

Case Officer Report



Subject: IP 0004/07/C/V2 - Application for the variation of IP 0004/07/C in relation to a thermal treatment facility in Albert Town, Marsa submitted by WasteServ Malta Ltd.

Date: 3rd November 2023

To: ERA Board

From: Regulatory Affairs Directorate

Case Officer: Gabriella Grima

1. Background

This report has been prepared for the determination of variation IP 0004/07/C/V2 for the;

- a) Introduction of the operation of a dual fuel burner
- b) Installation of odour abatement equipment comprising of a regenerative thermal oxidizer and positive pressure ionization systems
- c) Installation of a waste marshalling shed
- d) Amendments to the waste acceptance European Waste Codes (EWC)
- e) Installation of two Liquefied petroleum gas tanks and the associated medium combustion plant
- f) The reactivation of the autoclave operations

With regards to point d) the applicant is proposing to start accepting the following waste streams on site:

- 20 01 01 – paper and cardboard to be kept in outdoor bins.
- 20 01 30 – detergents other than those mentioned in 20 01 29 which would be kept in a fire vault.

Several other EWC codes related to certain liquid and gaseous chemicals such as paints, inks and anti-freeze fluids are being proposed to be removed from the list of permitted wastes to be accepted on site.

The application for this variation was submitted on 31st October 2022 by Mr. Richard Bilocca obo WasteServ Malta Ltd.

2. Case Officer Report

2.1. Proposal

The following are the operations carried out on site, with the **text in bold** being proposed through this application:

Operation	Description of specified operation	Limits of specified operation
<p>Waste incineration plant</p> <p><i>“Disposal or recovery of waste in waste incineration plants for hazardous waste with a capacity exceeding 10 tonnes per day”</i></p> <p><i>“Disposal or recycling of animal carcasses or animal waste with a treatment capacity exceeding 10 tonnes per day.”</i></p>	<p>Receipt, temporary storage and incineration of waste, flue-gas treatment, temporary storage on site of residues generated</p> <p>Emissions to air will be via a 26.12 m high stack (PS1) and will be minimised by cleaning the waste combustion gases as follows:</p> <p>Oxides of nitrogen (NOx) will be abated using Selective Non-Catalytic Reduction (SNCR)</p> <p>Acid Gases will be abated using a sodium bicarbonate abatement system</p> <p>Dioxins, mercury and volatiles abated using activated carbon injection</p> <p>Particulate matter and metals abated by bag filters</p> <p>Usage of emergency stack (PS2)</p>	<p>From acceptance of waste listed in Schedule 5 to off-site recovery or disposal of residues generated. Any waste in this list that seems to be falling under a 99 code must be specifically authorised by the Authority, as waste deemed acceptable to be accepted at the installation.</p> <p>Only wastes with a chlorine and fluorine content of less than 1% shall be accepted.</p> <p>Polychlorinated biphenyl (PCBs), polychlorinated triphenyl (PCTs) composites, and very stable polychlorinates shall not be accepted.</p> <p>Cytotoxic or cytostatic wastes shall not be accepted.</p> <p>Radioactive waste shall not be accepted.</p>

		<p>Waste containing brominated flame-retardants shall not be accepted.</p> <p>Emissions to air during normal operations and abnormal operations shall be discharged from PS1</p> <p>As described in the OTNOC conditions 2.2.21 – 2.2.26</p>
Autoclave plant	Treatment of Category 2 & Category 3 animal by-products.	From acceptance of animal by-products to use on-site or disposal/export off-site of the generated bone meal/tallow.
Operation of a dual fuel burner utilising heating fuel oil or tallow as required	Incineration of tallow/ heating oil as required	From receipt of fuel to incineration.
Waste heat recovery boiler and economiser	Conversion of heat within a heat exchanger	From receipt of hot air from the primary combustion chamber to delivery of cooled air.
Diesel tank farm	Storage of diesel for on-site use.	From receipt of fuel to delivery of utility.
Liquid Petroleum Gas (LPG) Storage	Delivery, storage and use of fuel for on-site use for the autoclave boiler and regenerative thermal oxidizer	From receipt of LPG to storage and burning of fuel
Blood coagulator	Sterilisation of blood and separation of blood coagulum from water.	From acceptance, sterilisation of blood and incineration of blood coagulum.

