

***Ta' Żwejra Non-hazardous Engineered Waste  
Management Facility I/o Naxxar***

**Application for Renewal of IPPC permit IP 0001/05/B**



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Cover image from Google Earth (2017)

# Introduction and Scope of the Application

1. The Ta' Zwejra non-hazardous engineered waste facility consists of a landfill designed for the disposal of non-hazardous wastes. The operations of this facility were originally permitted in July 2005, where a permit IP 0001/05/A was approved; this was subsequently renewed in March 2014, making reference to the development approved in PA 2342/06. The above facilities are described in detail in the original IPPC application and Environmental Impact Statement. This application is for the renewal of permit IP 0001/05/B.
2. The National Waste Management Plan required by The Waste Regulations, S.L. 549.63 sets various targets for waste management that aim '*to reduce the generation of waste and to increase source separation so as to promote recycling and reduce landfilling*'. Wasteserv has implemented various management and infrastructure projects – that are not within scope of this IPPC permit - that are aimed towards achievement of the above targets. In this regard, this application for renewal aims to preserve the remaining void space within the Zwejra landfill for emergency purposes, and commence the process for the partial capping of the facility. The development permit process for the final structure is planned for 2019; the concept to be followed will be based upon the direction established by the SLR study included in Annex 4, though it is expected that further updates will be required during the development permitting process.
3. The Malta North plant and the Sant Antnin MTP are the pre-treatment being applied to the waste prior to landfill. Given the accident at Sant Antnin, treatment capacity has been compromised, with the result that pre-sorting of wastes prior to landfilling is not carried out for all landfilled wastes. The shortfall in capacity needs to be considered in the context of current initiatives to divert recyclables and biodegradable wastes away from landfill. It is expected that the upcoming update to the national waste management plan – due to expire in 2020 – shall include further measures to deviate further volumes of such wastes away from landfill, from both the municipal and industrial sectors.

Development of the plan, in conjunction with current plans for further expansion at Malta North, are essential for the definition of the capacity needed, as is a clearer definition of the required phasing of the Sant Antnin decommissioning; the above are expected to be presented for endorsement through established procedure. A combination of increased treatment capacity, facilitated by current initiatives for segregated collection of biodegradable wastes, are considered sufficient for stabilisation of the organic fraction of wastes prior to landfill.

4. This application has been reviewed by the Environment and Resources Authority, as well as the Statutory Consultees as identified within SL 549.76 Industrial Emissions (Framework) Regulations. The feedback of the Authority, as well as the applications responses, are provided as Annex 6. The information provided within the feedback has been integrated into this application wherever appropriate, to form the final consolidated version of this IPPC application.
5. The application for renewal includes the following documentation (as annexes), to facilitate review of implementation of permit requirements and operations:
  - Annex 1 - a review of the items in the improvement programme list as per table 1.5.1 of the IPPC permit
  - Annex 2 – a copy of the last ERA inspection report
  - Annex 3 – a review of outstanding pending issues as noted during the last ERA inspection
  - Annex 4 - Zwejra Non-Hazardous Waste Landfill - Landfill Final Cover Design Report (SLR December 2016)
  - Annex 5 – Procedures
  - Annex 6 – Regulatory consultation processes
  - Annex 7 - Plans

