensure that the probe is positioned correctly for the required storage of oil. The table below indicates the maximum volume of oil to be stored and the depth of floating oil expected in the separation chamber.

Unit	Recommended Minimum Oil Storage volumes in litres	Actual Oil Storage volume in litres	Max. (100%)Depth of floating oil (Static)
NSBP003	45 litres	107	210mm
NSBP004	60 litres	107	210mm
NSBP006	90 litres	107	210mm

3 Operation

- 3.1.1 The unit is sized on treating a defined area and rainfall (5 mm/hour) EN.858 Part 1 and using the factor provided in the Environment agency guidelines PPG3. (0.0018 = 6.5mm/hr) The unit will treat the entire flow i.e. NSBP003 will treat a flow of 3 litres per second. If the flow is greater than this then the excess flow will bypass the main treatment chamber. A NSBP003 unit will work in bypass mode over 3 and up to 30 litres per second. Flows in excess of this will back up on to the site. During a storm, the rain falls and flushes any surface debris, silt or oil into the tank. This first flush, up to the maximum rated flow is fully treated. As the severity of the storm increases, so does the rate of flow increase. The liquid entering the separator after the first flush tends to be cleaner and so, in lower risk applications, is allowed to bypass the oil separation chamber for directly discharge.
- 3.1.2 The bypass unit has three chambers. The entire flow up to the units listed flow rating is fully treated and passes through all chambers. (E.g. NSBP003 treats 3 litres per second.)
- 3.1.3 Flows in excess of this rating will bypass the separation chamber and the liquid passes untreated to the outlet chamber.
- 3.1.4 The first chamber will accumulate silt and grit. The maximum volume that can be retained is the rating x 100 e.g. a NSBP003 is capable of holding 300 litres of silt.
- 3.1.5 The second / separating chamber is sized to separate oil at the rated flow rate and to accumulate the required oil storage volume. A NSBP003 maximum oil storage volume is 45 litres. An oil probe should be positioned to detect the accumulation of oil when there is no or low flow conditions. The probe should be positioned so that the alarm operates at 90% of the rated oil storage volume.
- 3.1.6 In bypass flow conditions, the flow moves directly from the inlet to the outlet chamber avoiding the separating chamber.
- 3.1.7 Separators can be purchased either as Class 2, or as Class 1. Class 1 Bypass Separators are fitted with a removable coalescer which also includes media to further improve the discharge quality. The coalescer media requires maintenance.
- 3.1.8 Bypass Class 1 & Class 2 Separators are not effective for the removal of soluble or emulsified pollutants such as oil/detergent mixes found in vehicle wash effluents. With permission such discharges should be drained to the foul sewer. Consult our technical department for Separation equipment to meet these applications.

4 Maintenance

4.1 Waste Removal and Servicing

- 4.1.1 Separated light liquid **must** be removed from separator when the oil capacity has been reached.
- 4.1.2 An oil level alarm system is available for purchase which gives warning when the separated light liquid/water interface level reaches 90% of the maximum recommended oil storage volume.

- 4.1.3 Separators should be inspected at least every six months or more frequently if experience dictates. A log should be maintained detailing the depth of oil found, any oil volume removed and any silt removal or cleaning carried out. A specimen maintenance log is included in the appendices.
- 4.1.4 Every site is different, in respect to the amount and type of silt generated by the drain design and installation. Frequently, the construction programme itself generates large and perhaps unusual quantities of silt and grit. We do recommend that following the initial installation, an inspection of the separator contents be made to check that building rubble has not entered the unit. Further inspections at 3 and 6 months should be made so as to be able to assess the volumes of silt and oil accumulated. The inspection and emptying programme can then be defined following the first 6 months site experience. We recommend leaving a maximum interval between inspections of 6 months.
- 4.1.5 Alarm probes should be removed and cleaned with water whenever waste material is removed from the separator. Please note the alarm may alert until the liquid level is replaced.
- 4.1.6 **Separator waste is a “special waste” under the terms of The Waste Management Code of Practice. The Code imposes a duty of care on the waste producer to ensure that the Cleansing contractor is registered with the Environment Agency and that the final disposal of the waste is to a licensed facility.**
- 4.1.7 You should consider the purchase of a maintenance service, which includes bi-annual inspections, removal of oil and silt, cleaning of the alarm probe and cleaning or replacement of the coalescer (where appropriate).

4.2 Waste Removal Procedure – Oil & Silt

- 4.2.1 **Oil can only be effectively removed when there is no flow entering the unit. Isolate the unit and prevent flow from entering. Always remove the oil before attempting to remove the coalescer. If this is not done, when the coalescer is withdrawn the oil can coat the media surface and when replaced the oil may be forced through the media, contaminating the effluent.**
- 4.2.2 Remove the access cover and lower the desludging hose in to the separation chamber. Draw off the surface oil.
- 4.2.3 If removing the silt, lower the desludge hose to the base of the tank and empty the contents of the chamber. Ensure that you access and clean both compartments.
- 4.2.4 Remove the alarm probe, if fitted, clean with water and replace.
- 4.2.5 Consider the period of time that the coalescer has been installed and consider removing and inspecting (cleaning or replacing) the coalescer media. If removed, ensure that it is correctly replaced and secured into position. Replace the access covers. It is best to lower the water level to aid re-fitting.
- 4.2.6 Re-fill the separator with clean water up to the outlet level.
- 4.2.7 If an alarm is fitted, it will display an alarm condition until the separator is re-filled. Check alarm operation when unit full.