Wastewater treatment plant	Treatment of all waste waters on site.	From acceptance/ generation of contaminated or potentially contaminated waste waters to discharge of treated effluent into the sewer.
Reverse Osmosis Plant	Pre-treatment of water used for boilers	From receipt of utility to treatment and reuse/disposal of brine reject
Combustions plants	<p>Bin-washing area boiler (incinerator)</p> <p>Diesel emergency electricity generator (Autoclave). PS3 (1.2 MWth) (serial number: D630-TELYS2)</p> <p>Diesel emergency electricity generator (incinerator)</p> <p>Liquified Petroleum Gas boiler (autoclave) PS6 (3.97 MWth) (serial number: IA22U00039)</p>	Rated thermal input of combustion plant is less than or equal to 5 MWth for PS 3 and PS6
Odour abatement Systems	<p>Regenerative Thermal oxidiser exhausting to air will be via a stack</p> <p>Positive Pressure Ionisation Systems</p> <p>Boundary misting systems</p>	<p>From receipt of LPG to the combustion of malodorous air from the Autoclave.</p> <p>Treatment of malodorous air from the autoclave building Marshalling Shed & Shredder room</p> <p>Neutralisation of malodorous air around the site boundary</p>

Associated activity of storage and disposal/recycling of wastes generated on site.	Handling, storage and disposal/recovery of wastes generated from installation.	From generation and storage of waste (including bottom ash and fly ash from incineration process) to disposal or recovery offsite at permitted facilities. No treatment of bottom ash and slags shall take place on site.
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Proposed Emissions and Mitigation

PS 6 – PS 9 are newly included point sources as part of this variation as per below Table 1:

Table 1 : Emission points		
Emission point reference	Source	Mitigation Measures
PS1	Incinerator (Main Stack)	Dry flue gas treatment includes: <ul style="list-style-type: none"> a. Use of Selective Non-Catalytic Reduction (SNCR) for abatement of Oxides of nitrogen (NOx) b. Use of sodium bicarbonate for abatement of acid gases c. Activated carbon injection for abatement of Dioxins, mercury and volatiles d. Bag house filter for abatement of Particulate matter and metals
PS 2	Incinerator (Emergency Stack)	No abatement
PS 3	Emergency Generator (autoclave)	No abatement

PS 4	Emergency Generator (incinerator)	No abatement
PS 5	Bin washing Boiler	No abatement
PS 6	Boiler (autoclave)	No abatement
PS 7	Regenerative Thermal Oxidizer	No abatement
PS 8 (PS 8A, 8B, 8C, 8D)	Tallow vents	No abatement
PS 9 (PS 9A, 9B, 9C, 9D, 9E, 9F)	Flame arrestors on Heating Fuel Tanks	No abatement

Proposed Emissions and Mitigation

Emission point references	Source	Monitoring Frequency	Pollutant	Emission Limit Value (mg/Nm ³)	Abatement
PS6	Boiler (autoclave)	Every 3 Years	NO _x	200	None
			SO ₂	35	
			CO	-	

In line with the provisions of S.L. 549.122, conditions have been included for the PS 6, which is classified as a medium combustion plant. The Regenerative Thermal Oxidizer (PS7) is exempt from the aforementioned regulations. No monitoring is being proposed from the tallow vents (PS 8) or flame arrestors (PS 9).

2.2. Supporting documents recommended for approval

- IP 0004/07/C/V2
- IP 0004/07/C/V2/DOC1 – TTF Mitigation Measures Failure of Odour Management Systems

2.3. Applicable law/ policy

WasteServ Malta Ltd. Thermal Treatment Facility carries out two main activities which fall within scope of the Industrial Emissions (Integrated Pollution Prevention and Control) Regulations, in particular Activity 5.2b and 6.5 under Schedule 1 of S.L. 549.77:

“Disposal or recovery of waste in waste incineration plants for hazardous waste with a capacity exceeding 10 tonnes per day.

“Disposal or recycling of animal carcasses or animal waste with a treatment capacity exceeding 10 tonnes per day.”

