

<b>Document Reference</b>	CUP-OP04 Maintenance Procedure
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<b>Adopted by:</b>	European Metal Recycling Limited
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<b>Version History</b>			
<b>Version</b>	<b>Type of Change</b>	<b>Date</b>	<b>Description of Change</b>
1.0	N/A	05/07/2021	Initial Draft
1.1	N/A	22/12/2021	Update following infrastructure and procedural changes
1.2	N/A	18/01/2024	Update following infrastructure and procedural changes
1.3	N/A	03/05/2024	Update with EMR business name after acquisition

## 1.0 PURPOSE

This document outlines the maintenance procedures followed by European Metal Recycling Limited (hereon referred to as EMR) to ensure the site fulfils the requirements of its Environmental Permit conditions.

### 1.1 Procedure Overview

This document details how EMR have implemented (and maintain) a plant and equipment maintenance regime. This document also provides clarification on the roles and responsibilities for the maintenance procedures.

## 2.0 SCOPE OF SITE MAINTENANCE

EMR proactively maintains the work environment and site infrastructure in accordance with the site's Environmental Permit conditions. The table below provides an overview of all areas covered within the scope of this procedure.

Please list all infrastructure, the quantity of those items, what pre-use checks take place if any, the type and frequency of inspection and the frequency of maintenance / calibration. Also include things such as site security fences, condition of buildings, concrete surfaces etc.

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
Super Chopper (x1)	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emerg stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Check Oil contamination indicator & cooler	Check for leaks, clear off oil cooler radiator & examine oil.
	3	Before Use / Daily / Start of Shift	Inspect Spacers	Clear any material build up
	4	Weekly	Check Hydraulic oil level	Top up as required. <i>Shell Tellus T68</i>
	5	Weekly	Check knife clearance.	Adjust / change as required.
	6	Weekly (Also 24hrs after adjustment)		Torque knife bolts
	7	Weekly		Sample check all bolt torques.
	8	Weekly		Clean oil cooler.
	9	Monthly	Inspect rotor for wear	Repair / replace as required.
	10	Monthly	Inspect mounting bolts	Tighten / replace as required
	11	500hrs. 3 weekly (24hr operation)		Grease main (70g) and thrust (25g) bearings.

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
				<i>Shell Albida EP2</i>
	12	Bi-annually		Replace pump unit oil filters
	13	3 Monthly 2 Monthly (24hr operation)	Inspect Pump unit accumulator	Adjust / repair as required
	14	6 Monthly 4 Monthly (24hr operation) (Also 200hrs after installation)	Inspect Torque Arm.	Adjust / repair as required
	15	Annually 9 Monthly (24hr operation) (Refer to oil sample results)	Sample oil	Replace Hydraulic oil. <i>Shell Tellus T68 – 450I</i>
Rasper (x1)	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emerg stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Open, clean and inspect housing.	
	3	Before Use / Daily / Start of Shift	Open, clean and inspect screen.	
	4	Before Use / Daily / Start of Shift	Housing – sidewall Check area including bearing protectors	
	5	Before Use / Daily / Start of Shift	Check water system	Adjust as necessary
	6	Before Use / Daily / Start of Shift	Inspect hopper rubber curtain	Replace if necessary.
	7	Before Use / Daily / Start of Shift	Check knife clearance.	Adjust / change as required. Change after 80 tonnes.
	8	24hrs after knife change	Check bolt torques.	Torque knife bolts.

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
	9	Before Use / Daily / Start of Shift		Sample check all bolt torques.
	10	Weekly	Lubrication	Grease all grease points as required
	11	Weekly	Check hydraulic oil level.	Top up as required. <i>Shell Telus T46/68</i>
	12	Monthly	Check Clutch Adjustment	Torque bolts to 65Nm
	13	Monthly	Check drive belt tension	Adjust as required
	14	Monthly	Inspect all parts for wear.	Repair / replace as required.
	15	Monthly	Inspect stationary and rotating wear rings	Thoroughly clean area. Repair / replace as required.
	16	Monthly	Inspect rotor for wear	Repair / replace as required.
	17	Annually	Inspect frictional parts of clutch assembly	Repair / replace as required.
	18	Annually	Remove flywheels and inspect slide bushings	Repair / replace as required.
	19	Annually (Refer to oil sample results)	Sample oil	Replace Hydraulic oil. <i>Shell Tellus T46/68 – 6l</i>
Granulator (x2)	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Open upper part, clean and inspect housing.	
	3	Before Use / Daily / Start of Shift	Open screen cradle, clean and inspect screen.	

