MRF Maintenance/Cleaning Schedule

Machine	Bag Opener
Time allocated	2 hours
Frequency	Weekly

Duty:
a) Clean Upper part/Radiator area
b) Open side panels and clean rollers that rip the bags
c) Clean all sensors
d) Check B/O walking floor
e) Clean B/O conveyor
f) General cleanup

Machine	Ferrous
Time allocated	1 hours
Frequency	Daily

Duty:
a) Clean Rollers
b) Clean between belt and electromagnet
c) Clean all sensors
d) Check belt
e) General cleanup

Machine	Baler 4-4
Time allocated	2.5 hours
Frequency	Weekly

Duty:
a) Clean machine with air
b) Check needle rails from inside
c) Clean above hydraulic unit/ radiator/motor
d) Clean all sensors
e) Clean hopper railings and remove any obstruction
f) General cleanup

Machine	Baler 4-5
Time allocated	2.5 hours
Frequency	Biweekly

Duty:
a) Clean machine with air
b) Check needle rails from inside
c) Clean above hydraulic unit/ radiator/motor
d) Clean all sensors
e) Clean hopper railings and remove any obstruction
f) General cleanup

Equipment	Conveyors C2, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C21
Time allocated	1 hour per conveyor
Frequency	Monthly

Duty:
a) Open underside panels and clean
b) Clean all rollers
c) Clean rotational sensors
d) General cleanup

Machine	Non-Ferrous
Time allocated	1 hours
Frequency	Daily

Duty:
a) Clean Rollers
b) Clean belt
c) Check choute condition
d) General cleanup

Works to be carried out after 9:00 am after first cleaning the yard.

HEC
Environmental Consulting

Maintenance Plan

Generalities

Generalities:

√ Clean pumps and pump motors generally at least once a week or if necessary earlier.
√ Maintenance work that can solely be done in particular by one company are highlighted purple.
√ Follow the safety- and health advices mentioned in the O&M manuals when carrying out maintenance work.
√ Check the condition of the grease if the equipment has been in storage for more than 12 months (according motors and pumps).
√ All maintenance must be carried out in compliance with Health & Safety Regulations and also ATEX Regulations where appropriate.
√ Motors should be kept clean, free of dust, debris and oil. Soft brushes or clean cotton rags should be used for cleaning.
√ It is possible that the cells consist more text than visible. Enlarge the cells if necessary to see the complete text.

Maintenance Plan

Template

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other		

Maintenance Plan

Airwell_Chiller

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
7110 W05 6902	Airwell	chiller	check the temperature of the leaving fluid						1								
			check the pressure drops in the heat exchanger							x							
			check for electric absorption							x							
			check suction pressure and temperature							x							
			check delivery pressure and temperature							x							
			check the oil level in the compressor							x							
			check that there are no gas bubbles in the liquid line							x							

Maintenance Plan

Airwell_Chiller

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			check that the fins of the external coil are clean (if any)								x						
			check the operation of the oil heaters								x						
			check the remote control switches								x						
			check the operation of the LP pressure switch													x	Beginning of season
			check the operation of the HP pressure switch													x	Beginning of season
			check the insulation of the heat exchanger													x	Beginning of season
			check that terminals are tightened													x	Beginning of season

Maintenance Plan

Airwell_Chiller

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			check that the terminals' screws are tightened													x	Beginning of season
			clean the exterior of the unit with water and soap													x	Beginning of season
			check the density of the antifreeze (if any)													x	Beginning and end of season
			check the operation of the flow switches													x	Beginning of season
			check the operation of the solenoid valve													x	Beginning and end of season

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1310 V05 4103 4110 V10 4104 4110 V20 4104	Aerzen	Blower	retaining screws and fittings, retighten after machine has cooled					**3**									
			starting strainer, if installed, check, if no more contaminant it can be removed					**500**									
			intake filter, check filter for contaminatio n, replace if necessary, max. -45 bar							**x**							
			replace filter insert					**8,000**								**x**	
			air intake/air exhaust openings, of acoustic hood, check and clean					**1,000**									Half-yearly in clean environment -monthly in dusty environment
			check condition of V-belt, replace if necessary					**25 500 4000 8000**						**x**	**x**		

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			pressure valve, check function					**3 1000**									Half-yearly in clean environment -monthly in dusty environment
			check oil level					**3 25**		**x**							
			non-return valve, check for wear and leakage					**8,000**							**x**		
			main inspection/maintenance, check/replace wearing parts, overall check of machine					**20,000**	**1,080**								
		screw c	check for oil leaks							**x**							
			check oil level											**x**			
		paddle	check for oil leaks							**x**							
			check oil level											**x**			
		botto m light materi al convey or gland	check stuffing gland & top up														

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
	WEG	drive	inspection of insulation levels, temperature rise, wear							x							
	Siemens	drive	bearing replacement					40,000								x	horizontal coupling operation replacement of the bearings is recommended after only 12 months of storage
			bearing replacement					20,000									with axial and radial forces replacement of the bearings is recommended after only 12 months of storage
	Biwater		visual check of hold down blocks											x			
			inspection of the peripheral liners, replace when necessary						90								

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			examine the stuffing box for leaks and the packing replenished as required						90								
			check gearbox for correct level of oil			x											
			check that all moving elements are completely enclosed and that all guards/covers are in place and secure			x											
			check GMU securing bolts			x											
			check all tanks, conveyor troughs and air pipework for leaks							x							

