MEPA REVIEW AUGUST 2012 &
WSM RESPONSE APRIL 2013

WasteServ Malta Ltd

Your Ref: IP 0004/07/B

24th May 2013

Ms Rachel Decelis
Senior Environment Protection Officer
Malta Environment & Planning Authority
Environment Protection Directorate
Environmental Permitting and Industry Unit
Hexagon House, Spencer Gardens
Blata l-Bajda

Subject: IP 0004/07/B Request for renewal and variation of IPPC permit for MTTF

Dear Ms Decelis,

I refer to your communication dated 14th August 2013.

Please find attached a hard copy of WasteServ's digital submission dated 13th May 2013. Also enclosed is the delivery note signed by all consultees following the delivery of a digital copy of the submission.

Whilst thanking you in anticipation for your consideration, we remain at your disposal for any further information or clarifications at your convenience.

Regards,

Henriette Putzulu Caruana
Chief Officer Compliance & Communications

Encl.

WasteServ Malta Ltd. EkoCentre, Triq il-Latmija, Marsaskala MSK 4613 - Malta Company Reg. No. C30560
Tel: (00356) 2385 8000 Fax: (00356) 2144 1930 Email: info.ws@wasteservmalta.com Website: www.wasteservmalta.com

Our Ref.: EPD/A/RD/12/240

Ing. Saviour Abela, CEO
WasteServ Malta Ltd
EkoCentre
Latmija Road
Marsaskala MSK 9052

14 August 2012

Dear Ing. Abela,

IP 0004/07/B: Request for renewal and variation of IPPC permit for Marsa Thermal Treatment Facility

Reference is made to WasteServ's response regarding the renewal and variation of IP 0004/07/A for Marsa Thermal Treatment Facility, received on 23 May 2012 (Emergency Response Plan), and 2 July 2012.

The key pending issues arising from this review are:

(1) Emissions to air from the incinerator are not compliant with the current IPPC permit.
(2) Most of MEPA's queries as per the correspondence dated 29 May 2012 have not been addressed, in view of the updated plans currently being prepared as part of the Masterplan for the site. These include queries regarding the waste water treatment plant, storage capacity, odours and the design of the proposed autoclave plant. Revised designs and details are required, which also include a response to MEPA's earlier queries.

Further details are given in Annexes I and II.

A response to the above should be submitted by not later than **28 September 2012**, and should address the queries identified in this correspondence.

This review is without prejudice to the position of the Veterinary Regulation Directorate regarding this application. Direct consultation with the Veterinary Regulation Directorate is therefore recommended. WasteServ is advised to obtain clearance from the Veterinary Regulation Directorate regarding these proposals.

Regards,

Rachel Decelis
Senior Environment Protection Officer

Encs.: Annex I: Feedback regarding IPPC issues
Annex II: Feedback regarding the Development Brief – IPPC issues

Annex I: Feedback regarding IPPC issues

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
1) Wastewater treatment	*The below queries have not been addressed.* 1. Which waste water is proposed to be treated by the waste water treatment plant (also refer to query 5 in item (15) below)? Is it only the effluent from the blood coagulation plant? Clarify how steam from the autoclave plant, waste water from wheel washing and ground rain water (potentially contaminated) will be treated. Also confirm how sludge generated by this plant will be disposed of/recovered. Provide a flow diagram of the wastewater treatment plant operation, cross-referencing to the plans of the site. 2. Please update the plans in the Development Brief to indicate the location of the BCP on these plans 3. Please confirm whether the coagulation plant is foreseen to be operational 24/7. 4. Please identify and indicate how the remaining wastewaters (which are not treated by the blood coagulation plant) will be treated.	1. The waste water treatment plant will be treating waste water generated from the blood coagulator as well as waste water from the autoclave plant including the condensate from the autoclave as well as all the waste water generated from the washing of the plant and vehicles and bins. Sludge generated from the waste water treatment plant will be incinerated at the TTF. Flow diagram will be provided once the technology for the waste water treatment plant has been selected following the procurement stage. 2. The Development Brief has been superseded by a Project Summary Document (Appendix 1 to this submission). Updated plans are included in Appendix 2 to this submission. 3. The blood coagulator can be operated on a 24/7 as long as there is process steam available. 4. All contaminated waste water which has high BOD and COD including the waste water produced from the blood coagulator and from the Autoclave will be treated in the waste water treatment plantbefore being directed to the sewerage network.

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
2) Environmental management system	Please submit a status update, given that certification is scheduled for November 2012.	The TTF has been awarded both ISO9001 and ISO14000. Copies of certificates are provided in Appendix 4.
3) Radiation heat boiler	While ideally a radiation heat boiler should be installed, if this is not feasible, cold storage facilities should be adequately upgraded to cater for backlog in view that soot blowers will only prolong the operational period by two weeks. A contingency plan should also be in place during periods of shutdown/maintenance. Please also identify timeframes for installation of the soot blower. Will the proposed soot blower work in the same way as the existing four?	The Autoclave Plant will eliminate the need for extensive storage space for animal waste since this will operate independently from the Incinerator. Once treated, the bone meat meal produced from the abattoir waste can be stored at room temperature in jumbo bags in dry state in case of Incinerator shutdown periods. Otherwise, it will be incinerated immediately. The soot blower will be commissioned by the second quarter 2013. The new soot blower will operate similarly to the other 4 which have been supplied with the Plant.
4) Emissions to air	The data submitted shows the following non-compliances: (a) None of the parameters required to be measured continuously are fully compliant with the half-hourly (100%) limit values. (b) Two out of six parameters required to be measured continuously (HCl, TOC) are not compliant with the half-hourly (97%) limit values. For HF, it is not clear whether compliance was reached in the four months of monitoring. Please clarify.	Data on emissions for 2012 is provided in Appendix 5 to this submission. WasteServ has invested in an automatic UREA injection system to reduce NOx emissions. Furthermore the company is considering the possibility of upgrading the flue gas scrubbing system so that it can deal with more aggressive emissions. Certain hazardous waste streams like pharmaceutical waste containing large quantities of aluminium foil are

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	(c) The plant is not compliant with the CO, NOx, TOC, dust and HF daily limit values. Data on daily compliance with the HCl limit value has not been provided. Please provide this information. Compliance with the total metal content of Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V has not been indicated. Please provide this data. As indicated previously, WasteServ is urgently required to submit a report identifying the main causes of these exceedances and submitting proposals to ensure compliance with the IPPC permit. The study should therefore correlate waste input with exceedances observed, making recommendations on improvement of the plant's operation and/or the reduced acceptance of certain waste streams. The report should also take into account the proposed change in the waste mix inputted into the incinerator, given that certain hazardous wastes seem to be causing exceedances at the plant, and should consider the removal of certain hazardous waste streams from the plant. Proposals to be considered should include automatic regulation of air intake in the primary and secondary combustion chambers, and use of a feed equalisation system for solid hazardous wastes (e.g. see section 4.1.5.4 of the BREF or other similar feeding	not being accepted since the current flue gas scrubbers are not suitable to abate the emissions generated from such waste streams. Certain wastes are also being exported through a sub-contractor. In view of issues associated with the accuracy of readings, WasteServ invested in a new emissions monitoring instrument that can measure also NH3 and HF continuously while also measuring TOC using a more accurate technology. The instrument is calibrated continuously and continuous technical support is provided online. Secondary air in the SCC is automatically controlled. An oxygen probe installed in the SCC measures the oxygen value in SCC and the lower it gets, the higher the valve is opened automatically to allow more oxygen in the SCC. The secondary air blowers in the PCC are connected to inverters to control better the quantity of air input in the PCC in order to avoid NOx generation due to access air intake. The feed equalisation system for solid hazardous waste as described in the BREF is applicable to hazardous waste incinerators. The Marsa TTF is not considered as a hazardous waste incinerator since 98% by weight of the waste input is slaughtering waste. Furthermore, clinical waste cannot be shredded due to its biological

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
	technology).	hazard.
5) Emergency plan	Please submit the following information: 1. Number and type of extinguishers; 2. Location and capacity of reservoirs; 3. Presence of fire hydrants; 4. Hydrant pressure and flow; 5. How access for CPD trucks will be ensured in case of fire.	1. The extinguishers at Marsa are as follows: * 18 CO2 * 28 Powder * 9 Foam * 1 Water An automatic foam extinguishing system is installed on the Solvents Platform. 2. Four (4) water reservoirs are present at the TTF. Three reservoirs have a capacity of 150m3 and are located at the entrance of the Plant while the fourth one is located at the back side and has a capacity of 160m3. 3. The fire hydrants are located at the entrance, in front of the Administration Building, near the Solvents Platform and near the hoist. 4. The fire fighting line has been commissioned according to local legislation. 5. The main entrance to the Plant from Triq il-Biccerija is always open. In case of a Plant evacuation, security personnel will make sure that employees leave the site and the Fire Response Team will coordinate with the CPD to extinguish the fire.
6) Pre-treatment of bottom ash	As indicated previously, WasteServ is to submit proposals for pre-treatment, noting that this is a requirement of the Landfill Directive.	WasteServ is currently investigating the possible uses/treatment of bottom ash with a French Company to produce pure phosphoric acid and fertiliser.

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7) Noise	How was the 77 dBA (in point 30, p. 12) estimated using the data in Appendix 1 (55 dBA ground noise)?	The maintenance manual shows a chart (picture 3) where it shows the different noise values measured from four different points around the shredder. Each point was located 1 meter away from the shredder. From the 44 readings measured, the highest value was measured at point 4, which is equal to 77dBA.

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10) Thawing	*The below comments are still applicable.* 1. Please indicate how the thawing area is labelled in the plans provided with the development brief (or update plans to include this labelling). 2. Please provide the capacity of this thawing room. *Additional queries arising from your response:* 3. The data provided indicates an annual increase in ABP treatment of around 4,500 tonnes annually (from 6,700 tonnes to 11,224 tonnes). Is ABP production expected to increase, or does this increase refer to other ABP waste which is currently being produced but not being accepted at the MTTF? 4. Provide a breakdown of the 11,224 tonnes by Category. 5. Note that your response to section (15) below indicates that 60% of animals is water content (suggesting 40% of solids, not 20%). Kindly clarify. 6. Provide a proposed maintenance schedule for the autoclave, including maximum maintenance periods which may be required, and contingency plans for such periods.	1. When the Autoclave is in place, there will no longer be a requirement for freezing and thawing. 2. When the Autoclave is in place, there will no longer be a requirement for freezing and thawing. 3. The additional 4,500 tonnes of ABPs were calculated since currently due to lack of enforcement we have ABPs such as waste from butcher shops and supermarkets, which is being mixed with other domestic waste and possibly disposed of at the landfill. This waste needs to be collected separately and treated. When this happens, WasteServ has to be in a position to offer the service required. Furthermore, some contingency was considered in case of some unexpected outbreak or as the need arises. Furthermore, in case one line is down for maintenance the other line shall cope with the treatment of all the waste since all bone meat meal will be incinerated. 4. Category 1 material – 1,800tonnes Category 2 material – 6,000 tonnes Category 3 material – 60 tonnes Contingency: 3,364tonnes 5. The waste will contain approx. 60% by weight of water content, approximately 20% animal fat (tallow) and approximately 20% of bone meat meal. The latter will not be separated and all will be incinerated in the Rotary Kiln. 6. Each line will be stopped for maintenance alternately for periods not longer than 2 days per month. A concrete maintenance plan will be submitted once the equipment is procured. Once the equipment is selected, the maintenance plan for the Autoclave plant, boiler, waste water treatment plant, emergency generateor and any other additional equipment will have to be integrated in the EMS similar to the maintenance plan of the TTF.

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
11) Capacity for animal by-product storage	*The below queries are still applicable, and were not addressed by the response:* 1. Please provide clear plans and information on current and proposed cold storage facilities available on site. Please provide clear plans and information on proposed capacity for animal by-product (ABP) storage, comparing this to storage requirements under both normal operation and during periods of maintenance. 2. Also indicate how frequently the rendering plant is expected to be shut down for maintenance, and the maximum duration of each maintenance period, and assess whether the required capacity for ABP storage will be available.	1. Current refrigeration storage for the TTF includes a cold room that has been adapted to store Abattoir Waste and Clinical Waste as well as a number of refrigerated containers for the storage of Abattoir waste. This cold room can be used both during normal working conditions to hold the waste at a low temperature pending incineration and also during a maintenance shutdown to freeze the waste. Updated plans are included in Appendix 2 to this submission. The location of the cold room is indicated in drawing D2B Rev2. 2. The rendering plant will include 2 independent lines working in parallel. Hence, if one line is switched off for maintenance, the other line can still operate. This is one of the reasons why the throughput design has some contingency. Maintenance shall not last longer than 2 days per month.
12) Clinical waste	The information provided (15 bins daily for a maximum maintenance period of 21 days) indicates that the installation needs to have a storage space for at least 315 bins to cater for such maintenance periods. (The submission made in December 2011 indicated space for 137 such bins, whereas your response to Annex II section (1) indicates 420 bins. Please clarify and update plans to take this requirement into account.	Updated plans are included in Appendix 2 to this submission.

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
13) Issues identified during inspections	As indicated previously, with regards to foul odours from the shredder, WasteServ should take all possible measures to eliminate, and if not possible, minimise these odours as much as possible. Techniques which could be considered include the installation of air curtains, temperature control, appropriate enclosure, and connection of the air from the shredding machine and furnace hopper areas to appropriate abatement. Please submit proposals for consideration.	All treatment processes will take place in enclosed buildings with an integrated air recirculation system. Active carbon filters will be used to neutralise any odours generated. In order for this air recirculation system to be effective, all doors will have to be maintained closed. Furthermore, a water mist atomisation system is going to be installed in order to neutralise odour close to the point of orgin and also to suppress dust formation. A call for quotation is already published on the government gazette while the activated carbon filters shall be installed as part of the Master Plan and Autoclave Project. Furthermore, slaughtering waste from the civil abattoir will be pumped in airtight sealed pipes directly to the autoclave plant. This will further minimise odour generation.
15) Rendering process; Assessment of compliance with animal by-product regulations	1. (a) It is understood that the amount of hazardous waste which can be accepted (an increase of 6 tonnes/day) is not equivalent to the reduction in ABP waste accepted at the incinerator due to the differences in the heat value of these wastes. Kindly confirm or otherwise. (b) Are the values given (1 tonne/day of meat meal and 8 tonnes/day of hazardous waste) the capacity of the proposed plant or average values to be treated? If these are average values, please give the actual capacity of the plant.	(a) We can confirm that since dry material has higher calorific value, it can never be equivalent in weight to the Abattoir Waste because the thermal capacity of the Plant remains constant. Furthermore, the spare capacity that will be generated will also be used for the incineration of shredded contaminated wood. (b) The proposed autoclave will only treat abattoir waste. The resulting product of the rendering process i.e. bone meal and hazardous or contaminated waste will be treated in the incinerator.

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	(c) What is the quantity of feathers, pig hair, sheep wool and cow hides (and any other ABP in addition to the meat meal) that will still need to be treated? 2. Please clarify how the following issues have been addressed: - Permanent marking of the resulting material from category 1 material must be applied on the material prior to disposal. - Autoclaving of category 1 material may be an option only when the material is not considered to be suspected TSE, therefore its rendering may be used only after the tests have confirmed negative results. *The below queries have not been fully addressed. Revised process details and process flow diagram should be submitted:* 3. Quantities of wastewater generated from the autoclave plant (pressure cooker) daily: Confirm whether the 60% water content is correct, or whether this should be 80%, as suggested by the response to point 5 in section (10); 4. How any odour generated from the autoclave plant will be suitably abated: Documents referred to not supplied; 5. Treatment of wastewater from the autoclave	Pig hair and feathers will also be autoclaved in a separate batch. Sheep wool and cow hides are not delivered separately for incineration. These are being exported or treated otherwise by third parties. 2. Since all material from the Autoclave will be delivered for Incineration, an automatic colouring spray system onto the output from the Autoclave can be installed. All category 1 material can go for Autoclaving as long as the by-product is incinerated afterwards. 3. The water content is 60% of the waste throughput. 4. Air will pass through activated carbon filter to neutralise odours. 5. Wastewater will be treated in a dedicated waste water treatment Plant. The Plant will be designed based on the current waste water production. Steam produced from the Autoclave drum has to pass through a heat exchanger to condensate. This condensate will then end in the waste water treatment plant for treatment. 6. Updated plans are included in Appendix 2 to this submission..

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
	plant: whether this is foreseen to be treated in the BCP or in another wastewater treatment plant. Provide a detailed description and update the plans provided accordingly. Provide an assessment of whether the proposed plant has the required capacity. With reference to *Section 10.2.12 of the Development Brief*, provide an assessment of whether other odour control methods may be employed (e.g. release of condensate to an enclosed system, air treatment) to avoid contamination of treated water in case second class water is not available for quenching. 6. Update the plans supplied with the Development Brief to indicate the location of the various equipment utilised in the processing steps (including the stainless steel hopper [step iii], shredders [steps i, iv], percolator [vii], decanter, settling tank [viii], silos for the various bone meal and meat meal products produced [x]. 7. Indicate the capacities of each of the equipment utilised in the processing steps (including those listed in point 6), and compare this to the maximum process requirements. 8. *Section 10.2.10 of the Development Brief* gives information on the capacity of the autoclave plant. Supplement this information with data on: (a) Time interval required between batches;	7. Equipment shall be designed specifically to handle the indicated throughput. 8 (a). There is no time interval between batches. As soon as one batch is ready, the next one can commence. (b) The daily hours of operation are 16 hours. (c) The Plant will be supervised during operation. (d) The maintenance requirements will be provided together with the equipment documentation. 9. For practical reasons, animal fat or tallow will be separated from the bone meat meal. The mixture of bone meat meal and tallow will be incinerated. This material is already being incinerated together with moisture. Hence, the removal of moisture will only improve the combustion properties. Hence this will result in waste stream with higher calorific value which will hence need less fuel for combustion. Hence fewer emissions from the combustion of fossil fuels will be generated. 10. Feathers and pig hair will be fed as a separate batch from the meat into the same cooker. Once dried, the material is extracted and taken for incineration.

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	(b) Proposed daily hours of operation of the autoclave plant; (c) Whether the autoclave plant will be supervised during operation; (d) How frequently the autoclave plant will require maintenance, and the duration of stoppage during each maintenance period. 9. Which plant within the facility will use the processed fat (step viii)? How will this impact this plant's operation and emissions? 10. How are feathers and pig hair proposed to be sterilised and dried? Also provide information regarding maximum capacity requirements for such waste and actual proposed capacities for such treatment. 11. Indicate how the various parts of the rendering will be bunded, including information on the capacity of each bund as a percentage of the material stored within it.	11. This facility will not be treating liquid hazardous waste but solid waste. Flooring will be designed in a way to be easily washable and water drains will be directed directly towards the waste water treatment plant.

Item	IPPC Committee feedback 14 August 2012	WasteServ reply
Assessment of "duly made" application	With reference to Annex III (*Indicative guidance on updating IPPC application Forms A & C*) of MEPA's correspondence dated 29 May 2012, MEPA notes that most of these queries have not yet been addressed. Updated Forms A and C (available from www.mepa.org.mt/ippc-applications-applications) should be submitted for evaluation. These should include any updates to the Improvement Programme and to the comparison with the Waste Incineration BREF, and a comparison of the proposed rendering plant to BAT as defined in the BREF for "*Slaughterhouses and Animal By-Products Industries*" (Sections 5.1 and 5.3).	Kindly refer to amended Forms A and C in Appendices 11 and 12 to this submission. A updated comparison with the Waste Incineration BREF is included in Appendix 7. A comparison of the proposed rendering plant to BAT as defined in the BREF for "*Slaughterhouses and Animal By-Products Industries*" (Sections 5.1 and 5.3) is included in Appendix 8.

Annex II: Feedback regarding the Development Brief – IPPC issues

Item	MEPA feedback 14 August 2012	WasteServ reply
1) Submission of Development Brief	*Section 9 – Wastes treated* The application should be updated to include those wastes which the operator considers would be able to be treated at the MTTF. *Section 10.2 – Rendering Plant:*	As per direction from the Planning Directorate, a Project Summary Document has been prepared to supersede the Development Brief. A copy of this document is included in Appendix 1. The list of wastes proposed for treatment may be found

Item	**MEPA feedback 14 August 2012**	**WasteServ reply**
	1. Comments as per Annex I, item (15) are also applicable to this section. 2. Update plans to show location of existing and proposed boiler as per *Section 10.2.12.* *Section 10.3 – Refrigerated Storage for Clinical Waste* Refer to the query in Annex I, section (12) above. *Section 10.5 – Bin Washing Facility* Noted. *Section 10.8 – Paints Storage Area* Provide information on capacity of the paints storage area, and information on the capacity of the bunding as a percentage of the total volume of paints stored within. *Section 10.9 – Fly Ash Silo* Indicate the capacity of the silo, and expected frequency of removal of the fly ash off site. *Sections 10.10, 10.11, 10.12 – Sodium bicarbonate, pharmaceutical, bottom ash storage areas* 1. Provide an assessment of storage capacities proposed in relation to quantities of material required/received/generated (as applicable). 2. In the case of bottom ash, refer to comment in item	in Appendix 9 (Proposed Variations) to this submission. Updated plans are included in Appendix 2. The refrigerated storage area shall have sufficient capacity for 250 bins. The Paints Storage Area will cover an area of 120m2 and shall be bunded accordingly. The Fly Ash Silo will have a capacity of 10m3. The silo will be emptied on a weekly basis. Pharmaceutical Store The proposed 120m2 store will include a quarantined area where pharmaceutical waste that cannot be accepted will be stored until it can be returned to the producer. The Bicarbonate Store will have an area of approximately 120m2. The waste water treatment plant will be treating waste water generated from the blood coagulator as well as waste water from the autoclave plant including the condensate from the autoclave as well as all the waste water generated from the washing of the plant and vehicles and bins. Sludge generated from the waste

Item	**MEPA feedback 14 August 2012**	**WasteServ reply**
	(1) in Annex I. *Section 10.14 – Waste Water Treatment Plant* 1. Updated plans are required to indicate the location of the BCP and the WWTP, as well as a clear description of which wastewaters are proposed to be treated by the two plants. 2. The associated emission levels for treated wastewaters generated by this WWTP should be submitted, to enable an assessment to be made regarding possible compliance with LN 139 of 2002. Information on expected BOD and COD levels should also be supplied. 3. Further details regarding the operation of this WWTP, including a detailed process description, are required.	water treatment plant will be incinerated at the TTF. Flow diagram will be provided once the technology for the waste water treatment plant has been selected following the procurement stage. All contaminated waste water which has high BOD and COD including the waste water produced from the blood coagulator and from the Autoclave will be treated in the waste water treatment plant before being directed to the sewerage network.

Item	**MEPA feedback** **14 August 2012**	**WasteServ reply**
3) Incinerator capacity	*Annex 4: Proposed list of wastes* 1. The list needs to be updated to define which of these wastes are proposed to be processed in the rendering plant and which in the incinerator (and which both). 2. Is the incinerator able to treat acids and alkalis? What is the maximum daily capacity for such material? Note that there might be concerns with regards to emissions from incineration of this material – e.g. emissions of HCl, HF, etc. WasteServ may wish to reconsider the acceptance of inorganic acids and alkalis. 3. What is the maximum daily capacity for rubber (19 02 04)?	1. The rendering plant will be used only for all the Slaughtering waste, fallen animals and animal by-products. 2. The Incinerator is used for the treatment of organic materials and not inorganic materials. 3. The calorific value of rubber is approximately 34MJ/kg. If the Plant had to operate only on rubber without a burner flame, it can burn 476kg/hr. However, one has to consider the chemical composition of the rubber and the emissions that will be generated. Throughput has to take into consideration the emission releases as well and hence this quantity may have to be decreased.
5) Site plans	*Previous comments still apply.* 1. Site layout plans (Annex 2) are to be updated as indicated in Annex I. 2. Site layout plans should only indicate activities proposed to be authorised by this application (the abattoir should not be included). 3. What is the purpose of the "ancillary building"? (point 3 on levels 0-3).	Updated plans are included in Appendix 2.

Item	**MEPA feedback 14 August 2012**	**WasteServ reply**
8) Statement from EIA Coordinator	Comments regarding the EIA will be addressed through the EIA process, given that an EIS was not provided with this submission. *The below comments submitted previously still apply.* Please also note the below issues, which need to be addressed as part of the IPPC application: 1. Please state how protection of surface water runoff from spillages will be achieved. 2. WasteServ is to assess any potentially significant health impacts, and address them, such that the health of on-site workers is safeguarded, as well as that of any sensitive receptors in the area of influence. 3. The proposal may also result in odour emissions. These need to be appropriately assessed and addressed.	1. The Plant where hazardous waste is handled and stored pending treatment will be appropriately bunded so that water surface run off will not become contaminated. Employees are trained for spill handling and spill controls. 2. Health issues will be dealt with in the risk assessment for the Plant. 3. Odour release will be captured and neutralised by means of activated carbon filters.

Annex III of MEPA Review 29/05/12: Indicative guidance on updating IPPC application Forms A & C

Part A

Section	Duly made?	Guidance on updating Form A	WasteServ reply 28/08/12	WasteServ response 13/05/2013
A1.1	✓	Noted.		
A1.2	✓	If a change in name is proposed, given the change in activity, please include this in this section.		
A1.3	×	Please give postcode.	Postcode is XXX; Updated Form A will be submitted as part of the consolidated application.	The Postcode is MRS 1123; Updated Form A included with this submission (Appendix 11).
A1.4	✓	Noted.		
A2.1	✓	Noted.		
A2.2	✓	Noted.		
A3.1	✓	Noted.		
A3.5	✓	Noted.		
A3.6	✓	Noted.		

Part C

Section	Duly made?	Guidance on updating Form C	WasteServ reply 28/08/12	WasteServ response 13/05/2013
C1.1 Installation details	✓	Please include the proposed capacity (in tonnes per day) of the rendering plant in terms of: (i) incoming animal		

		by-products (processing/treatment capacity); and (ii) finished production capacity of feed product (excluding packaging).		
C1.2 Non-technical description	×	Annex 1 does not contain a non-technical summary.		
C1.3 Proposed variations	×	Update with reference to rendering plant proposals.	Updated Form C will be submitted as part of consolidated application.	Updated version of Form C and proposed variations included with this submission (Appendices 12 and 9 respectively).
C1.4 Site maps & reports	✓	Noted.		
C1.4.1 Site report	✓	Noted. Baseline land and groundwater monitoring data will be required as a result of the Industrial Emissions Directive, 2010/75/EU.		NA
C1.4.2 Site map	×	Provide: (a) a site map with only the proposed extended site boundary marked	Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due	Updated plans are included in Appendix 2.

		(b) a site map with both the authorised and the proposed extended site boundary marked.	course.	
C1.4.3 Block plan	×	Updated block plans to be provided.	Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course.	Updated plans are included in Appendix 2.
C2.1 Environmental Management System	×	Update with reference to plans for a certified EMS.	Updated Form C will be submitted as part of consolidated application.	Updated version of proposed variations including update icw with QMS/EMS included in Appendix 9.
C2.2 Raw materials	×	1. Provide MSDS sheet for urea in English. 2. What system will be used for dissolving urea? 3. At what height is the tank vent for the urea solution? 4. How will odours from the urea solution (from ammonification) be dealt with? 5. Is the urea injection system an automatic or manual one?	1. Included as Appendix 3 to this submission. 2. UREA used at the incinerator is procured as 32.5% UREA diluted in water. So there is no need to handle or dissolve the product. 3. The IBC is connected to the tank and all the system is fully automatic. 4. The installation is	NA

			within the Plant and is fully enclosed.	
C2.3 Proposed activities	×	Updated Development Plan to be submitted. Flow diagram of new proposals (including rendering plant and waste water treatment systems) to be submitted.	Process flows are currently being updated. This information will be submitted in due course.	Development Brief has been superseded by the Project Summary Document included in Appendix 1. Indicative process flow included with this submission – Appendix 10.
C2.4 Maintenance	×	Provide a maintenance programme for the rendering plant and any new associated activities (e.g. freezers/fridges, waste water treatment plants, etc.).	This will be provided at a later date when plant is procured.	Kindly refer to Item 11-2 above 'Capacity for animal by-product storage'.
C2.5.1 Energy consumption	×	Please update response. The rendering plant appears to result in changes to energy consumption and efficiency (including use of waste heat).	Process flows are currently being updated. This information will be submitted in due course.	Process flow included with this submission – Appendix 10.
C2.5.2 Energy efficiency	×	Please update response.	Process flows are currently being updated. This information will be submitted in due course.	Process flow included with this submission – Appendix 10.
C2.6	×	Please update response to take	Process flows are currently	Process flow included with

Water		into account new proposals.	being updated. This information will be submitted in due course.	this submission – Appendix 10.
C2.7 Risk assessment	×	Please update response to take into account new proposals. Also provide an emergency plan immediately.	An ERP this was submitted on 16th June 2012.	NA
C2.8 Training	×	Please update response to take into account new proposals (e.g. rendering plant, waste water treatment, wheel washing, etc.)	Staff shall be trained on the use and maintenance of new equipment.	NA
C2.9 Cessation	×	Please update response to take into account new activities and equipment proposed, which will need to be taken into account in the cessation plan.	At the end of the plant life, a detailed plant decommissioning plan will be implemented to ensure that the site is returned to a satisfactory state for on-going use. An inventory of assets to be decommissioned will be produced followed by consideration of the need for risk assessments, site supervision/management, and consultation of Regulations. Disconnection of site services, whether partial or complete will be	NA

			considered before dismantling work commences on-site. Equipment, where possible, will be decontaminated on-site, followed by inspection and if necessary further decontamination, once the equipment has been removed from position and before it has been removed from site. Dispatch of equipment from site whether as a saleable asset or as scrap, will be accompanied by a Certificate of Decontamination. All equipment containing chemicals will be drained and the chemical stored in appropriate containers and removed off-site to reduce the potential for spillage. Dismantling of equipment shall be subject to the same conditions and control of works as required by relevant Health and Safety legislation. The site will be left in a safe manner and adequate regular	

			site inspections will be carried out until such time as responsibility for the site has been transferred to the new owners.	
C2.10 Multi-operator installations	✓	Noted.		
C3.1.1 Waste characterisation	×	Please answer question. Include information on changes in types and quantities of wastes accepted and generated.	No change is foreseen in the list of animal by-products currently received at the facility. The new waste streams which are being proposed for treatment shall be directed for incineration.	NA
C3.1.2 Waste management, storage and handling	×	Please update with reference to updated Development Brief (refer to a specific section within the Brief).	Kindly refer to sections 4-14 of the Development Brief. Updated Form C will be submitted as part of the consolidated version of the application.	The Development Brief has been superseded by a Project Summary Document (Appendix 1). Updated version of From C included in Appendix 12.
C3.1.3 Waste recovery or disposal	×	Please update with new waste streams proposed to be generated (e.g. from the rendering plant).	Updated Form C will be submitted as part of the consolidated version of the application.	Updated version of From C included in Appendix 12.
C3.2 Emissions to groundwater	✓	Noted.		

C3.3 Emissions to sewer	×	1. Update with reference to new wastewater treatment proposals. 2. Indicate whether a Sewer Discharge Permit is in place, and submit a copy.	1. Updated Form C will be submitted as part of consolidated application. 2. Discussions with the WSC are on going.	Updated version of From C included in Appendix 12. Application for a Sewer Discharge Permit has been submitted to the WSC. A copy is provided in Appendix 13 to this submission.
C3.4 Emissions to sea	✓	Noted.		
C3.5 Emissions to air	×	1. Provide plans for improvement of the existing air emissions from the incinerator. 2. Include an assessment of air emissions (including odour) and mitigation measures from the rendering plant and associated activities.	Kindly refer to response in respect of Annex I Item 4.	NA
C3.6 Emissions to land	✓	Noted.		
C3.7 Noise	✓	Please refer to queries in Annex I, section 7. In the consolidated application, please ensure that this section in the Form refers to the final	Noted.	

		noise assessment.		
C3.8 Monitoring	✓	Noted. MEPA will determine monitoring requirements in the IPPC permit.		
C3.9 Summary	×	Please answer the question.	Process flows are currently being updated. This information will be submitted in due course.	Process flow included Appendix 9.
C4.1 Environmental effects	×	The answer to the question should be a document that takes into account the results of the noise assessment, the potential for odour impacts, and the results of the EIA update.	WasteServ is taking action to update the EIA as requested. Document can only be produced once this process has been completed.	A copy of the EIA update is included in Appendix 3.
C4.2 Effects on other sites	×	The answer to the question should be a document that takes into account the results of the noise assessment, and the potential for odour impacts, and the results of the EIA update.	WasteServ is taking action to update the EIA as requested. Document can only be produced once this process has been completed.	A copy of the EIA update is included in Appendix 3.
C5 Environmental statement	✓	Noted.		
C6 Statutory consultees	✓	Noted.		

C7 Planning status	✓	Noted.		
C8 Technically competent person	✓	Noted.		
C9 Expenditure plan	✓	Noted.		

Additional notes:

(a) Any updates to the Improvement Programme and the comparison with Waste Incineration BREF should be submitted with the updated Forms A and C.

An updated version of the Improvement Programme is provided in Appendix 6 whilst an updated version of the comparison with the Waste Incineration BREF is included in Appendix 7.

~~(c)~~(b) In view of the new proposed activities, WasteServ is required to compare the operations of the proposed rendering plant to the various aspects of BAT as defined in the BREF for "*Slaughterhouses and Animal By-Products Industries*" (Sections 5.1 and 5.3) and as defined in the BREF for "*Food, Drink and Milk Industries*" (Section 5.1).

A comparison of the proposed autoclave with the various aspects of BAT as defined in the BREF for "*Slaughterhouses and Animal By-Products Industries*" (Sections 5.1 and 5.3) is included in Appendix 8. The BREF for "*Food, Drink and Milk Industries*" (Section 5.1) is not applicable to the proposed operation as per e-mail communication from MEPA dated 27th March 2013.

MEPA REVIEW MAY 2012 &
WSM RESPONSE JUNE 2012

WasteServ Malta Ltd

Your Ref: IP 0004/07

28th June 2012

Ms Rachel Decelis
Senior Environment Protection Officer
c/o IPPC Committee
Malta Environment & Planning Authority
Hexagon House
Spencer Gardens
Blata l-Bajda

Subject: IP 0004/07/A Reconsideration of IPPC permit for Marsa Thermal Treatment Facility

Dear Ms Decelis,

I refer to your communication dated 29th May 2012 on the subject in caption.

As requested kindly find enclosed WasteServ's response and relevant supporting documentation.

Whilst thanking you in anticipation for your consideration, we remain at your disposal for any further information or clarifications at your convenience.

Regards,

Ing Saviour Abela
Chief Executive Officer

Encl.

WasteServ Malta Ltd. EkoCentre, Triq il-Latmija, Marsaskala MSK 4613 - Malta Company Reg. No. C30560
Tel: (00356) 2385 8000 Fax: (00356) 2144 1930 Email: info.ws@wasteservmalta.com Website: www.wasteservmalta.com

Annex I: Feedback regarding IPPC issues

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
1) Wastewater treatment	1. Please confirm whether the waste water treatment plant (WWTP) and blood coagulation plant (BCP) being referred to in this response are both referring to the same plant (refer also to *Section 10.14 in Development Brief*). If not, please indicate which waste water is proposed to be treated by the waste water treatment plant (also refer to query 7 in item (15) below). Clarify how steam from the autoclave plant, waste water from wheel washing and ground rain water (potentially contaminated) will be treated. 2. Please update the plans in the Development Brief to indicate the location of the BCP on these plans. 3. Please confirm whether the coagulation plant is foreseen to be operational 24/7. 4. Please also confirm whether the blood coagulation plant will treat all wastewater (including wastewater generated through process and cleaning procedures) generated by the plant, and confirm that the required processing capacity will be available. If this is not the case, indicate how the remaining wastewater will be treated. 5. Please clarify the reference to "digestion" in the second paragraph (Appendix 1).	1. The blood coagulator has been installed to treat the blood being produced by the Civil Abattoir during slaughtering. Its function is to sterilise the blood. Steam shall be used to produce a coagulum and an effluent. The coagulum will then either be incinerated or eventually directed for digestion. On the other hand, the waste water treatment plant as its name implies, is to treat the effluent prior to directing it in the sewers system according to the relevant legislation. However in the interim period, the coagulator is also being utilised for the treatment of waste water from the upper area. 2. Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course. 3. The coagulator operates in batches. It will operate daily until all the blood is treated. 4. At present the coagulator is also being utilised for the treatment of waste water from the upper area. All waste water will eventually be treated in the proposed Waste Water Treatment Plant. 5. Blood can be considered as category 3 and hence can eventually be directed for digestion if sterilised in advance.
2) Environmental management system	Progress noted.	NA

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
3) Radiation heat boiler	Provide an assessment comparing the installation of a radiation heat boiler vs two soot blowers in terms of: (i) Effectiveness (how frequently the plant will need to be shut down to remove accumulated dust); (ii) Additional pollution generated from these proposals (also indicate whether with the soot blowers, soot will be emitted into the air without abatement, and indicate the proposed frequency of soot blowing); (iii) Shutdown times required for installation; (iv) Cost.	A radiation heat boiler will eliminate completely the problem of clogging at the entrance of the boiler. Soot blowers will just clean the dust from the entrance of the boiler with the aim to prolong the operational period from 4 weeks to approximately 6 weeks. However, the downtime and cost to install a radiation heat boiler is not comparable to that of soot blowers. The downtime for the installation of a radiation heat boiler would be approximately 6 – 8 months while that of soot blowers would be just 1 week. The cost of a soot blower would be approximately €3,000 while that of a radiation heat boiler would be approximately €350,000. Soot blowers will not cause any additional dust release into the atmosphere. In fact the Plant is already equipped with another 4 soot blowers. Dust is blown inside the plant and not into the external environment. Flue gas is filtered through the bag house filter prior to its exit into the atmosphere.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
4) Emissions to air	1. The data provided shows that the plant is not compliant with any of the half-hourly limit values. Plans for improvement of operations to ensure compliance are urgently required. Proposals to be considered should include automatic regulation of air intake in the primary and secondary combustion chambers, and use of a feed equalisation system for solid hazardous wastes (e.g. see section 4.1.5.4 of the BREF or other similar feeding technology). 2. Update Appendix 3 with information on daily compliance for all parameters required to be measured continuously. 3. Update Appendix 3 with units for parameters measured discontinuously; also separate measurements of mercury from measurements of other metals.	1. Kindly refer to Appendix 1 to this submission which provides data for 2011. 2. Included in Appendix 1 to this submission. 3. Included in Appendix 1 to this submission.
5) Emergency plan	Progress noted. Plan is to be submitted to MEPA immediately for review by the IPPC Committee (including the Civil Protection Department).	Submitted on 16th May 2012.
6) Pre-treatment of bottom ash	WasteServ is to submit proposals for pre-treatment which MEPA will then assess.	Consultation with foreign consultants has revealed that although some pre-treatment methods have been experimented overseas, none have been successful.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
7) Noise	Please clarify whether the existing shredder was operational during sampling. Please indicate whether it is foreseen that both shredders (existing and proposed) will be operating at the same time. If yes, please provide an assessment of the projected impact of both shredders. The location of both shredders should be indicated in the report. Point 30 (p. 12) refers to noise data for the shredder from Appendix I being used. Kindly clarify.	The shredder is only in operation during the day and operates intermittently. On 14th December 2011 when noise readins were taken the shredder did operated. The noise report assumes both shredders operating at the same time. Please refer to page 36 of the report. Kindly refer to Appendix 2 to this submission. Appendix 1 of the report provides sound power levels of the new shredder to be installed. This level was used to estimate the noise generated from the new shredder.
8) Effectiveness of plant for hazardous waste only	Noted.	NA
9) Commissioning	Noted.	NA

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
10) Thawing	1. Please indicate how the thawing area is labelled in the plans provided with the development brief (or update plans to include this labelling). 2. Please provide the capacity of this thawing room. 3. Please provide the quantity and types of animal by-products that are proposed to be (i) incinerated and (ii) rendered daily with this proposal. It is understood from *Section 9.1 of the Development Brief* that approximately 6,700 tonnes of animal by-products are currently accepted annually at the MTTF. 4. *Section 10.2.11 of the Development Brief* indicates that the plant will not require large quantities of refrigerated storage. Please clarify this statement in the light of plans for a thawing room.	1. Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course. 2. The estimated quantity of animal by-products to be treated in the Autoclave for the years 2011 – 2015 is 11,224 tons which includes all Category 1, 2 and 3 waste produced in Malta. All this material will be treated in the Autoclave (rendering plant). The daily quantity of animal waste treated daily will be approximately 31 tons. Considering that animal waste has approx.. 20% of solid material and only the dry matter (bone meal and meat meal) that falls under category 1, the estimated quantity of dry matter that will require incineration will be approximately 376 tonnes/year. 3. The 6,700 tonnes of animal by-products is what is currently being delivered to the TTF. 4. The Autoclave will not have maintenance shutdowns like the incinerator. It will have its own boilers so that when the Incinerator is switched off, material can still be treated. The Autoclave Plant will consist of 2 lines so that one can be a back-up to the other line. The Plant will not operate on 24 hours. Each line will operate for 4 – 5 batches per day and be switched off. Hence, there will be time for maintenance. Furthermore, if one line experiences sudden break-down, the other line can treat the material. This will reduce significantly the requirement for freezing and storage of animal waste.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
11) Capacity for animal by-product storage	1. Please provide clear plans and information on proposed capacity for animal by-product (ABP) storage, comparing this to storage requirements under both normal operation and during periods of maintenance. 2. Also indicate how frequently the rendering plant is expected to be shut down for maintenance, and the maximum duration of each maintenance period, and assess whether the required capacity for ABP storage will be available.	1. The only storage space for Abattoir Waste will be the fridge adjacent to the Incinerator Plant. 2. The rendering Plant will not need long maintenance shutdowns similar to the Incinerator. Maintenance required can be carried out after the cooking process is over.
12) Semi-manual loading of clinical waste	1. WasteServ is expected to comply with all occupational health and safety regulations, in particular but not limited to by following the general principles of prevention when taking measures to prevent physical and psychological occupational ill-health, injury or death in the place of work. 2. Indicate how many clinical waste bins are incinerated daily, and the maximum maintenance period required for the incinerator.	1. Noted. 2. During normal operations, the plant receives receive an average of 15 bins daily. The maximum maintenance period of the incinerator is 21 days.
13) Issues identified during inspections	With regards to foul odours from the shredder, WasteServ should take all possible measures to eliminate, and if not possible, minimise these odours as much as possible. Techniques which could be considered include the installation of air curtains, temperature control, appropriate enclosure, and connection of the air from the shredding machine and furnace hopper areas to appropriate abatement.	Noted.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
14) Protection of on-site workers from aerosols	WasteServ is expected to comply with all occupational health and safety regulations, in particular but not limited to by following the general principles of prevention when taking measures to prevent physical and psychological occupational ill-health, injury or death in the place of work.	Noted.
15) Rendering process; Assessment of compliance with animal by-product regulations	1. Given that the incinerator will still need to be used for some animal by-products (e.g. incineration of bone meal and meat meal from Category 1 material), provide an assessment of current and proposed capacity at the incinerator for materials other than animal by products, to assess whether the proposal for the rendering plant is justified. 2. Given that "waste from different categories will have to be separated in order to obtain good quality end product that can be used for pet food" (*section 10.2.12 of the Development Brief*), identify what arrangements are being proposed to ensure that this can take place. Please confirm the volume of waste from guaranteed sources that is confirmed to be separated appropriately at source. 3. The preferred option, referring to the incineration of the category 1 material and the utilisation of category 2 material separate from the category 3 material is acceptable with regards to ABP regulations. Today the category 1 material consists mainly of fallen ruminants,	1. Currently, the incinerator is treating an average of 24 tonnes of abattoir waste per day and another 2 tonnes per day of hazardous waste. Through the introduction of the autoclave plant, the incinerator would be in a position to treat 1 tonne per day of meat meal and 8 tonnes per day of hazardous waste including solvents from local industry. 2, 3 & 4. WasteServ has considered the option to treat category 3 for pet food production, However, considering the quantities generated in Malta, this is not feasible. Hence, category 2 and 3 will be mixed and rendered in the autoclave plant and the bone meal and meat meal can eventually be directed for digestion and therefore biogas production.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
	specified risk material (SRMs) and fallen pets, which could easily be incinerated given the incinerator's capacity. Category 2 material must start being separated and distinguished from category 3 material, which is also a minor fraction, and category 3 material (which is the bulk) may be utilised, after treatment, for pet food. 4. In general, the proposal within the application is acceptable with regards to ABP regulations. However the following issues need to be addressed: - Permanent marking of the resulting material from category 1 material must be applied on the material prior to disposal. - Autoclaving of category 1 material may be an option only when the material is not considered to be suspected TSE, therefore its rendering may be used only after the tests have confirmed negative results. - It is not made very clear that pet food may be produced only from category 3 material (excluding category 3 material listed in article 10 (n), (o) and (p) of EC Regulation 1069/2009). Category 1 and 2 materials may not be used for the production of pet food. Provide further details regarding: 5. Quantities of wastewater generated from the	5. Considering that as an average 60% of animals

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
	autoclave plant (pressure cooker) daily; 6. How any odour generated from the autoclave plant will be suitably abated; 7. Treatment of wastewater from the autoclave plant: whether this is foreseen to be treated in the BCP or in another wastewater treatment plant. Provide a detailed description and update the plans provided accordingly. Provide an assessment of whether the proposed plant has the required capacity. With reference to *Section 10.2.12 of the Development Brief*, provide an assessment of whether other odour control methods may be employed (e.g. release of condensate to an enclosed system, air treatment) to avoid contamination of treated water in case second class water is not available for quenching. 8. Heating temperature, pressure and duration of treatment of the material in the autoclave plant. 9. Given that "waste from different categories will have to be separated in order to obtain good quality end product that can be used for pet food", (a) Clarify whether the batch cookers described in *Section 10.2.10 of the Development Brief* would be dedicated to specific types of animal by-products; (b) Clarify whether the other equipment in the rendering process would be dedicated to specific types of animal by-products;	is water content, all this will evaporate and needs to be treated in a waste water treatment plant. Hence this is equal to 18,600 litres per day. 6. The Plant will be fully enclosed and will include an odour suppression system. Please refer to documents entitled "Treatment of Animal Waste Category1" and "Treatment of Animal Waste Category 2 & 3". As explained above, this will be treated in a waste water treatment plant. 7. Wastewater from the autoclave shall be treated in the proposed wastewater treatment plant. Since still needs to be sized as a result of updates being carried out to the scheme design of the proposed autoclave. 8. The steam used will be at 8.5 bar at a temperature of 173°C. The duration of each batch will depend on the type of material and it's water content but on average, each batch will take about 3hours. 9. Please refer to responses in connection with items 10 and 15(2,3&4).

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	(c) Clarify whether Category 1 ABPs will be rendered or incinerated (*section 10.2.6 of the Development Brief* implies that it will be rendered, *section 11.9.1 of the Development Brief* indicates that it will be incinerated).	
	10. Update the plans supplied with the Development Brief to indicate the location of the various equipment utilised in the processing steps (including the stainless steel hopper [step iii], shredders [steps i, iv], percolator [vii], decanter, settling tank [viii], silos for the various bone meal and meat meal products produced [x].	10. Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course.
	11. Indicate the capacities of each of the equipment utilised in the processing steps (including those listed in point 10), and compare this to the maximum process requirements.	11. The proposed autoclave design is being revisited. Details of the capacity of the equipment indicated will be provided at a later stage.
	12. *Section 10.2.10 of the Development Brief* gives information on the capacity of the autoclave plant. Supplement this information with data on: (a) Time interval required between batches; (b) Proposed daily hours of operation of the autoclave plant; (c) Whether the autoclave plant will be supervised during operation; (d) How frequently the autoclave plant will require maintenance, and the duration of stoppage during each maintenance period.	12. The proposed autoclave design is being revisited. Details requested will be provided at a later stage.
	13. Is the processed fat (step viii) envisaged to be used as a fuel for the incinerator's boilers, or incinerated? Note that if there is no market for	13. The fat shall be used as fuel within the facility itself.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
	the material, the animal fat is considered a waste, and the waste incineration regulations apply. If used for production of biodiesel, which authorised facility is proposed to accept this waste? If used as input for biogas (*Section 10.2.11 of the Development Brief*), which facility is proposed to take this material?	
	14. Digestion is being referred to after step (x) and as a possible treatment process for blood sludge. Please identify the facility proposed to take such waste.	14. The proposal is still under evaluation; however the material will probably be included for treatment in the Malta North Facility.
	15. Will feathers and pig hair be sterilised and dried in the same equipment described in the previous steps? If so, how will it be separated from the remaining materials after treatment? If not, please update plans accordingly. Also provide information regarding maximum capacity requirements for such waste and actual proposed capacities for such treatment. What is the fate of such waste after sterilisation and drying?	15. Feathers and pig hair are already and collected separately from the abattoirs. They have to be treated separately from the meat as a separate batch since their process will only involve drying. Final treatment shall be incineration.
	16. How will sheep wool and cow hides be treated? Also provide information regarding maximum capacity requirements for such waste and actual proposed capacities for such treatment, and fate after treatment.	16. Sheep wool and cow hides have to be incinerated. They cannot be rendered.
	17. Indicate how the various parts of the rendering will be bunded, including information on the	17. Details will be provided once revision of design and plans are concluded.

Item	IPPC Committee feedback 29 May 2012	WasteServ reply
	capacity of each bund as a percentage of the material stored within it.	
16) List of non-compliances required by the Veterinary Regulation Division	Noted.	NA
Assessment of "duly made" application	The IPPC application is at this stage considered not "duly made". Indicative guidance on updating the application Forms A & C is however being given in Annex III.	Noted

Annex II: Feedback regarding the Development Brief – IPPC & EIA issues

Item	MEPA feedback 29 May 2012	WasteServ reply
1) Submission of Development Brief	*Section 9 – Wastes treated* 1. The list of wastes accepted at the Marsa Thermal Treatment Facility (MTTF) in 2010 shows a number of wastes which are not listed as authorised by the IPPC permit, as follows: 07 02 13*: Waste plastic 15 01 06: Mixed packaging 16 03 04: Inorganic wastes other than those mentioned in 16 03 03 19 01 05*: Filter cake from gas treatment 19 02 09*: Solid combustible waste containing dangerous substances 20 01 01: Paper and cardboard 20 01 10: Clothes 20 01 13*: Solvents 20 01 19*: Pesticides 20 01 26*: Oil and fat other than those mentioned in 20 01 25 20 01 32: Medicines other than those mentioned in 20 01 31 This application process is expected to seek to vary the IPPC permit to include those wastes which the operator considers would be able to be treated at the MTTF. The following wastes have however not been included in *Annex 4 (Proposed List of Wastes)*. 07 02 13* 15 01 06	*Section 9 – Wastes treated* 1. An updated list shall be submitted as part of the consolidated application.

Item	MEPA feedback 29 May 2012	WasteServ reply
	16 03 04 19 01 05* 19 02 09* 20 01 01 20 01 10 The applicant may wish to update the list in Annex 4 accordingly with any of the above wastes which the applicant considers the facility will be able to treat. Wastes generated by the facility for off-site disposal/recovery should not be included in this list. *Section 10.2 – Rendering Plant* 1. Comments as per Annex I, item (15) are also applicable to this section. 2. Update plans to show location of existing and proposed boiler as per *Section 10.2.12.* *Section 10.3 – Refrigerated Storage for Clinical Waste* *1.* The autoclave plant (which might prepare pet food) is situated next to the clinical waste cold store. This might be contradictory to the recommendations in *section 10.3.2.* *2.* Provide information on capacity of this storage area in tonnes, to enable comparison with the data in *section 9.1.* *Section 10.5 – Bin Washing Facility* 1. Please confirm that as per Appendix 1, all wastewaters from bin washing will be diverted to the	*Section 10.2 – Rendering Plant* 1. Noted. 2. Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course. *Section 10.3 – Refrigerated Storage for Clinical Waste* 1. As indicated in responses above the facility shall not be producing pet food. 2. 420 bins in a worst case scenario. *Section 10.5 – Bin Washing Facility* 1. Confirmed.

Item	MEPA feedback 29 May 2012	WasteServ reply
	BCP for treatment. 2. What is the capacity of the bin washing facility (number of bins able to be washed per day)? How many bins containing animal by-products and clinical wastes are received per day? *Section 10.8 – Paints Storage Area* Provide information on capacity of the paints storage area, and information on the capacity of the bunding as a percentage of the total volume of paints stored within. *Section 10.9 – Fly Ash Silo* Indicate the capacity of the silo, and expected frequency of removal of the fly ash off site. *Sections 10.10, 10.11, 10.12 – Sodium bicarbonate, pharmaceutical, bottom ash storage areas* 1. Provide an assessment of storage capacities proposed in relation to quantities of material required/received/generated. 2. In the case of bottom ash, refer to comment in item (1) in Annex I. *Section 10.14 – Waste Water Treatment Plant* 1. This section refers to a wastewater treatment plant (WWTP), whereas the response in Annex I point 1 refers to a blood coagulation plant. Clarification is requested as to whether these refer to the same or different plants (as specifications seem different), updating of plans are required to indicate the location	2. The bin washing facility can wash one bin at a time. Bins are washed manually. A maximum of 144 bins per 12 hour shift. The number of bins containing abattoir waste received on a daily basis varies between 50–70. While the number of clinical waste bins received daily is an average of 15. *Section 10.8 – Paints Storage Area* Plans are currently being discussed with the Planning Directorate. Updated plans and relevant capacities shall be submitted in due course. *Section 10.9 – Fly Ash Silo* Plans are currently being discussed with the Planning Directorate. Updated plans and relevant capacities shall be submitted in due course. *Sections 10.10, 10.11, 10.12 – Sodium bicarbonate, pharmaceutical, bottom ash storage areas* Plans are currently being discussed with the Planning Directorate. Updated plans and relevant capacities shall be submitted in due course. *Section 10.14 – Waste Water Treatment Plant* 1. These are two different plants as per response provided for Annex 1 Item 1. 2. Noted. BOD and COD levels shall be as per

Item	MEPA feedback 29 May 2012	WasteServ reply
	of both plants, as well as a clear description of which wastewaters are proposed to be treated by the two plants. 2. The associated emission levels for treated wastewaters generated by this WWTP should be submitted, to enable an assessment to be made regarding possible compliance with LN 139 of 2002. Information on expected BOD and COD levels should also be supplied. 3. Further details regarding the operation of this WWTP, including a detailed process description, are required.	WSC discharge requirements. 3. This information shall be provided at a later date since the design and installation of the plant will be conducted through a public tendering procedure.

Item	MEPA feedback 29 May 2012	WasteServ reply
3) Incinerator capacity	*Annex 4: Proposed list of wastes* 1. The list needs to be updated to define which of these wastes are proposed to be processed in the rendering plant and which in the incinerator (and which both). 2. Please clarify why the following wastes are proposed to be accepted by the facility, and how they are proposed to be treated: 10 01 25: Wastes from fuel storage and preparation of coal-fired power plants 19 01 12: Bottom ash and slag other than those mentioned in 19 01 11 19 12 18: Textiles 10 01 04*: Oil fly ash and boiler dust 16 11 01*: Carbon-based linings and refractories from metallurgical processes containing dangerous substances 19 01 10*: Spent activated carbon from flue-gas treatment 20 01 14*: Acids 20 05 15*: Alkalines 3. Please confirm whether the incinerator is able to incinerate rubber (19 02 04).	*Annex 4: Proposed list of wastes* 1. Updated lists shall be provided as part of the consolidated application. 2. 10 01 25 – may be omitted. 19 01 12 - may be omitted. 19 12 18: Textiles – this is required occasionally icw destruction of uniforms, etc. 10 01 04*: Oil fly ash and boiler dust – may be omitted. 16 11 01*: Carbon-based linings and refractories from metallurgical processes containing dangerous substances – may be omitted. 19 01 10*: Spent activated carbon from flue-gas treatment – may be omitted. 20 01 14*: Acids - this is required occasionally; may be treated in small quantities and depending on waste mix. 20 05 15*: Alkalines - this is required occasionally; may be treated in small quantities and depending on waste mix. 3. Yes rubber may be treated in small quantities and depending on waste mix.

Item	MEPA feedback 29 May 2012	WasteServ reply
5) Site plans	1. Site layout plans (Annex 2) are to be updated as indicated in Annex I. 2. Site layout plans should only indicate activities proposed to be authorised by this application (the abattoir should not be included). 3. What is the purpose of the "ancillary building"? (point 3 on levels 0-3).	Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course.
8) Statement from EIA Coordinator	The below EIA screening conclusion is based on Schedule IB of the Environmental Impact Assessment Regulations, 2007 (Legal Notice 114 of 2007) and identified a number of impacts, namely: • Impacts due to additional land take-up air quality given the likely increase in trips to and from the site during the operational phase; • Noise impacts during the operational phase given the likely increase in trips to and from the site; • Contamination of surface water runoff from spillages; • Health impacts from use of the equipment; • Noise and vibration impacts from the new equipment; and, • Cumulative effects. In view of the above, the likely impacts of this development proposal need to be assessed through an update of the EIA carried out in relation to PA 2201/01 which focuses on the abovementioned issues, in	Noted – WasteServ is liaising with consultants with the objective of updating the EIA. Consultations with MEPA shall be held in due course.

Item	MEPA feedback 29 May 2012	WasteServ reply
	addition to any other issues which the EIA Consultant deems relevant to the said proposal. Please also note the below issues, which need to be addressed as part of the IPPC application: 1. Please state how protection of surface water runoff from spillages will be achieved. 2. WasteServ is to assess any potentially significant health impacts, and address them, such that the health of on-site workers is safeguarded, as well as that of any sensitive receptors in the area of influence. 3. The proposal may also result in odour emissions. These need to be appropriately assessed and addressed.	

Annex III: Indicative guidance on updating IPPC application Forms A & C

Part A

Section	Duly made?	Guidance on updating Form A	WasteServ reply
A1.1	✓	Noted.	
A1.2	✓	If a change in name is proposed, given the change in activity, please include this in this section.	
A1.3	×	Please give postcode.	Postcode is XXX; Updated Form A will be submitted as part of the consolidated application.
A1.4	✓	Noted.	
A2.1	✓	Noted.	
A2.2	✓	Noted.	
A3.1	✓	Noted.	
A3.5	✓	Noted.	
A3.6	✓	Noted.	

Part C

Section	Duly made?	Guidance on updating Form C	WasteServ reply
C1.1 Installation details	✓	Please include the proposed capacity (in tonnes per day) of the rendering plant in terms of: (i) incoming animal by-products (processing/treatment capacity); and (ii) finished production capacity of feed product (excluding packaging).	
C1.2 Non-technical description	×	Annex 1 does not contain a non-technical summary.	
C1.3 Proposed variations	×	Update with reference to rendering plant proposals.	Updated Form C will be submitted as part of consolidated application.
C1.4 Site maps & reports	✓	Noted.	
C1.4.1 Site report	✓	Noted. Baseline land and groundwater monitoring data will be required as a result of	

		the Industrial Emissions Directive, 2010/75/EU.	
C1.4.2 Site map	×	Provide: (a) a site map with only the proposed extended site boundary marked (b) a site map with both the authorised and the proposed extended site boundary marked.	Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course.
C1.4.3 Block plan	×	Updated block plans to be provided.	Plans are currently being discussed with the Planning Directorate. Updated plans shall be submitted in due course.
C2.1 Environmental Management System	×	Update with reference to plans for a certified EMS.	Updated Form C will be submitted as part of consolidated application.
C2.2 Raw materials	×	1. Provide MSDS sheet for urea in English. 2. What system will be used for dissolving urea? 3. At what height is the tank vent for the urea solution? 4. How will odours from the urea solution (from ammonification) be dealt with? 5. Is the urea injection system an automatic or manual one?	1. Included as Appendix 3 to this submission. 2. UREA used at the incinerator is procured as 32.5% UREA diluted in water. So there is no need to handle or dissolve the product. 3. The IBC is connected to the tank and all the system is fully automatic. 4. The installation is within the Plant and is fully enclosed.
C2.3 Proposed activities	×	Updated Development Plan to be submitted. Flow diagram of new proposals (including rendering plant and waste water treatment systems) to be submitted.	Process flows are currently being updated. This information will be submitted in due course.
C2.4 Maintenance	×	Provide a maintenance	This will be provided at a

		programme for the rendering plant and any new associated activities (e.g. freezers/fridges, waste water treatment plants, etc.).	later date when plant is procured.
C2.5.1 Energy consumption	×	Please update response. The rendering plant appears to result in changes to energy consumption and efficiency (including use of waste heat).	Process flows are currently being updated. This information will be submitted in due course.
C2.5.2 Energy efficiency	×	Please update response.	Process flows are currently being updated. This information will be submitted in due course.
C2.6 Water	×	Please update response to take into account new proposals.	Process flows are currently being updated. This information will be submitted in due course.
C2.7 Risk assessment	×	Please update response to take into account new proposals. Also provide an emergency plan immediately.	An ERP this was submitted on 16th June 2012.
C2.8 Training	×	Please update response to take into account new proposals (e.g. rendering plant, waste water treatment, wheel washing, etc.)	Staff shall be trained on the use and maintenance of new equipment.
C2.9 Cessation	×	Please update response to take into account new activities and equipment proposed, which will need to be taken into account in the cessation plan.	At the end of the plant life, a detailed plant decommissioning plan will be implemented to ensure that the site is returned to a satisfactory state for on-going use. An inventory of assets to be decommissioned will be produced followed by consideration of the need for risk assessments, site supervision/management, and consultation of Regulations. Disconnection of site services, whether partial or complete will be considered before dismantling work commences on-site. Equipment, where possible,

			will be decontaminated on-site, followed by inspection and if necessary further decontamination, once the equipment has been removed from position and before it has been removed from site. Dispatch of equipment from site whether as a saleable asset or as scrap, will be accompanied by a Certificate of Decontamination. All equipment containing chemicals will be drained and the chemical stored in appropriate containers and removed off-site to reduce the potential for spillage. Dismantling of equipment shall be subject to the same conditions and control of works as required by relevant Health and Safety legislation. The site will be left in a safe manner and adequate regular site inspections will be carried out until such time as responsibility for the site has been transferred to the new owners.
C2.10 Multi-operator installations	✓	Noted.	
C3.1.1 Waste characterisation	×	Please answer question. Include information on changes in types and quantities of wastes accepted and generated.	No change is foreseen in the list of animal by-products currently received at the facility. The new waste streams which are being proposed for treatment shall be directed for incineration.
C3.1.2 Waste management, storage and handling	×	Please update with reference to updated Development Brief (refer to a specific section within the Brief).	Kindly refer to sections 4-14 of the Development Brief. Updated Form C will be submitted as part of the consolidated version of the application.
C3.1.3 Waste recovery or disposal	×	Please update with new waste streams proposed to be generated (e.g. from the	Updated Form C will be submitted as part of the consolidated version of the

		rendering plant).	application.
C3.2 Emissions to groundwater	✓	Noted.	
C3.3 Emissions to sewer	×	1. Update with reference to new wastewater treatment proposals. 2. Indicate whether a Sewer Discharge Permit is in place, and submit a copy.	1. Updated Form C will be submitted as part of consolidated application. 2. Discussions with the WSC are on going.
C3.4 Emissions to sea	✓	Noted.	
C3.5 Emissions to air	×	1. Provide plans for improvement of the existing air emissions from the incinerator. 2. Include an assessment of air emissions (including odour) and mitigation measures from the rendering plant and associated activities.	Kindly refer to response in respect of Annex I Item 4.
C3.6 Emissions to land	✓	Noted.	
C3.7 Noise	✓	Please refer to queries in Annex I, section 7. In the consolidated application, please ensure that this section in the Form refers to the final noise assessment.	Noted.
C3.8 Monitoring	✓	Noted. MEPA will determine monitoring requirements in the IPPC permit.	
C3.9 Summary	×	Please answer the question.	Process flows are currently being updated. This information will be submitted in due course.
C4.1 Environmental effects	×	The answer to the question should be a document that takes into account the results of the noise assessment, the potential for odour impacts, and the results of the EIA update.	WasteServ is taking action to update the EIA as requested. Document can only be produced once this process has been completed.
C4.2 Effects on other sites	×	The answer to the question should be a document that	WasteServ is taking action to update the EIA as

		takes into account the results of the noise assessment, and the potential for odour impacts, and the results of the EIA update.	requested. Document can only be produced once this process has been completed.
C5 Environmental statement	✓	Noted.	
C6 Statutory consultees	✓	Noted.	
C7 Planning status	✓	Noted.	
C8 Technically competent person	✓	Noted.	
C9 Expenditure plan	✓	Noted.	

Additional notes:

(a) Any updates to the Improvement Programme and the comparison with Waste Incineration BREF should be submitted with the updated Forms A and C.

(b) In view of the new proposed activities, WasteServ is required to compare the operations of the proposed rendering plant to the various aspects of BAT as defined in the BREF for "*Slaughterhouses and Animal By-Products Industries*" (Sections 5.1 and 5.3) and as defined in the BREF for "*Food, Drink and Milk Industries*" (Section 5.1).

MEPA REVIEW OCTOBER 2011 &
WSM RESPONSE DECEMBER 2011

IP 0004/07/A: Request for renewal and variation of IPPC permit for Marsa Thermal Treatment Facility

Coordinated preliminary feedback regarding IPPC, EIA and Planning issues (27/10/2011)

Annex 1: IP 0004/07/A: Key IPPC issues regarding the reconsideration of IPPC permit for Marsa Thermal Treatment Facility

Item	IPPC Committee Feedback	WasteServ Reply (07/12/2011)
1	Plans for the wastewater treatment plant have not been submitted. These are urgently required, to ensure compliance with Legal Notice 139 of 2002.	WasteServ is in the process of installing a blood coagulation plant. This plant shall also be in a position to cater for the current levels of wastewater generation by the plant. Details of the plant are as provided in Appendix 1 to this submission. A wastewater treatment plant shall be established as part of the upgrading proposed as part of the Development Brief submitted for the facility. The location of the plant is indicated as item 19 on Level 0.
2	An environmental management system for the installation is still pending. This needs to be implemented as per requirements of the BREF.	WasteServ has recently engaged Messers Tuning Fork Limited to provide s*ervices related to the design and implementation of Quality Management Systems and Environmental Management Systems for the various sites managed by the company.* A detailed programme for the implementation of quality and environmental management system for the facility is included in

		Appendix 2 to this submission.
3	The incineration plant does not have a radiation heat boiler; therefore dust accumulates along the secondary combustion chamber, resulting in maintenance needing to be carried out very frequently. An assessment of whether a radiation heat boiler can be installed if the rendering plant comes into place is required.	Although this option has been considered, it has been concluded that this would entail a major upgrade of the plant. Prior to taking such a drastic step, WasteServ is considering the installation of two soot blowers at the entrance of the boiler. This will serve the purpose to remove the dust that is accumulating at the entrance of the boiler. The soot blowers will use steam from the boiler to clean the dust using high pressure.
4	The plant is not compliant with various emission limits to air (e.g. 50% of CO values are above the daily limit value in the permit). The data submitted in respect of compliance is also incomplete (e.g. no data regarding compliance with the daily limit value for pollutants other than CO has been submitted, data on dioxins and furans, HF, metals, ammonia has not been submitted). WasteServ needs to: (a) update the data submitted to compare emission levels with the BAT associated emission levels in the BREF; (b) Include proposals to achieve compliance with BREF associated emission levels, for instance by considering BAT aspects related to conditions on combustion.	Compliance information for the current year 2011 is provided in Appendix 3 to this submission.

5	An emergency plan has not yet been submitted. This needs to be submitted with this application.	Following a request for quotations, WasteServ engaged Messers Shield Security Consultants Limited to draft this plan. Proof of this is demonstrated through letter in Appendix 4. Once submitted to WasteServ, this plan shall be passed on to the Civil Protection Department for approval. The approved document shall be submitted to MEPA soon after.
6	WasteServ's proposed plans for pre-treatment of bottom ash prior to landfilling need to be included.	From research carried out, in typical facilities overseas the only pre-treatment applied on bottom ash usually entails the removal of metals for recycling. The resultant bottom ash is either landfilled (in the case of Austria) or used for road construction (in the case of Germany). WasteServ would welcome any available guidance that MEPA is in a position to provide on this issue.

7	An assessment of whether noise emissions from the combined existing and new proposed activities (e.g. shredding of animal by-products) could cause the level of noise emitted from the installation to exceed the background noise level by 5dB needs to be submitted. Monitoring shall be carried out according to the latest revisions of ISO 1996 and the rating of industrial noise affecting residential areas shall be according to BS 4142. Monitoring shall be performed exclusively using a type 1 sound level meter.	Following a request for quotations, WasteServ has engaged Messers Adi Associates Environmental Consultants Limited to prepare the requested assessment. The method statement for the required monitoring was approved by MEPA on 06/12/2011 (Ref: Communications with Ms Rachel Decelis). The assessment shall be submitted once finalized.
8	WasteServ is to confirm whether the incinerator can function effectively if burning clinical and hazardous waste only, taking into consideration the plant's design specifications for incoming waste.	Definitely. Obviously the throughput would be less because the calorific value of hazardous waste is higher than that of slaughterhouse wastes and animal carcasses. Rotary kiln technology is especially used for hazardous waste incineration.
9	The incinerator is still not fully commissioned, despite being permitted in 2007. MEP A notes that all conditions in the existing IPPC permit are applicable; however, WasteServ is to include the timeframes for commissioning of the remainder of the existing plant.	Despite being commissioned solvent line requires a probable upgrade and extraneous certification to ensure full compatibility with the range of wastes found locally. We intend to revisit this during our ISO certification process.
10	Clear plans for a thawing room have not been submitted. The issue of thawing in the open air needs to be addressed in this application.	The current problem has been resolved; WasteServ is currently utilizing a container at refrigerating temperature as a thawing room. Hence, thawing is taking place in an enclosed area. The proposed Development Brief as amended includes an area to be utilized as a thawing room.

11	The proposed capacity for animal by-product storage is still not clear. This needs to be clarified.	Currently, during plant maintenance, all material is being shredded and stored in IBC containers. In this manner, better storage has been achieved such some $32m^3$ of meat can be stored at any one time in one reefer container. A modification of the existing fridge can provide storage space for another $298m^3$ of waste such that the requirement for reefer containers is diminished if not eliminated all together. The new system is still being designed such that proposed capacity is still not available.
12	Semi-manual waste loading of clinical waste is being proposed, which is not in accordance with the BREF. WasteServ is also required to comply with all occupational health and safety regulations.	System in place is as originally designed and approved. The system in place was designed to avoid shredding of clinical waste which would otherwise lead to potential occupational risks. The current set up requires manual movement of closed bins into an automatic loading system. The proposed development shall provide storage for approx. 137 clinical waste bins required during maintenance periods.
13	All issues identified during inspections, such as odorous liquids on chipped/uneven concrete floor, bins which are not leak-proof, foul odours in the shredding machine and furnace hopper areas need to be addressed, thus mitigating nuisances, especially during periods of maintenance.	This should be catered for as part of the upgrading proposal. The concrete floor is currently being redone and part of it will be completed by the end of 2011. Furthermore, the fridge is being modified so that all bins delivered will be stored in the fridge. As regards to odours produced from the shredder, this is difficult to control due to the nature of the material brought in for treatment. The shredder is however located in an enclosed area.

14	Adequate measures need to be implemented to protect on-site workers from aerosols generated from the bin washing process, which as stated in the submission made, "may contain hazardous bacteria or viruses that if inhaled may cause severe health problems." WasteServ is required to comply with all occupational health and safety regulations.	WasteServ recently issued a tender which includes the construction of a bin washer room. This will include roll on shutters that will be closed once the bin washer is washing the bin. Operators are provided with a full face mask as part of personal protective equipment.
15	Within Annex 3, part 4, the term autoclave is used for the processing of animal by products, however, the documentation must clarify the following: (a) What is the processing method to be used (in accordance with EC Regulation 142/2011)? (b) What is the exact usage of the material transformed and from which category of material is this to be produced? (c) Are the animal by products from external slaughterhouses going to enter the same entrance of the TTF and how will these be distinguished from the waste to be destroyed? (d) Is a system of own checks and HACCP going to be adopted? (e) The plant requires authorisation from the Veterinary Regulation Division; this would be granted only after an inspection of the establishment prior to operations as in Articles 23 and 24 of EC Regulation *1069/2009.*	(a) The disposal of waste considered as animal by-product and derived products not intended for human consumption is regulated by the Council Directive 97/78/EC, (EC) No 1069/2009 and EU No 142/2011. These regulations does not envisage in any way that slaughtering waste needs to be disposed of by incineration. On the contrary, various options are provided depending on the type of waste, the dimensions of the shredded material and other factors with the aim to sustainably use the animal material while protecting public and animal health in the European Union. An alternative option to incineration is the rendering of the animal by-products through an autoclave plant or pressure sterilisation. (b) Rendering is a process that converts waste animal tissue into stable, value-added materials. This process can be used for the fatty tissue, bones and offals as well as entire carcasses of animals condemned at slaughterhouses or on farms. The most common animal source is beef, pork, sheep and poultry. The rendering process simultaneously dries the material and separates the fat from the bone and protein. A rendering process

		yields a fat commodity and a protein meal. Rendering plants often also handle other materials such as slaughterhouse blood, feathers and hair. (c) The proposed autoclave plant is to treat the inedible raw material using a dry method in batches. The material is heated in a steam-jacketed vessel to drive off the moisture and simultaneously release the fat and bone meal and meat meal. The protein and fat mixture is percolated to drain off the free fat and then pressed to remove more fat out of the solids. The solid part is then ground to produce the meal and bone meal. The fat obtained can be used as low-cost raw material in making grease, animal feed, soap, candles, biodiesel and as a feedstock for the chemical industry. The process is as follows: i. Material from the Civil Abattoir is passed through an on-site shredder and pumped into one of three dedicated refrigerated silos to be installed within the Civil Abattoir boundaries. Each of the three silos will hold one particular waste category, i.e. Category 1 material which needs to be disposed of, Category 2 material which is not fit for animal consumption and Category 3 material which is not fit for human consumption. ii. From these tanks, the material will be pumped to the rendering plant. iii. Slaughtering waste from the private slaughterhouses will be delivered in bins directly to the rendering plant. The material

		will be emptied into a stainless steel hopper or silo depending on the category of the material. iv. Material is transferred by means of Archimedean screws from the hopper, through a shredder and then pumped into the autoclave plant (pressure cooker). This chamber is installed onto two load cells underneath the pressure cooker which controls the quantity of material fed. v. Steam from the Thermal Treatment Facility is fed into the pressure cooker. The agitator inside the cooker ensures that the material is homogenized and exposed uniformly to the heat. This will result in the evaporation of all the water content in the waste, leaving a mixture of bonemeal, meatmeal and animal fat. vi. Steam from the cooker is passed through a heat exchanger where it condenses and produces waste water. This is bubbled into the waste water treatment plant on site. Heat recovered is used within the slaughterhouse. vii. The liquid bone meal/meat meal and fat mix is poured into a percolator. viii. Fat is separated by gravity and pumped to a decanter to remove any solid particles and then it is stored into a settling tank. This can be used as a fuel or a raw material for bio diesel. ix. The bone meal and meat meal is passed

		through a filter press to remove any entrapped fat, leaving a very dry product. x. This material is further passed through a crusher to produce a fine odourless powder which can then be stored into jumbo bags or silos. Bone meal and meat meal produced from Category 2 and 3 waste can be set for digestion for Biogas Production. Bone meal and meat meal from Category 1 material can go for incineration to reduce fuel consumption needed. . Blood collected from the slaughtering process can be first treated in a blood coagulator whereby it is sterilized and approximately 50% of the water evaporated. The blood sludge left can either be sent for digestion for biogas production or incinerated. Feathers and pig hair have to be treated separately from the other animal b-products due to their nature. This waste needs only sterilization and drying. Sheep wool and cow hides cannot be rendered. (d) Such a system shall be adopted. (e) Noted; approval for current installation is already available.

16	Within Annex 1 part 4, it is stated that the TTF will allow entry of animal by products only if they are accompanied by a Consignment Note. As per current practice, the Veterinary Regulation Division will require a list of any non-compliances on a weekly basis, to enable the necessary enforcement to be carried out and avoid dumping of carcasses outside authorised facilities.	Reporting to the Veterinary Regulation Division is already conducted on a weekly basis.
	Note that the application for variation of the IPPC permit is at this stage considered not 'duly made', meaning that a relevant answer has not yet been submitted in response to each question in the application.	NA

Annex II: Feedback regarding Planning and Environmental Assessment Issues

Item	MEPA Feedback	WasteServ Reply
1	The document submitted is not acceptable as a development brief as it does not follow the requirements of the Environment & Development Planning Act. The document needs to be resubmitted in compliance with Article 65 of this Act.	Amended Development Brief included as Appendix 5 to this submission.
2	Note that a development brief is subject to public consultation and MEPA Board approval. The Planning Application may only be submitted once this is obtained.	Noted.
3	In view of the waste streams and quantities already permitted, the development brief needs to clearly identify the technical capacity of the incinerator, providing a breakdown of the wastes to be received by EWC code and quantity and comparing the existing and proposed capacities.	Amended Development Brief included as Appendix 5 to this submission.
4	The development brief must also include an alternative technology assessment.	Amended Development Brief included as Appendix 5 to this submission.

5	It is not clear whether the same site approved in PA 2201/01 and PA 3201/07 is/are being considered, as no site plan has been provided with the document entitled "Proposal for a Development Brief for the Marsa Thermal Treatment Facility", therefore with the current documentation it is not possible to determine whether site has been covered by the original EIS or the EIS update. The Development Brief would need to include site plans, and to provide a description of both the site in question and the immediate surroundings, given the nature of the development as proposed.	Amended Development Brief included as Appendix 5 to this submission.
6	The proposal needs to distinguish between what is already permitted (through planning and IPPC permits) and what is being proposed. This is also important to enable a decision as to what any EIA update would need to cover.	Amended Development Brief included as Appendix 5 to this submission.
7	The Development Brief would need to include both an Alternative Site Assessment as well as an alternative technology assessment.	Amended Development Brief included as Appendix 5 to this submission.
8	With respect to EIA screening, given the inclusion of facilities (p. 3 of the document entitled "Proposal for a Development Brief for the Marsa Thermal Treatment Facility") such as rendering plant for alternative treatment of some waste streams currently treated by incineration; extension of facility boundary; installation of a waste water treatment plant (the capacity of this facility is not known); storage facilities for clinical waste, a fly ash silo, sodium bicarbonate storage area, storage area for pharmaceutical waste, amongst others; the proposal may fall under the scope of the EIA Regulations given that there may be changes/amendments in the document entitled "Proposal	Statement by EIS Addendum Co-ordinator included in Appendix 6 to this submission.

	for a Development Brief for the Marsa Thermal Treatment Facility" that may have material impact over the impact assessment previously carried out. A Development Brief which includes sufficient details that may enable screening is therefore required. In addition, in order to screen the proposal in terms of EIA requirements, the applicant is to provide a statement from the EIA Coordinator that carried out the original EIS Addendum for the said development, that confirms or otherwise whether the proposed changes are such that they may have a significant impact on the environment and thus change the nature of the EIA undertaken for PA 2201/01 and the related Addendum.	

SUBMISSION OF EMERGENCY RESPONSE PLAN

WasteServ Malta Ltd

Your Ref: IP 0004/07/B

16th May 2012

Ms Rachel Decelis
Senior Environment Protection Officer
Malta Environment & Planning Authority
Environment Protection Directorate
Environmental Permitting and Industry Unit
Hexagon House, Spencer Gardens
Blata l-Bajda

Subject: IP 0004/07/B Request for renewal and variation of IPPC permit for MTTF

Dear Ms Decelis,

Further to our submission dated 7th December 2011 on the subject in caption.

Kindly find enclosed the request Emergency Response Plan prepared by Messers Shield Security Consultants Limited and approved by the Civil Protection Department. Please note that this Plan is subject to revisions in the near future.

Whilst thanking you in anticipation for your consideration, we remain at your disposal for any further information or clarifications at your convenience.

Regards,

Ing. Saviour Abela
Chief Executive Officer

Encl.

WasteServ Malta Ltd. EkoCentre, Triq il-Latmija, Marsaskala MSK 4613 - Malta Company Reg. No. C30560
Tel: (00356) 2385 8000 Fax: (00356) 2144 1930 Email: info.ws@wasteservmalta.com Website: www.wasteservmalta.com

SUBMISSION OF NOISE REPORT

WasteServ Malta Ltd

Your Ref: IP 0004/07/B

15th May 2012

Ms Rachel Decelis
Senior Environment Protection Officer
Malta Environment & Planning Authority
Environment Protection Directorate
Environmental Permitting and Industry Unit
Hexagon House, Spencer Gardens
Blata l-Bajda

Subject: IP 0004/07/B Request for renewal and variation of IPPC permit for MTTF

Dear Ms Decelis,

Further to our submission dated 7th December 2011 on the subject in caption.

Kindly find enclosed the requested noise assessment prepared by Messers Adi Associates Environmental Consultants Limited as per method statement approved by MEPA on 6th December 2012.

Whilst thanking you in anticipation for your consideration, we remain at your disposal for any further information or clarifications at your convenience.

Regards,

Ing. Saviour Abela
Chief Executive Officer

Encl.

WasteServ Malta Ltd. EkoCentre, Triq il-Latmija, Marsaskala MSK 4613 - Malta Company Reg. No. C30560
Tel: (00356) 2385 8000 Fax: (00356) 2144 1930 Email: info.ws@wasteservmalta.com Website: www.wasteservmalta.com