



CATALYTIC RECYCLING UK

Catalytic Recycling UK

Dust & Emission Management Plan (DEMP)

Version 1.1 September 2025

Dust & Emission Management Plan

Plan version: V1.1

Date of plan: September 2025

Site details

Site/ Operator name: Catalytic Recycling UK Ltd

Site address: 12 Pinxton Lane, Kirkby-In-Ashfield, Nottingham, England, NG17 8LT

Company number: 09453333

National Grid Reference: SK 48507 55438

Who this plan is for

Staff

Contractors working on site.

Document history.

Report Issue	Date of issue	Updates
EMS_07 -April25 V1	April 2025	
EMS_07 – September25 V1.1	September 2025	EA requests – Permitting Site layout map Sensitive receptor table & map

Site key contact information

Contact	Description	Phone number
Catalytic Recycling UK	Operator	07411 758654
Site Manager	On site contacts	07455 000671
Environment Agency	Environment Regulator	03708 506 506
Severn Trent Water	Utilities company	0345 750 0500
Fire Service/ Police/ Ambulance	Emergency Services	999
BT Emergency		0800 800 150
CCTV		074550 00671

THIS DOCUMENT IS DUE FOR REVIEW ANNULALLY OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS THE SOONER

CONTENTS PAGE

1.	Introduction	4
1.1	Site Introduction	
1.2	Sensitive Receptors	
2.	Operations at Catalytic Recycling UK LTD	13
2.1	Waste Deliveries to Catalytic Recycling UK LTD	
2.2	Overview of Waste Processing, Dust, and other Emission Controls	
2.3	Typical Destination for Recovered Materials and Residual Wastes	
2.4	Mobile Plant and Equipment	
3.	Dust and Particulate Management	16
3.1	Responsibility for Implementation of this Plan	
3.2	Sources and Control of Fugitive Dust & Other Emissions	
3.3	Enclosure of waste processing & storage areas	
3.4	Visual Dust Monitoring	
4.	Particulate Matter Monitoring	18
4.1	Monitoring Location	
4.2	Operation of the Dust Monitoring Equipment	
4.3	QA/QC and Record Keeping	
4.4	Equipment and Data Management	
4.5	Reporting of Data	
4.6	Additional Detailed Reporting	
5.	Actions when alarm is triggered.....	18
6.	Reporting and Complaints Response	16
6.1	Engagement with the Community	
6.2	Reporting of Complaints	
6.3	Management Responsibilities	
6.4	Summary Appendices Appendix	

1. INTRODUCTION

1.1 Site Introduction

- 1.1.1 The Dust & Emission Management Plan (DEMP) and the relevant policies and procedures are kept within the main site office and are readily available to site staff and visitors.
- 1.1.2 Catalytic Recycling UK Ltd (the site) is located at 12 Pinxton Lane, Kirkby-In-Ashfield, Nottingham, England, NG17 8LT. National grid reference SK 48507 55438.
- 1.1.3 The site falls under the jurisdiction of Ashfield District Council.
- 1.1.4 The site is not located in an AQMA zone.
- 1.1.5 A separate business is located on site. This other commercial business is a car parts sales and is managed independently.
- 1.1.6 Access can be gained to the site either off Pinxton Lane B6019 which is a main road or off Mayfield Street, which is a residential street. The site is secured by gates, which are locked out of hours. The site building is also locked and secured out of hours.
- 1.1.7 Catalytic Recycling UK Ltd is located at the edge of Kirkby-In Ashfield. The site is protected by CCTV and security alarms that reports via phone to the company directors. The directors investigate the alarm and respond accordingly. The CCTV can be viewed by smart phone. The site is seeking to install motion detection.
- 1.1.8 The site has an impermeable surface. The waste activity takes place inside a building, with no access to the drainage system.
- 1.1.9 Catalytic Recycling UK Ltd is an experienced operator in extracting precious metals from catalytic converters.
- 1.1.20 The building has two floors. The bottom floor is the catalytic converter recycling area and a car parts storage. The upstairs is the office area, which has a staff kitchen.
- 1.1.21 This document should be read in conjunction with the following documents:

Environmental Management System

<i>EMS_01</i>	<i>Environmental Management System</i>
<i>EMS_02</i>	<i>Fire Prevention Plan</i>
<i>EMS_03</i>	<i>Accident Prevention and Management Plan</i>
<i>EMS_04</i>	<i>Complaint Procedure</i>
<i>EMS_05</i>	<i>Climate Risk Assessment</i>
<i>EMS_06</i>	<i>Waste Acceptance Procedure</i>
<i>EMS_07</i>	<i>Dust & Emissions Management Plan</i>

