

File Reference: **H18-0116-WSM-C**

Consultant: Resolve Consulting

Status Update by: S Salomone

Date: 12.06.2020

Item	Status 11.12.2019	Status 12.06.2020	Target Completion Date
4.1 Organisation and Resources As noted in paragraph 5.1.1, Wasteserv is in the process of gradually implementing an occupational health and safety management system in accordance with ISO 45000 across all of its sites. This internationally accepted standard is intended to enable companies to manage occupational health and safety risks and improve their approach to preventing injury, illness and as a consequence, minimise damage to property. The plan to roll out and implement this management system is to be communicated to the insurers as it would increase confidence in the way risks on site are being proactively managed throughout the organisation.	Wasteserv will be implementing ISO 45001 in phases, starting from Tal-Kus, Malta-North, TTF and then going to Sant' Antnin.	Certification audit for KTS is scheduled for 10/07/2020. Currently implementing system at MN.	Q2 2021
4.2 Provision of First Aid It is understood that the number of qualified first aid personnel exceeds the minimum amount stipulated in local legislation. However, since the operation is a 24/7 operation, the insured is to ensure that the number of first aid personnel is sufficient to cater for the number of employees present on site at any one time, including during periods of sick leave, injury leave and vacation, shifts, etc. Signage indicating the identification and contact numbers of first aid personnel is to be clearly displayed.	Sufficient first aiders available to cover for sick / injury / vacation leave and shifts. Personnel are currently attending First Aid training. Last course will be held 12.12.19. Poster will be updated following receipt of certificates from Training Provider.	Training completed. Posters will be fixed before plant is re-opened.	Jan-20

4.3 Work Equipment (Fixed Machinery and Heavy Plant)

The insured must ensure that all equipment is maintained according to a comprehensive maintenance and inspection plan and records of these maintained.

All maintenance to machinery and equipment must also include electrical maintenance.

Detailed plant and machinery risk assessments should be carried out and documented to determine the specific mitigatory measures in place to minimise injury through contact with moving parts.

Safety arrangements on plant and machinery are to be checked daily to ensure that they remain effective at all times. Any deficiencies as those noted are to be rectified immediately.

Safety stops, including trip wires are to be reviewed to ensure that they are within easy reach and not rendered unreachable due to poor workplace organisation.

In place.

In place.

Ongoing.

4.4 Electrical supply, distribution and installation and electrical portable appliances

The results from the thorough maintenance and inspection carried out in August by the competent person shall be reviewed and addressed immediately.

The inspection frequency of the fixed installation and that of fixed machinery shall be determined based on the results of the thorough maintenance and inspection carried out by the by competent personnel.

Electrical panels should be kept locked and accessible only to authorised persons. A permit-to-work system should be implemented in case of work being carried out on live systems. Signs denoting electrical panels and high voltage are to be maintained on all panels located within the premises.

Damaged light fittings, electrical power outlets and the elimination of electrical extension leads shall be addressed as soon as possible.

Done

Done

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4.5 Personal Protective Equipment

Enforce use of personal protective equipment protection by visitors and workers. If necessary increase the amount of signage to encourage and inform personnel on the correct type of equipment to be used.

In place.

In place.

Ongoing.

<p>4.6 Health surveillance</p> <p>Personnel that are exposed to non-mechanical hazards at the facility are to be included in a health surveillance program.</p> <p>As a minimum, the following arrangements should be in place:</p> <ul style="list-style-type: none"> - Pre-employment screening that includes a questionnaire about present or past health conditions - advise new employees about what to look out for and that they should report symptoms; - A questionnaire to be completed for all workers after employment at 6 weeks, 12 weeks (or similar intervals) and at least annually thereafter to enquire about any developing symptoms. The questionnaire must be administered by a responsible, trained person who must understand the purpose of the questionnaire, confidentiality requirements and what records must be kept; - Identify a named occupational health professional or company, who can advise on any adverse findings from the questionnaire and who can make arrangements for further investigation where necessary. 	Tender currently being drafted.	Tender at evaluation stage.	Mar-20
<p>4.7 Vehicle and pedestrian segregation</p> <p>A documented Traffic Management Plan (TMP) is recommended. It is intended to define the arrangements to ensure that the risks involved in the movement of mobile plant and vehicles around the facility, and the interface with site personnel are identified and controlled as far as reasonably practicable.</p> <p>The key risks associated with mobile plant and vehicle operations on the site include personnel being run over, crushed or struck by mobile plant or vehicles and personnel being struck by something falling from mobile plant.</p> <p>A site layout plan indicating the location of safe pedestrian routes and vehicle routes, safe/unsafe work areas for pedestrians and emergency exit routes or refuge areas should be included. Specific rules for pedestrians and operators must be included due to vision limitations during operation of such equipment.</p>	Pending	TMP currently being drafted. To be concluded by end of July '20.	Mar-20