4.3 Checking the Coalescer Assembly

- 4.3.1 Coalescers, where fitted, may be cleaned periodically to maintain efficiency. Coalescers should be checked following a major incident and replaced if necessary. Please contact us if you wish to purchase the coalescer media.
- 4.3.2 Identify the type and size of separator (shown on labels inside the access neck).
- 4.3.3 Assemblies weighing less than 25 Kg may be removed by hand. Heavier assemblies should be lifted by mechanical means. Any lifting device employed must be capable of lifting:
 - 4.3.3.a In excess of the maximum assembly weight.
 - 4.3.3.b The assembly completely out of the access shaft.
 - 4.3.3.c Giving a smooth and controlled lift.
 - 4.3.3.d Swinging the assembly to one side clear of the access shaft.

Unit	Dry Weight (Kg)	Wet Weight (Kg)	Silted Weight (Kg)	Replacement Media Part No.
NSBP003	5.7 kg	≈50 kg	≈60 kg	402715
NSBP004	5.7 kg	≈50 kg	≈60 kg	402715
NSBP006	5.7 kg	≈50 kg	≈60 kg	402715

4.3.4 Ensure that the area around the access shaft is clear and that there is space to place the assembly once removed. If space is not available it will be necessary to support the assembly over the access shaft. e.g. by scaffold poles and platform.

4.3.5 Only remove the access cover when necessary to remove the assembly. Do not leave the access shaft uncovered and unattended.

4.4 Removing the coalescer assembly.

4.4.1 Undo and remove the bracket which secures the coalescer to the access shaft.

4.4.2 Lift the assembly with a smooth and steady motion. Coalescers will become lighter as water drains from the exposed media. Allow the water to drain completely. Assemblies blocked with fine silt may be very heavy.

4.4.3 Fully extract the assembly and set it down adjacent to the access shaft.

4.5 Cleaning the coalescer assembly/ Media Replacement.

4.5.1 Hose down the assembly using clean water at normal pressure. If the media is heavily contaminated with oil and silt, it may not be possible to clean it effectively by hosing. Do not allow untreated cleaning water to pass out of the unit. Continue hosing until the water runs clear.

4.5.2 To replace the media, undo the banding. Slide media of the core tube and slide new media on. Ensure all the apertures on the core tube are covered by the media. Re-secure or replace banding. Consider replacing media and banding every two years.

4.6 Replacing the coalescer assembly.

4.6.1 Position it over the access shaft.

4.6.2 Lower the assembly steadily into the access shaft ensuring that the end locates within the sump at the bottom of the tank. Re-secure the bracket.

4.6.3 Replace the access cover.

5 Connection of Extension Neck

(Option in 1800L Tanks only)

5.1.1 See the accompanying illustration.

5.1.2 Remove existing lid by unscrewing 8 screws and lifting off lid.

5.1.3 Apply mastic around flange of tank that joins to extension neck.

5.1.4 Place extension neck onto flange of the tank and screw down using 8 fixings.

5.1.5 Please refer to drawing NSBEXT1zz

5.1.6 Apply mastic to top face of extension piece that is joining to cover.

5.1.7 Place lid on top of extension neck and screw down using 8 fixings.

5.1.8 Backfill in 200mm stages with concrete (wet site) or peashingle (dry site), bracing neck during each stage until you reach the cover level.

5.1.9 For traffic area loading ensures you refer to tank installation section.

6 Emergencies

- 6.1.1 At sites where there is a high risk of spillage, spill kits containing drain seals, absorbent materials, disposal containers and other appropriate equipment should be held. In the event of a spillage on site, the material should be contained, (if a spill kit is not available, sand or soil may be used) and the Environment Agency notified immediately using the appropriate emergency hotline number listed in the Agency Guideline PPG3. Year 2012 - **0800 80 70 60**

HEALTH & SAFETY

These warnings are provided in the interest of safety. You must read them carefully before installing or using the equipment.

It is important that this document is retained with the equipment for future reference. Should the equipment be transferred to a new owner, always ensure that all relevant documents are supplied in order that the new owner can be acquainted with the functioning of the equipment and the relevant warnings.

Installation should only be carried out by a suitably experienced contractor, following these guidelines.

We recommend the use of a dust mask and gloves when cutting GRP components.

Electrical work should be carried out by a qualified electrician.

Contaminated surface water can contain substances harmful to human health. Any person carrying out maintenance on the equipment should wear suitable protective clothing, including gloves. Good hygiene practice should also be observed.

Access covers should be selected with reference to the location of the unit and traffic loads to be accommodated. These are not (normally) part of the Separator supply.

When covers are removed precautions must be taken against personnel falling into the unit.

Should you wish to inspect the operation of the equipment, please observe all necessary precautions, including those listed below, which apply to maintenance procedures.

Ensure that you are familiar with the safe working areas and accesses. Ensure that the working area is adequately lit.

Take care to maintain correct posture, particularly when lifting. Use appropriate lifting equipment when necessary. Keep proper footing and balance at all times. Avoid any sharp edges.

OIL ALARM SYSTEMS

PPG3 requires that the oil level alarm be fitted, tested and commissioned by a competent Installer. This is to ensure that the excessive oil probe is calibrated correctly, raising an alarm when 90% of the recommended maximum oil storage volume is reached. Should the oil level alarm fail to provide an early warning, excessive oil could pass through the separator, thus polluting the environment. This could result in substantial cleanup costs and legal action being taken under the water resources act 1991.

MAINTENANCE

The correct ongoing maintenance is essential for the proper operation of the equipment. Operators who rely on oil level alarms to prompt them to service separators between maintenance intervals run the risk of polluting should the alarms not work, hence the ongoing functional assessment of the oil alarm systems is fundamental if pollution incidents are to be avoided.