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			check the oil level in the Siemens/ Danfoss and Aerzen drive units and top up as necessary							x							
			check Blower drive belts for wear/ damage, replace as necessary								x						
			inspect the scraper rubbers for wear and renew as necessary											x			
			inspect the paddle boards for damage and renew as necessary											x			
			check all the drive units for oil leakage at the seals, if necessary replace the seal											x			
			change the oil in the drive units												x		

Maintenance Plan

Aerzen_Blower

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
	Aerzen	drive	checking, maintenance, cleaning, exchange bearings					**10,000**	**1,440**								exchange bearings upon request

Maintenance Plan

Deutz_MWM_CHP

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
8010	Deutz/MWM	chp engine 2016	oil sample for analysis							x							See Jenbacher maintenance schedule
8020	Deutz/MWM	chp engine 2010	oil change								#						# Period dependent on Oil Analysis results see maintenance schedule

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
General maintenance remarks		overall unit	visual controls and the observance of the maintenance schedule are required for operational readiness and operating safety of the plant. Attention should be paid to wear, corrosion and mechanical damage during visual control. Settings should correspond to the original adjustment. All maintenance work prescribed in the maintenance schedule and in the description of components are to be carried out acc. to the instructions and stipulated intervals. Check functioning and mobility correspondingly to components						1								
4410 AA05 23 4410 A05 20 4410 A10 91 4410 A15 91 4410 A20 20 4410 A25 20 4410 A30 20 4410 A35 20 4410 A40 20 4410 A50 91 4410 A51 20 4410 A52 21 4410 A53 91 4410 AR50 150 4410 A54 91 4410 A55 20 4410 A56 22 4410 A57 90 4410 A58 90 4410 A59 92 4410 A60 20 4410 AR60 150 4410 A61 21 4410 A90 90 4410 A91 91 4410 A92 91 4410 A93 90 4410 AY05 290		Valves/ Return-flaps/ Safetey valve/ Drainage	Operational inspections should be performed at least twice per year, or as called for by trap operating conditions. Steam trap failure may result in a temperature drop in the equipment, poor product quality or losses due to steam leakage. If drawings or other special documentation were supplied for the product, any torque given there takes precedence over values shown here. NEVER apply direct heat to the float. The float may explode due to increased internal pressure, causing accidents leading to serious injury or property and equipment damage. • Installation, inspection, maintenance, repairs, disassembly, adjustment and valve opening/closing should be carried out only by trained maintenance personnel. • Before attempting to open the trap, close the inlet and outlet isolation valves and wait until the trap has cooled completely. Failure to do so may result in burns. • Be sure to use the proper components and NEVER attempt to modify the product. Body, Cover: Check inside for damage, dirt, grease, oil film, rust or scale Gaskets: Check for warping or damage X-element: Check for damage Screen: Check for clogging, corrosion or damage, Check for deformation, damage, oil film or water inside, Check for rust, scale, oil film, wear or damage										x				

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
4410 W10 441		Water chiller	check for any alarm signals						x								Reference to supplier documentation
			check that the water outlet temperature is within the envisaged range						x								
			check that the water inlet temperature is in accordance with the value used for selecting the unit								x						
			in units with hydraulic group, check that the pressure in the tank (with pump stopped, if present) is at least 0,5 bar with the circuit closed								x						
			in units with hydraulic group, check that the difference between the discharge and the suction pressure of the pump								x						
			(measured on the manometer with the pump stopped) is within expected limits and, in particular, that it is not lower than the value corresponding to the maximum flow capacity								x						
			clean the water filter. We recommend to clean the filter after a week from the unit starting											x			
			check that the liquid indicator(if present) is full or with a small stream of bubbles when the compressor is running											x			
			check that the unit current absorption is which the values on the data plate											x			
			carry out visual inspection of refrigerant circuit, looking out for any deterioration of the piping or any traces of oil which might indicate a refrigerant leak											x			
			check the condition and security of piping connections											x			
			check the condition and security of electrical connections											x			
			using a spanner, check that the connections between the compressor inlet and outlet pipelines have not slackened											x			
			check that the ambient air temperature is within the unit capacities. Check that the environment is well ventilated								x						
			check that fan is automatically switched on. Thoroughly clean the fins of the condenser with soft brush and / or jet clean compressed air. Check that the grilles of the unit are free from dirt and any other obstructions											x			
			clean condenser fins with a mild detergent												x		

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
4410 V50 220 4410 V60 220		Gas booster including drive	fire dampers/ Shut-off-damper fulfill a very important function and must therefore be maintained continuously and inspected. The bearings are made of stainlesssteel shaft (DIN 1.4571) which turns in a bush made of the same material with a loose fit. Lubrication is not required											x			Reference to supplier documentation
			an operational check must be undertaken every 6 months whereby the triggering mechanism is activated many times one after another and the quick smooth closure is checked											x			
			the bearings are to be inspected and cleaned if dirt or crusts with salt was observed due to effect of sea water, for e.g. by washing out or with compressed air													x	
			during painting, care has to be taken that the paint does not adversely affect the movement of the flaps and the control devices. All components must be inspected for their efficiency after a fire. It must be checked whether delays can adversely affect the density or the smooth movement. The functioning of triggering device is to be carefully inspected													x	
			fire dampers/ shut-off-dampers with manual activation											x			
			the smooth movement of flap and the handle for arresting the hand lever are to be inspected. The manual operation can be provided exclusively or in addition to the automatic triggering. Additional hand operation has a hand lever with tappet profile which allows closure which is independent of the automatic triggering													x	
			fire dampers / shut-off-dampers with fusible link											x			
			the fusible link melts and the fire damper is closed due to spring force when achieving the triggering temperature. The plunger pin releases the catch on the adjusting element, the damper blade falls in the closing direction and is locked by the locking pin in the "CLOSED" position													x	
			the functioning test is undertaken by pressing the red button. This brings about a thermal triggering. To check the fusible link, the inspection flap is removed and the fusible link is removed from the triggering device. In case no external damages are visible, tighten spring again and re-use the fusible link. If the fire damper is used again in the operation, a new fusible link must be used in the duct. Subsequently, the locking pin is pulled out and the hand lever is moved to the “OPEN” position. The plunger pin presses again into the catch for locking in this position													x	
			fire dampers/ shut-off-dampers with pneumatic opening											x			