<p>4.8 Hazardous Substances, including Biological Agents</p> <p>The main exposures to workers are related to the presence of possible infectious diseases in the waste handled on site. Apart from the personal protective equipment already being provided, it is recommended that a health surveillance program as detailed in paragraph 6.1.6 is implemented.</p> <p>Also, since hot and cold water systems, hose reels, water storages, etc. are present on site, a legionella monitoring program should be implemented.</p> <p>Specific chemicals' risk assessments are to be carried out in accordance to local legislation. These should be reviewed at regular intervals to ensure compliance.</p> <p>Training is to be provided and to include awareness of the requirements of the legislation.</p> <p>Keep stock of hazardous substances to a minimum to minimise the associated risk.</p> <p>Ensure that personnel are trained and kept abreast with any changes of the spill response plan.</p> <p>Maintain spill kits in areas where hazardous substances are handled.</p>	<p>Refer to 6.1.6</p> <p>A tender will be issued in 2020.</p> <p>In process.</p> <p>Pending.</p> <p>In place.</p> <p>In place.</p> <p>In place.</p>	<p>Refer to 6.1.6</p> <p>A tender will be issued in 2020.</p> <p>Risk assessments being drafted.</p> <p>Completed.</p> <p>In place.</p> <p>In place.</p> <p>In place.</p>	<p>/</p> <p>Aug-20</p> <p>Jun-20</p> <p>Aug-20</p> <p>/</p> <p>/</p> <p>/</p>
<p>4.9 Health and Safety Signage</p> <p>Maintain current signage and ensure that it is observed. Training on the significance of health and safety signage might need to be considered.</p> <p>Review signage based on continuous assessment to ensure that sufficient information is available within the facility.</p>	<p>In place.</p> <p>In place.</p>	<p>In place.</p> <p>In place.</p>	<p>/</p> <p>/</p>
<p>4.10 Falls from height</p> <p>Walkways, elevated working platforms and other locations situated at height are to be subjected to routine maintenance to ensure that the guardrails provided remain robust.</p> <p>Maintain safe systems of work for work beyond the safety of guardrails.</p> <p>Access equipment are also to be included in the facility's maintenance program.</p>	<p>In place.</p> <p>In place.</p> <p>In place.</p>	<p>In place.</p> <p>In place.</p> <p>In place.</p>	<p>/</p> <p>/</p> <p>/</p>

4.11 Confined Spaces All the confined spaces within the facility are to be clearly denoted with signage and entry must be controlled. Maintain the confined space hazard assessment and control program should be formally implemented detailing: - The identification and assessment of all potential hazards that may exist at the beginning of the work as well as those that may develop because of the work activities. - The roles and responsibilities of each person or party involved. - A plan to eliminate or control all identified hazards. - Written work procedures. - Training program for all the workers that will enter into the confined spaces. - The establishment of an entry permit system for each entry into a confined space. - Development of an emergency plan complete with training and equipment in case an unforeseen situation occurs and an emergency response system. - Medical fitness requirements of staff entering confined spaces. - Etc.	In place.	In place.	/
	In place.	In place.	/
4.12 Storage and Stacking The amount of baled and loose materials on site is to be kept to a minimum. Stack stability is to be monitored.	In place.	In place.	/