The removal of sediment and retained oil/grease should be carried out by a contractor holding the relevant permits to transport and dispose of such waste. The contractor must refer to the guidelines in this document.



**MAINS KLARGESTER
SEPARATOR ALARM
INSTALLATION &
OPERATIONS MANUAL**

Mains Powered Klargestor Separator Alarm

Installation, Operation and Maintenance

Contents

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14300 Klargester Separator Alarm

Installation, Operation & Maintenance

Name and Address of Manufacturer	Darcy Products Limited Brook House Larkfield Trading Estate New Hythe Lane, Larkfield Kent ME20 6GN
European Directive	94/9/EC
Equipment Name and Type	Separator Monitor Type 14300
Certificate Number	Baseefa 08ATEX0110/2 IECEX BAS 11.0095
Specific Marking of Explosion Protection	[Ex ia] IIC (-20°C ≤ Ta ≤ +50°C)
ATEX Directive Marking	Ex II (1) G
Notified Body	Baseefa 1180 Buxton UK
CE Mark with Notified Body Number	CE ₁₁₈₀
Harmonised Standards Used	EN 60079-0:2009 EN 60079-11:2012
Serial Number and Year of Manufacture	Displayed underneath the control unit
On behalf of the above named company, I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.	
	
P.G. Bowden - Director	

IMPORTANT

Note: In all cases good, standard electrical practice should be followed, and the installation must conform to the appropriate local code of practice – e.g. BS EN 60079-25 in the UK. In essence, the installation must be such that the intrinsic safety is not compromised by: - exposure to risk of mechanical damage, unauthorised modification or interference, exposure to moisture, dust and foreign bodies, excessive heat, invasion of intrinsically safe circuit by other electrical equipment or circuitry. (See Note in installation section)

Mains Powered Klargestor Separator Alarm

Installation, Operation and Maintenance

General Description

The standard system is supplied complete with an intrinsically safe control unit together with a high oil probe. The control unit is capable of monitoring up to 3 probe units, displaying their current status via a 2 x 16 display. The output relay enables this status to be signalled to a remote location or activate a beacon if required.

General Operation

The Control Unit monitors the condition of the connected probe units by checking their condition every 30 minutes¹, their current status is displayed on the display located on the front of the unit. If an alarm condition is detected, a warning message is displayed followed by notification of the alarm condition detected, e.g. ***HAZARD ALERT* High Oil Alarm**, the output relay becomes de-energised and the internal buzzer is audible.

The unit then gives the option, via the display, to accept/acknowledge the alarm. On doing so, the output relay energises, the buzzer is muted and the display instructs the user to take the appropriate action, e.g. empty the separator. After the separator has been emptied and refilled with water, the control unit re-scans the probe sensors attached and presuming no alarm condition is detected, **'All Correct'** will be displayed. If the push button is pressed before the separator has been emptied, or it has been emptied but not refilled with water, then the control simply scans the probe sensor(s) and reverts to the alarm condition. Please note the output relay is *de-energised* on detection of any alarm condition or mains failure.

Changing Factory Settings

Alarm Type

The factory setting is STD (standard), this is where the output relay de-energises upon fault detection and energises upon acceptance of the fault.

Alarm Type EXT (Extended) allows the relay to remain de-energised until all alarm conditions become normal.

To enter the "Set Up" mode, firstly remove power from the unit. Whilst holding down the Push Switch, power up the unit keeping the Push Switch depressed, after about 10 seconds the screen will display "Set Up", at this point release the Push Switch.

The display will now show Alarm Type: with a flashing cursor over STD, to change this function to EXT, press the Push Switch once.

¹ The unit is factory set to 30 minutes, but in extreme conditions, this can be manually changed from 2 to 60 minutes at one minute intervals. (see Changing Factory Settings)

Check Interval

Whilst still in the Set Up mode, power down and then power up the unit, the flashing cursor will now be next to Check Intvl: - by pressing the Push Switch, the time can be altered in increments of 1 minute between 2 and 60.

To exit the Set Up mode at any time, hold the Push Switch whilst powering down and then power up again before releasing the Switch, this will return to the main screen sequence.

Testing the Probe Sensors

The probe interrogation function can be activated at any time by simply pressing the push switch.

Installation

This product has been designed and certified as being intrinsically safe. It is of paramount importance, that the unit should not be modified in any way and the installation be carried out by an approved installer, in accordance with the Environment Agency guidelines (PPG3). Any deviation from this could invalidate the certification warranty and render the unit unsafe for its intended use.

Control Unit

Refer to Table 4 on page 7 for required cable specifications.

The control unit must be positioned in a non-hazardous area. For all wiring details, refer to Figure 1, Table 5 and Table 6 on page 9.

Probes (High Oil & High Liquid Level Probes)

The high oil probe is to be installed in the separator tank such that the float housing is below the static liquid level. If a high liquid probe is required, this needs to be installed such that the float switch housing is located above the static liquid level. Both probe cables can be secured inside the neck of the separator using a probe cord guide.

Please note the distance above or below the static liquid level will be determined by the type, style and/or size of separator, this information can be obtained from the separator manufacturer. However, as a general *rule of thumb*, the high liquid level probe should be placed 300mm above the static liquid level and the high oil probe 150mm below.

Due to the varying neck lengths (turrets) that occur within each separator, each normal probe unit is fitted with 5 metres of cable.

Silt Probe

The probe is suspended in the separator to a pre determined depth and the cable can be secured to the neck of the separator using a probe cord guide.