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			it is to be inspected whether the flap is closed due to spring force in case of pressure loss of compressed air cylinder. The closing can be undertaken by: 1. The temperature in the duct reaches the pre-set temperature, the valve is actuated. 2. Activation of hand valve on the fire damper. 3. Interruption of power supply of magnetic valve, i.e. through electrical temperature switches on the fire damper, halogen releaser, emergency stop switch or failure in the electrical supply. 4. Activation of main valve on the control system. 5. Leak in the compressed air supply													x	
			the flap is closed by a spring which is in-built in the compressed air cylinder. The system pressure should be checked. It must be 6 to 10 bar. Falling below or exceeding the operational pressure leads to malfunctioning. The extended pneumatic cylinder rods must be cleaned at regular intervals and can be lubricated with a thin film of acid-free grease. The cylinder rod seal is made of self-lubricating material. The filters of the pneumatic air system are to be checked simultaneously for dirt and if necessary, replaced. The filter casing is to be cleaned and drained													x	
			fire dampers/ battery doors with electrical opening											x			
			check whether the spring which is in-built in the servo-motor closes the flap in case of voltage loss. This can take place by: 1. The temperature in the duct reaches the pre-set temperature. 2. Switching off power supply. 3. Fault in power supply													x	
4510 AA10 50		solenoid valve	in order to ensure smooth operation: check the tightness and function of thesolenoid valve every year, or every six months if operated with biologically produced methane. Disconnect the system from the electrical power supply. Shut off the gas supply. Cleaning the strainer If the flow rate is ok, see checking tightness and function. If the flow rate has dropped, clean the strainer. Checking Tightness and function. Checking Tightness and function in order to determine wheter the VAS ist tight and closes secureely, check the internal and external tightness. Check electrical installations in line with local regulations; pay particular attention to the PE wire.											x			Reference to supplier documentation

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
4410 V70 660		fan machinery room motor for fan	before starting maintenance work, the fan must be completely separated from mains to prevent danger caused by live and rotating parts. Secure the fan against accidental restarting. This is the case especially if the switch for the fan is attached at a distance from the fan, e.g. in the case of roof fan DZD. • Cleaning: The device must be checked regularly for soiling and cleaned, if necessary, especially after a long standstill. The terminal box may be cleaned using only a damp cloth. The fan and its components must be checked regularly. Here, pay special attention to – free flow in the air channel – the effectiveness of the protective screens – maintenance of the permitted temperatures – the quietness of running of the ball bearings – secure attachment of the cables in the terminal box – possible damage to the terminal box, cable glands, stopping plugs and cables – secure layout of the cables										x			Reference to supplier documentation
4710 MQ05 430		transmitter CH4	we recommend to keep EN 50073 and national regulations (or German BG Chemie-Information BGI 518) Test Gas (Zero Point) : Ambient air (free from measured gas) or synthetic air Test Gas (Sensitivity) : Concentration in the middle of measuring range or slightly above highest alarm level 0.4 to 0.8 Vol.-% propane in air (adjustment to be clarified with ExTox) Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum.										x			Reference to supplier documentation
		transmitter O2	we recommend to keep EN 50073 and national regulations (or German BG Chemie-Information BGI 518) as well as EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836) Test Gas (Zero Point) : Nitrogen Test Gas (Sensitivity) : Ambient air (20.9 % (v/v) oxygen) Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 60s										x			Reference to supplier documentation
		transmitter H2S	we recommend to keep EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836) Test Gas (Zero Point) : Ambient air (free from measured gas) or synthetic air Test Gas (Sensitivity) : Hydrogen Sulphide, Concentration in the middle of measuring range or slightly above highest alarm level Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 120 s										x			Reference to supplier documentation

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
		transmitter CO2	regularly according to regulations to be applied, otherwise adapted to the environmental conditions. We recommend to keep EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836). Test Gas (Zero Point): Nitrogen, synthetic air Test Gas (Sensitivity): Carbon Dioxide, Concentration in the middle of measuring range or slightly above highest alarm level Test Gas Application: 0.5 to 1 l/min by means of ExTox-Calibration-Adapter for minimum 90s												x		Reference to supplier documentation
4410 MQ 10 4410 MQ 15		gaswarning transmitter	the sensor elements of gas detection systems are unfortunately subject to ageing and consumption which depend very much on the environmental operating conditions. By the way, this is the reason for excluding the sensor elements from warranty. Each transmitter is adjusted by ExTox before being supplied. The results of this test are recorded on the transmitter test certificate which is attached to each delivery. Maintenance done by specialists is an indispensable measure for checking and keeping the functionality of gas detection systems. Maintenance comprises inspection, calibration and adjustment as well as functional test of the complete gas detection system. ExTox recommends for all of her supplied transmitters maintenance including calibration and adjustment with test gas minimum once a year. Please pay attention to the details on the Data Sheets. Furthermore national valid regulations to define maintenance intervals may exist. In Germany it is for example necessary in certain applications to keep the information of the professional associations BGI 518 and BGI 836 (see 4). ExTox recommends generally speaking the application of the measures described in the information of the professional associations as well as the maximum calibration intervals even if the application does not fit into their You as user of the gas detection system bear the responsibility for the correct performance of the maintenance. ExTox as											x		Reference to supplier documentation