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
	4	Weekly	Check hydraulic oil level.	Top up as required. <i>Shell Telus T46</i>
	5	Before Use / Daily / Start of Shift	Check knife clearance.	Adjust / change as required.
	6	Daily / Start of Shift		Torque knife bolts
	7	Before Use / Daily / Start of Shift	Inspect Hopper rubber curtains	Adjust / change as required.
	8	Before Use / Daily / Start of Shift	Inspect static knives	Turn static knives and adjust
	9	Before Use / Daily / Start of Shift		Sample check all bolt torques.
	10	Weekly	Inspect hinges	Grease hinges <i>Shell Albida EP2</i>
	11	Weekly	Inspect main bearing area	Grease main bearings (50g) <i>Shell Albida EP2</i>
	12	Weekly	Inspect flying knives	Replace as necessary
	13	Monthly	Inspect rotor	Adjust, repair, change as required.
	14	Monthly	Inspect motors	Grease motor nipples <i>Shell Albida EP2</i>
	15	Monthly	Inspect all wear parts	Adjust, repair, change as required.
	16	Monthly	Check drive belt tension	As per maintenance schedule
	17	Annually (Refer to oil sample results)	Sample oil	Replace hydraulic oil <i>Shell Telus T46 – 2l</i>

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
<i>Conveyors (multiple)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Inspect for damage	Report any damage to Supervisor
	3	Monthly	Check tracking	As per maintenance schedule
	4	Monthly	Inspect belly plates	Clear material
	5	Monthly	Inspect mounting bolts	Tighten / replace as required
	6	Quarterly	Belt inspection	Repair / replace as necessary
	7	Quarterly	Inspect bearings	Repair / replace as necessary
<i>Silo with screws (x2)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Open, clean and inspect housing.	
	3	3 Weekly	Inspect main bearing area	Grease all bearings <i>Shell Albida EP2</i>
	4	3 Weekly	Inspect hinges	Grease hinges <i>Shell Albida EP2</i>
	5	Monthly	Inspect motors	Grease motor nipples <i>Shell Albida EP2</i>
	6	Monthly	Inspect hatches	Replace hatch seals as required
	7	Monthly	Inspect mounting bolts	Tighten / replace as required

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
<i>Turbo Mill (x1)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Open, clean and inspect housing & screen.	
	3	Monthly	Inspect main bearing area	Grease all bearings <i>Shell Albida EP2</i>
	4	Monthly	Inspect hinges	Grease hinges <i>Shell Albida EP2</i>
	5	Monthly	Inspect motors	Grease motor nipples <i>Shell Albida EP2</i>
	6	3 weekly	Inspect blades	Rotate / replace
	7	6 weekly	Inspect Armour	Replace
<i>Classifiers (x2)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Inspect screens	Clean / replace parts as required
	3	Monthly	Sieve boat Inspection	Tighten, check & replace as required.
	4	Quarterly	Drive belt inspection	Adjust / replace
<i>360 Material Handling Grab (x1)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Inspect for damage	Report any damage to Supervisor
	3	Before Use / Daily / Start of Shift	Full Hydraulic function check	Complete check sheet



Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
	4	Before Use / Daily / Start of Shift	Full electrical function check (incl all lights)	Complete check sheet
<i>Forklift trucks (x2)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Inspect for damage	Report any damage to Supervisor
	3	Before Use / Daily / Start of Shift	Full Hydraulic function check	Complete check sheet
	4	Before Use / Daily / Start of Shift	Full electrical function check (incl all lights)	Complete check sheet
<i>Separator tables (x2)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Deck inspection	Remove check, clean & repair as required
	3	Before Use / Daily / Start of Shift	Inspect shoots	Repair / replace as required
	4	Weekly		Grease all lubrication points
	5	Monthly	Carriage inspection	Check, repair & replace parts as necessary
	6	Monthly	Motor compartment inspection	Clear material build up.
	7	Bi-annually	Air-intake inspection	Check PVC bag & repair / replace as necessary
<i>Sieve</i>	1	Before Use / Daily / Start of Shift	Mesh inspection	Disassemble, clean & replace as required
	2	Monthly	Inspect suspension	Check for damage and charge air as required

Infrastructure / Plant / Equipment	Number	Pre-Use Check	Inspection	Maintenance & Calibration
<i>Weigh scales (x2)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition and obstructions.</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Check calibration against master weight.	Reset if required.
<i>Site Drainage system and separator (x1)</i>	1	Before Use / Daily / Start of Shift	Check all level and blockage indicators.	Report any problems to supervisor
		Before Use / Daily / Start of Shift	Inspect all drain covers for blockages.	Report any problems to supervisor. Clear any visible blockages, dispose of waste correctly.
<i>LEV System (x1)</i>	1	Before Use / Daily / Start of Shift	Safety Inspection. <i>Incl guarding, condition, obstructions and emergency stop</i>	As per manufacturer guidance service intervals and site Planned Preventative Maintenance
	2	Before Use / Daily / Start of Shift	Inspect filter indicators	Change filters as required
	3	Before Use / Daily / Start of Shift	Inspect collector containers	Empty / replace as necessary
	4	Before Use / Daily / Start of Shift	Full function check	Report any problems to supervisor
	5	Before Use / Daily / Start of Shift	Stack inspection	Inspect for material
	6	Weekly	Ducting inspection	Replace / repair as required
	7	Quarterly	Filter bag inspection	Check for leaks
<i>PMT Systems</i>	1	Monthly	Check drive belt tension	As per maintenance schedule
	2	Monthly	Inspect mounting bolts	Tighten / replace as required
	3	Quarterly	Bearing / shaft inspection	Check for heat, leaks or damage

<b>Infrastructure / Plant / Equipment</b>	<b>Number</b>	<b>Pre-Use Check</b>	<b>Inspection</b>	<b>Maintenance &amp; Calibration</b>
<i>Security Fencing (x3)</i>	1	Before Use / Daily / Start of Shift	Inspect for condition and serviceability	Report any problems to EMR management.
<i>External Lighting (x4)</i>	1	Daily / Start of Shift	Inspect for condition and serviceability	Report any problems to EMR management.
<i>Vehicular and pedestrian gates (x3)</i>	1	Daily / Start of Shift	Inspect for condition and serviceability	Report any problems to EMR management.
<i>Yard floor condition</i>	1	Daily / Start of Shift	Inspect for condition and serviceability	Report any problems to EMR management.
<i>Workshop floor condition</i>	1	Daily / Start of Shift	Inspect for condition and serviceability	Report any problems to EMR management.

### 3.0 SITE INFRASTRUCTURE & MAINTENANCE PROCEDURE

The EMR Engineering Manager has implemented a Planned Preventative Maintenance regime considering safety, quality management and in accordance with equipment manufacturer inspection and servicing plans. Intervals are subject to change dependant on material type, load, quantity and other relevant factors.

#### 3.1 Plant Maintenance

All site equipment, both static & fixed is maintained with safety and equipment longevity in mind, as per manufacturer guidance service intervals. The Site Planned Preventative Maintenance Plan sets out baseline intervals. Equipment is only operated by suitably qualified, competent persons, whose qualifications and / or training documentation is kept on file by EMR. Servicing and maintenance are recorded on the Maintenance Register. All breakdowns are recorded on daily production reports along with the Maintenance Register. Breakdowns are recorded and tracked to identify trends. Trends and serious incidents are investigated to find root cause and eliminate future occurrences.

#### 3.2 Weekly Site Inspection Checks

All site equipment, both static & fixed, is regularly inspected, including “before use” checks. All records are stored on the Site Maintenance Register, maintained and managed by the EMR Engineering Manager. A list of regular equipment checks (by frequency and equipment type) can be found in the chart above.

Site drainage is inspected by the EMR Facilities and Compliance Manager weekly.

#### 3.3 Equipment & Plant Maintenance and Calibration

All plant, static and mobile, are inspected and maintained as per manufacturer instructions and guidance and the Site Planned Preventative Maintenance Schedule. EMR’s experienced Engineering Manager is responsible for ensuring all static & fixed plant is maintained as per Manufacturer warranty & service agreements. The EMR Engineering manager keeps records of all inspections and maintenance in accordance with the Site Planned Preventative Maintenance schedule.

## 4.0 ROLES AND RESPONSIBILITIES

The roles and responsibilities for upholding this procedure are as follows:

### 4.1 Engineering Manager:

The EMR Engineering Manager ensures that all procedures are adhered to and records kept. Records are accessible at all times.

### 4.2 Site Operatives:

Site operatives are responsible for “before use” safety and functional inspections, informing site management are informed of any defects or other items of concern prior to using any equipment. Operatives also assist in servicing and maintenance of the equipment when they have been deemed competent.

### 4.3 The Site Manager:

The Site manager ensures that the correct resources are deployed to enable safe and correct servicing of all equipment, ensures training in maintenance, risk assessments, and SSOW are in place prior to any work being undertaken. He also ensures records are kept and carries out monthly checks.

### 4.4 The Managing Director:

The MD ensures that site management have the resources, infrastructure and training to carry out maintenance procedures.

### 4.5 Appointed Engineers:

All engineers, whether EMR or 3<sup>rd</sup> party, will be authorised to perform identified service and maintenance requirements where they hold the necessary qualifications (where relevant), have received any required training and have been deemed competent by the Engineering Manager. A copy of all skill certificates and training is maintained on the EMR training matrix and / or contractor data base.