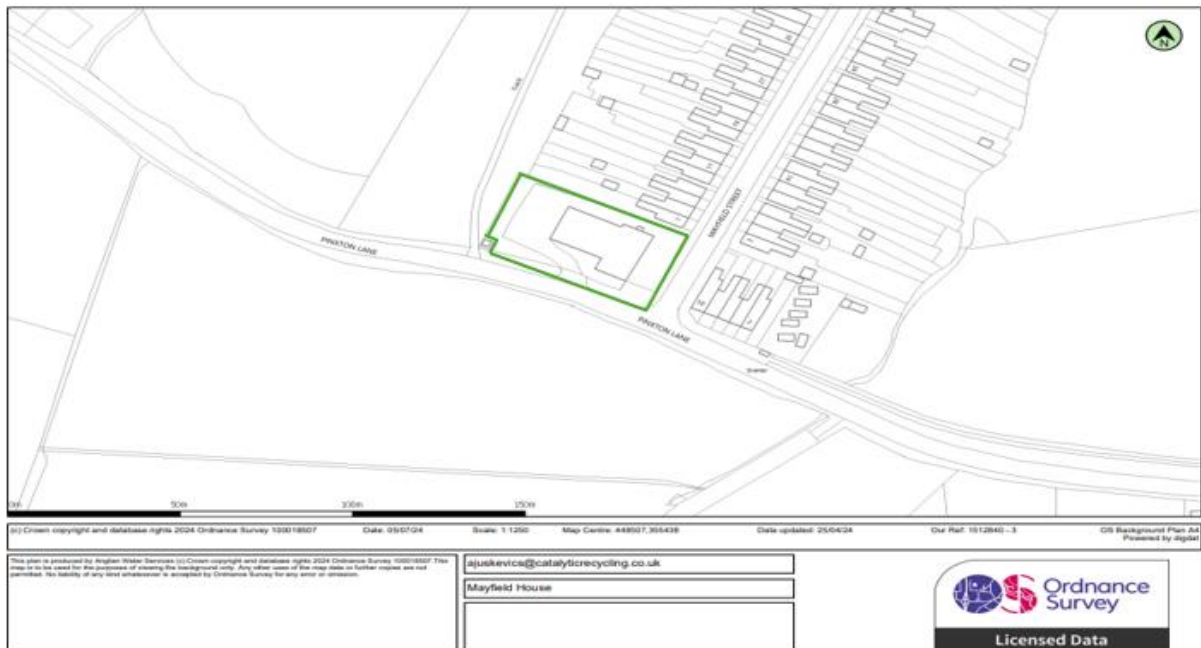
Toolbox Talks

TBT_01	Waste Acceptance Procedures
TBT_02	Emission Monitoring
TBT_03	Non-conformance and Complaints Reporting
TBT_04	Daily Site Diary
TBT_05	Fire Prevention Plan

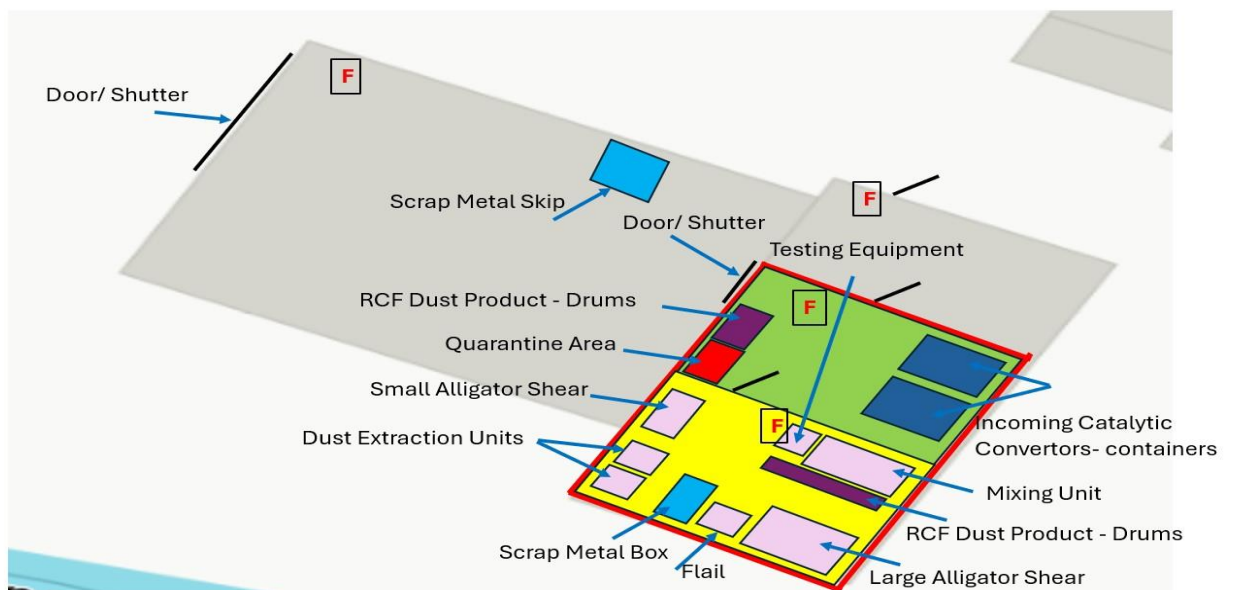
- 1.1.22 A catalytic converter is an emission control device that converts toxic pollutants in exhaust gas into less toxic pollutants by catalysing a redox reaction. Most catalytic converters have a core that is usually a ceramic monolith with a honeycomb structure. The catalyst can contain precious metals such as platinum, palladium and rhodium.
- 1.1.23 The support mat contained within some catalytic converters is made from refractory ceramic fibre (RCF), RCF is classified as a Cat 1B carcinogen and has properties very similar to asbestos. Catalytic converters containing RCF are classified as hazardous waste and EA guidance states that they should be classified as EWC 16 01 21* catalytic converters containing hazardous components.
- 1.1.24 Catalytic converters without the RCF matting are as classified as EWC 16 01 22 Catalytic converters other than those mentioned in 16 01 21*. It is extremely difficult to classify if the catalytic converter has a RCF mat until it is opened. The EA guidance states that 'unless it can be clearly demonstrated that there is a way of distinguishing catalytic converters containing RCF from those that don't they must be classified as hazardous waste' (Metals Recycling Sector Brief, February 20016).
- 1.1.25 Catalytic Recycling UK Ltd has historically logged the details of individual catalytic converters, including the part number and composition. This will enable incoming catalytic converters with known part numbers to be classified as hazardous or non-hazardous using their catalogue system
- 1.1.26 The Applicant treats catalytic converters using specific equipment.
- The incoming catalytic converter is cut using an alligator shear.
- The catalytic converter is then separated into its component parts:
- The ceramic monolith and RCF support mats are separated from the steel cases.
 - The ceramic monolith is processed using a small flail to produce a dust. The dust is contained within a sealed drum. The drums are removed from site for further recycling.
 - RCF support mats are removed, double bagged and placed within a sealed drum. The RCF support mats are not processed on site, they will be removed from site to an authorised facility; and
 - The steel cases are placed in a skip and are collected by a local metal recycling facility.
- 1.1.27 All operations will take place within a weatherproof building with an impermeable surface. There are no drains within the site building other than those servicing the kitchen and toilet facilities
- 1.1.28 The site is not located in an Air Quality Management Area.
- 1.1.29 The activity that has the potential to create dust (processing of catalytic converters) is taking place in a single room inside a building-the dust emissions are controlled through the use of a dust extraction unit. The dust extraction unit is in line with HSE advice. The dust is stored in UN approved sealed drums, these drums are removed from site on a regular basis
- 1.1.30 The process of transferring the containers from the building into a vehicle will not emit dust into the atmosphere, as the dust is securely contained within the UN approved sealed containers. All operations take place within the work area of the site building (except for the storage of a single ferrous metal skip) and therefore there will be no dust emissions to air outside of the building. The site is very different from an aggregate type of site where the dust emissions are created outdoors, and the dust has the potential to travel beyond the site boundary.
- 1.1.31 The Applicant has employed a H&S Consultant to ensure that the required dust control measures are in place to ensure that the risk to staff and visitors is controlled. A Local Exhaust &

ventilation (LEV) Examination & Test has been completed by Codar Ltd (independent third-party) and the site passed. This is completed yearly.

- 1.1.32 This document has been completed as part of the environmental permit application.
- 1.1.33 The site has not received a dust complaint. The DEMP (EMS_07) will be an integral document on site and will sit alongside the Environmental Management System (EMS_01) and Daily Site Diary.
- 1.1.34 All site staff will be trained in the procedures undertaken on site, this will include training on the environmental permit, the DEMP, the EMS, H&S risk assessments and procedures.
- 1.1.35 All site staff will have access to these documents. The documents will be kept within the Site Office
- 1.1.36 Site Plan 1 - Boundary:



1.1.36 Site Plan 2 – Boundary Red area is the waste storage and treatment area:



Red Outline Activity Area (reception and treatment)

Green area Reception zone

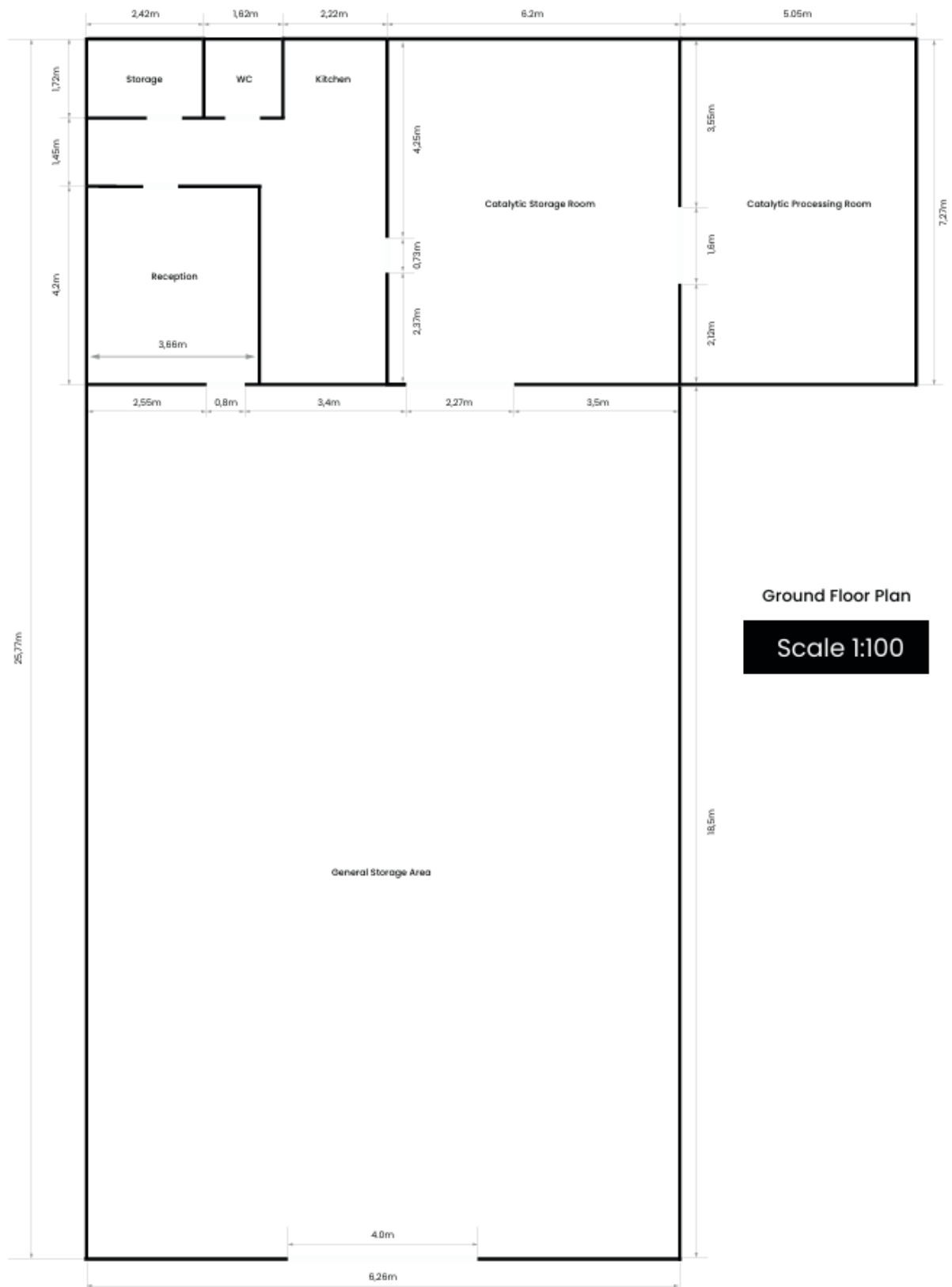
Yellow area Treatment zone

F Fire extinguishers

Scrap metal skip stored within a building within the site boundary.

The yellow Treatment Zone is isolated. Full PPE and RPE is to be worn in Treatment Zone.
6.10 Site Plan – Ground floor

1.1.36 Site Plan 3 – Ground floor



1.1.37 The first floor is the office area.

1.2 Sensitive Receptors

1.2.1 The sensitive receptors have been assessed as part of the Fire Prevention Plan. The sensitive receptors are within 1km of the site boundary.