Maintenance Plan

HET_Gasbooster station

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
4710 MQ05 430		gas Analysis	the following descriptions are generally valid for Gas Detection Systems of the company ExTox GmbH consisting of the herein described control units and connected transmitters. Maintenance done by specialists is an indispensable measure for checking and keeping the functionality of gas detection systems. Maintenance comprises inspection, calibration and adjustment as well as functional test of the complete system. Most important is the testing of the connected transmitters. Control of the gas detection system and its correct functionality are also checked. ExTox recommends for all of her supplied transmitters regular calibration and adjustment with test gas. Please see also the details in the corresponding Technical Data Sheets. An extension to 12 months might eventually be possible in case of existing experiences on similar applications. The functionality of the Control Unit has to be tested as well. Furthermore national valid regulations to define maintenance intervals may exist. In Germany it is for example necessary in certain applications to keep the information of the professional associations BGI 518 and BGI 836 (see 6). ExTox recommends generally speaking the application of the measures described in the information of the professional associations as well as the maximum calibration intervals even											x				Reference to supplier documentation

Reko_K&K_Conveyor

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1010 H05 4602 1012 H05 4604 1110 H05 4606 1110 H10 4608 1110 H15 4610 1110 H20 4502 1110 H25 4702 1110 H30 4702 1110 H35 4702 1110 H40 4704 1310 H05 4612 1410 H05 4614 3010 H05 4504 3020 H05 4506	REKO K&K Kühne	Drive	keep cooling surface and air slit clean	x				40		x							
			maintenance as instructions of the manufacturer	x				40		x							follow the manufacturers' instructions
		Chains	check for wear	x				160			x						
			check chain and chain tension	x				160			x						
			lubricate chain	x				160			x						
		Chainwheels	check for wear	x				960						x			
		Chain guidance	check for wear	x				160			x						
		Belt	look out for damage to the belt	x			x										
			check belt tension	x				160			x						
		Bearings	lubricate with lub gun	x				320				x					
		Frameworks	check bolted connections	x				480					x				
		Tension spindles	check bolts	x				160			x						
			clean and lubricate threaded spindle	x				480					x				
		Carrier	check for a solid fit	x				160			x						
			check for wear	x				160			x						
		reversing castors,support rollers, lower belt rollers	remove material caking	x			x										
			check bolts	x				480					x				
			check free movement	x				160			x						
		Tension station, Tail pulley	remove material caking from drum / remove material caking	x				40		x							
			check bolts	x				480					x				
			relubricate bearings	x				320				x					
			clean and lubricate threaded spindle	x				480					x				

Reko_K&K_Conveyor

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
			clean and lubricate threaded spindle	x				160			x						
		Drive drum	remove material caking and foreign objekts	x				40		x							
			check bolts	x				480					x				
			relubricate bearings	x				320				x					
			check wear of the friction lining	x				480					x				
		Scraper	check for wear	x				160			x						
		Side strip rubber	check for wear	x				40		x							
			clean when dirtied	x													
		Under belt cover	clean when dirtied	x			X										
			renew damaged tarpaulin	x				160			X						

HEC

Maintenance Plan

Flottweg_Decanter

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
3010 S05 5002 3020 S05 5002	Flottweg	drive	check belt tension and tighten if necessary			x				1							weekly during 1st month
		housing	check housing inside and outside for deposits and clean if necessary			x		1,000									
		entire unit	check for irregular vibration/ noise						1								
		grease lubrication	apply grease pump 2 times						1								
		housing	check hazard areas, covers and protection against contact; refurbish if necessary						1								
		grease lubrication	check lines for lubrication for damage							x							
		housing	check housing for tightness							x							
		compensators	check for leakage							x							
		control cabinet	check cabling for power and control for damage							x							
		drive	check belt tension and tighten if necessary								x						
		grease lubrication	check level in the grease reservoir and re-fill if necessary									x					
		gear box	check gear box for tightness and arrange refurbish if necessary									x					
		rotor	check wear protection at solids discharge for wear and exchange if necessary									x					
		grease lubrication	discharge grease collector										x				
		housing	check housing inside and outside for deposits and clean if necessary										x				
		drive	check elastic elements for deformation											x			

HEC

Maintenance Plan

Flottweg_Decanter

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
		drive	check rubber pads for damages and replace if necessary												x		
		drive	replace V-belts					**4,000**							x		
		grease lubrication	check for tightness (pump and distributor)												x		
additional 1 year service must be carried out by authorized Flottweg Service																	
		drive	replace rubber pads													**3 years**	
		compensators	replace compensators													**3 years**	
additional 3 years service must be carried out by authorized Flottweg Service																	
additional 6 years service must be carried out by authorized Flottweg Service																	

HEC

Maintenance Plan

Boge_Compressor

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
7510 V 05 4902 7520 V 05 4902	Boge	Compressor	Oil level						1								
			Oil filter					2,000									
			Separator					4,000									
			Belts					4,000									
			Inlet valve svs					8,000									
			MPV svs					8,000									
			Thermo valve					8,000									
			Check brgs												x		
			Oil change					2,000									
			Air end					40,000									
			Clean cooler												x		
		Dryer + Filters	Replace pre filt												x		
			Replace after filt												x		
			Check all drains							x							
			Service all drains												x		
			Replace control filter												x		
			Replace moisture ind												x		
			Replace desiccant					40,000									
		Oil/water separator	Replace cartridge												x		