<p>4.13 Fire Safety and Explosion Management and Prevention</p> <p>It is recommended that the insured implements a fire safety management system (level 1) as defined in BS 9999, Code of practice for fire safety in the design, management and use of buildings.</p> <p>In view of the presence of flammable gases, i.e. methane, an explosion document is to be prepared. This document shall contain the findings of a risk assessment of any work activity involving flammable/or explosive atmospheres. It may be incorporated or at least referenced in the Safety Statement, be part of other risk assessment documentation or included in the Safety Report for the facility.</p> <p>It must detail:</p> <ul style="list-style-type: none"> · Technical or organisational measures so as to reduce or prevent the risk of explosions and measures used to mitigate the effects of an explosion. · The operation of early warning devices. · Training instruction and supervision given to workers who work in places where an explosive or flammable atmosphere may occur. · Operational procedures, maintenance, operation of permits to work, and co-ordination between employers. · Classified places where explosions may occur called hazardous zones and detail marking of areas as well as location. · Means of escape in the event of an explosion. · The properties of substances that present an explosion hazard. · Selection and use of suitable equipment for use in hazardous zones including certification and calibration documents. · Equipment used that is CE marked and in compliance the ATEX Directive 2014/34/EU that covers equipment and protective systems intended for use in potentially explosive atmospheres. · How often the EPD is reviewed and when is it due to be reviewed again. 	<p>In place.</p> <p>In place.</p>	<p>In place.</p> <p>In place.</p>	<p>/</p> <p>/</p>
<p>4.13.1 Compartmentation, Fire Separation and Smoke Venting</p> <p>Maintain inspection of all fire doors, integrity of fire compartments and smoke extraction systems.</p>	<p>N/A</p>	<p>N/A</p>	<p>/</p>
<p>4.13.2 Fire Detection and Fire Extinguishing Appliances</p> <p>Maintain inspection of all detection equipment and all fire extinguishing equipment, i.e. fire extinguishers, hydrants, hose reels, etc.</p> <p>Flat hose reels are to be readily available next to the fire pump room or in other strategic locations. Improve housekeeping around hydrants.</p>	<p>In place.</p> <p>In place.</p>	<p>In place.</p> <p>In place.</p>	<p>/</p> <p>/</p>
<p>4.13.3 Emergency exits, evacuation routes, manual call points and assembly points</p> <p>Maintain clear and unobstructed access to emergency exits, evacuation routes, manual call points and assembly points.</p>	<p>In place.</p>	<p>In place.</p>	<p>/</p>

4.13.4 Fire Training, Emergency Plan & Emergency Services

The current emergency response plan is to be reviewed to include the following:

- Communication arrangements, such as named emergency contacts, key holders, incident controllers, etc. with their telephone numbers and likely response time (for out of hours).
- Communications arrangements with neighbours/nearby premises which may be affected.
- Hazardous and combustible materials on site, including wastes.
- Specific hazards, such as gas cylinders, fuel stores, etc.
- Normal number of people working on site and usual hours of work.
- Fire-fighting equipment on site and where this is located, such as location of hydrants, fire extinguishers, hoses, etc.
- Location/s and detail of any fixed fire systems on site, such as sprinklers.
- Any other equipment on site which may be of use during a fire, such as heavy mobile plant which could be used to assist the Civil Protection.
- Any specific environmental issues, such as drainage issues for firewater, etc.
- The procedures, such as evacuation, firefighting and summoning the Civil Protection, which employees and others on site must follow in the event of a fire.

The accident/emergency plan should also include a map showing the:

- Layout of buildings (externally and internally, including fire exits and other access points).
- Location of all stored wastes (externally and internally stored), what these wastes are, how much is in each storage area typically, etc., and noting any specific wastes which may pose specific hazards such as plastics.
- Any locations where hazardous materials are stored on site (location of gas cylinders, chemicals, etc.)
- Main access routes for fire engines and others and any alternative accesses.
- Access points around the site perimeter to assist firefighting.
- Location of hydrants (on and off site) and water supplies.
- Location of fire extinguishers, hoses and other fire-fighting equipment on site.
- Location and layout of fixed plant (such as recycling plant and equipment), and where mobile plant is usually parked out of normal work hours.
- Location of utilities isolation points, such as electricity and water.

The plan should also detail disaster recovery measures as appropriate including:

- The removal of burnt material using appropriate and lawful disposal.
- The safe re-commission of plant.
- Salvage operations.