## ANNEX 1: IMPROVEMENT PROGRAMME OF IP 0005/13/A

No.	Reference in IPPC application	Requirement	Date	Status
15	2.3.67	Inspection and Maintenance contract for gas pipe work as part of the landfill gas management system	To be submitted within 1 month of contract being signed	Superseded by update to management practices where maintenance requirements are contracted directed via Wasteserv Malta Ltd.
24.	4.1.2 – 4.1.21	Submission of environment management system	To be submitted by end June 2015	Submitted in February 2017. Procedures requested by ERA are attached as Annex 5.
25.	n/a	Submission of details regarding the on- site leachate treatment system including associated emission levels for treated effluent	To be submitted within 3 months of issue of the permit	<p>Current practice is the recirculation of leachate; technologies for the further treatment of leachate are being investigated. Wasteserv is currently in the process of identifying the technologies required for treatment of leachates. To this end, the following study SLR (2016) <i>Ghallis Non Hazardous Landfill: Leachate Management and Disposal Options Report</i> was commissioned to determine the options that were available.</p> <p>Consideration of the leachate parameters highlighted the need for more detail with respect to the design of appropriate leachate treatment solutions, with the result that Ing. Marco Cremona has been contracted to assist in the identification of solutions that will result in pilot trials.</p> <p>Permitting processes related to leachate treatment infrastructure are planned for 2019, with initial pilot trials being scheduled for 2020.</p>

No.	Reference in IPPC application	Requirement	Date	Status
26.	n/a	Submission of a risk assessment to determine whether a gas drainage layer is necessary as part of the proposed surface sealing (capping system)	To be submitted within 3 months of issue of the permit	A design report on the landfill capping design prepared by SLR and dated December 2016 (attached as Annex 4 & 7) addresses this issue. This report is currently being considered with a view towards developing this report into a final design for implementation. Given that some limited void space is still available, the possibility of retaining an uncovered tip face is being considered. The scope of this tip face is to provide an alternative tip face should the main tip face at Ghallis not be available due to emergency.
27.	n/a	Submission of a proposal on the maintenance, monitoring and control in the aftercare phase of the site	To be submitted within 3 months of issue of the permit	This proposal shall be prepared in conjunction with the preparation of the application required for landfill capping. The closure plan submitted in Annex 4 provides generic details as regards the projected capping, which will need to be updated through the setting of contractor design specifications in parallel with the development permitting process. This will be part of the application for surrender of the facility. The maintenance, monitoring and control processes will be derived from the contractor design specifications, and will be incorporated within the facility EMS, as will be specified within the application for surrender of the facility.
28	5.5.1-5.5.3	Submission of a monitoring programme proposal for site surface runoff collected by the silt trap & reservoir	To be submitted within 3 months of construction of reservoir	A revised and consolidated monitoring programme was finalised in December 2014: Adi Associates Environmental Consultants Ltd, 2014. Non-Hazardous Engineered Waste Landfill at Ghallis. Environmental Monitoring Programme required by IPPC permit IP 0001/06/B. San Gwann, December 2014; vii + 61 pp.

# ANNEX 2: ERA inspection report

## Routine Inspection Report

**Date:** 29/03/2018

**Time:** 1000hrs – 1200hrs

**Location:** Maghtab Environmental Complex, I/o Bahar ic-Caghaq, Malta

**ERA Officers:** Stefan Azzopardi, Massimo Fanara

Aspect	Detailed Observations	Actions Required by Operator
Site Security	The undersigned officers approached the complex from the back gate. The gate was found to be open and the guardhouse unmanned.	Operator is to ensure that the site is secured as per IP Condition 3.10.1.5 which states that the operator shall ensure that the landfill is secured to prevent free access to the site.
Operations on Site during Inspection	<p>No grey bags were noted in the area covered by the Ta' Zwejra Permit. An area previously being used for stockpiling of grey bags was noted to be covered with fresh inert material <b>(see Photo 1)</b>.</p> <p>No information has been received regarding the backlog of grey bags awaiting processing which had been observed stored next to MBT North and which had also been transferred to Ta' Zwejra.</p>	Operator is to provide ERA with details of the total capacity of grey bag waste that was stockpiled therein and what has happened to these stockpiles. A target timeframe during which the total backlog of grey bags is envisaged to undergo treatment at the MBT facility should also be submitted <b>within 2 weeks</b> of the date of the covering letter of this report.
Area Above Water Reservoir	The area above the water reservoir was noted to be full of Jumbo bags of expanded polystyrene, bales of PET and loose car bumpers. Expanded polystyrene, both loose and bagged, was noted to be wind-blown around the site <b>(see Photos 2 and 3)</b> .	Operator should clear the area and provide ERA with details of the end disposal of this waste <b>within 2 weeks</b> of the date of the covering letter of this report.