Mains Powered Klargester Separator Alarm

Installation, Operation and Maintenance

Cable Distribution Box

It is advisable to connect the probe cables to a cable distribution box which should be fixed near to the top of the separator neck. The probe cable can then be terminated with a waterproof plug (provided with the distribution box). The plug is then connected to the bulkhead socket (provided with the distribution box). A cable must then be laid to connect the distribution box and the control unit. The type of connection cable required will be dependent on the environment it is used in, the route taken and maximum allowable cable capacitance and inductance (see cable parameters in Table 4 on page 7).

After making the connections in the distribution box, it is advisable to spray the terminals with a conformal coating lacquer to prevent moisture ingress before finally sealing them with waterproof putty.

Connection to Control Unit

The Probe cable should be fed through the appropriate gland in the bottom right hand side of the control unit and connected to the terminals as instructed. The mains cable, and if used, any beacon or sounder cable, must be fed through the appropriate gland on the bottom left hand side of the control unit and connected to the terminals as instructed.

IMPORTANT NOTE: Under NO circumstances must the control unit casing be drilled to allow cable entry in any area(s) other than those already provided, as this would infringe the certification and therefore safety of the product.

Using a Junction Box

An intrinsically safe junction box should be used where incoming cable sizes have to be reduced to gain entry through the cable glands in the base of the control unit.

IMPORTANT NOTE: Under NO circumstances must mains and probe cable joints be made within the same junction box other than a junction box that is approved Intrinsically safe for such purpose, as this would infringe the certification and therefore safety of the installed system.

Maintenance and Repair

Due to the harsh environments which the probes can be subjected to, it is advised that they are inspected and cleaned with a damp cloth at regular intervals. The control unit does not contain user serviceable parts.

Technical Information

Electrical

Supply Voltage		230V ±10% 50Hz
Input Current	Normal condition	41mA
	Alarm condition	40mA
Fusing	Primary (FS2)	T 315mA H 250V
	Secondary (FS3)	50mA (Baseefa approved)
Max probe cable length		200m (less if values in Table 4 would be exceeded)
Relay Output		Volt-free SPCO contact 3A
Panel rating		IP65
Panel dimensions		180mm x 180mm x 60mm

Table 1 – Electrical Specifications

Apparatus Supply and I/O Parameters

U_m	253Vrms
-------------------------	---------

Table 2 – Mains Supply and Relay Contact Terminals (TB2 & TB3)

U_o	12.6V
I_o	87mA
P_o	273mW
C_i	0
L_i	0

Table 3 – Hazardous Area Terminals (TB1)

Group	Capacitance (μF)	Inductance (mH)	OR	L/R Ratio (μH/Ω)
IIC	1.15	4.6		74
IIB	7.4	18.7		298
IIA	27	37.5		596

Table 4 – TB1 Load Parameters

Probe Cables

The total capacitance and inductance of the cable used between the control unit and the probe must not exceed that shown in [Table 4](#).

Mechanical

Protection and/or screening of the cable should also be taken into account. The maximum length of cable between probe and control unit must not exceed 200 metres or less if the values in [Table 4](#) would be exceeded.