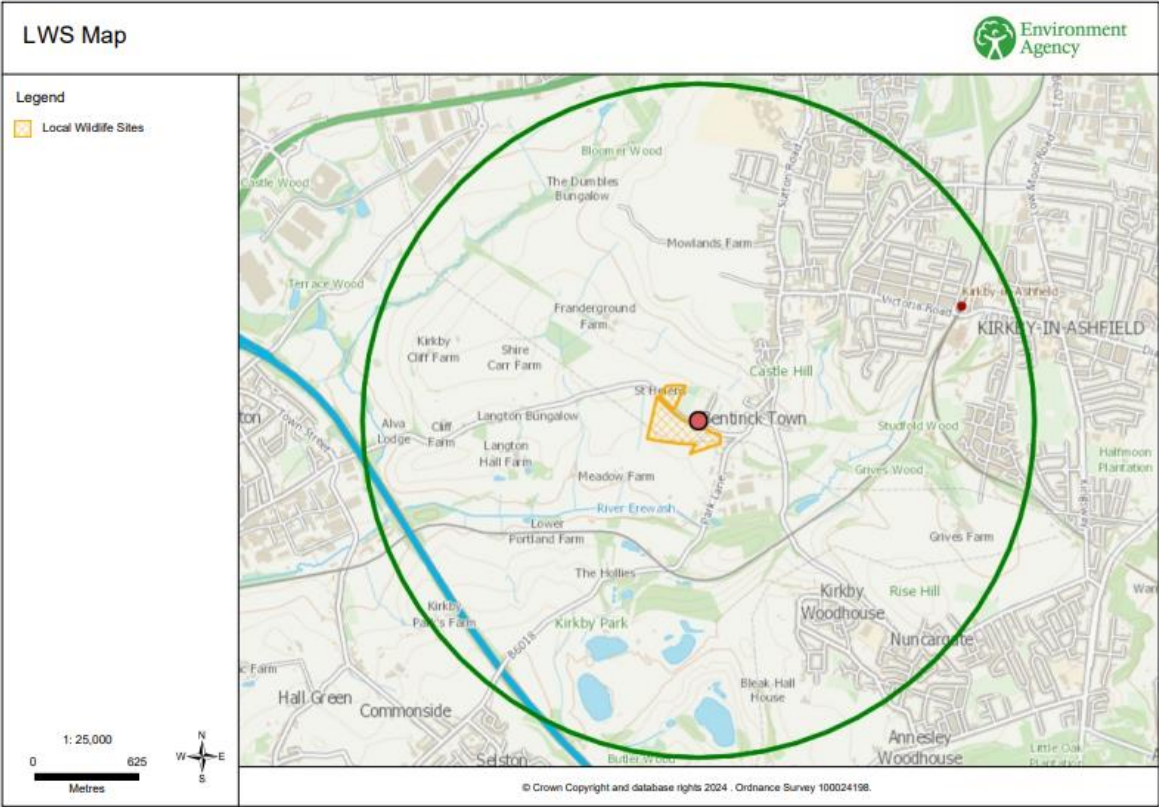
Sensitive Receptors Table

Receptor	Receptor type	Dist & Direction	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of Risk	Risk Managements
Residential dwellings Residents of Bentinck Town & Kirkby in Ashfield	Residents on Mayfield Street Residents of town	1 M Adjacent to site (Next door) North Residents across the road 5M West	Dust	Respiratory irritation, illness, and nuisance to local population.	Air	Low	Low	Low	-Operation inside -Site has a dust extraction system -Procedure set in DEMP
B6019 Pinxton Road	B Road	2M - South	Dust	Respiratory irritation, illness, and nuisance to local population.	Air	Low	Low	Low	-Procedure set out in DEMP -Small quantities of waste stored on site. -Operation inside a building with extraction system
Pinxton Road Grasslands – Kirkby Graves	Local Wildlife site	11M- South	Fire water & smoke	Degradation to the local reserve, risk of killing wildlife	Air	Low	High	Low	Operation inside building Sandbags to block water leaving site Procedure set out in FPP
Small unnamed drains	Watercourses	133M - West 95m -South	Dust	Loss of amenity, deterioration of water quality, killing	Water	Low	Low	Low	-Site drainage not linked to the watercourses
Business Carl Wright Haulage and Plant Allday MOTS	Businesses	 200m – North 200m - West	Dust	Respiratory irritation, illness, and nuisance to local population.	Air	Low	Low	Low	-Too far for the small amount of dust to travel. -Operation inside. -Operation during the day. -Check weather. -Procedures set out in DEMP.
B6018 Park Lane	B Road	257m - East	Dust	Respiratory irritation, illness, and nuisance to	Air	Low	Low	Low	Operation inside building

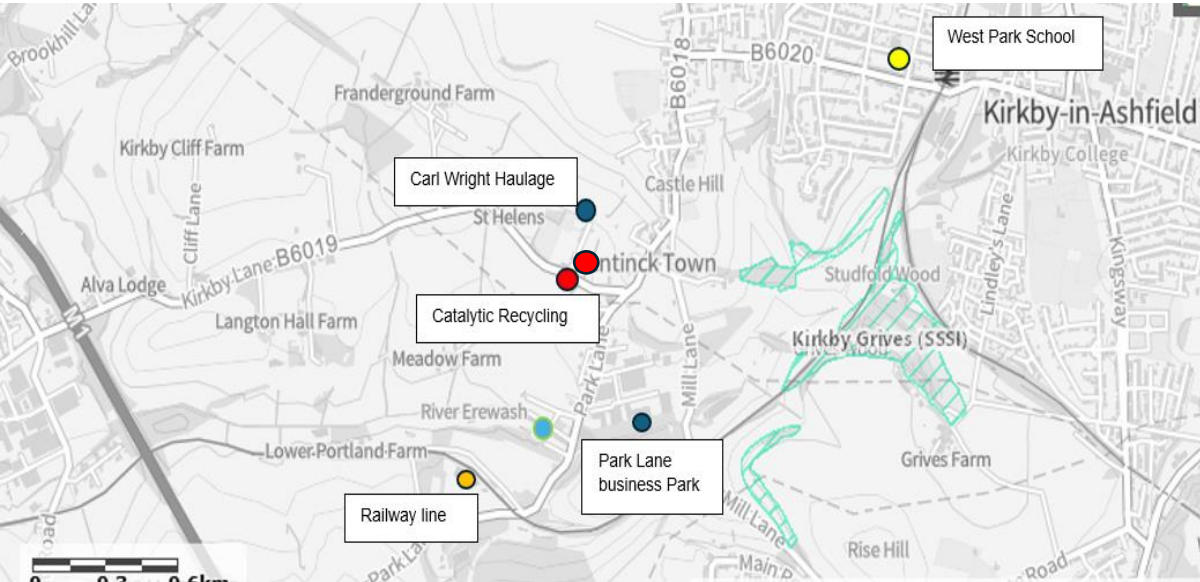
				local population.					Sandbags to block water leaving site Procedure set out in FPP
Small unnamed brook leading to Maghole Brook	Watercourse	500M Northwest	Dust	Loss of amenity, deterioration of water quality, killing	Water	Low	Low	Low	Not linked to the watercourses
Railway Line	Railway Line	500M -South	Dust	Respiratory irritation, illness, and nuisance to local population	Air	Very Low	Low	Very Low	Operation inside. Operation during the day. Check weather. Procedures set out in FPP
Park Lane Business Park	Business Park	535m-Southeast	Dust	Respiratory irritation, illness, and nuisance to local population.	Air	Very Low	Low	Very Low	Operation inside. Operation during the day. Check weather. Procedures set out in FPP. Too far from site
River Erewash	Watercourse	570m South	Dust	Loss of amenity, deterioration of water quality, killing	Water	Low	Low	Low	-Too far from site -Site drainage not linked to the watercourses
Portland Park-Country Park Kirkby Grives (SSSI) Annesley Woodhouse Quarries (SSSI) Bogs Farm Quarry (SSSI)	Local country park Local nature reserves	1 KM – East 1.5KM Southeast	Dust	Respiratory irritation, illness, and nuisance to local population. Degradation to the local reserve, risk of killing wildlife	Air	Very Low	Low	Very Low	-Procedures set out in the FPP -Too far for the small amount of dust to travel.
West Park Academy School Ashfield School	School	2.5KM Northeast 2.7KM North	Dust	Respiratory irritation, illness, and nuisance to local population.	Air	Very Low	Low	Very Low	-Too far for the small amount of dust to travel. -Operation inside. -Operation during the day. -Check weather. -Procedures set out in DEMP.