Remaining Void Space	No changes to the landscaping and contouring of Ta' Zwejra appear to have been conducted recently.	<p>Further to the report dated 28/03/2017, operator is still to inform the Authority <b>immediately</b> in writing:</p> <ul style="list-style-type: none"> <li>a) The plans for the infilling of the remaining void space and</li> <li>b) A status update with regards to the Phased Capping &amp; Closure Plan requested in correspondence dated 20/06/2016</li> </ul>
Leachate Management	No leachate management plan has been submitted to the Authority yet.	A leachate management plan in accordance with the provisions of the Waste Management (Landfill) Regulations S.L. 549.29 is to be submitted to ERA by the operator <b>immediately</b> .



## Annex 1: Photos



**Photo 1** – Fresh inert material deposited in an area previously used to stockpile grey bags



**Photo 2** – Some of the material stored in the area above the water reservoir



**Photo 3** – Expanded polystyrene being wind blown out of the area

## ANNEX 3: ISSUES RAISED DURING INSPECTION

The following table has been adapted from that presented in Annex 2, which lists the non-conformities detected on site during the last inspection report.

Aspect	Detailed Observations	Actions Required by Operator	WSM Reply
Site Security	The undersigned officers approached the complex from the back gate. The gate was found to be open and the guardhouse unmanned.	Operator is to ensure that the site is secured as per IP Condition 3.10.1.5 which states that the operator shall ensure that the landfill is secured to prevent free access to the site.	Manning of security gate is being reviewed to ensure that gate is adequately manned.
Operations on Site during Inspection	No grey bags were noted in the area covered by the Ta' Zwejra Permit. An area previously being used for stockpiling of grey bags was noted to be covered with fresh inert material (see Photo 1). No information has been received regarding the backlog of grey bags awaiting processing which had been observed stored next to MBT North and which had also been transferred to Ta' Zwejra.	Operator is to provide ERA with details of the total capacity of grey bag waste that was stockpiled therein and what has happened to these stockpiles. A target timeframe during which the total backlog of grey bags is envisaged to undergo treatment at the MBT facility should also be submitted within 2 weeks of the date of the covering letter of this report.	Stockpile of bags is being maintained as feedstock to Malta North plant; data on inputs is being compiled.
Area Above Water Reservoir	The area above the water reservoir was noted to be full of Jumbo bags of expanded polystyrene, bales of PET and loose car bumpers. Expanded polystyrene, both loose and bagged, was noted to be wind-blown around the site (see Photos 2 and 3).	Operator should clear the area and provide ERA with details of the end disposal of this waste within 2 weeks of the date of the covering letter of this report.	Efforts are being undertaken to catch up with backlog of material to be exported.

Remaining Void Space	No changes to the landscaping and contouring of Ta' Zwejra appear to have been conducted recently.	<p>Further to the report dated 28/03/2017, operator is still to inform the Authority immediately in writing:</p> <p>The plans for the infilling of the remaining void space and</p> <p>A status update with regards to the Phased Capping &amp; Closure Plan requested in correspondence dated 20/06/2016</p>	Kindly refer to entries 26 & 27 in Annex 1 regarding the improvement programme.
Leachate Management	No leachate management plan has been submitted to the Authority yet.	A leachate management plan in accordance with the provisions of the Waste Management (Landfill) Regulations S.L. 549.29 is to be submitted to ERA by the operator immediately.	Kindly refer to entry 25 in Annex 1 regarding the improvement programme. Leachate management will be undertaken as part of the programme being developed for the Ghallis landfill.

## ANNEX 4: Zwejra Non-Hazardous Waste Landfill - Landfill Final Cover Design Report (SLR December 2016)

## ANNEX 5: Procedures

## ANNEX 6: Regulatory Consultation Process

## Annex 7: Plans