HEC

Maintenance Plan

Komptech_Sandtrap

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1110 F05 5102	Komptech	Steel construction	checking screw connection												x		
			checking lacquer												x		
		Screen deck	bevel gear drive motor: checking and lubrication, oil level, seals, firmly seated											x			
			motor: cleaning Ventilator shroud, cool-ing fins						1								
			checking promiximity switch: firmly seated											x			
			screen stars: checking wear & tear, cleaning							x							before and after every start-up
			roller chain: checking sadding-wear & tear, cleaning								x						
			roller chain: lubrication					40		x							
			pedestal bearing & lubracting block: checking firmly seated,					40		x							

HEC

Maintenance Plan

Lohse_Slide valve

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1010 AA15 1279 1010 AA20 1283 1010 AA25 1284 1020 AA15 1279 1020 AA20 1283 1020 AA25 1284 1030 AA15 1279 1030 AA20 1283 1030 AA25 1284	Lohse	discharge slide valve	visual inspection about leackage	x					1								
	Lohse	discharge slide valve	inspection packing	x				500									
	Lohse	discharge slide valve	lubrication sealing rings and valve plate	x							x						
	Lohse	discharge slide valve	lubrication pneumatic cylinder barrel	x													as necessary

HEC

Maintenance Plan

Lohse_Waste pulper

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval											notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1010 R05 4402 1020 R05 4402 1030 R05 4402	Lohse	rotor motor	visual inspection running noise inspection	x						x							
			grease lubrication	x				3,000									
		discharge slide valve	visual inspection about	x						x							
			inspection gasket	x				500									
		deflector angle	visual inspection wear and fastening	x										x			
		ripper teeth	visual inspection wear and fastening	x						x							
		ceramic lining on the conical base	visual inspection wear and fastening	x							x						
		rotor bearing	gasket tighten	x										x			
		v-belt	v-belt tension inspection and tightening	x				500									

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
2010 A50 1121 2110 A50 1121 2120 A50 1121 2130 A50 1121 3220 A05 1116 3220 A10 1104 3222 A05 1104	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				
4110 A10 1120 4110 A11 1120 4110 A20 1120 4110 A21 1120 4110 A30 1120 4110 A31 1120 5310 A06 1104 5310 A07 1104 5310 A08 1104 5310 A09 1104	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
6010 A05 1116 6010 A10 1116 6010 A15 1120 6010 A20 1120 6010 A25 1124 6010 A30 1116 6010 A40 1104 6010 A45 1120 6011 A05 1124 6011 A10 1116 6011 A15 1104 6011 A20 1104 6011 A25 1104 6011 A30 1104 6011 A35 1104 6011 A40 1104 6011 A50 1104 6011 A55 1116	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				
6012 A10 1112 6012 A11 1112 6012 A20 1112 6012 A21 1112 6012 A30 1104 6012 A40 1116 6012 A45 1116 6012 A50 1104 6012 A55 1104 7110 A05 1112 7110 A30 1112	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
7111 A05 1112 7111 A20 1112 7111 A25 1112 7111 A40 1112 7112 A05 1112 7112 A20 1112 7112 A25 1112 7112 A40 1112 7113 A05 1112 7113 A20 1112 7113 A25 1112 7113 A40 1112	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				
7210 A01 1110 7210 A03 1110 7210 A20 1108 7210 A21 1104 7210 A22 1104 7210 A23 1104 7210 A24 1104 7210 A25 1104 7210 A26 1104 7210 A27 1108 7210 A28 1108 7210 A29 1108 7211 A10 1106 7211 A15 1106 7212 A10 1106 7212 A15 1106	Ebro	Z011A	a valve remaining permanently in the same position should be opened and closed										x				

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1010 AA10 1268 1020 AA10 1268 1030 AA10 1268 1310 AA05 1272 1310 AA15 1272 1310 AA50 1254	Ebro	gate valve	visual inspection						1								
1311 AA10 1264 1311 AA11 1264 1311 AA12 1268 1311 A10 1220 1410 A70 1216			full scale manoeuvre test											x			
2010 A05 1222 2010 A15 1204 2010 A25 1204 2010 A30 1216 2010 A35 1216 2010 A40 1218 2010 A45 1218 2011 AA05 1264	Ebro	gate valve	visual inspection						1								
2011 AA10 1262 2011 AA15 1254 2011 A05 1216 2011 A10 1212 2012 AA05 1264 2012 AA10 1262 2012 AA15 1254			full scale manoeuvre test											x			

HEC

Maintenance Plan

Diverse

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
2110 A05 1214 2110 A10 1214 2110 A15 1216 2110 A20 1216 2110 A25 1216 2110 A40 1218 2110 A45 1218 2111 AA05 1264 2111 AA10 1262	Ebro	gate valve	visual inspection						1								
2111 AA15 1254 2111 AA20 1264 2111 A05 1216 2119 AA05 1264 2119 AA10 1262 2119 AA15 1254			full scale manoeuvre test											x			
2120 A05 1214 2120 A10 1214 2120 A15 1216 2120 A20 1216 2120 A25 1216 2120 A40 1218 2120 A45 1218 2121 AA05 1264 2121 AA10 1262	Ebro	gate valve	visual inspection						1								
2121 AA15 1254 2121 A05 1216 2129 AA05 1264 2129 AA10 1262 2129 AA15 1254 2129 A05 1216 2129 A10 1212			full scale manoeuvre test											x			