Done.

Done.

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4.1.14 Risk Assessments Risk assessments done to date are to remain current and relevant. Recommendations made in the assessments are to be addressed and presented for review in the form of an action plan. The assessments need to be reviewed periodically. As noted under paragraph 6.1.3, detailed plant and machinery risk assessments should be carried out and documented to determine the specific mitigatory measures in place to minimise injury through contact with moving parts.	In place.	In place.	/
	In place.	In place.	/
	In place.	In place.	/

Report Reference: **PA TN 197179**

Prepared by: Ing. Fabio Stivala

Status Update by: S Salomone

Date: 12.06.2020

Item	Status 11.12.2019	Status 12.06.2020	Target Completion Date
<p>1. Fire Water Ring Main & Hydrants.</p> <p>This pipe work is in various locations found to be corroded or damaged. There currently is a leak, which manifests itself when pump pressure is raised. The leak has been identified in its approximate location, however this would be a second leak (pipe damage) discovered after a recent repair.</p> <p>Most of the galvanized steel pipe work is run buried, with pour / worn-out corrosion protection (bituminous wrap). There are not enough ring main isolation valves, that would enable repairs in a section whilst the rest remains 'live'. Most of the pipe is 4" dia. or smaller. This is undersized. Hydrant outlet risers are located in awkward locations where they are being hit by vehicles. In certain cases, these are too close to buildings. We have not seen readily-available hoses and nozzles.</p> <p>This situation may result in seriously inadequate fire fighting provisions in the event of a fire.</p> <p>It is suggested to install a new fire ring main, where possible run surface or overhead along with other pipe lines or structures. If sections need to be run buried, we suggest HDPE pipe runs. Ring main should be in 6" dia., Hydrant pillars should rise in 4", include an isolation valve and be protected by bollards. Vide Wasteserv MN.</p> <p>In some locations we strongly recommend the provision of portable water canons, typically, in the area between the MTP (back side) and the MMRF.</p>	<p>A complete overhaul of the firefighting system is planned. Currently market research is being carried out before issuing tender / negotiated procedure.</p> <p>In place.</p>	<p>Upgrading works initiated. To be completed by mid-July '20</p> <p>In place.</p>	<p>Jul-20</p> <p>/</p>

<p>2. Fire Pumps</p> <p>The fire pump-set is a twin-set electric submersible Calpeda 8SDS 100/7 flow 30-125 cu.m/hr, head 150-73.5m. i.e. 2000 lit/min at 7 bar. We have not done any pressure loss calculations for the existing ring main, since exact pipe route and pipe sizing is not available to us. However, the standard specifies 1500 lit/min at 5-8 Bar at the hydrant outlet. This means that the pump may just about be right. Our assessment for such a large site is that the ring main should have been 6" dia. A pressure releif valve is recommended with return to reservoir.</p> <p>The Electrical switchgear may need checking, especially where dual power supply is concerned. We are aware there is a generator on site, however the change-over from Enemalta supply to Generator should be: (a) changed-over automatically, and (b) guaranteed through separate fire rated cables.</p> <p>The key to access the fire pump room should be more readily available, and clear labelling & a schematic diagram within the room would help CPD identify and act quicker.</p>	<p>Refer to Point 1.</p> <p>Refer to Point 1.</p> <p>In place.</p>		<p>Jul-20</p> <p>Jul-20</p> <p>/</p>
<p>3. Fire Water Reservoir</p> <p>We believe the current reservoir is insuffiecient, and if the submersibles are installed vertically, then not all the water can be used. We recommend (a) the installation of the pumps in a horizontal position, include cooling shrouds, and dry run protection. (b) augmenting the water storage by refurbishing existing and un-used fibre-glass tanks currently near the compost shed, we believe there are 3 tanks which should each hold at least 10 cu.m.</p>	<p>Refer to Point 1.</p>	<p>Refer to Point 1.</p>	<p>Jul-20</p>
<p>4. Spillages & leaks, chemicals, Oils, etc</p> <p>Our impression when viewing the mechanical work shop areas (vehicle maintenance), which will also house a chemical storage room nearby, is that far too many chemical/oil leaks are un-controlled. There is also a diesel storage tank, which does not fully comply to REWS regulations (upgrade & engineer certification required).</p> <p>We presume that the new work shops being constructed/refurbished and these area require oil interceptors, and in any case, a perimetral gutter to collect all chemical spillages for further treatment and disposal.</p>	<p>Workshop currently being upgraded.</p>	<p>Workshop currently being upgraded.</p>	<p>Aug-20</p>
<p>5. Acetylene and other Gas Storages</p> <p>We observed storage of such gases in what appears to be not suitable and dangerous location.</p>	<p>Pending.</p>	<p>Gas cylinders moved away from building.</p>	<p>Mar-20</p>
<p>6. Spray paint Booth</p> <p>This is a make-shift steel container made into a spray booth. Besides H&S issues, we believe that thinner fumes may develop into a possible explosive atmosphere. There are no ATEX provisions in such booth. Currently there is a complete (possibly un-certified) electrical installation (power & lights), a fan, a radi-CD player and other appliances which may possibly trigger a spark. There is also a small storage of paints & thinners. ERA regulations may also apply re venting of fumes.</p>	<p>Works have been temporarily stopped until a proper spray booth is purchased.</p>	<p>No update.</p>	<p>Spraying currently not taking place. Wasteserv to decide if it's to purchase booth or contract this service.</p>