Mains Powered Klargest Separator Alarm

Installation, Operation and Maintenance

Probe Enable Jumper Links

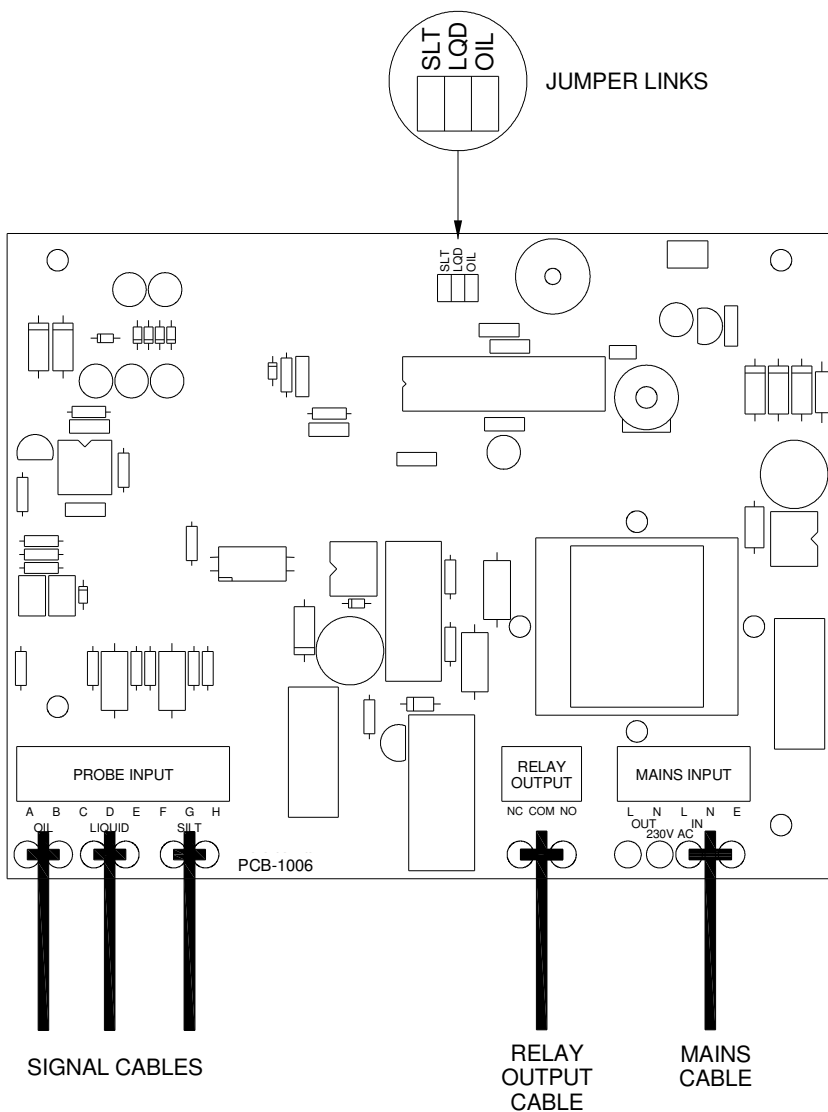


Figure 1 - Probe enable jumper links

Mains Powered Klargester Separator Alarm

Installation, Operation and Maintenance

To operate a probe, REMOVE appropriate jumper link

Probe Type	Remove Link
High Oil	OIL
High Liquid	LQD
Silt	SLT

Table 5 – Probe enable jumper links

Probe Cable Terminals

Probe Type	A	B	C	D	E	F	G	H
High Oil	BROWN	BLUE						
High Liquid			-	RED	BLUE			
Liquid (Optical)			BROWN	GREEN/ YELLOW	BLUE			
Silt						BROWN	GREEN/ YELLOW	BLUE

Table 6 - Probes cable wiring connection details

Flashing Beacon Wiring

The relay output terminals, TB2, may be used to operate a 230V flashing beacon when an alarm occurs. The beacon should be wired according to [Table 7](#) and [Table 8](#). Any commoning of live and neutral connections must be done externally to the unit's enclosure.

TB2 Terminal	Connect To
NO	No Connection
COM	TB3 Mains live
NC	Beacon Live Terminal

Table 7 – wiring from relay output to beacon

TB3 Mains Terminal	Connect To
L out	TB2 COM Terminal
N out	Beacon Neutral Terminal
E	Mains earth

Table 8 – wiring to beacon from relay output

Mains Powered Klargester Separator Alarm

Installation, Operation and Maintenance

Accessories

	Part No.
High Oil Probe -----	14201
High Level Probe -----	14210
Silt Probe -----	14220
230 VAC Flashing Amber Beacon (Includes mounting bracket and glands) -----	14012
230 VAC Flashing Amber Beacon & Siren (Includes mounting bracket and glands) -----	14100
Probe Cord Guide -----	14103
Signal Distribution Box -----	14039
Intrinsically Safe Junction Box (Power & Probe) -----	14006



Appendix 3: Correspondence with WSC regarding Sewer Discharge Permit application

DM 172
7



Triq Hal Qormi, Hal Luqa LQA 9043
Freephone: (+356) 8007 6400 Fax: (+356) 2244 3900
E-mail: customercare@wsc.com.mt Website: www.wsc.com.mt

Application for a Public Sewer Discharge Permit (based on L.N. 139 of 2002 Schedule D)

SECTION A

I CHARLES GALEA (Full Name), I.D. Card number 71546007
residing at AMITIE TRIQ IL-BARRISA
ZABBAR
telephone 21445190 fax _____ mobile 99496645
e-mail ELECPRO@EPC.MALTA.COM
as representative of WEEE RECYCLE 4U LTD
am applying for a permit to discharge effluent into the public sewer, during the one year period
from

DD	MM	YY
----	----	----

 to

DD	MM	YY
----	----	----

Address of premises from which effluent will be discharged:
M14040 HAL FAR INDUSTRIAL
ESTATE HAL FAR

The following is a brief outline of activities/processes envisaged to be carried out at the above premises during the above mentioned period:
RECYCLING OF WEEE
WASTE ELECTRICAL ELECTRONIC EQUIPMENT

The substances that will be used at the above premises (not necessarily discharged in the effluent) during the said period are:

Substances	Kg
<u>ELECTRICAL + ELECTRONIC EQUIPMENT</u>	_____
<u>PRINTERS + TV'S + MONITORS</u>	_____
<u>FANS + WASHING MACHINES + BULBS</u>	_____
<u>NEON TUBES + COOKERS + TOOLS</u>	_____

The proposed point of discharge is indicated in the attached site plan, scale 1:2500, which is signed by Architect and Civil Engineer

JOE GRECH
name in BLOCK LETTERS

Declaration by Applicant (tick appropriate box)

I declare that the effluent to be discharged from the above mentioned premises is exclusively domestic sewage i.e. effluent resulting exclusively from activities related to the habitation of humans, such as the use of toilets, wash hand basins, showers and kitchen facilities.

I declare that the effluent to be discharged from the above mentioned premises is trade effluent having the same characteristics as approved in Public Sewer Discharge Permit No _____ covering the period from

DD	MM	YY
----	----	----

 to

DD	MM	YY
----	----	----

(If one of the above options are chosen, you may proceed to SECTION E)

I declare that the effluent to be discharged from the above mentioned premises is, at least partly, trade effluent, as defined in the Environment Protection (Sewer Discharge Control) Regulations, 2002. For this reason, I am supplying the following information which, I understand, shall be treated as strictly confidential:

SECTION B to be filled in for the discharge of trade effluent, please tick appropriate box/boxes

Type of industrial activity/process envisaged to take place in above premises during the year

Activity I – Manufacturing and Processing

- | | | |
|---|--|--|
| <input type="checkbox"/> Textiles & clothes | <input type="checkbox"/> Soap & detergent | <input type="checkbox"/> chemical(s) specify which |
| <input type="checkbox"/> Shoes | <input type="checkbox"/> Carpentry | _____ |
| <input type="checkbox"/> Food | <input type="checkbox"/> Glass & porcelain | _____ |
| <input type="checkbox"/> Beer | <input type="checkbox"/> Electronic components | _____ |
| <input type="checkbox"/> Wines & spirits | <input type="checkbox"/> Metal goods | _____ |
| <input type="checkbox"/> Soft drinks | <input type="checkbox"/> Batteries | _____ |
| <input type="checkbox"/> Mineral water | <input type="checkbox"/> Leather | |
| <input type="checkbox"/> Paint & pigments | <input type="checkbox"/> Tiles | <input type="checkbox"/> Other specify which |
| <input type="checkbox"/> Paper & cardboard | <input type="checkbox"/> Glue | <u>RECYCLING</u> |
| <input type="checkbox"/> Plastic & resin | <input type="checkbox"/> Explosives | _____ |
| <input type="checkbox"/> Tobacco | <input type="checkbox"/> Rubber | _____ |
| <input type="checkbox"/> Stone & marble | <input type="checkbox"/> Lime | _____ |
| <input type="checkbox"/> Carpentry | <input type="checkbox"/> Candles | _____ |