- 1.2.2 All activities take place within a small room inside a building, and that the dust is extracted using a dust extraction system. The dust is placed in small, sealed containers. The drums are moved by a pallet stacker and hands to a vehicle and are transferred from site.
- 1.2.3 The site staff who work within the room use disposal PPE which is placed within a sealed drum at the end of the shift. Dust is not transferred outside the room. There are no external emission points.
- 1.2.4 The site staff are the most sensitive receptor. They have full PPE & RPE.
- 1.2.5 In the unlikely event that dust escaped from the site building as a fugitive emission, nearby neighbours would be the sensitive receptors. The nearest properties are adjacent to the boundary. Due to the volume of dust generated and stored on site, it is very unlikely that the dust will have a significant effect on anywhere other than the staff on site.
- 1.2.6 The operator processes catalytic converters by hand. A small amount of dust is produced each time a catalytic converter is processed within the flail. If there is a failure of the dust extraction system, the process will be halted.
- 1.2.7 There will never be a significant amount of dust generated within the room that will escape from the site to cause an issue with the local environment.
- 1.2.8 Another possible source of fugitive dust emissions is if the operator drops/ spills a sealed drum during loading and the drum splits open. A maximum of 200 litres of dust will be exposed to the atmosphere. The dust on the surface of the site will be cleared with immediate effect and the fugitive dust will escape into the atmosphere. It is unlikely that this will cause issues with anyone other than the staff on site. Site staff will wear PPE to clear the spillage and will recover the contents of the sealed drum. The contents are dry, so absorbents are not required.
- 1.2.9 The site is not within a flood risk zone.
- 1.2.10 The site is not within a groundwater source protection zone.
- 1.2.11 The operations are undertaken within a site building; the majority of fire water will be contained within the building. A surface water drain on Pinxton Lane this will be covered with sandbags (Provided by the fire service) to prevent fire water entering the system. Booms and sandbags can be used at the entrance/ exits to prevent water from leaving the site.

1.2.12 Sensitive map – From the Environment Agency



1.2.13 Sensitive map SSSI



2. OPERATIONS AT CATALYTIC RECYCLING UK LTD

2.1 Waste Deliveries to Catalytic Recycling UK Ltd

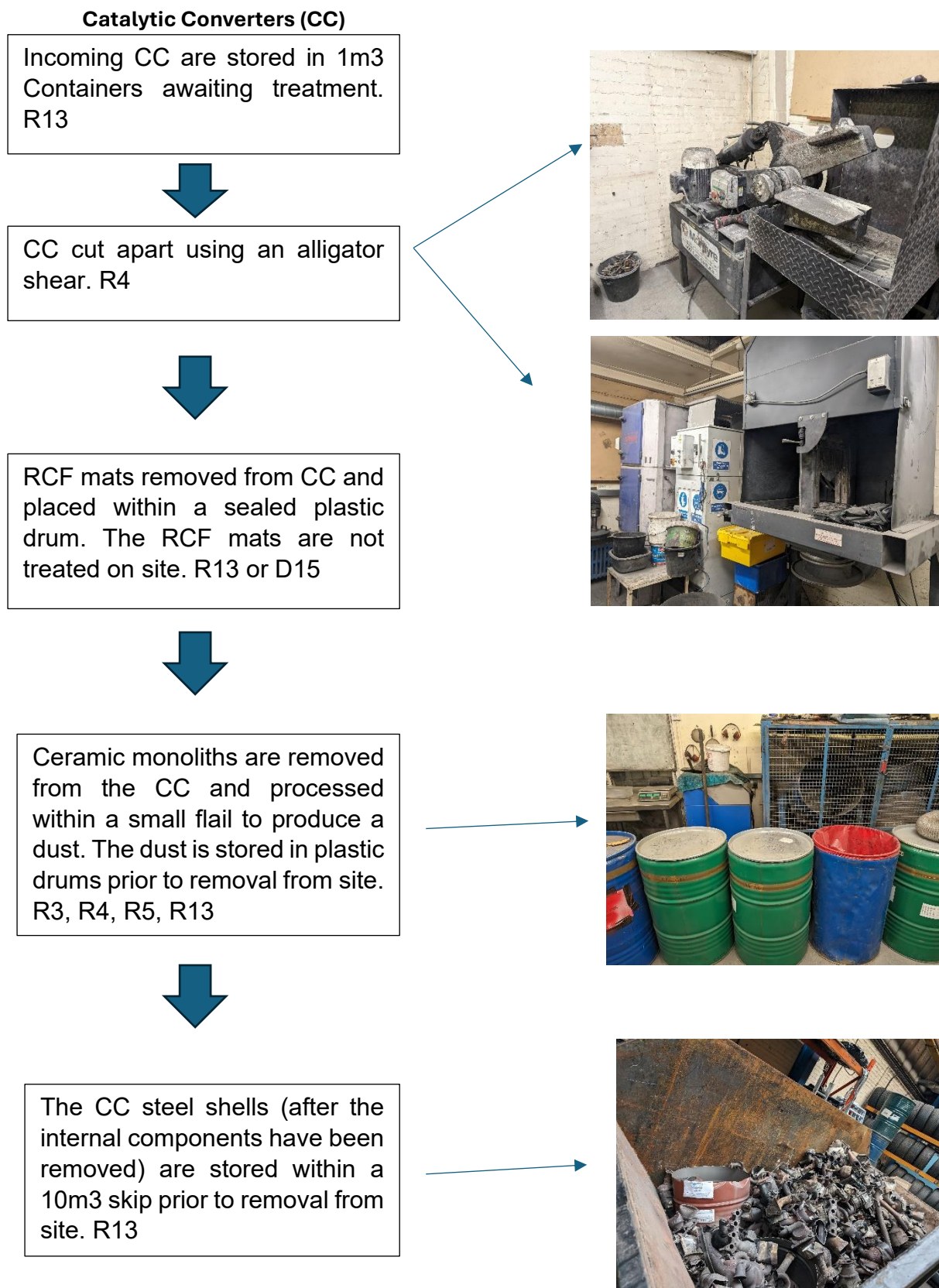
- 2.1.1 The site accepts catalytic converters. They are either collected from a garage or similar property and are transferred via a vehicle on the road, or they are brought to the site by customers in a vehicle on the road.
- 2.1.2 The catalytic converters are a whole unit, and they placed into a dolav container. They do not need to be sealed in a container.
- 2.1.3 Dust honeycomb from catalytic converters, can be delivered by customers in plastic sealed bags. Catalytic Recycling Ltd place the bags into a 20 – 30 litre plastic container with lid. The drum is transferred to the processing room, where the bags are emptied. Each batch gets milled into the fine dust. Small sample taken. The site analyses its contents. Then transferred into 200 litres drums with lids.
- 2.1.3 The drums are either carried in and out by hand or by the pump truck.
- 2.1.4 The dolavs are moved by pump truck.
- 2.1.5 A record of the incoming waste is made. Catalytic converters may be individually weighed and recorded as each item will have a different value.
- 2.1.6 The catalytic converters are not dusty on arrival.