HEC

Maintenance Plan

Diverse

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
2410 A20 1224 2410 A25 1216 2410 A30 1216 2410 A35 1216 2410 A40 1216 2410 A45 1206 2410 A50 1204 2411 AA05 1264 2411 AA15 1262 2411 AA20 1254 2412 AA05 1264	Ebro	gate valve	visual inspection						1								
2412 AA10 1262 2412 AA15 1254 2420 A20 1224 2420 A25 1216 2420 A30 1216 2420 A35 1220 2420 A40 1206 2420 A45 1204 2421 AA05 1268 2421 AA10 1254 2421 AA15 1264			full scale manoeuvre test											x			
2430 A45 1204 2431 AA05 1268 2431 AA10 1254 2431 AA15 1264 2431 AA20 1264 2431 A20 1216	Ebro	gate valve	visual inspection						1								
2431 A25 1216 3221 AA05 1264 6011 AA05 1272 6012 AA02 1264			full scale manoeuvre test											x			

HEC

Maintenance Plan

Diverse

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
7510 T05	Boge	adsorbtion dehumifidier	check the residual pressure in the towers during the regeneration with the manometer							x							
			check the differential pressure gauge from the pre- and after filter at filter monitor							x							
			check the automatically condensate drain at the pre-filter. The condensate must be discharged							x							
			visual check of the moisture indicator							x							
			replace the filter cartridges from the pre- and after filter					6,000							x		
			replace the filter cartridge from the control air filter					6,000							x		
			replacement of desiccant						1,800								
			replace moisture indicator					6,000							x		
			replace O-Rings					6,000							x		
			replace the purge muffers					6,000							x		
			replace check valve						1,800								
7510 U10	Boge	separator	wastewater test							x							
			change filter					3,000									
			check of oil collector							x							
			oil collector replacement							x							
			check of level indicator							x							
			ckeck of leaks							x							
			clean of dirt collector											x			
			check of oil outlet											x			
			general cleaning												x		
			replace main filter cartridge					3,000									

HEC

Maintenance Plan

Diverse

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
7520 V05 4902	Boge	screw compressor	maintain the drive belts					**1,000**									
			check the air filter					**1,000**									
			clean the cooler					**1,000**									
			cooler: clean the filter mat					**1,000**									
			control cabinet: clean the filter mat					**1,000**									
			change the air filter element					**2,000**									
			cooler: change the filter mat					**2,000**									
			control cabinet: change the filter mat					**2,000**									
			change the oil filter					**2,000**							**x**		
			change the oil separator cartridge					**4,000**							**x**		
			change cooling oil														varaible, see O&M
			check that all electrical connections are tight												**x**		
			check the pressure relief valve												**x**		
			check the overheating safety shutdown function												**x**		
			check the cooler for leaks												**x**		
			maintain the heat recovery system												**x**		
			change air filter cartridge					**3,000**									
			change fluid filter					**3,000**									
			have the valves checked					**12,000**									
			check the drive motor bearings					**12,000**								**x**	every 3 years
			have hose lines replaced					**36,000**								**x**	every 6 years
1310 V05 4102	Aerzen	blower	retaining screws and fittings					**3**									
4110 V10 4104			started strainer					**500**									
4110 V20 4104			intake filter							**x**							

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
4110 V30 4104			replace filter insert					**8,000**							**x**		
			air intake/air exhaust openings					**1,000**						**x**			
			condition of V-belt			**25**		**500** **8000**						**x**			
			v-belt pulley alignment			**3**		**25** **500** **8000**						**x**			
			pressure valve			**3**		**1,000**			**x**						
			oil level			**3**		**25**		**x**							
			lubricating oil					**500**						**x**	**x**		
			grease					**500**						**x**	**x**		
			non return valve					**8,000**							**x**		
			main inspection					**8,000**							**x**		
1310 V05 4102	Aerzen	blower	cleaned regularly along the whole direction of cooling air													**x**	Depending on contamination the motors are to be
			checking, maintenance, cleaning and new greasing of the bearing by trained specialist staff. Upon request, an exchange of the bearings has to be carried out					**10,000**	**1,440**								
4110 V10 4104 4110 V20 4104 4110 V30 4104	Aerzen	blower	cleaned regularly along the whole direction of cooling air													**x**	Depending on contamination the motors are to be
			checking, maintenance, cleaning and new greasing of the bearing by trained specialist staff. Upon request, an exchange of the bearings has to be carried out					**10,000**	**1,440**								

HEC

Maintenance Plan

Diverse

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
1110 H40 4704	Getriebebau Nord	drive	visual inspection											x			
			check for running noises											x			
			check oil level											x			
			re-grease											x			
			replace automatic lubricator											x			
			change oil					10,000	720								
			general overhaul						3,600								
1110 H25 4702 1110 H30 4702 1110 H35 4702	Getriebebau Nord	drive	visual inspection											x			
			check for running noises											x			
			check oil level											x			
			re-grease											x			
			replace automatic lubricator											x			
			change oil					10,000	720								
			general overhaul						3,600								
6010 R05 4410	E.Bielefeld GmbH (Grundfos)	agitator/pw-tank (S4660)	inspection					4,000						x			
			general overhaul					50,000	3,600								
			inspection					4,000						x			
			general overhaul					50,000	3,600								
1311 P10 4002 2119 P05 4004	Hidrostal	bearing pump with compact	visual Checks of the Pump Unit	x				500									
2129 P05 4004			check for wear of the coupling	x											x		
2421 P05 4006 2431 P05 4006 7810 P05 4040			check Oil Condition	x				500									
2011 P05 4008 2012 P05 4008 2111 P05 4008	Vogelsang	rotary pump	check the buffer/quenching fluid for visible contamination			20		200									
2121 P05 4008 2131 P05 4010			change the buffer/quenching fluid					2,000									