NAME OF SUBSTANCE

(a) *

(b) **

NAME OF SUBSTANCE	(a) *	(b) **
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

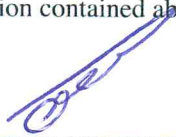
* (a) Maximum concentration in effluent, expressed in mg/L

** (b) Total amount of material to be discharged in sewerage system during year, expressed in Kg

SECTION E

I declare that the information contained above is true.

Signed



Date 11/1/18

Name in Full

CHARLES GAICIA



Official company/personal stamp of industrial concern

**€11.65 fee for the first application
or any subsequent application not being a renewal**

DATA PROTECTION

The information in this application form is used by the Water Services Corporation but may also be shared with Enemalta Corporation in accordance with the Water Services Corporation Act (Chapter 355) and shall be dealt with in strict confidence. You have the right to access, rectify, and where applicable, erase any data that concerns you. The Water Services Corporation guarantees fair processing of personal data. Furthermore, the Water Services Corporation will only send you information related to the Corporations' own services.

Data: 18/11/18
Date:

Nru. ta' Lirċevuta
Invoice no.

128469

Irċivejt minghand
Received from Charles Galea

is-somma ta'
the sum of Eleven Ewro
Euro

65 ċenteżmi
cents

€ 11.65

ghal
in respect of DMM 7607 (Hal-Far)

Firma
Signature G. Ghigo.
Gianluca Ghigo
Clerk

Discharge Permit Unit
IWT - Water Services Corporation
Lirċevuta mhux valida jekk iċ-ċekk ma jissarrafx.
Discharged cheques automatically invalidate this receipt.



Triq Qormi, Luqa LQA 9043
Freephone: (+356) 8007 2222
Fax: (+356) 2244 3900
E-mail: customercare@wsc.com.mt
Website: www.wsc.com.mt
VAT No. MT12435416
VAT Permit No. 71/04

Nru. ta' Ċekk
Cheque No. CASH



CSD/FIN 104/2 1x2 02/17

Rachel Decelis

From: Electronic Products Ltd [elecpro@eplmalta.com]
Sent: 06 March 2018 12:20
To: Rachel Decelis
Subject: Fwd: RE: Sewer Discharge Permit
Attachments: WaterServices.pdf

Dear Rachel

AS per below mail, and attachment for your perusal.
Chr

----- Forwarded Message -----

Subject: RE: Sewer Discharge Permit
Date: Tue, 6 Mar 2018 10:25:56 +0000
From: Trevor Giles Chircop Bray <TrevorGiles.ChircopBray@wsc.com.mt>
To: elecpro@eplmalta.com <elecpro@eplmalta.com>
CC: WSC DPU <WSC.DPU@wsc.com.mt>, Matthew Vella <Matthew.Vella@wsc.com.mt>, Anthony Gili <Anthony.Gili@wsc.com.mt>, Paula Grech Bonnici <paula.grech.bonnici@wsc.com.mt>

Dear Charles,

I confirm that an application was received by our office to apply for a Public Sewer Discharge Permit on 18/1/18. Our DMU reference is DMU 172. Please note that a permit cannot be issued yet given that the site is still under construction. Prior to the commencement of operations you are to inform us so we can set an appointment to perform an on-site inspection of the premises. Further to this, analysis of any trade effluents produced may be required.

Thanks and regards,

Trevor Chircop Bray
Managing Professional - Permitting & Reporting | Compliance & Quality | Water Services Corporation | Triq Hal Qormi, Hal Luqa LQA 9043
| email: trevorgiles.chircopbray@wsc.com.mt Tel: +356 2244 3128 ☎ Fax: +356 2244 3125

⏏ Please consider your environmental responsibility before printing this e-mail

This message is sent in confidence for the addressee only. The contents are not to be disclosed to anyone other than the addressee.
Unauthorised recipients must preserve this confidentiality and should please advise the sender immediately of any error in transmission.

-----Original Message-----

From: Electronic Products Ltd <elecpro@eplmalta.com>
Sent: 06 March 2018 09:01
To: Trevor Giles Chircop Bray <TrevorGiles.ChircopBray@wsc.com.mt>; Anthony Gili <Anthony.Gili@wsc.com.mt>
Cc: WSC DPU <WSC.DPU@wsc.com.mt>
Subject: Sewer Discharge Permit

Dear Trevor and Anthony

Further to our application for the sewer Discharge Permit in Hal Far as per receipt 128469 dated 18th January 2018.

Can you kindly send us a short note, that this application is on hold since building at site is still under construction stages.

The Company needs to present this note to ERA with its IPPC permit application, thanking you in advance, Charles Galea

--

Charles Galea
Electronic Products Ltd
WEEE Recycle IT Ltd
www.chdmalta.com
www.weerecycleltd.com

--

Charles Galea
Electronic Products Ltd
WEEE Recycle IT Ltd
www.chdmalta.com
www.weerecycleltd.com

Appendix 4: Degassing procedure

1. This procedure applies to equipment containing refrigerants. Initially, only air-conditioning or water dispensing equipment will be degassed; however, the range may expand in the future. It is envisaged that the total quantities of equipment to be degassed will not exceed 10 tonnes annually. Details of the applicable waste codes are included in **Table 1**.

Table 1: Incoming waste for degassing

EWC code	HP code⁴	Description	Estimated annual quantity	Storage area	Estimated maximum quantity stored	Treatment
16 02 11* 20 01 23*	HP 5, HP 14	Discarded equipment containing refrigerants	10 tonnes	Covered outdoor storage area	8 tonnes	Degassing

2. The technicians involved in degassing will be trained on the use of the equipment. They will also follow a training course on stationary refrigeration systems once this training course starts to be offered by MCAST.
3. Degassing will be carried out inside the WEEE treatment building or the covered shed; all areas on site have an impermeable concrete surface.
4. Dedicated and labelled cylinders will be available for collection of different gases to avoid their mixing. These cylinders will also be stored inside the WEEE treatment building or the covered shed.
5. Specialised equipment will be used for extracting the gas; a brochure is included at the end of this procedure.
6. The intake valve in the recovery unit is connected to the equipment containing the refrigerant through a pipe.
7. The type of refrigerant in the equipment is checked by checking the equipment label. The output valve on the recovery unit is then connected to the appropriate gas cylinder.
8. The gas cylinder is weighed before the start of the procedure, to ensure there is sufficient space available to take the incoming gas.
9. The pipes are purged of air before starting extraction, to ensure that the cylinder is only filled with refrigerant.
10. The valves are opened, the recovery unit is turned on, and the refrigerant is extracted.

⁴ According to EU Regulation 1357/2014; HP codes only apply when the waste is hazardous.

11. Once all the refrigerant has been extracted (as indicated by the gauges displayed on the recovery system), the valves on the degassed equipment and the gas cylinder are closed again and the recovery unit is turned off.
12. The gas cylinder will be filled to not more than 80% of its capacity; the remaining capacity is checked using the scales.
13. The recovery unit has a self-purging mechanism to clean it of residual gases between degassing operations. This ensures that there is no cross-contamination of gases in the cylinders, and no accumulation of gases in the unit that could damage it.
14. The fate of the extracted gases will be as follows:
 - Ozone Depleted Substances (such as R22) will be exported for destruction at a European Commission-approved destruction facility. The facility's technology will be in line with destruction technologies listed in Annex 7 of EC Regulation No. 1005/2009; and
 - Other recovered refrigerants that are authorised for reuse (including Fluorinated Greenhouse Gases such as R134a) will be sold for reuse locally or abroad.
15. The remaining carcass of the equipment will be dismantled manually and the recyclable fractions sent to authorised recycling facilities.



CM7000 Commercial Series Refrigerant Recovery System

Products in CM commercial series are universal for CFC/HCFC/HFC of high&low pressure refrigerants. With super power motor and high efficiency condenser, the recovery rate is very fast. Self-purging valve facilitates your next service process for different refrigerant recovery. No worry about the cross contamination. Operation is very

Your Environmental Service Helper/Assistant

ADVANTAGES:

- Performance has become a forefront of the industry;
- Meet ARI-740 standards;
- Universal for CFC/HCFC/HFC of high&low pressure refrigerants;
- 24 hours continuous working;
- No need for special maintenance when recovery different refrigerants, just use self-purging function;
- No cross

APPLICATION:

- Transfer refrigerants on your job site;
- Service chillers & other medium cooling systems;
- Small & medium central A/C factories;
- On site maintenance of small & medium HVAC/R products.



GLOBAL PARTNER



FEATURES:

- Oil free lubricating compressor, compatible with CFC/HCFC/HFC refrigerants;
- Self-purging design, prevent cross contamination;
- Multi-function valve design, simple operation;

Perfect protection system, safe credibility;

Thorough recovery refrigerant and automatic stop when the suction pressure is up to -0.04MPa;

Light weight, air cooled type only 160lbs, water cooled is much

SPECIFICATION:

- Model: CM7000
- Compressor: 2HP, oil free
- Vapor Recovery Rate: ≤ 2.21 lbs/min(60kg/h)
- Direct Liquid Recovery Rate: ≤ 8.81 lbs/min (240kg/h)
- Push/Pull Recovery Rate: ≤ 481 lbs/min (1300kg/h)
- Working & Environmental Temp.: 0-50°C
- Cooling Type: Air cooled (water cooled is optional)
- Recovery Mode: Vapor & Liquid Recovery
- Weight: 160 lbs(air cooled), water cooled is lighter
- Hose: 1/2"

Voltage(optional)

50HZ/3PH/380V	50HZ/3PH/400V	50HZ/1PH/220-240V
50HZ/3PH/415V	60HZ/3PH/380V	60HZ/3PH/220V
60HZ/3PH/440V	60HZ/3PH/460V	

Included with Purchase(standard):

Recovery system 1 set;

Operating manual 1 pc;

Certification of quality 1

GUARANTEE

1-year guarantee, forever technic

Web.: www.cm-green.com Email: cm-market@cm-green.com Tel:86-25-85622796 Contact:Mandy



GLOBAL PARTNER





Appendix 5: Waste pre-acceptance and acceptance procedures

WEEE RECYCLE 4U CO. LTD: WASTE PRE-ACCEPTANCE AND ACCEPTANCE PROCEDURES

Version History

Version	Date	Reason for revision
1	August 2019	New procedure
2	March 2020	Changes to site layout, operational details

Scope

1. This document outlines the procedure to be followed by WEEE Recycle 4U Co. Ltd, Hal Far, prior to waste reaching the site and when accepting or rejecting waste once it reaches the site.
2. WEEE Recycle Ltd is regulated by an Environmental Permit (EP033/18/A) and has applied for an IPPC permit (application IP 0006/13). The operational permit in force establishes the type of waste that may be accepted at the site.