2.2 Overview of Waste Processing and Dust Controls

- 2.2.1 Site layout is presented in Plan (1) Layout of site building and Activity area.
- 2.2.2 The catalytic converters are stored in a single room. They are not affected by weather, height of storage, etc. The dust is stored in 200 litre sealed drums.
- 2.2.3 The surface of the building is composed of concrete. There is a vacuum in the room which is used to clean the floor and surfaces within the room. The dust gathered is added to the catalytic dust and is transferred by a member of staff in full PPE inside the treatment room.
- 2.2.4 If surface dust is detected, it is cleaned up using a vacuum cleaner. The dust is transferred into the 200 litre drums as it has value.
- 2.2.5 The waste codes that the application has applied for are detailed below:
 - 16 01 21*catalytic converters containing hazardous components
 - 16 01 22 catalytic converters other than those mentioned in 16 01 21*16 01
 - 16 08 01 Spent catalytic convertors

2.2.5 A flow chart of the operations.

Block Diagram and Summary of Treatment Activities



2.3 Typical Destination for Recovered Materials and Residual Wastes

- 2.3.1 There are very few waste streams on site and only catalytic converters are treated on site. The table below details the destination of recovered materials and residual wastes.

EWC	Product Description	Average Weekly Tonnage	Material End Use
16 01 21* 16 01 22	Catalytic Convertors	5 Tonnes	Dust is sent for reprocessing. Metal casings are sent for recycling. PPE & RCF sheets are sent for disposal.
16 08 01	Spent catalytic convertors	1 tonne	Dust is sent for reprocessing.
Total		6 Tonnes	

2.4 Mobile Plant and Equipment

- 2.4.1 Waste will be handled using the plant listed below. Only trained operators will be permitted to drive/operate the plant listed below.

Item	Number	Function
Forklift	1	Loading/ unloading/ movement sorting
Alligator shears	2	Cutting the catalytic convertors
Testing machine Thermo Scientific Niton XL3t XRF analyser	1	To test the quality of the powder. Calibrated.
Mixer	1	Mix the powders

2.4.2 Dust Extractors:

- 1) Unit 1, Manufacturer Unknown, unit complies with all technical requirements for catalytic converter dust extraction.
- 2) Unit 2, Guyson DCE Unicell C16 2.2KW Reverse Pulse Dust Extractor Extraction Unit.

Both units were installed by Arvis Juskevics (Director) fully qualified engineer with over 20 year experience in machinery installation and commissioning.

After installation, both Extractor Units were tested by an independent company Codar LTD, 23 Windsor Rise, Aston, Sheffield, S26 2ER

- 2.4.3 Filters are checked and cleaned weekly.

3. DUST AND PARTICULATE(PM10) MANAGEMENT

3.1 Responsibility for the Implementation of the DEMP

- 3.1.1 Catalytic Recycling UK Ltd will be responsible for the DEMP and will ensure that the DEMP works. They will seek advice from their H&S Consultant and Environmental Consultant.
- 3.1.2 The Technically Competent Manager will be the Operator's Deputy. A trained Authorised Person will be responsible for the DEMP when the Operator is not available.
- 3.1.3 The DEMP will be reviewed annually or immediately in response to an incident.
- 3.1.4 The staff will be trained by competent persons, the training will be recorded, reviewed and refreshed on an annual basis. The training will form part of the induction training for new starters.
- 3.1.5 The training will be implemented prior to the environmental permit being issued.
- 3.1.6 The training will be delivered by the H&S Consultant and the Technically Competent Manager.
- 3.1.7 The training will be refreshed at least annually, or immediately in response to an incident.

3.2 Source and Control of Fugitive Dust and Particulate Emissions

- 3.2.1 Sources of dust and particulates at the site include:
 - Processing of catalytic converters
 - Minimal risk from loading 200 litre sealed drums onto the vehicle from inside the building
 - Drums removed from site weekly.
- 3.2.2 The risks associated with this site are reduced as:
 - Mud is not transferred from the vehicles into the site. Access is gained via a B Road and the site is concreted.
 - All dust is contained in sealed drums, the drums are secured on the vehicle and will not fall off during transfer from site.
 - The waste is not tipped, stored or sorted in the open. Only stripped catalytic converters (metal cases) are stored outside in a skip.
 - The waste is not tipped within a building, it is processed by hand, one catalytic converter at a time, this does not create dust.
 - All dust emissions are restricted to Activity Area.
 - The dust is transferred from the flail into the sealed drum via a tube—there are no drop heights.
 - Vehicles do not need to be sheeted when leaving site, the dust is contained in small, sealed drums and placed inside a van.
 - The weather does not affect the conditions within the building—the building is weatherproof.
 - A wheel wash is not required.
 - The surface of the building is composed of concrete, these are easy to clean. A portable vacuum is used to remove dust, and the dust is transferred into a sealed drum.

- Netting is not required.
- The site roads do not require on-site sweeping with a vehicle, they outside yard area will be brushed if and when required, the condition of the outside area will be monitored daily and actions taken will be recorded.
- Water suppression is not required, the dust extraction unit provides sufficient control.
- A dust monitor outside the site is not required. H&S measures are in place to monitor site staff.
- Shaker grids, water cannon, screening of the building, CMA, Heavy Water and Foam Suppression not relevant to this operation.

3.3 Enclosure of Waste Processing and Storage Areas

- 3.3.1 The processing and storage areas are within a site building (with the exclusion of the storage of the metal shells within a skip).

3.4 Visual Dust Monitoring

- 3.4.1 Dust will be monitored daily as part of the daily site checks. This is a proactive system and is not in response to complaints. The dust will be monitored visually inside the Activity Area, inside the building and at the perimeter of the site.
- 3.4.2 All dust will be stored within sealed drums within the building, unless there is an out of hours incident, all containers will be stored inside which will prevent the potential for out of hours dust emissions. The building and site gates are kept locked shut when the site is not operational.
- 3.4.3 If dust is detected beyond the Activity Area, any processing operations will be immediately halted. The incident will be investigated, a report made, and findings acted upon. Remediation measures may include additional visual dust monitoring, investigation and upgrade of equipment, changing processing methods, etc.
- 3.4.4 If the dust continues to escape the site, the operations will stop until the issue has been resolved.

4. PM10 MONITORING

4.1 Monitoring

- 4.1.1 It is extremely unlikely that dust will escape from the site building into the wider environment. Waste that can create dust is not stored or processed out of the site building.
- 4.1.2 An external dust monitoring system is not required for these site operations.
- 4.1.3 The site staff have monitored health checks.
- 4.1.4 There will be increased visual inspections during the processing of catalytic converters. If dust is seen escaping the Activity Area, the operations will be halted and the incident investigated.

5. ACTIONS WHEN ALARM TRIGGERED

- 5.1 Dust levels are consistently low and controlled via the dust extraction system and wearing PPE. If in the event staff detect higher dust levels, a dust alarm will be considered to monitor the levels.

6. REPORTING AND COMPLAINTS RESPONSE

6.1 Complaints response

- 6.1.1 The Operator will respond to a complaint by immediately investigating the situation. The site diary will be checked to see if any issues were recorded at the time of the complaint. The situation will be fully investigated, including a full check of the dust extraction system and equipment.
- 6.1.2 The complainant will be responded to within 2 days, even if the investigation takes longer to conclude. The complainant will then be further contacted at the end of the investigation and the conclusion.

6.2 Engagement with the Community

- 6.2.1 The Operations will only affect the most local neighbours. We will liaise with our neighbours on regular basis and respond to negative feedback.

6.3 Reporting of Complaints

- 6.3.1 Will use the form in Appendix 1. Feedback will be given back to the Complainant, in a form of their choice, either by email, telephone, text or in person.
- 6.3.2 The complaint forms will be reviewed as required. If there are a few complaints, the forms will be reviewed weekly, if there are very few complaints, they will be reviewed monthly or longer (dependent upon frequency). At any event, the complaint forms will be reviewed annually as part of the DEMP annual review (or sooner in response to an incident).
- 6.3.3 The complaints will be handled immediately by the Operator and the Technical Competent Manager.

6.4 Summary

- 6.4.1 The DEMP and complaints procedures will be put in place to ensure that potentially harmful dust is restricted to the Activity Area. The objectives are to ensure that the dust not harm human health or the environment. The dust will be visually monitored throughout the working day, and particularly when the catalytic converters are being processed. The document will be reviewed annually or in response to an incident. The annual review will be added to the electronic calendar

Appendix 1 – Dust Complaint Form

Customer Details	
Complaint reference number:	
Customer Name	
Address	
Postcode	
Telephone number	
Email address	
Date customer contacted	
Date of the complaint	
Time of Complaint	
Complaint details	
Investigation Details	
Investigation carried out by	
Position	
Date & time of investigation	
Weather conditions	
Wind direction and speed	
Investigating findings	
Feedback given to the EA	
Date feedback given	
Feedback to complainant	
Date feedback given	
Review and improve	
Improvement to prevent reoccurrence	
Date for improvements	
Does the DEMP need updating	
Date DEMP updated	
Closure	
Site Manager review	
Signed to confirm action taken	