<p>7. Hydrolisers and Digester Tank farm, CHPs, Biogas, etc.</p> <p>A detailed ATEX study is required for this area. From basic inspection, it appears that (a) ATEX zones are not identified clearly, and (b) the condition of some electrical devices and their cabling, joints, etc seems dubious.</p> <p>Maintenance carried out in the above tanks requires careful measurements of LEL and HEL. We are not sure if the correct methodology is being followed.</p>	<p>Done.</p> <p>Procedure for working in ATEX zones currently being developed.</p>	<p>Done.</p> <p>Done.</p>	<p>/</p> <p>Jan-20</p>
<p>8. MRF proposal</p> <p>We understand there is a proposal to create a short-term (5-years) MRF area following the destruction by fire of the last year/s.</p> <p>This we understand involves several steel 40' containers laid out in a U-shaped manner. The bales are stored within this 'compound'. We recommend CCTV with IR hot spot monitoring cameras AND water monitors, as has been implemented at Wasteserv MN.</p>	<p>Refer to Point 1.</p>	<p>Refer to Point 1.</p>	<p>May-20</p>
<p>9. Fire Detection System (mainly MTP building)</p> <p>We understand that in these sites, this is always a problem since dusts and insects affect the detection devices. We propose to remove the fixed-point detectors and replace with beam detection system. The devices should be installed at locations which are easily reachable for cleaning and maintenance. Manual call points and sounders (especially the DECIBEL LEVEL) require increase.</p> <p>Some hose reels were noted to be damaged.</p>	<p>Both fixed-point detectors and beam detectors are in place. 120dB sounders have been installed which are more than sufficient for the area.</p> <p>Refer to Point 1.</p>	<p>Both fixed-point detectors and beam detectors are in place. 120dB sounders have been installed which are more than sufficient for the area.</p> <p>Refer to Point 1.</p>	<p>/</p> <p>Jul-20</p>
<p>10. EVACUATION ROUTES</p> <p>As was done at MN, clear evacuation routes with emergency lights, signs and markings should be identified. Currently these are not so evident. Many fire doors are found damaged.</p>	<p>Refer to Point 1.</p>	<p>Refer to Point 1.</p>	<p>Jul-20</p>
<p>11. Training, Fire Drills, Evacuation procedures</p> <p>It is our recommendation that management handles the above procedures, since this is by far what may reduce risk, evacuation time and effective and immediate action.</p>	<p>Emergency Response Team members have been trained in Advanced Fire Fighting, First Aid and Spill Response. Training on the revised Emergency Response Plan is in process. Fire Drills to be conducted in Jan-20.</p>	<p>Emergency Response Team members have been trained in Advanced Fire Fighting, First Aid and Spill Response. Training on the revised Emergency Response Plan is in process. Fire Drills to be conducted once upgrades to the fire fighting system are complete.</p>	<p>Jul-20</p>