Waste Pre-Acceptance Procedure

3. When a new waste supplier is identified, information will be obtained from the waste supplier regarding the nature and the origin of the waste. The Technically Competent Person is responsible for checking that:
 - the EWC code identified corresponds to the description of the waste;
 - the EWC code is authorised by the operational permit in force for WEEE Recycle 4U Co. Ltd at the time; and
 - a permitted treatment and final disposal / recovery route is available.
4. Once the above is confirmed, a service agreement will be drawn up and signed by representatives of the waste supplier and WEEE Recycle 4U Co. Ltd. The agreement will include the following information:
 - A description of the waste;
 - EWC code; and
 - Relevant acceptance criteria. Depending on the type of waste, these could include:

- When more than one waste type is being supplied, segregation of different waste types into different containers;
 - If appropriate, how the material will be packed and transported, for instance to avoid breakages (e.g. of fluorescent tubes) and leaks (e.g. batteries);
 - For equipment that contains refrigerants, whether the equipment will be degassed by the waste supplier; if so, a degassing certificate is to be supplied; and
 - The need to ensure appropriate storage at the waste supplier holder site, to reduce the risk of contamination.
5. Considering the nature of the waste accepted by WEEE Recycle 4U Co. Ltd, sampling and laboratory analysis prior to waste acceptance are not normally warranted.
 6. The delivery or collection of the waste is then scheduled by the Technically Competent Person (TCP, or a delegate), depending on the available capacity of the site to receive waste at that time.
 7. On occasions when waste is collected by WEEE Recycle 4U Co. Ltd's own waste carriers, the TCP will provide the driver with a description of the waste to be collected and any applicable acceptance criteria. The driver is responsible for conducting a visual check to ensure that only waste meeting this description is loaded onto the vehicle, and that the relevant acceptance criteria are met. Waste that is deemed not to meet the description or criteria will not be loaded onto the truck. A collection receipt will be provided by the driver to the waste supplier. The consignment permit / note procedure also will be used for transfers of hazardous waste.

Waste Acceptance Procedure

8. The TCP will ensure that the site has the required capacity to store and treat any incoming waste prior to a load arriving on site.
9. Incoming vehicles will enter the site via the entrance and proceed to the weighbridge.
10. Documentation will be checked by the weighbridge operator, to ensure that:
 - The waste complies with the waste types permitted by the operational permit in force at the time;

- The waste carrier has a valid permit to carry such waste (e.g. for WEEE, by checking that the waste carrier has a valid D2 permit on the windscreen);
 - For transfers of hazardous waste, that a valid consignment permit and consignment note are in place; and
 - Degassing certificates have been provided where required.
11. The weighbridge operator inputs the following information into a computer database:
- Vehicle number plate, and waste carrier registration;
 - Type of waste and EWC code;
 - Source of the waste (site of origin);
 - Weight of the delivery truck; and
 - Photo and time stamp of the load.
12. The database will assign a unique reference number for the consignment, for tracking purposes.
13. Incoming waste is then unloaded by site operatives in the WEEE treatment building (as shown in **Figure 1**).
14. During unloading, waste is inspected visually to ensure that the waste is as described, and that the waste acceptance criteria identified in the service agreement have been met. In the case of waste that arrives packaged on site (such as in jumbo bags), a sample of the packaged waste will be opened and a visual check will be conducted.
15. Any small quantities of unauthorised waste that are identified during the acceptance procedure will be loaded back onto the delivery truck and rejected. Should the visual inspection reveal that the consignment contains a large quantity of unauthorised waste, the entire consignment may be rejected and returned to the waste supplier.
16. Should any containers having broken fluorescent tubes / lamps be identified during unloading, these will immediately be stored inside the fluorescent tube crushing room to reduce the risk of fugitive mercury emissions.
17. Waste that appears to meet the expected description and acceptance criteria will be accepted, and will be moved for storage in a designated storage area, as shown in **Figure 1**.

18. Following unloading, trucks are to proceed to the weighbridge prior to exiting the site, so that the weight of waste left at the site is recorded accurately.
19. The weighbridge operator will issue a receipt for each waste consignment. The receipt will include the following information, and bear a unique sequential number:
 - The date and time of the consignment;
 - The weight of waste received;
 - Receiving facility name (WEEE Recycle 4U Co. Ltd) and operational permit number.
20. For packaged waste, visual inspections will continue once the waste is being unpacked for treatment on site. Should any unauthorised waste be discovered in this process, this will be immediately transferred to the quarantine area outside the WEEE treatment building.
21. The quarantine area will consist of a closed skip or similar; the area will be labelled to ensure that only unauthorised waste is placed here.
22. The EWC code of the quarantined waste will be identified, and an authorised facility will be identified to receive such waste. Quarantined waste will be transferred to the identified facility as soon as practicable.
23. A record will be kept of any rejected / quarantined waste, including the type of waste received, the quantity, and the supplier. It is noted that waste processing typically starts within a day of the waste being accepted, and therefore for any waste already accepted at the site, the supplier would be identified through the waste transfer records.
24. When rejection / quarantining has occurred, the Technically Competent Person will contact the waste supplier at the earliest opportunity to inform them of the incident, the reason for rejection / quarantining and agree on suitable measures to ensure that only authorised waste is supplied in future. Waste suppliers that repeatedly supply unauthorised waste may be blacklisted.

Figure 1: Storage arrangements