The proposal is to comply with:

- Environment Protection Act (CAP. 549);
- The Waste Regulations (SL 549.63)
- Industrial Emissions (Framework) Regulations (S.L. 549.76)
- Industrial Emissions (Integrated Pollution Prevention and Control) Regulations (S.L. 549.77)
- Industrial Emissions (Waste Incineration) Regulations (S.L. 549.81)
- Commission Implementing Decision (EU) 2016/902 of 30 May 2019 establishing best available techniques (BAT) conclusions, for waste incineration, under Directive 2010/75/EU of the European Parliament and of the Council
- Best available techniques (BAT) specified in the BREF for Animal by-products and slaughterhouses (published November 2003)
- The Limitations of Emissions of Certain Pollutants into the Air from Medium Combustion Plants Regulations, 2018 (S.L. 549.122).

2.4. Site Description and Constraints

WasteServ Malta Ltd.'s Thermal Treatment facility is located adjacent to the Civil Abattoir in Albert Town, Marsa. The area surrounding the incinerator site is characterized by land uses related to the port activities, shipyards, residential area, and government departments. A large number of buildings are vacant and abandoned. These include dwellings and garages / warehouses. The residential area is confined to the area along Prinċep Bertu Street and Dr. Guzeppi Zammit Street, approximately 250m south of the incinerator. Approximately 270 metres south of the incinerator, along ix-Xwieni Street, are a number of large garages. Land uses along Troubridge Street, south of the site, include an array of commercial and residential use. To the west of the site are two large government-owned sites including the Marsa Open Centre. The buildings to the north of the site, between il-Moll Street and Garrick Street, are mostly abandoned. Shipyard activities are located to the north and east of the site.

2.5. Site History

The following permitting history is noted on site:

Number	Title	Status
PA 2201/01	To install an incineration unit and adjacent cold store within incineration site at Public Abattoir to meet E.U standards	Granted 3 rd March 2006
PA 3201/07	Alterations and additions to existing building - To convert it to stores and laboratory	Granted 16 th January 2008
PA 5115/07	Alterations and additions to existing including concrete flooring and sanctioning of boundary wall. Change of use from Stores to Temporary Waste Sorting and Storage Facility, at Xatt il-Mollijiet, Marsa	Granted 14 th March 2008
PA 2928/09	Demolition of existing buildings	Withdrawn by PD due to lack of submissions
PA 2585/13	Construction of an autoclave as an ancillary to the MTTF	Granted 4 th August 2014
PA 2583/13	Minor amendment	Granted 1 st October 2015
PA 2303/21	Construction of a shed to enclose the waste marshaling area at the incinerator in Marsa Thermal Treatment Facility	Granted 23 rd September 2021
PA 8829/21	Installation of an air treatment plant at Wasteserv's Thermal Treatment Plant	Granted 4 th May 2022
IP 0004/07/A	New Permit	Granted 31 st October 2007

IP 0004/07/B	Renewal & Variation_to include the Autoclave	Granted 1 st April 2016
	Extension of validity	Granted 29 th November 2019
IP 0004/07/C	Renewal	Granted 31 st May 2021
IP 0004/07/C/V1	Variation	Withdrawn on 25 th February 2022
OK0072/19	in relation to odour issues arising from the site's operations	Issued on 20 th November 2019
IF 1122/19-F	In relation to odour nuisance	Appeal withdrawn on the 15 th May 2023
IF 2124/19-F	in relation to odour issues arising from the site's operations	Appeal decided in favour of ERA on 17 th November 2022
IF 2125/19-F	in relation to odour issues arising from the site's operations	Appeal decided in favour of ERA on 17 th November 2022
IF 0148/20-F	In relation to odour nuisance	Appeal decided in favour of ERA on 17 th November 2022

2.6. Consultations

2.6.1 Intra-ERA feedback

On the application the following updates/clarifications were requested;

- a) An update to the site plans to indicate reefer storage was requested and inclusion of a list of outgoing waste in the permit.
- b) The annual fuel burnt indicated in the Annual Environment Report is declared for each equipment type.

- c) Requirement of terms of reference for the noise monitoring to be submitted prior to carrying out the noise monitoring. Existing permit conditions already cover such a requirement.
- d) Clarification on the amendments of the waste acceptance list and the disposal/sale of tallow.

There were no comments from an environmental assessment point of view, in view that the autoclave is an already existing facility, the proposed shed structure is not considered significant, and the odour abatement techniques aim at neutralising odours and thus reduce adverse impacts from emissions.

It was also commented that autoclave by-products, would fall under the Animal By-product Regulations and the final fate would then determine if its waste or not. In case of export, (waste) Regulation (EC) 1013/2006 on shipments of waste (WSR) are to be adhered to.

In terms of the compliance status, it was noted that the general compliance of the site has improved in comparison to past performance. Notwithstanding on a recent inspection carried out on 7th September 2023, the following non-compliances were noted:

- a) Misting system around the site boundary noted several times to be switched off and only switched on upon officers instructions;
- b) Several occurrences of reefers (awaiting export) being kept outside the permitted site boundaries in view of the backlog onsite. The export of this material is linked to the export processes of the abattoir and we are informed that this has encountered some difficulties.

The Authority is also awaiting settlement of the following pending fines IF2124/19-F, IF2125/19-F, IF0148/20-F and IF1122/19-F

In terms of complaints, 3 complaints were registered in 2021, 17 in 2022, and 9 complaints were registered so far in 2023.

2.6.2 Feedback from External Consultees

The **Veterinary Regulation Directorate** confirmed that tallow is categorised as category 2 material under the Animal By-products legislation EU Reg. 1069/2009 and EU Reg. 142/2011. This product, when traded within Europe is subject to the rules of article 48 of the EU Reg. 1069/2009. Since currently there is no market in Europe to sell as Animal By-products category 2 material, such tallow must be classified as waste.

The **Environmental Health Directorate (EHD)** provided general comments on the application, which are already catered for through the permit. A Standard Operating Procedure (SOP) should be in place in the case the Odour Management System is not working including the mitigation measures to prevent any nuisance caused by excessive odours. This has been provided and is being recommended for inclusion as approved document IP 0004/07/C/V2/DOC1.

The **Civil Protection Department (CPD)** requested the layout of the fire hydrant ring main plan which was requested and submitted by the applicant.

The **Planning Authority (PA)** indicated that it finds no objection to the proposal.

The **Energy and Water Agency (EWA)** inquired whether considerations were made for non-fossil fuel options (such as biogas) to power the new boiler. The operator replied that LPG was selected in view that the autoclaving process needs to reach and maintain specific elevated temperatures for predefined intervals, operations dictate:

- a) Availability of fuel, supplied with a steady and consistent rates,
- b) Fuel with known and consistent calorific value and
- c) Fuel type which is easy to transport and store, or that transport and storage systems are (already) in place.

The **Water Services Corporation (WSC)** commented that in view of past poor performance, they requested that WasteServ Malta Ltd. provide a report confirming that the current Waste Water Treatment Plant (WWTP) present at MTF has spare design capacity to be able to handle the extra load coming from the trade effluent that will be generated upon recommencing of Autoclave operations.

It was also requested that improvement programme item 34 (requirement for on-line monitoring of discharge to sewer) needs to be tackled before the autoclave starts operating in order to ensure that the quality of waste water generated by the Waste Water Treatment Plant is kept within acceptable levels.

Additionally, it was requested that WasteServ Malta Ltd. are to submit an application for the renewal of its discharge permit and depending on timeframes for autoclave operations, re-analysis of trade effluent will need to be performed when a change in the effluent characteristics ensues.

Following further discussions WSC was satisfied with the progress made and would allow discharges from the autoclave provided that the applicant conducts effluent monitoring to monitor on a daily basis discharges to sewer from the WWTP. This is being proposed

as a condition in the variation notice. The requirement for a sewer discharge permit is already catered for in the permit.

In terms of the existing limits in the permit, WSC requested an amendment to the unit of measurement for settleable solids in Table 2.5.15 to mL/L, which is being addressed in the variation notice.

The Malta Resources Authority (MRA) and Regulator for Energy and Water Services (REWS) indicated that they have no comments.

The Occupational Health and Safety Authority (OHSA) provided no feedback.

2.6.3 Public consultation dates: 22nd July 2023 – 5th August 2023

Responses received: No representations received

2.7. Discussion

The current IPPC permit covering operations at the Marsa Thermal Treatment Facility (IP 0004/07/C) was granted on 25th May 2021. The permit does not cover the operations of the autoclave and its ancillary activities in view that the equipment was destroyed during a fire incident which occurred on 27 October 2020 as well as shortcomings with respect to odour abatement. Thus the use of the autoclave had been removed from the authorised activity list as part of IP 0004/07/C. This permit tackled a number of issues including the longstanding odours emanating from the facility. To this effect a number of compliance orders were issued in 2019 and 2020.

As part of the current permit, Approved DOC IP0004/07/C/DOC1 included a number of short and long-term measures (infrastructural and operational) aimed at addressing the odour issue, whereby the implementation if infrastructural aspects is subject of this variation:

- a) Installation of fast roller shutters in Shredder room
- b) Installation of a Waste marshalling area
- c) The Installation of chemical scrubber or ioniser
- d) Installation of thermal oxidiser

Since at the time, it was still unclear whether WasteServ Malta Ltd. will opt for an ioniser or a chemical scrubber Improvement Programme 30 was included, which required the Operator to:

- a) Submit a finalized plan for the upgrades listed Approved DOC IP0004/07/C/DOC1

- b) Notify of installation and commissioning of odour abatement equipment as per Approved DOC IP0004/07/C/DOC1 (for the listed improvements on the waste marshalling area (4), chemical scrubber or ionizer (7) and tallow silos vents (8) including the submission an application for variation/s to this IPPC permit.

The finalised plan requested in 30a) was submitted on 25th October 2021 and accepted by the Authority.

Thereafter on 25th August 2021, the Operator applied for a variation of the permit (Ref: IP 0004/07/C/V1) to introduce a dual fuel burner to facilitate the incineration of tallow and heating fuel oil as required. In addition, a number of amendments to the waste acceptance list included in the permit. The tallow that was to be incinerated was generated prior to in operation of the autoclave and ancillary equipment on 27 October 2020. Such an activity was also not allowed by the current permit, in view that the operation of the Autoclave was suspended through IP 0004/07/C. In this regard, the Authority had expressed concerns with allowing the handling of tallow without having the appropriate odour abatement systems yet constructed/installed. During the processing of the application, the Operator had started to commission the dual fuel burner without abatement, which again resulted in odour issues in the surroundings area. Following this event, the Operator opted to withdraw the application on 22nd February 2022.

On 31st October 2022, the operator submitted a new variation request (Our Ref: IP 0004/07/C/V2) for the following:

- a) Introduction of the operation of a dual fuel burner
- b) Installation of odour abatement equipment comprising of a regenerative thermal oxidizer (RTO) and positive pressure ionization systems (PPIS)
- c) Installation of a waste marshalling shed
- d) Amendments to the Waste Acceptance European Waste Codes (EWC)
- e) Installation of two Liquefied petroleum gas tanks and the associated medium combustion plant
- f) The reactivation of the autoclave operations

The above-mentioned infrastructural installations are already in operation with the exception to the Autoclave, which was confirmed during the 20th September 2023 site visit held.

Such a variation namely captures the requirements of improvement programme item 30 (as discussed above) and improvement programme item 28 requiring the operator to register in accordance to S.L.549.122 the replacement boiler installed (instead of the previous boiler which was damaged during the fire and eventually decommissioned). To

this effect two LPG tanks have been installed to firstly replace the decommissioned LPG tank which supplied the decommissioned boiler, and to supply fuel to the new 3.9MWth boiler and regenerative thermal oxidizer.

Since the boiler falls within the scope of S.L.549.122 'Limitation of Emissions of Certain Pollutants into the Air from Medium Combustion Plants Regulations', conditions are being proposed to be amended accordingly including monitoring of emissions against established emission limit values.

Even though a method statement for the air monitoring of the boiler was provided, further revisions are required to ensure that such monitoring is in line with ERA's air monitoring guidance and applicable legal requirements. In this regard, an Improvement programme item is being proposed for inclusion together with the monitoring for the generator (Autoclave). This is also being included to streamline the requirements for monitoring of medium combustion plants on site, which although monitoring is required by the permit (for the generator), the monitoring was to date not carried out. With respect to the RTO, no monitoring is being proposed in view of the exemptions listed S.L.549.122. Notwithstanding, as per the current permit the Authority reserves the right to request monitoring if deemed necessary. In terms of the selected fuel, both the Boiler and RTO will operate utilizing LPG, which is considered a clean fuel source in consideration to other conventional fuel sources.

With respect to the odour mitigation proposed as part of this variation, the rationale was to target major odour contributors from the site. Firstly, the marshaling shed has been constructed to provide a contained abated area whereby animal-by products awaiting loading into incinerator/shredder are handled. Previously, the scenario was that animal by-products were left exposed to the elements for thawing prior to handling, due to thermal shocks to the detriment of the incinerator. The shed, associated odour fast-roller shutters and the positive pressure ionization systems serve to limit malodorous fugitive emissions from decomposing animal carcasses. The Marshalling Shed has the storage capacity of approximately 75 bins.

The PPIS, via the air handling units, collects air and directs it through ionisation tubes. A number of duct networks supply the marshalling shed, shredder room and the Autoclave building. According to the manufacturer's experience, the PPIS can reduce odour loads by greater than 80% within 1.5m of the odour source and greater than 90% within 3m. According to the Operator, the PPIS were selected over other technologies as the best available technique in terms of both effectiveness and efficiency. Additionally the system requires minimal electrical demand, no chemicals or water, and is simple to maintain. No air emissions or monitoring is identified for this process.

With, the regenerative thermal oxidiser, air from the autoclaving process, particularly the rendering and the pressing is treated. Odorous air is directed to the RTO is heated and oxidized, and thereafter emitted from a stack of 33m. The stack height is comparable to the main incinerator stack. The RTO has thermal recovery efficiency of >96.5% and an abatement efficiency of >95%. The RTO was selected as the preferred technology for high efficiency abatement. Additionally the existing conditions and permit requirements on odour monitoring as per methodology agreed with ERA are considered sufficient, and no additional conditions or requirements are being proposed. In terms of air emissions, an updated site layout plan has been included in the proposed permit. The Annual Environmental Report will require reporting of the fuel combusted in all equipment on site.

Another part of the variation, involves the installation of a dual-fuel burner in order to facilitate the incineration of both heating fuel oil and tallow (a by-product from the autoclaving). Such fuel combustion is technically required by the existing installation to maintain the required legislative temperature requirement as per S.L. 549.81 Industrial Emissions Waste Incineration) Regulations.

There are no direct air emissions for the Dual Fuel Burner system since these are combined through the main incinerator stack. Heating of tallow shall be done via steam from the incinerator or electrical heaters (as required). The transfer of tallow from the silos to the kiln or from the silos to an isotank (for export) shall also take place in an enclosed system, to minimise odour.

In terms of the proposal an appraisal with the Commission Implementing Decision (EU) 2019/2010 establishing the Best available techniques (BAT) conclusions for waste incineration was published on 12 November 2019 and the Best available techniques (BAT) conclusions for Slaughterhouses and Animal by-products was carried out. The proposal for odour abatement is line with Best Available Techniques (BAT) sought in the aforementioned BREF documents. Since an autoclave generates high volume of odorous air it is considered BAT to burn the resulting whole vapor gases in a thermal oxidizer to control odour emissions. The PPI is then utilized to treat the lower volume odorous air (diffuse) in the waste marshaling area along with supplying ionized air to the autoclave building. Additionally, it would have been preferable in terms of energy efficiency if the steam from the incinerator is also utilised to supply steam for the Autoclave. However the Operator notes that the boiler was installed in view that a constant and controllable amount of steam is needed, that the incinerator cannot supply.

The requirements of both BREF documents already are catered for in the current permit, no additional conditions are being proposed other than an improvement programme item to capture update EMS in relation to the Boiler, PPIS, RTO, and Dual Fuel Burner required by BAT 1, which is still being complied by the Operator.

With respect to noise monitoring, it is indicated that the RTO and the PPIS will increase the noise profile of the site despite mitigation being deployed. A noise survey has already been carried out which captures the operational equipment to date. The noise levels attributed to the recommissioning of the Autoclave will be captured through the annual noise monitoring which is already requested by the permit. Thus, applicant suggested to submit a noise management plan by Quarter 4 2023 so as to be able to reflect full operations. An Improvement Program item is being recommended accordingly.

Following a request by the operator the starting time of waste acceptance is being proposed to shift from 06:30 to 06:00. This would enable a longer service to the clients, particularly those handling animal-by products.

Although the autoclave has been permitted since April 2016, the current permit prohibits its operation until such time that odour improvements are installed. Based on the above improvements, this condition is being removed through the proposed variation.

The Operator has also indicated that on commencement of the Autoclave operations, the by-products of bone-meal and tallow shall be traded on the market in line with the Circular Economy concept. Such initiative is preferable as it is in line with waste hierarchy. Wasteserv Malta Ltd. will be contact with the Veterinary and Phytosanitary Regulation Division (VPRD) to establish requirements in the event that there is a market for such reuse. Notwithstanding, the Operators wishes to have operational flexibility, of having the option of utilising tallow as fuel in the incinerator's kiln. The use of tallow has the potential to offset Heating Fuel Oil consumption by 367,325L yearly. In addition to the reduction in fuel consumption, tallow contains half of the sulphur content found in heating gas oil. Therefore, its use as alternative fuel means which result in less potential for emissions.

WasteServ Malta Ltd. requested that a number of EWC codes are to be removed, whilst EWC Codes 20 01 01 and 20 01 30 codes are included. The list of waste acceptance codes in the proposed variation has been amended. This revised schedule also includes the list of outgoing waste as requested during the consultation, the maximum storage capacity of the marshalling shed, the tallow silos, and bone meals and dedicated storage methods.

A statutory consultation as required by S.L. 549.77 Industrial Emissions (Integrated Pollution Prevention and Control) Regulations was carried out between 7th December 2022 till 4th January 2023, and between 1st August 2023 till 15th September 2023. A public consultation was carried between the 22nd July 2023 and 5th August 2023. No comments were received from the public.

All of the consultee's queries were addressed during the processing of this application.

In view of the pending fines a post-decision requirement for settlement of the fines is being recommended for approval.

A site visit was carried out on 20 September 2023, in which the odour abatement system was inspected. It was stated that due to the nature of operations the fast-roller shutter needs to be normally kept open to allow for worker's access and maneuvering. Options to keep such area enclosed and possibly fitted with air extraction and treatment are being discussed with the Operator.

During the site visit the Operator remarked that there is potential scope for supplementing the odour abatement in the marshalling shed with treatment into the RTO. Such a proposal is being recommended for inclusion as an improvement programme item.

It was also noted that reefers containing animal-by products (awaiting export) are still being kept outside of the permitted site boundary. The Operator was instructed to relocate these reefers to the permitted designated area.

The Operator indicated that bone-meal will only be stored within dedicated silos fitted with fire suppression systems. A new condition is being proposed to ensure such safe storage of this flammable material.

The proposed variations should serve to provide the required odour abatement and improved operational capacity, efficiency and flexibility. In view of this the Regulatory Affairs Directorate is proposing the following recommendation.

2.8. Financial Matters

Application Fee	€ 3500 – paid
Financial guarantee	€ 2,198,000 (previous bank guarantee of €2,187,850)
Medium Combustion Plant Registration fee	€ 500 - Pending

3. Recommendation:

The Regulatory Affairs Directorate recommends the GRANTING of the Variation Notice with the validity remaining congruent with the expiry of IP 0004/07/C/V2 (i.e. 31st May 2025) subject to the following condition as a post decision requirement:

- a. Submission of a financial guarantee of € 2,198,000 (previous bank guarantee of €2,187,850). WSM have provided confirmation that this bank guarantee is covered by the Letter of Undertaking covering Government Projects (ref. MF35/05/160)
- b. Settlement of the fines related to IF2124/19-F, IF2125/19-F, IF0148/20-F and IF1122/19-F
- c. Submission of payment of €500 for the registration of a new medium combustion plant as per S.L. 549.122

The proposed changes to be included as part of the Variation Notice are:

- 1) Amendment to the covering page to amend the table of contents 'Schedule 5 – List of wastes authorised to be accepted' shall be renamed to "Schedule 5 – Authorised list of incoming and outgoing waste".
- 2) Amendment to the introductory note in the status log to cater for the inclusion of the application.
- 3) Amendments – to the Table of Permitted Activities (section 1.1) to factor the aforementioned variations.
- 4) Removal of hours of operation (section 1.3)
- 5) Renumbering of section 1.4 Overarching Management Conditions
- 6) Renumbering of section 1.5 Improvement Programme
- 7) Inclusion of five additional improvement programme items in table 1.4.1 as explained above:

Table 1.4.1: Improvement programme		
Reference*	Requirement	Date
34 [∞]	Implementation of automatic monitoring equipment on the WWTP outlet reservoir to monitor quality prior to discharge to sewer.	By end June 2024
42	a) Submission of monitoring statement in relation to the air monitoring for the Autoclave Boiler & the Emergency Generator (autoclave) b) Submission of the monitoring results	a) Within 1 month of granting of the permit b) Within 4 months of granting of the permit
43	Submission of the noise management plan	By end March 2024
44	Submission of EMS documentation describing the Standard Operation Procedures in line with this permit in relation to the Boiler and Regenerative Thermal Oxidiser	By end June 2024

Table 1.4.1: Improvement programme

Reference*	Requirement	Date
45	a) Proposal with timeframes for air extraction and abatement from the waste marshalling shed indicated in Schedule 4. b) Implementation of (a) above.	a) Within 3 months of granting of the permit b) As agreed with the Authority in (a)

- 8) Removal of the section 1.7 on pre-operational conditions
- 9) Renumbering of section 1.8 off-site conditions
- 10) Renumbering of section 1.9 general conditions
- 11) Amendment to the figure of the financial guarantee quoted in section 1.9 'general conditions'
- 12) Renumbering of section 1.10 information to the public
- 13) Amendments to correct cross-referencing typographical errors in condition 2.1.11 and 2.1.14
- 14) Inclusion of the additional air emissions in Table 2.2.4 'Emission points to air) to factor the Boiler (autoclave), the regenerative thermal oxidiser, tallow vents and flame arrestors.
- 15) Amendments to conditions in section 2.2 (Emissions to air) to factor the inclusion of the additional medium combustion plant (autoclave boiler).
- 16) Amendments to the condition on malfunctions of breakdown to factor the additional boiler and the RTO.
- 17) Amendment to the unit of measurement of measurement for settleable solids in Table 2.5.15 to mL/L.
- 18) Inclusion of a condition that until such time that the on-line monitoring equipment for discharges to sewer is installed the Operator shall carry out daily monitoring of the effluent which is sent to the Water Services Corporation on a weekly basis.
- 19) Amendment to condition to factor proposed approved document IP0004/07/C/V2/DOC1 in case of failure of odour abatement systems.
- 20) Conditions on odour to reflect the transfer for tallow for disposal/export/incineration shall take place via an enclosed ducting.
- 21) Amendments to condition related to handling of Animal-by products depending on Category.
- 22) Inclusion of condition whereby the Authority may request further treatment of the air emanating from the tallow tank vents.
- 23) Amendment to the cross-referencing of the terms of reference of the noise monitoring.

- 24) Amendments to cross-referencing in section 2.17 Closure and Decommissioning
- 25) Inclusion of the condition of bone-meal shall only be stored in the dedicated bone meal silos with the appropriate firefighting measures.
- 26) The Annual Environmental Report template (Schedule 2) has been updated to include the fuel consumption per combustion plant, monitoring from PS6 and cross-referencing.
- 27) Amendment of Schedule 4 – To replace the Site Map to reflect the amendments to site layout.
- 28) Renaming and amendments to the Schedule 5 to amend the waste acceptance list, amendments to the storage capacity listed in the permit to include the waste marshalling shed, the tallow silos and the bone meal silos. The list of outgoing waste has also been included in this section.
- 29) Amendment to Schedule 8 to factor PS4 in the template for exemption from emission limit values

This report to the ERA Board has been prepared, reviewed and endorsed by:	
Case Officer: Gabriella Grima	Endorsed by: Simon Farrugia
Environmental Officer (Env. Permitting)	Senior Officer (Env. Permitting)
Signature:	Signature:
Date: 3 rd November 2023	Date: 3 rd November 2023