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
2411 P05 4008			check the gearbox oil					**500**					**x**				
2412 P05 4008			change the gearbox oil			**20**		**2,000**									
2421 P10 4010 2431 P10 4010			greasing of sealing prechamber			**x**										**x**	Before and after a longer period of removing from service (2-3 weeks)
1311 Z10 4205 2421 Z05 4210 2431 Z05 4210	Vogelsang	rotacut	check cutting blades - adjusting of preload (abrasive)					**4** **12**									
			check cutting blades - adjusting of preload (normal)					**8** **120**									
			check cutting blades - adjusting of preload (easy)					**8** **240**									
			change the cutting blades													**x**	If the blades are worn to the extent that the gap between the blade rotor and the cutting screen is less than 2 mm
			check the buffer fluid			**x**		**5** **100**									
			change the buffer fluid					**2,000**									
			control foreign matter							**x**							
			check for waer and corrosion							**x**							
			andjust the RotaCut cover							**x**							
5311 P05 4012 5312 P05 4012	Netzsch	progressive cavity pump	check the drive motor and bearings					**5,000**	**720**								
			cleaning all parts					**5,000**	**720**								
			greasing/lubrication pump					**5,000**	**720**								

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
2010 R05 4404 2110 R05 4406 2120 R05 4406 2130 R05 4406	PRG	motor	check for unusual noises	x			x										Instructed person
			ceneral overhaul	x				**20,000**	**1,080**								
			check terminal locations, terminals and ventilating passages	x												Varying (depending on external	
		gear	check for unusual noises	x			x										instructed personal
			check for leaks	x			x										
			check the housing temperature: max. 100℃	x			x										
			check the oil level	x							x						
			check the oil consistency	x				**3,000**									
			check whether retaining screws are tightly secured / Check the condition of the oil cooling system / Clean oil filter / Check the breather valve / Check all rubber hoses for their condition and any leaks / Check all screws fittings and pipes for any leaks	x											x		
			clean the gear housing surface / Touch up or renew the surfaces / anticorrosion coating	x												Varying (depending on extern	
		stirred product	check viscosity	x	x		x										
		rubber seal between container and agitator	check fastening torque	x							x						instructed personal

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
		agitator	check for signs of wear	x				20,000	1,080								specialist personal
			visual inspection for corrosion effects	x				20,000	1,080								instructed personal
		welding seams in contact with product	check for surface cracks	x				20,000	1,080								specialist personal
		Impellers, agitator shaft	clean, if bad runing performance was not noted before.	x				20,000	1,080								instructed personal
		screw connections	check firm attachment	x				20,000	1,080								instructed personal
		roller bearing	replace	x				20,000	1,080								specialist personal
		potential equilibration	control Immediately replace when damaged	x				20,000	1,080								electrician
		water cup and supply pipes	adapt to the wheater, prevent freezing	x			x										specialist personal
		stirred product	check viscosity	x	x		x										instructed personal

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	
5110 B05 1070 5110 B10 1060	Weber	Tank	visual check (leckage) of tank and pipes	x						x							
5410 B05 1070 5410 B10 1062 5510 B05 1064	Weber	Overfill sensor	functional test	x										x			
	Vega	Level measurement	functional test	x										x			
5110 ML05 3204 5110 ML10 3260 5110 ML15 3256 5410 ML05 3208	Weber	Lekage sensor	functional test	x										x			
	Weber/Lutz	Dosing pump	visual check (leckage) of valves and pipes	x						x							
		dosing cabinets - pulsation damper	visual check (leckage)	x						x							
			pressure test with water	x					720								

Position No./TAG No.	Manufacturer	Component	work to be performed	Location		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a jear	yearly	other	

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Monday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Gas booster station	Flooring	Broom / Spade / Damp cloth		
AD	Gas booster station	Pipe work, compressors and ancillaries	Damp cloth / Cloth		
AD	Hot water manifold	Flooring	Damp cloth		
AD	Hot water manifold	Pipe work, compressors and ancillaries	Damp cloth / Cloth		
AD	Dewatering	Cesspit	Bucket / Container		
Dry MTP	Areas around bag opener	Flooring	Broom / Spade		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Outside compactor area	General equipment and housekeeping	Damp cloth / duster		
AD	Wet MTP	Cleaning of 2C12 conveyor	Broom / Spade / Damp cloth / duster		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Tuesday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		
Dry MTP	Areas around rejects shoot	Flooring	Broom / Spade		
Dry MTP	Areas around bag opener	Flooring	Broom / Spade		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Rejects and compactors area	Flooring	Broom / Spade		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Outside compactor area	Flooring	Broom / Spade		
AD	Wet MTP	Cleaning of 2C12 conveyor	Broom / Spade / Damp cloth / duster		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Wednesday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Dewatering	Flooring	Water jetting / broom / spade		
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		
Dry MTP	Areas around bag opener	Flooring	Broom / Spade		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
AD	Wet MTP	Cleaning of 2C12 conveyor	Broom / Spade / Damp cloth / duster		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Thursday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Dewatering	Cesspit	Bucket / Container		
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		
Dry MTP	Areas around rejects shoot	Flooring	Broom / Spade		
Dry MTP	Areas around bag opener	Flooring	Broom / Spade		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Outside compactor area	Flooring	Broom / Spade		
AD	Wet MTP	Cleaning of 2C12 conveyor	Broom / Spade / Damp cloth / duster		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Friday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Dewatering	General equipment, piping and housekeeping	Damp cloth / duster		
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		
Dry MTP	Areas around bag opener	Flooring	Broom / Spade		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
AD	Wet MTP	Cleaning of 2C12 conveyor	Broom / Spade / Damp cloth / duster		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Saturday**

Shift : **PM**

Section	Location	Area	Method	Tick if satisfied	Notes
AD	Dewatering	Flooring	Water jetting / broom / spade		
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		

Other work performed:

Personnel available:	Name of responsible person:
	Signature of responsible person:
	Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Monday**

Shift : **AM**

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	Pumps, pipe work, compressor unit, conveyors and ancillaries	Broom / wet cloth / damp cloth		
AD	Switch room	Flooring	Broom / Spade		
AD	CHP 1 and 2	Flooring	Broom / Spade / Damp cloth		
AD	CHP 1 and 2	Cabinets	Duster / Damp cloth		
AD	Laboratory	Flooring, tables, cabinet and garbage	Damp cloth / Cloth / Replacement of garbage bag		
AD	Onsite office	Flooring, tables and cabinet	Damp cloth / Cloth		
AD	MBT 4	MBT 4 flooring and cabinets	Broom / Spade / Damp cloth		
AD	Dewatering	General equipment, piping and housekeeping	Damp cloth / duster		
AD	Composting area	Flooring (removing of stagnant waters)	Squeegee		
Dry MTP	Ballistic	Equipment cleaning of ballistic separator	Broom / Spade / Others		
Dry MTP	Screen	Equipment cleaning of screen	Broom / Spade / Others		
Dry MTP	Bag Opener	Equipment cleaning of bag opener	Broom / Spade / Others		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Tuesday**

Shift : **AM**

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	Outside (heavies area and garage door)	Water jetting / broom / spade		
Wet MTP	Wet MTP	Floor, gullies, cesspits	Water jetting / broom / spade		
AD	Areas around the boiler, generator, RTOs, Air handling systems	Flooring	Broom / Spade		
AD	Areas around the boiler, generator, RTOs, Air handling systems	General equipment and housekeeping	Damp cloth / duster		
AD	Areas around aeration tanks, gas bubble, process water tank	Flooring	Broom / Spade		
AD	Areas around aeration tanks, gas bubble, process water tank	General equipment and housekeeping	Damp cloth / duster		
AD	MBT 5	MBT 5 flooring and cabinets	Broom / Spade / Damp cloth		
AD/MTP	Roads	Roads around plant	Sweeper		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Wednesday**

Shift : **AM**

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	Walkways	Wet cloth		
Wet MTP	Wet MTP	Mixers (top and bottom)	Water jetting / broom / wet cloth / damp cloth		
AD	Digester pit	Flooring	Broom / Spade		
AD	Digester pit	General equipment, piping and housekeeping	Damp cloth / duster		
AD	Digesters	Walkways	Broom / Spade / Wet cloth		
Dry MTP	MTP motor panel	Flooring and cabinets	Broom / Spade / Damp cloth		
AD/MTP	Pavement and boundary cleaning	Flooring	Broom / Spade		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Thursday**

Shift : **AM**

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	Outside (heavies area and garage door)	Water jetting / broom / spade		
Wet MTP	Wet MTP	Floor, gullies, cesspits	Water jetting / broom / spade		
Wet MTP	Wet MTP	General area housekeeping	Various		
AD	Laboratory	Flooring, tables, cabinet and garbage	Damp cloth / Cloth / Replacement of garbage bag		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Friday**

Shift : **AM**

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	MBT 1 flooring and cabinets	Broom / Spade / Damp cloth		
AD	Areas around the boiler, generator, RTOs, Air handling systems	Flooring	Broom / Spade		
AD	Areas around aeration tanks, gas bubble, process water tank	Flooring	Broom / Spade		
AD	Areas around aeration tanks, gas bubble, process water tank	General equipment and housekeeping	Damp cloth / duster		
AD	Aeration tanks	Walkways	Broom / Spade / Wet cloth		
AD	Digester pit	Flooring	Broom / Spade		
AD	Digester pit	Cesspit	Bucket / Container		
AD/MTP	Roads	Roads around plant	Sweeper		

Other work performed:

Personnel available:

Name of responsible person:

Signature of responsible person:

Date:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : Saturday

Shift : AM

Section	Location	Area	Method	Tick if satisfied	Notes
Wet MTP	Wet MTP	Outside (heavies area and garage door)	Water jetting / broom / spade		
Wet MTP	Wet MTP	Floor, gullies, cesspits	Water jetting / broom / spade		
Wet MTP	Wet MTP	Walkways	Wet cloth		
Dry MTP	MTP hall (general)	Flooring	Water jetting / broom / spade		
Dry MTP	Areas around rejects shoot	General equipment and housekeeping	Damp cloth / duster		
Dry MTP	Areas around bag opener	General equipment and housekeeping	Damp cloth / duster		
Dry MTP	Areas under MTP main conveyors and equipment	Flooring	Broom / Spade		
Dry MTP	Areas on 2nd level of the MTP (2C0 - Ballistic)	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Areas on 1st level of the MTP (2C2 - 2-5)	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Rejects and compactors area	Flooring	Broom / Spade		
Dry MTP	Rejects and compactors area	General equipment and housekeeping	Damp cloth / duster		
Dry MTP	Under 2C3, 2C4 and near by equipment	Flooring, general equipment and housekeeping	Broom / Spade / Damp cloth / duster		
Dry MTP	Outside compactor area	Flooring	Broom / Spade		
Dry MTP	Receiving area	General area housekeeping	Broom / Spade / Damp cloth / duster		

Other work performed:

WasteServ Malta Ltd

Cleaning Schedule MTP/AD

Sant Antnin Waste Treatment Plant

Day : **Saturday**

Shift : **AM**

Personnel available:	Name of responsible person:
	Signature of responsible person:
	Date: