Recovering Energy from Waste

Environment, Health and Safety Review for the year to 31st December 2020

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Contents

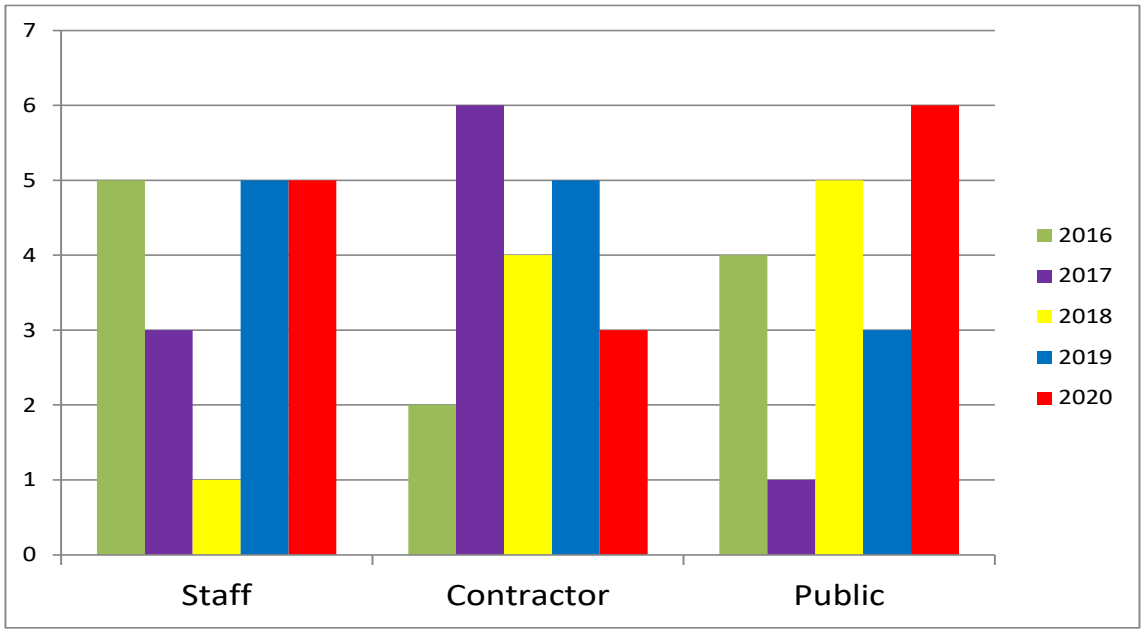
1. Introduction

This report provides a review of Environment, Health and Safety for CSWDC from 1st January to 31st December 2020 inclusive and addresses four principal areas;

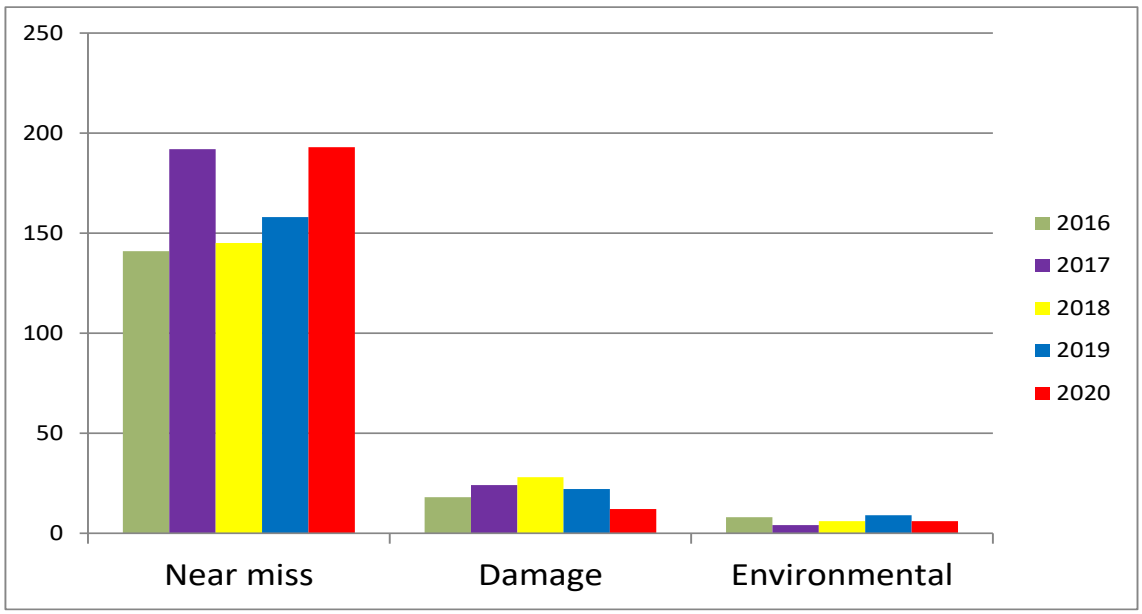
- Health & Safety Performance
- Environmental Performance
- Contacts with Regulatory and Other Bodies
- The Environment Health and Safety Improvement Programme

2. Management Summary

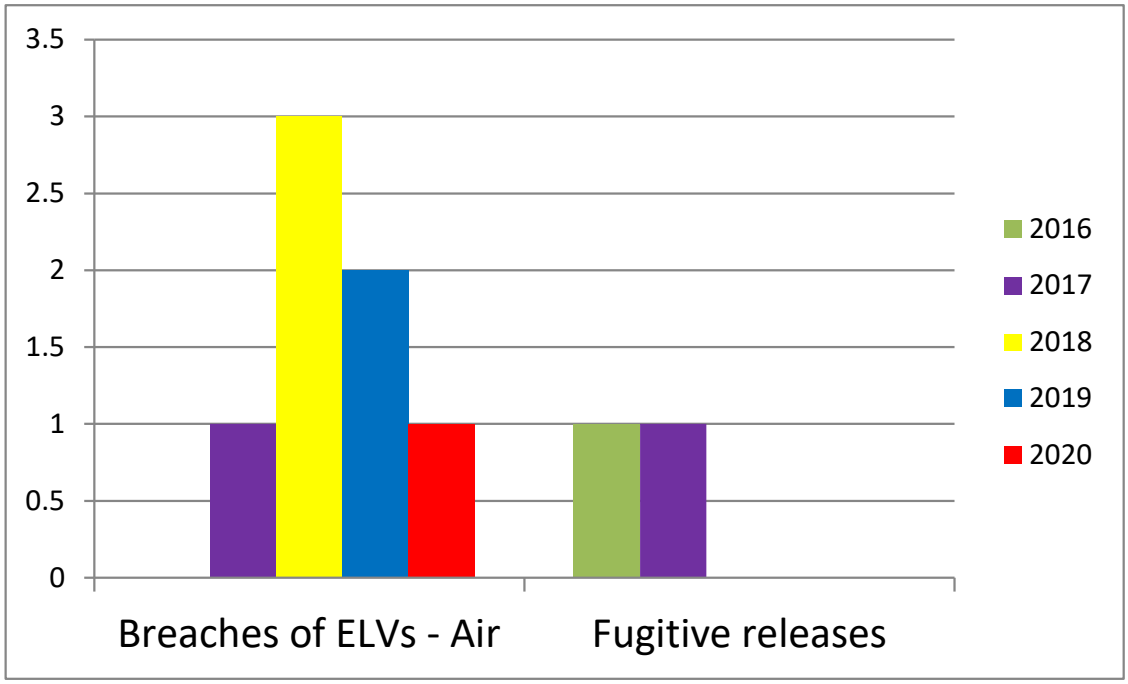
Injuries to Persons

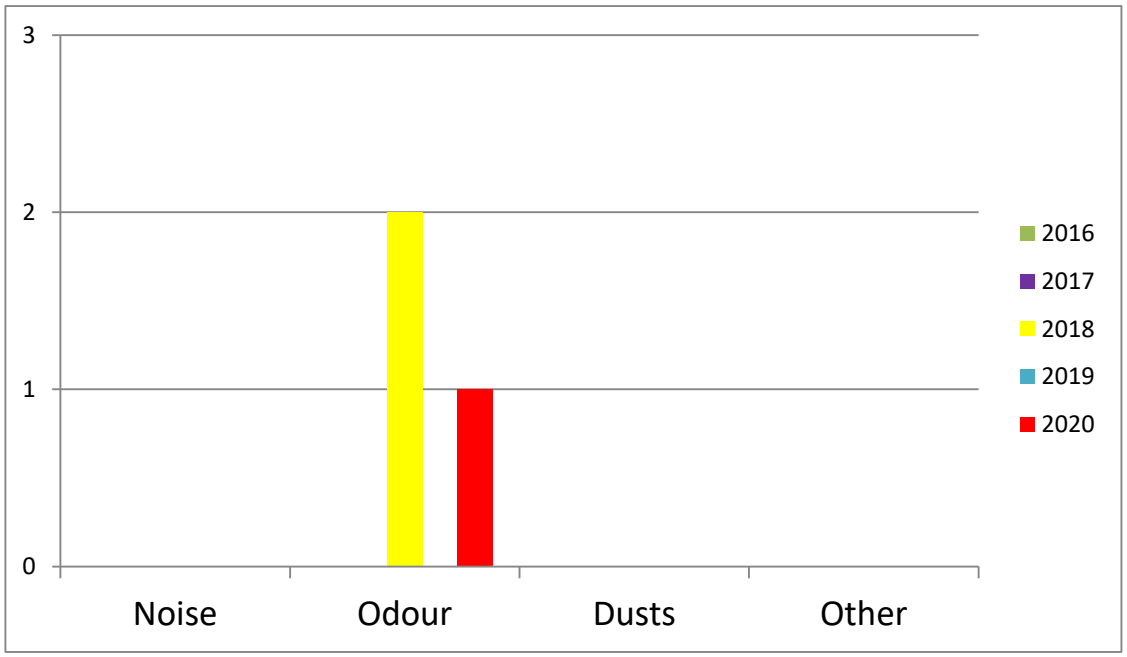


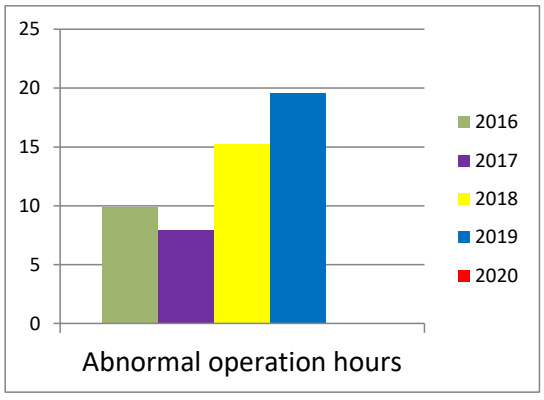
Incidents, Hazards and Near misses

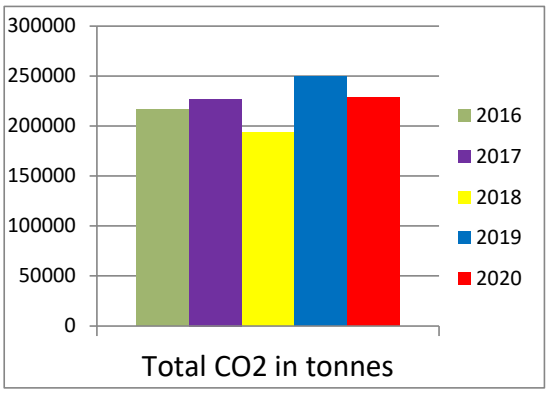


Environmental Performance









3. Health and Safety Performance

3.1 Injuries

During 2020 there were 14 injuries reported under the incident reporting procedure.
Five accidents involving employees, three accidents involved contractors, and the remaining six involved members of the public all on the HWRC.
Of these, none (0) required reporting under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

The 14 first aid injuries that were minor in nature are detailed below:

January	MEMBER OF THE PUBLIC	CA SITE	MoP at HWRC cut finger on own waste during disposal
February	CSWDC	FURNACE HALL	CSWDC Maintenance technician struck by a falling cylinder guard that was being removed, causing a cmall cut to the face
March	MEMBER OF THE PUBLIC	CA SITE	MoP at HWRC cut finger on ceramic tiles during disposal of own waste
March	MEMBER OF THE PUBLIC	CA SITE	MoP disposing of sink cut own finger on sharp edge
March	CONTRACTOR	FURNACE HALL	Jetting contractor struck by own high pressure lance due to a failure. Minor injury as full PPE was in place
April	CSWDC	STORES	Member of Staff pinched finger under a heavy motor in the stores when it was replaced, having tilted it forwards to check a serial number
April	CONTRACTOR	COOLING TOWERS	Delivery driver splashed self with small amount of water treatment chemical when disconnecting delivery hose, very minor checmical burn to lips
June	MEMBER OF THE PUBLIC	CA SITE	MoP at HWRC cut finger on ceramic tiles during disposal of own waste
June	CSWDC	CA SITE	Member of Staff at HWRC cut finger on sharp edge of a computer casing
July	CSWDC	FURNACE HALL	Member of Staff bruised knee slipping on stairs
August	MEMBER OF THE PUBLIC	CA SITE	MoP struck self with piece of wood being disposed on at HWRC, minor cut to scalp
September	CSWDC	STORES	Member of Staff strained back whilst handling archive boxes in stores archive area
October	MEMBER OF THE PUBLIC	CA SITE	MoP struck self with large door they were disposing of when it struck the protective fencing, gazed face
November	CONTRACTOR	WORKSHOP	Contractor got a foreign body in their eye. Washed out, no lasting injury

All the accidents recorded have been actioned under the incident report system with new or additional controls measures put in place, such as toolbox talks, changes in procedures or risk assessments. Specific actions were implemented where possible to improve tasks. Reviews of risk assessments and safe working procedures continue in all areas to ensure these documents remain relevant for the tasks to which they relate.

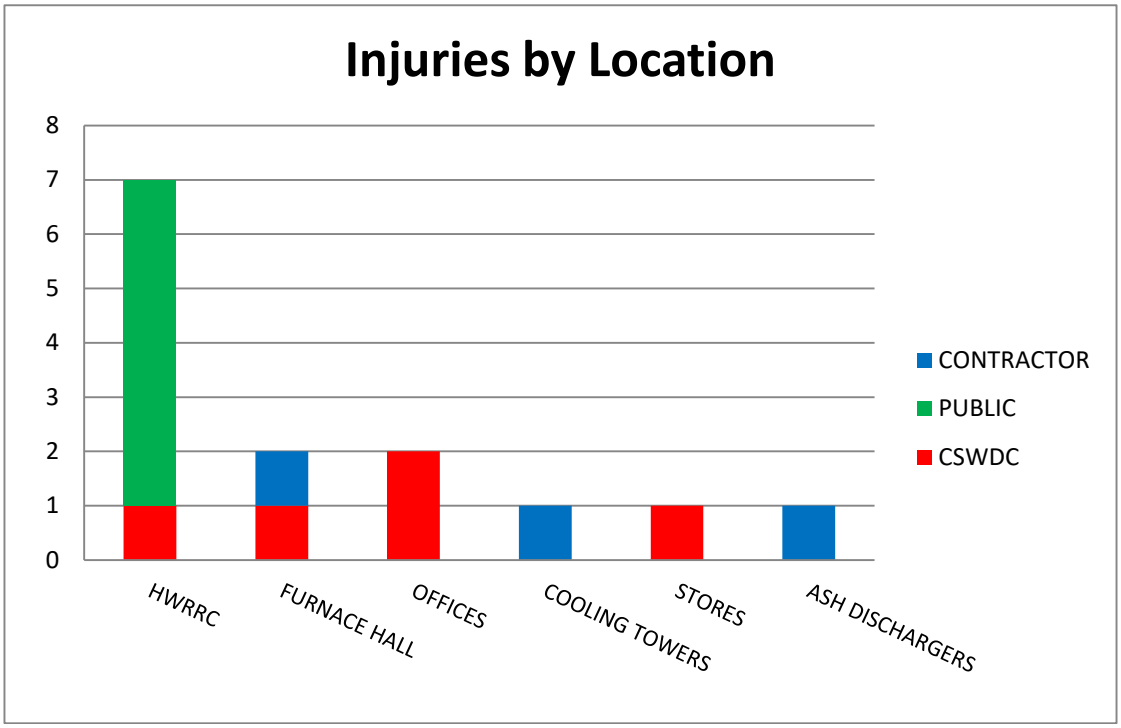
This quantitative result is an increase in injuries when compared to 2019 performance; where there were 13 injuries. However when calculating an injury rate per 100,000 hours worked for staff and contractors only, the actual rate reduced from 4.58 to 3.89 injuries per 100k hours worked due to a reduction in contractor injuries.

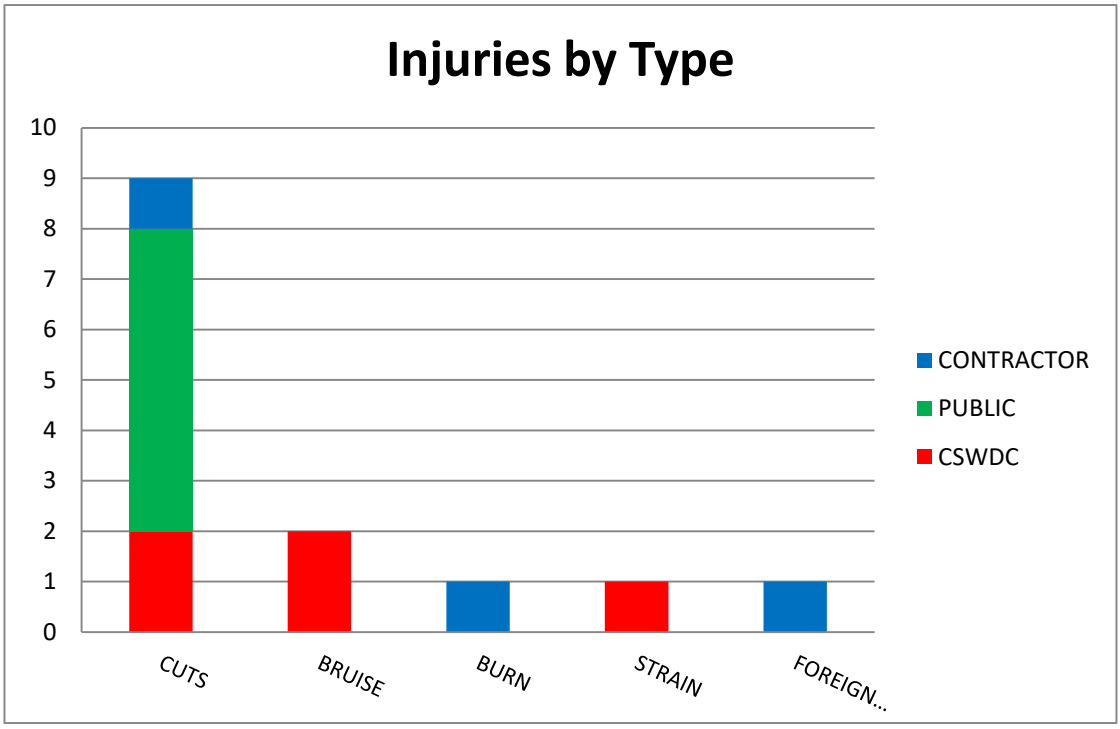
Recorded staff injuries have remained the same as 2019 and although all were minor, the strained back and slip on the stairs could both have resulted in more serious consequences.
Contractor injuries have fallen when compared to the previous three years. This demonstrates that CSWDC's contractor selection procedure and control of contractors in general is to a high standard.
Public injuries have increased which is believed to be due to the Covid-19 restrictions at the HWRC regarding allowing only one person being permitted to exit the vehicle. This has resulted in MoPs having to dispose of larger waste items alone at times. MoPs are aware of this requirement when booking and CSWDC staff asist where possible.
The public behave in an unpredictable manner but given the number of people who use the HWRC over the course of a year these figures show good control of activities, as shown by the incident trend over the last 10 years.

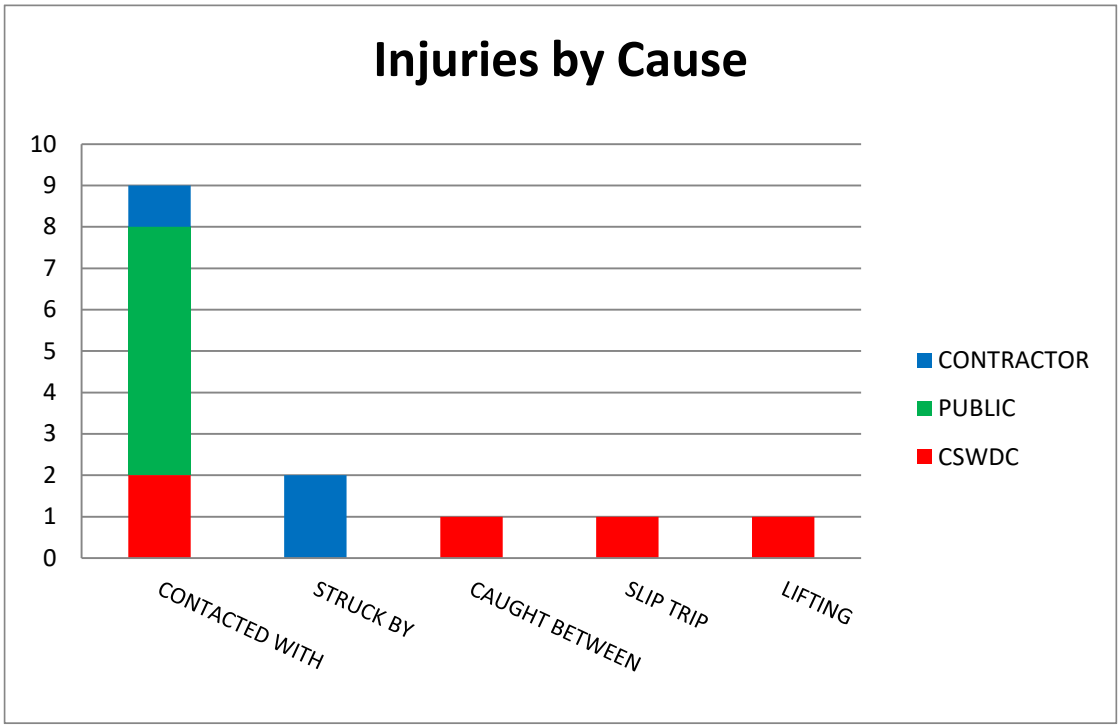
Follow-up and closure of injury reports is ensured by the intranet workflow system and periodic meetings to go through any items that remain in progress.

Injuries by Person Type

	Staff	Contractor	Public
2016	**5**	**2**	**4**
2017	**3**	**6**	**1**
2018	**1**	**4**	**5**
2019	**5**	**5**	**3**
2020	**5**	**3**	**6**


Injuries by Location
8
7
6
5
4
3
2
1
0
HWRRC
FURNACE HALL
OFFICES
COOLING TOWERS
STORES
ASH DISCHARGERS
CONTRACTOR
PUBLIC
CSWDC


Injuries by Type
10
9
8
7
6
5
4
3
2
1
0
CUTS
BRUISE
BURN
STRAIN
FOREIGN...
CONTRACTOR
PUBLIC
CSWDC



Most if not all of the injuries are attributable to unsafe behaviour; where someone's acts or omissions have contributed to the injury. Incident trends are discussed with the senior management team and individual events are included where relevant, to ensure lessons are learned and actions taken are appropriate

Toolbox talks and H&S videos continue to be undertaken in all departments to improve and maintain awareness. These have been targeted where relevant to increase focus on a specific area of risk or type of hazard. The video system is available on any internet-connected device using individual accounts. Participation is monitored and reported to the senior management team at the monthly management meetings and the quarterly EH&S Committee meetings. Monthly team briefings also include targeted information where relevant if there is a current subject that needs discussion.

Contractor information is stored in a database enabling easy checks on insurance and the standards of risk assessments. Automated email reminders are issued to nominated supervisors to ensure insurance information is renewed in a timely manner.

3.2 Incidents and Near Misses

There were 193 hazards reported during 2020. This is an increase on 2019 results – the target set at the start of the year was to maintain a level of 12 each month, which has been achieved – reporting of hazards and near misses is encouraged as it allows us to address a risk before an accident has taken place.

All incidents are reported via the SharePoint intranet system, which enables immediate notification and tracks the status of corrective actions. Close-out of the reports is monitored and reported to senior management on a monthly basis; any open actions are discussed at a quarterly meeting with the technical managers, to completion of open actions.

Damage incidents have decreased from 22 in 2019, to 12 in 2020. This is an encouraging reduction and is mostly likely attributable to a reduction in events involving the ash crane and the weighbridge barriers.

The incident reporting levels from other areas such as operations and engineering have also been encouraging, with reports being raised where relevant. APPENDIX 2 contains a summary chart and trends of the incidents and near misses that have occurred during 2020.

3.3 Other Health and Safety Issues

Quarterly EH&S committee meetings continue to be well attended and productive, with each senior manager presenting on health and safety activities within their teams. Involvement is positive and senior management are actively engaged in providing a monthly summary of activities whilst also encouraging the team members on the committee.

3.4 Employer Liability & Public Liability Insurance Claims

No new insurance claims were raised in 2020.

3.5 Workplace Inspections

Monthly workplace inspections continue to be performed by management, supervisors and employee representatives on the EH&S committee. 11 inspections were missed during 2020, out of 96. This is a similar result to 2019, although the plan was placed on hold during the first Covid-19 lockdown, with a reduced scope being undertaken by a greatly reduced number of staff, mainly from the waste department.

4. Environmental Performance

4.1 Environmental Complaints/Incidents

There was one complaint received in 2020, which related to odour from the waste bunker during warm weather. Actions were taken to control any further release and prevent further nuisance to neighbouring residents. This can be regarded as being a positive result given the warm weather during spring and summer couple with the increased number of people at home during lockdown.

4.2 Other Environmental Matters

Coventry ‘Heatline’ Project
The heat transfer station continues to provide heat to the civic buildings in the City centre. The total amount of heat provided to the scheme was 8076 $MWh_{Thermal}$.

EA Enforcement
The sites EA enforcement officer; Gurinder Bains, did not visit site during 2020 due to the Covid-19 pandemic restricting movement and encouraging working from home. Electronic lines of communication have been used to report monthly data and discuss various issues as and when required.

Incinerator Bottom Ash (IBA)
No significant change has occurred regarding the classification of IBA in 2020. The current methodology to determine a waste’s hazardous / non-hazardous classification still allows IBA to be classified as non-hazardous.
The ferrous metal residues are now left in the bottom ash and the two are taken from site for processing together, being separated at the destination site. This reduces transport costs and reduces the amount of storage space required for ferrous metal containers.

ROCs

Renewable Obligation Certificates (ROCs) have been claimed since 2016. As part of the application, sampling of Carbon Dioxide is taken from the main stack with the samples analysed to determine the Biogenic content every month. The average percentage remains circa 66% of essentially new carbon (Carbon 14) as opposed to carbon from fossil fuel. This then allows the company to claim a percentage of the electricity exported as renewable and hence claim ROCs. Return is low at the moment but covers the running costs. However, there is a possibility of a higher revenue if the plant efficiency is improved by Engie increasing their heat load.

R1 Energy Efficiency

There is an ongoing steer from the Environment Agency to achieve R1 status. CSWDC is working with technical specialists Ramboll to achieve this. The ambition in 2021 is to clarify the initial position using a Ramboll R1 model. If requirements are met then Ramboll will carry out further modelling work with the intention of submitting an application to the Environment Agency in 2022. If successful, this will result in the plant being classified as recovery rather than disposal.

Revised EU BREF

The revised BREF for Waste Incineration was published on 20/12/19. The main challenges are the changes in the emission limit values for Oxides of Nitrogen (NOx) and Ammonia (slip). To assess the performance of the existing abatement system against the proposed new limit of 180 mg/Nm3 for NOx, 15 mg/Nm3 Ammonia a continuation of trials are planned. Specialist partners Ramboll and NOxSOL have are also working with CSWDC optimising the current abatement system and assessing further opportunities for improvement.

NOx trial was carried out in 2020 with support from NOxSOL. SNCR system was run for a week with some minor pipework modifications. Trial work in 2020 was severely limited due to the COVID pandemic.

Ramboll have recommended the following for consideration;

- Ensuring stable input waste composition through improved mixing of waste in the bunker
- Optimisation of the combustion control and air staging to the extent that it is possible within the existing geometries of the furnace
- The SNCR system is estimated to hold unexploited potential for optimisation, and this should be pursued.
- In the course of optimisation, it may prove beneficial to install flue gas monitoring for NO_x and NH_3 downstream of the boiler.
- In the course of optimisation, it may further prove beneficial to install enhanced temperature surveillance by installing IR-pyrometers or AGAM and include these in the SNCR control.
- In the course of optimisation, it may further prove beneficial to install one or more additional ammonia injection layers (including control thereof).

2021 Trial work plan is as follows

- February 2021 one-month trial on all 3 lines running to new limits
- NOxSOL further trial with SNCR mid-year.

It is estimated the Environment Agency will start Permit Reviews in October 2021 targeting clinical waste incineration as a priority. A timetable has not been issued yet indicating when the review will take place for CSWDC. The process will have to be completed and the plant compliant by 20/12/23.

4.3 Unauthorised Releases

There was one unauthorised release reported to the Environment Agency during 2020, which related to unplanned opening of a FGT by-pass damper. It took place on the morning of 25th December. This directs the emissions gases out of the system without them being filtered, meaning that levels of dust would increase. The system was shut down immediately to prepare for investigation and repairs. Particulate emissions levels immediately prior to the event were normal, indicating the risk of any significant release of particulate matter was minimal. The system has now been improved to prevent recurrence of similar events.

Unauthorised Release Historical Data

Year	Yearly Total
2020	1
2019	2
2018	3
2017	1
2016	0
2015	1
2014	1
2013	2
2011	4

4.4 Other Release Notifications

Abnormal Operation

The table below shows the duration of Abnormal Operation events reported to the Environment Agency.

Year	Line 1	Line 2	Line 3	Total hours
	60hr limit	60hr limit	60hr limit	180 hrs
2020	0	0	0	0
2019	4.85	8.68	6.05	19.58
2018	6.25	3.52	5.46	15.23
2017	3.02	0	4.96	7.98
2016	3.5	3.5	3.4	9.9
2015	6.94	12	8.22	27.15
2014	0	0	0	0
2013	0.41	0	3.31	3.72
2012	1.32	1.28	1.3	3.9
2011	9.73	2.4	10.87	23

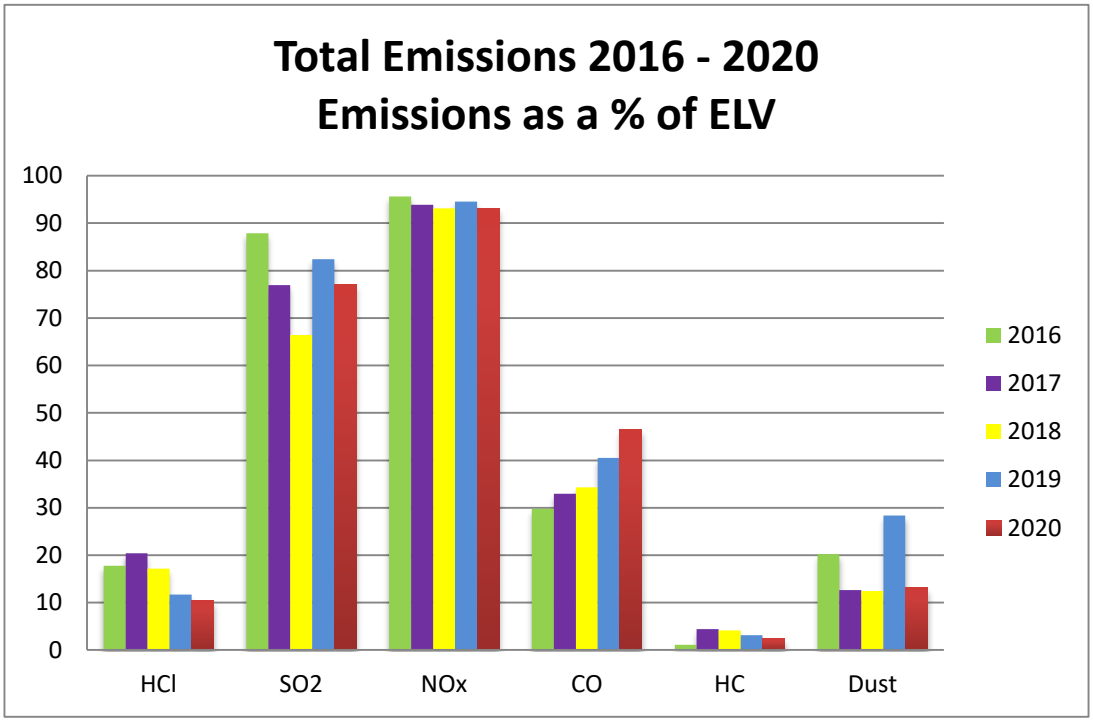
Permit conditions allow 60 hours of abnormal operation on each unit each year.

Fugitive Emissions

These are any gas, liquid, solid, mist, dust, or other material that escapes from a process or equipment other than the chimney stack and passes beyond the site boundary.

There were no instances of fugitive releases of pollutants from site in 2020.

4.5 Environmental Performance – Releases to Air



All emissions are well within the ELV's set by the Environment Agency in our Environmental Permit, as shown in the chart above. NOx emissions remain well controlled at levels below the ELV by a system, which controls the amount of ammonia that is injected to ensure that NOx is kept below the limit without using excess ammonia. A similar system is in operation on the SO_2 dosing system. Both these systems are designed to keep emission levels within limits whilst ensuring the dosed chemicals are not over dosed unnecessarily (ammonia and hydrated lime have environmental impacts as well as costs, so control of their use is important).

The mass emission levels of each reported pollutant are shown above as a percentage of the Emission Limit Value, with comparison for the preceding 4 years to show trending.
Dust levels have reduced due to filter bag replacement following the introduction of revised materials from the supplier. CO levels have increased slightly following the change of ELV, from the 30-minute limit, to the 10-minute one. As the 10-minute limit is more flexible, less reactive monitoring of levels are needed, leading to these slightly higher total emissions levels over the year.

Further graphs showing comparisons with historical emission levels *per tonne of waste processed* can be found in Appendix 4.

An external sampling and analysis contractors have carried out periodic extractive sampling twice during 2020. All the results were below the Environmental Permit Emission Limit Values. Where applicable the results were comparable with the data generated by the Continuous Emissions Monitoring equipment.

4.6 Environmental Performance – Key Performance Indicators

A summary table of the Key Performance Indicators is shown in Appendix 3. These indicators are used by the EH&S Management System as a method of tracking significant inputs and outputs from the plant on an ongoing basis. Action is taken if changes occur outside of normal operation. Improvements or unfavourable trends are noted and investigated accordingly.

Total water usage (Borehole + mains) increased slightly during 2020 over 2019 results, from 490,567m^3 to 493,509m^3. Town's water use rose from 84,650m^3 to 112,340m^3 whilst abstracted borehole water use decreased from 405,917m^3 to 381,169m^3 and effluent to sewer levels increased from 109,390m^3 in 2019 to 123,312m^3 in 2020.
The changes in water use from town's main and the abstracted sources are due to a borehole pipework failure, which necessitated the use of town's main supply.

The volume of gas consumed by the site decreased by 5% from 2,994,700 cubic feet in 2019 to 2853800 cubic feet in 2020. The reason for this decrease is due to improved availability.

The exported electrical energy generated per tonne of waste has decreased slightly on last year's performance with 0.36 MW/tonne generated compared to 0.37 MW/tonne in 2019. This is believed to be due to the change in waste composition during the COVID-19 lockdown resulting in a lower calorific value of the waste.

The tonnages of waste residues collected remain similar to previous years; all residue 'tonne per tonne of waste processed' figures have remained similar to the previous year, with APC use increasing from 0.039 to 0.041 tonnes per tonne processed which is considered marginal.

5. Contacts with Regulatory and Other Bodies

5.1 Health & Safety Executive

There were no visits to site nor any formal communications received from the HSE during 2020.

5.2 Environment Agency

During 2020 the Environment Agency Waste Management Licence Inspectors made one inspection of the HWRC resulting in positive feedback.

The Environment Agency PPC Compliance Officer did not make any visits to the Energy from Waste plant during 2020.

5.3 EH&S Management System Audits

The third party auditing body carried out a recertification audit of the Company Environmental, Health & Safety Management System (EHSMS) during July 2020. The system was certified for continued compliance to the14001 standard and the opportunity was taken to undertake an upgrade audit to meet the revised ISO45001/2018 standard. This was achieved and the new standard awarded. During the visit, all previous corrective action requests and observations for improvement were closed out.

There were five minor nonconformities identified, closure of which has been completed.

This new standard brings the H&S system into alignment with the newer environmental standard that was gained in 2018.
Internal audits were performed on the integrated EH&S systems on a monthly basis during 2020. Three of the 12 audits performed during the year identified an area of nonconformity or a minor area for improvement. Corrective actions are complete or planned ready for re-auditing later during the year. Internal audits were also undertaken on work control processes, where the RAMS, work instructions and permits were checked out and audited. Permit to work audits are undertaken each month by the technical senior managers as part of the area inspection plan.

5.4 Other Visits & Contacts

During the course of 2020, there was a greatly reduced number of visits by interested external organisations or individuals to the site, due in the main to the Covid-19 pandemic. During the course of these visits, the Company's processes were described and the environmental impacts from the process discussed.
The only physical visit to site undertaken in the year was by the U3A from South Solihull. Another virtual site visit was held with Solihull College, though it was found to be significantly less effective.

The Company website continues to be updated, featuring emissions data and background information, process information and details of our EH&S policy and management system certification. The whole website look has been updated and new areas created to give a more modern look and feel. The site induction is being made available to enable remote access to the induction system prior to arriving to site, thus making the setting to work of contractors more efficient.

6. The Environment Health and Safety Improvement Programme

6.1 Environment, Health and Safety Objectives and Targets

EH&S target attainment was generally good, with an increase of one injury to persons. This was due to an increase in injuries to members of the public at the HWRC.
However, the rate of injuries to staff and contractors improved due to a reduction in injuries affecting contractors.

The target set for area inspections was not met, though as previously explained, the schedule was re-structured significantly in the spring and much of the summer due to the pandemic mitigation measures. Results per month by year-end were strong.

One action on the 2020 improvement programme (Appendix 5) has been carried over to 2021.

Objectives, targets and the improvement plan for 2020 can be found in Appendix 6, which will again seek to improve on last year's performance.

6.2 Changes to Environmental or Health and Safety Legislation, Other Requirements, Risks, Opportunities, and the Needs of Interested Parties

No new or revised legislation came into force during the year apart from those relating to Covid-19 pandemic mitigation measures. The CSWDC Pandemic Mitigation Plan was developed in April and has been regularly updated when required by changes to UK Government guidance.

The Covid-19 Pandemic and the Brexit processes highlighted some challenges and opportunities for the business; the manner in which the Senior Leadership responded to the potential impacts on the business and the safety of staff was timely and effective. CSWDC is now better placed to respond to change having learned from the planning processes used.

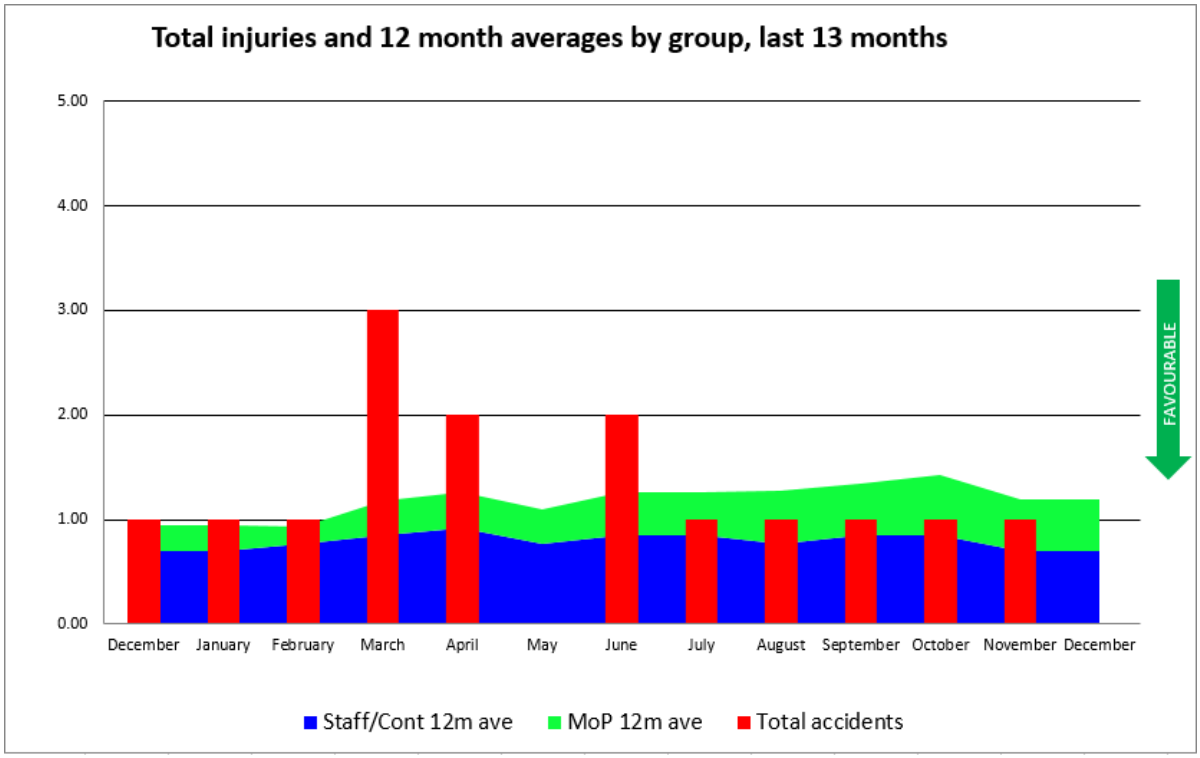
Shareholders and stakeholders within the community rely on the essential service the business provides, this was also a vital aspect of the planning in relation to the Covid-19 and Brexit challenges. The continued provision of the essential services of waste recovery and power generation was a priority that was maintained throughout the year.

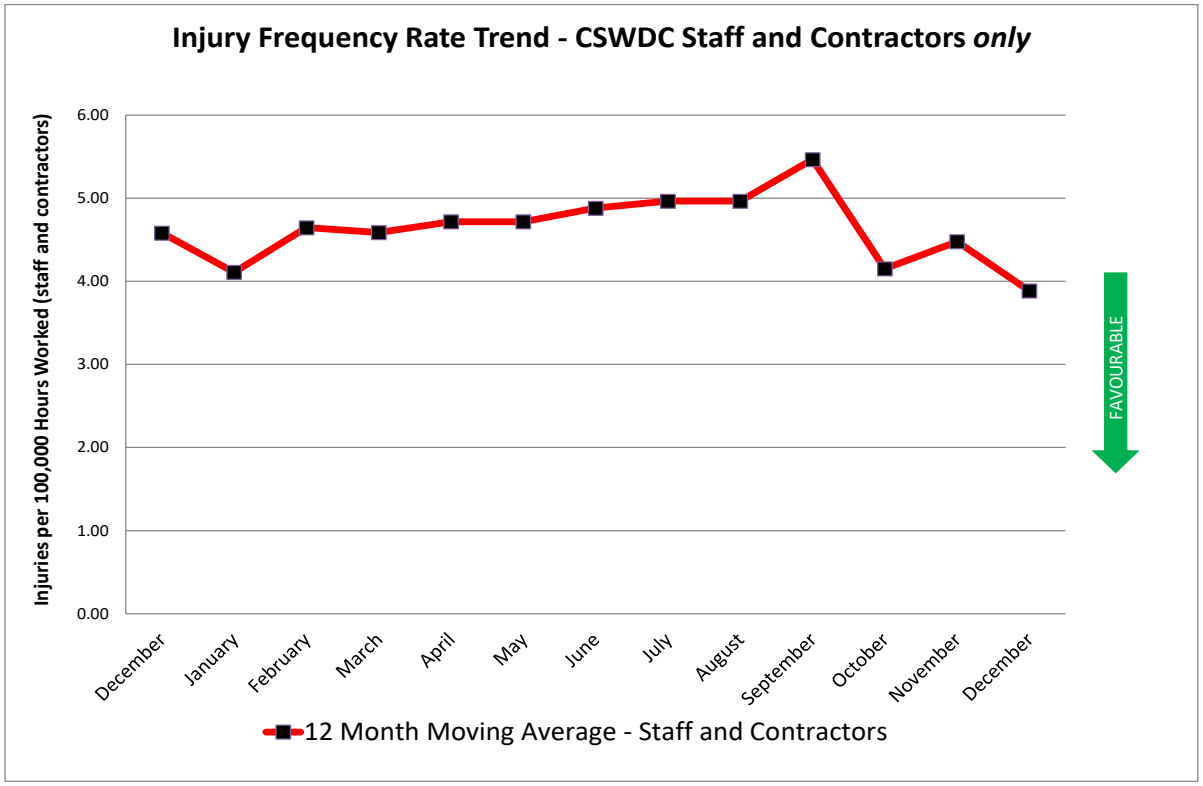
Strong communication was maintained with all levels of staff, contractors, waste delivery and collections drives, as well as members of the public using the HWRC to ensure the pandemic control measures were understood and complied with. All meetings were restructured to enable them to be held on-line, thus avoiding any face-to-face interaction.

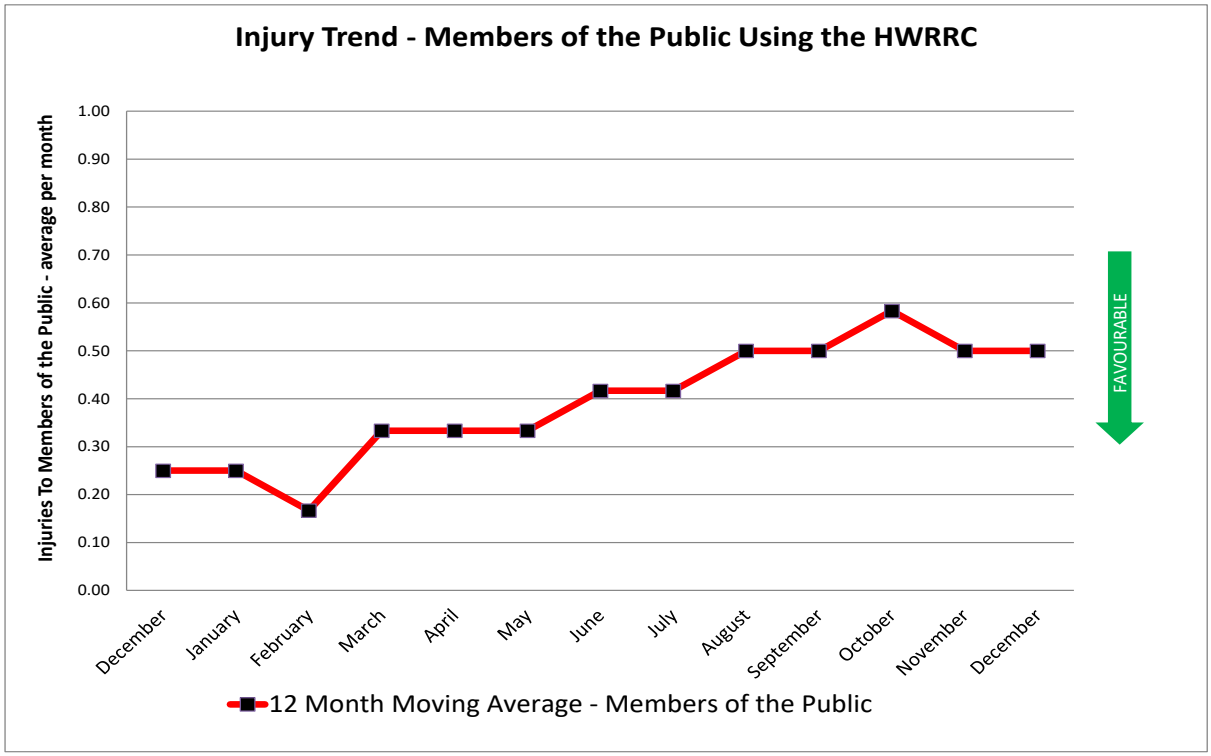
The OHSAS18001 management system was re-audited to the new ISO45001 standard in June, via remote audit with positive results. The five minor nonconformities raised all being closed out in good time. The new standard aligns with the revised ISO14001 standard that was gained in 2018.

APPENDIX 1 - INJURY STATISTICS 2020

Injury trends 2020

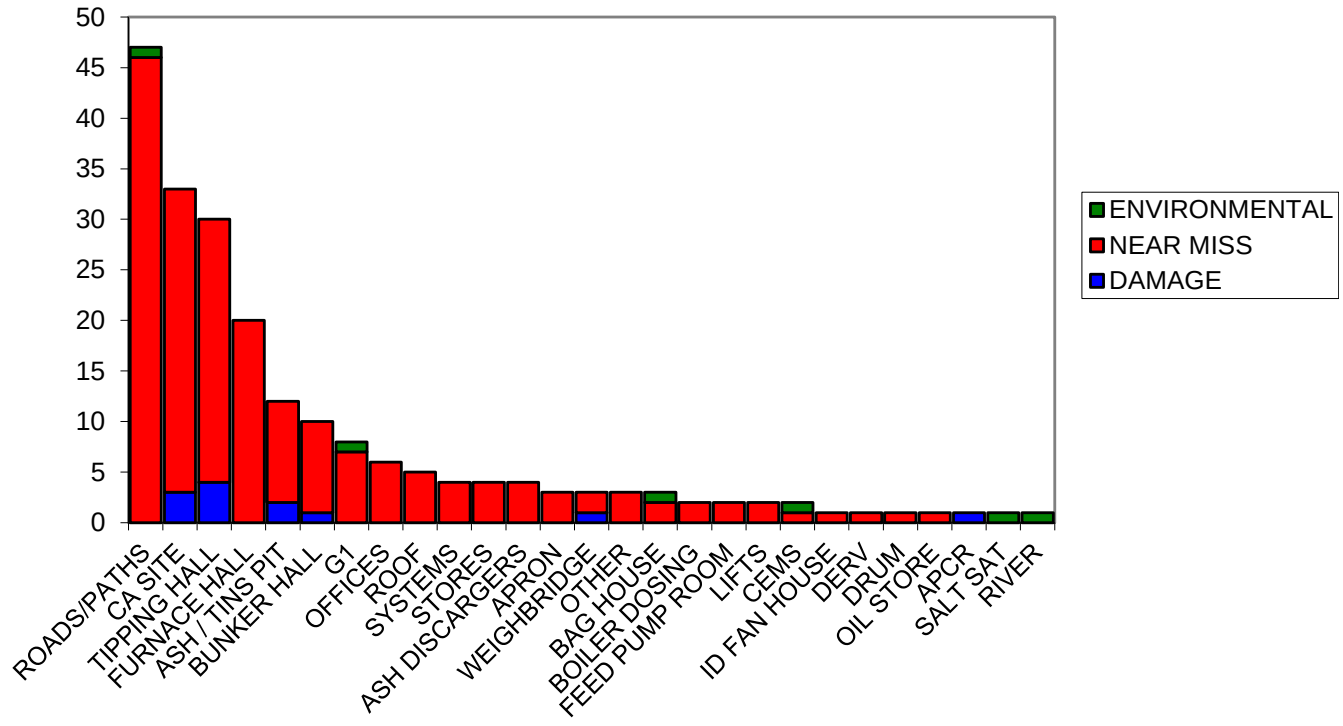




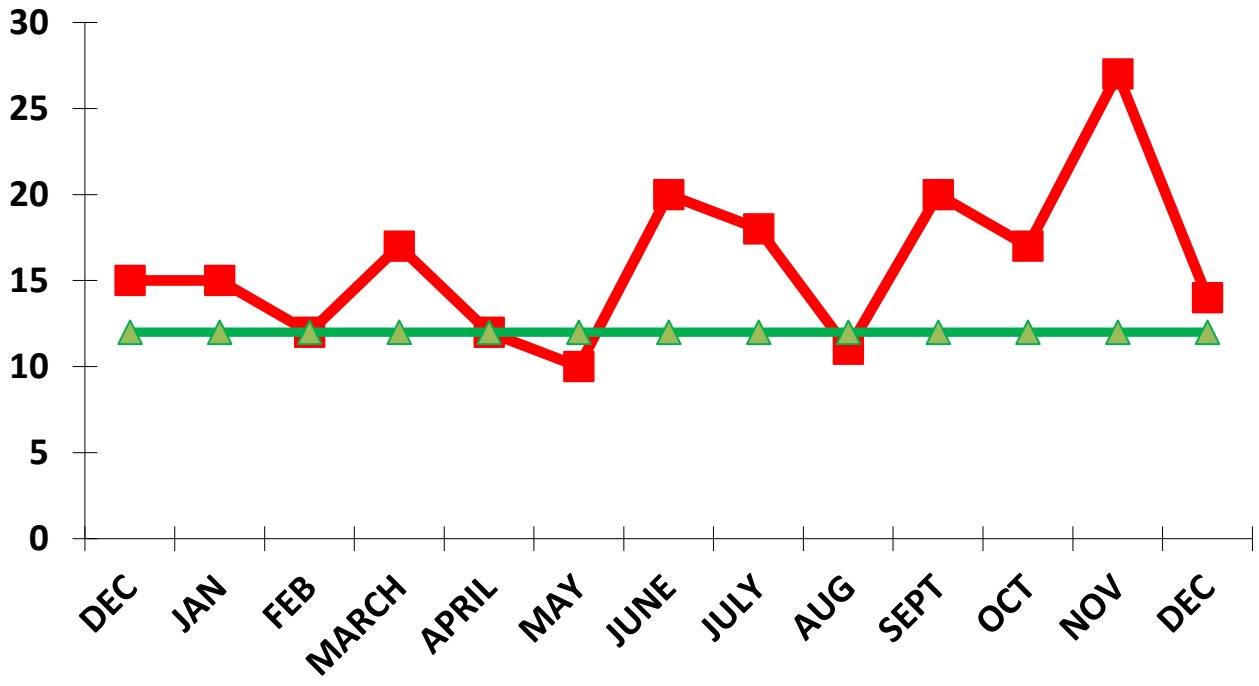


APPENDIX 2 – INCIDENT & NEAR MISS SUMMARY 2020

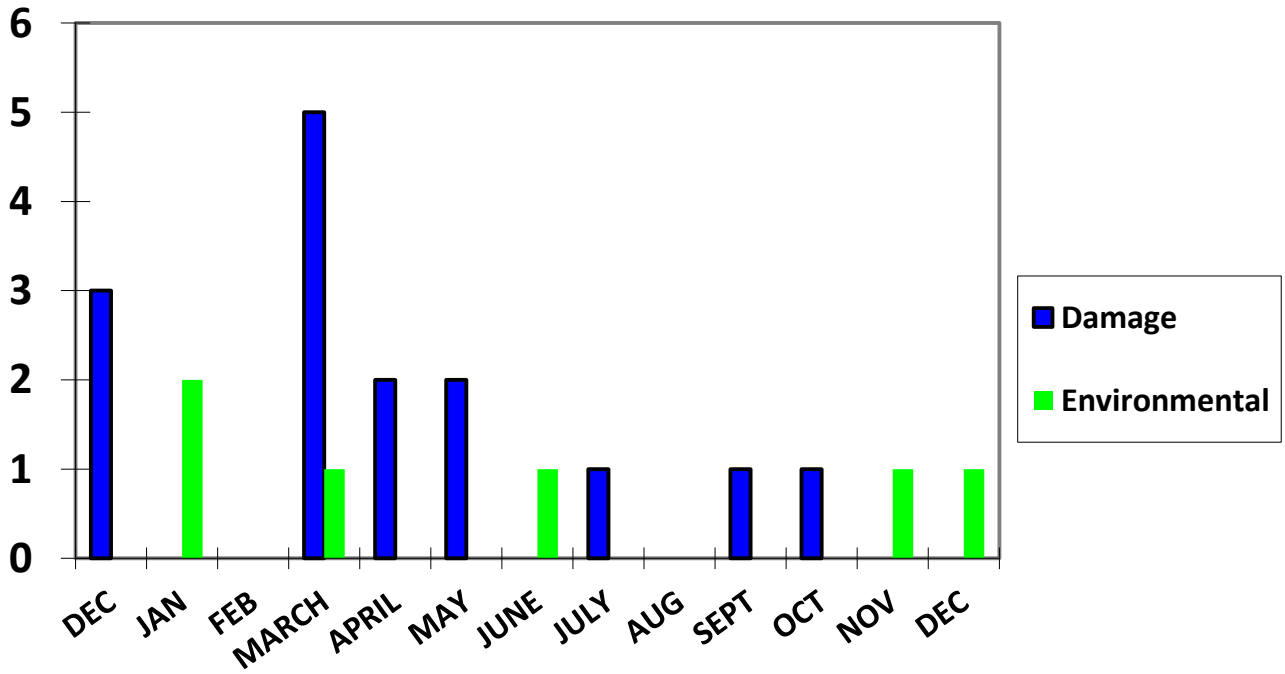
Incidents, Hazards & Near Misses by location:



Hazard and Near Miss trend 2020



Damage and Environmental incident trends 2020



APPENDIX 3 - ENVIRONMENTAL PERFORMANCE

KEY PERFORMANCE INDICATORS 2020

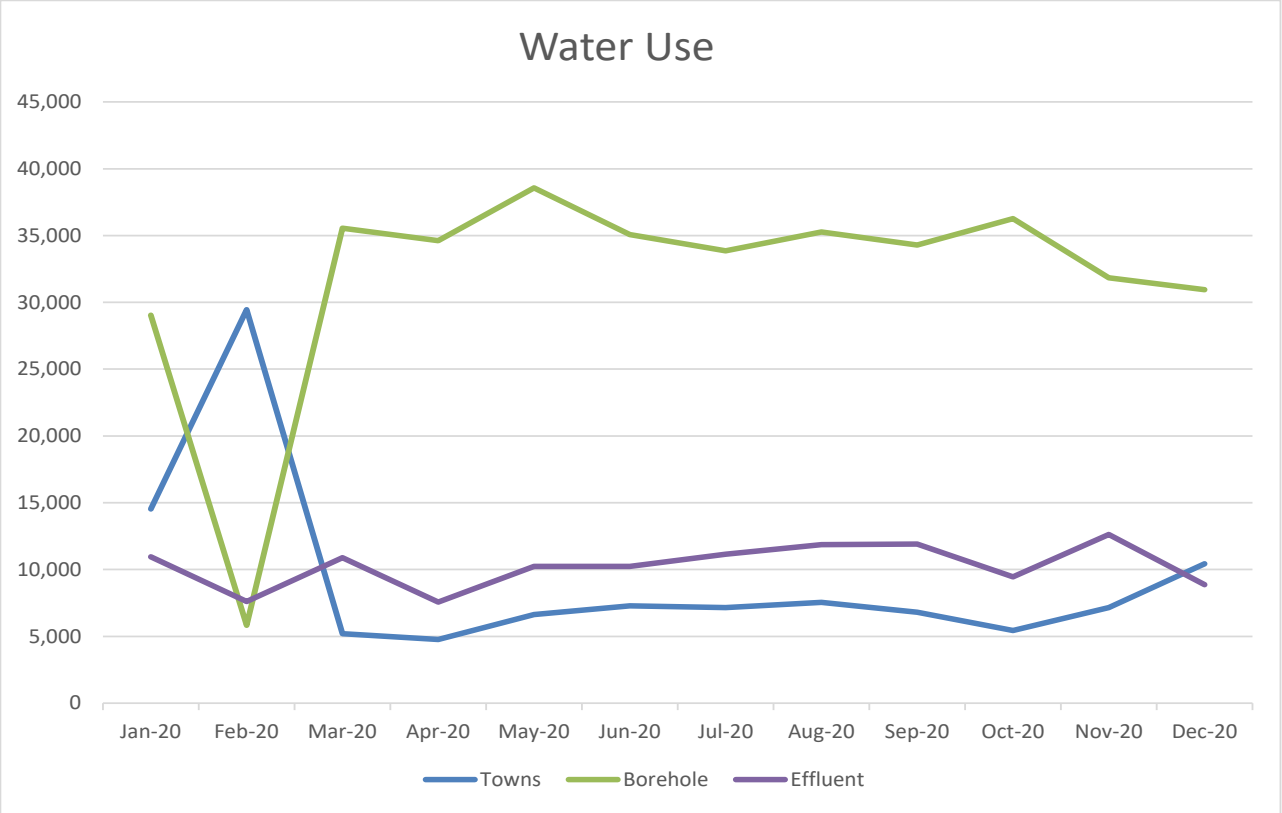
Gross resource use

	Type	2020	2019	2018	2017	2016
Waste Disposal (tonnes)	Waste Throughput	313170	298854	288976	292989	282849
	APC	12904	11661	10450	10384	10924
	Bottom Ash	47961	44065	44217	45176	45992
	Incinerated Metal	8450	7697	7155	7575	8020
Electrical Generation (MWh)	Exported	113052	110071	109581	95245	102062
Water Usage (m^3)	Town's supply used	112340	84650	81887	82489	80341
	Site abstracted - river + borehole	381169	405917	424614	340484	377356
Water Discharges (m^3)	Effluent to Sewer	123312	109390	114150	112804	209026
Gas Usage (ft^3)	Site Consumed	2853800	2994700	2493800	2089700	1613700
Electricity Usage (MWh)	Site Consumed	23404	21928	22142	18789	22720
Steam Flows	Total Steam Flow (t)	927980	919066	913824	859668	907172
	Steam /t waste	2.96	3.08	3.16	2.93	3.21
	Steam (t)/MWh_{Export}	8.21	8.35	8.34	9.03	8.89

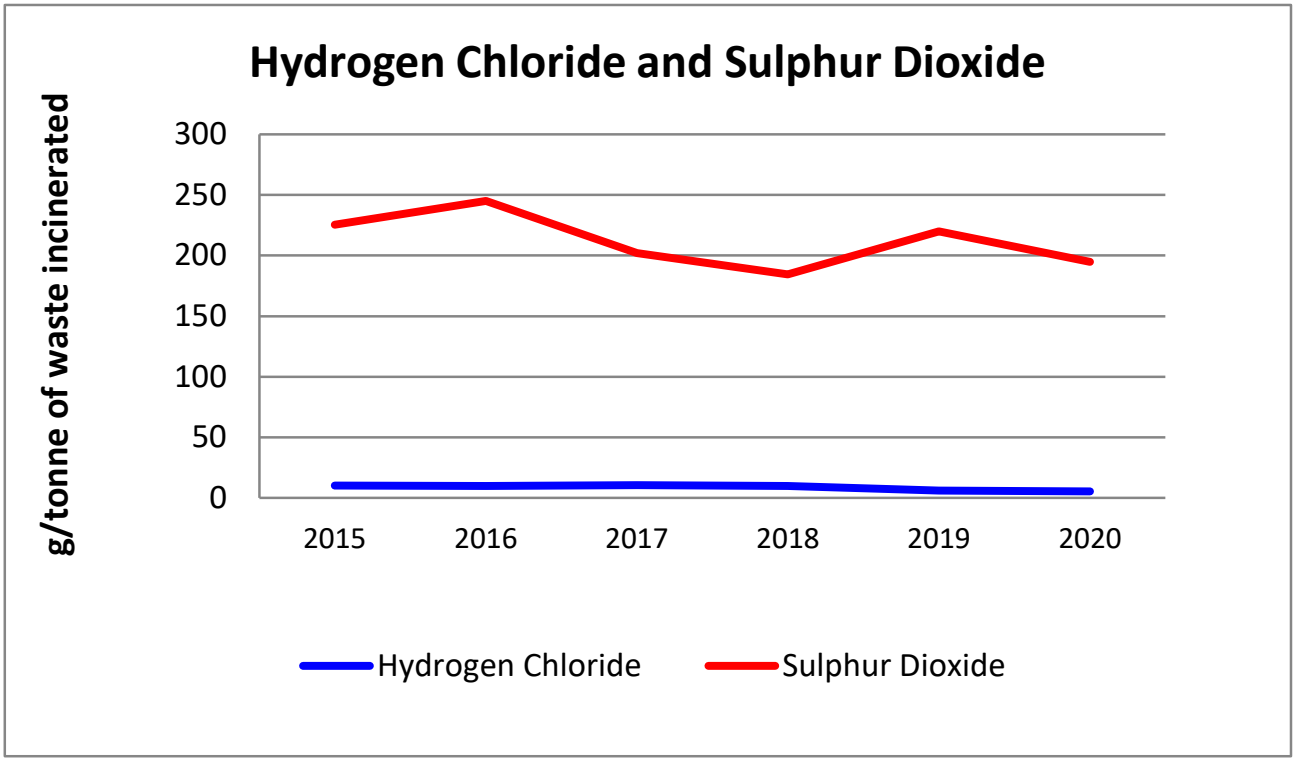
Indicators per tonne of waste processed

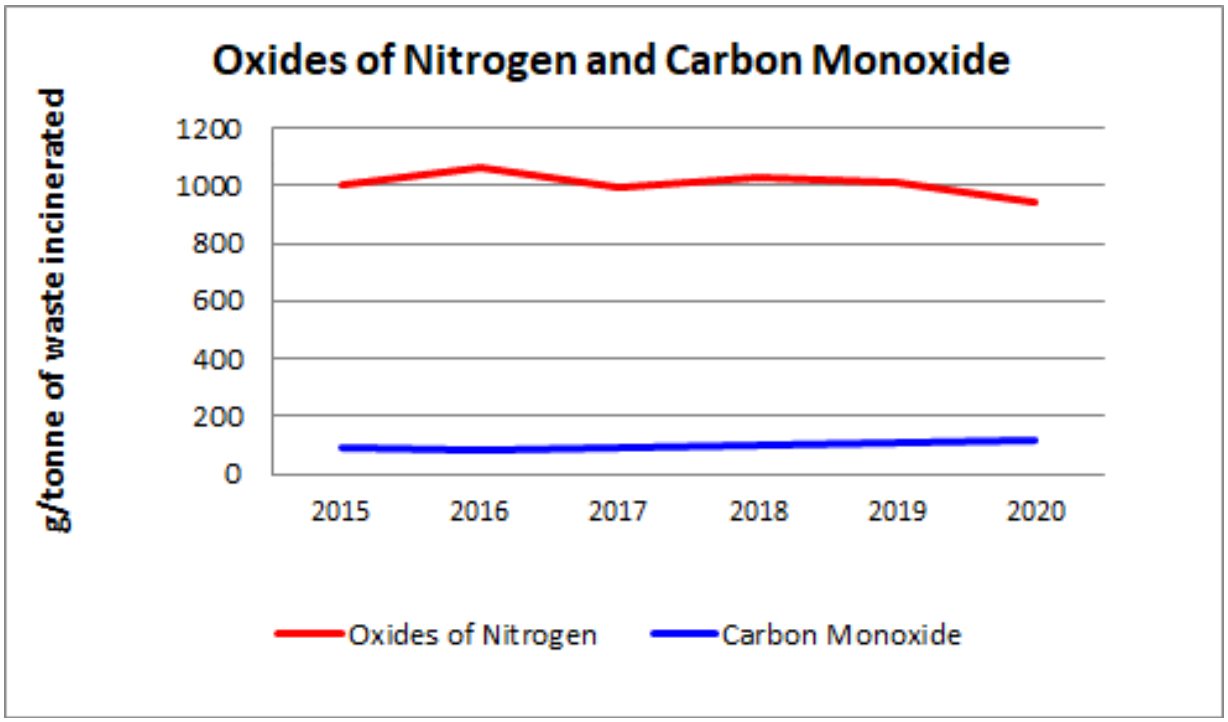
INDICATORS PER TONNE OF WASTE PROCESSED	**2020**	**2019**	**2018**	**2017**	**2016**
Incinerated metal (tonnes)	0.027	0.026	0.025	0.026	0.028
APC Residue (tonnes)	0.041	0.039	0.036	0.035	0.039
Bottom Ash (tonnes)	0.15	0.15	0.15	0.15	0.16
Electrical Generation	**MWh**	**MWh**	**MWh**	**MWh**	**MWh**
Electrical energy exported	0.36	0.37	0.38	0.33	0.36
Electrical energy consumed	0.07	0.07	0.08	0.06	0.08
Water Usage/Discharges	**M^3**	**M^3**	**M^3**	**M^3**	**M^3**
Town's water consumed	0.36	0.28	0.28	0.28	0.28
River/Borehole water abstracted	1.22	1.36	1.47	1.16	1.33
Effluent discharged to sewer	0.39	0.37	0.40	0.39	0.74
Gas Usage	**Cu ft**	**Cu ft**	**Cu ft**	**Cu ft**	**Cu ft**
Gas consumed	9.11	10.02	8.63	7.13	5.71

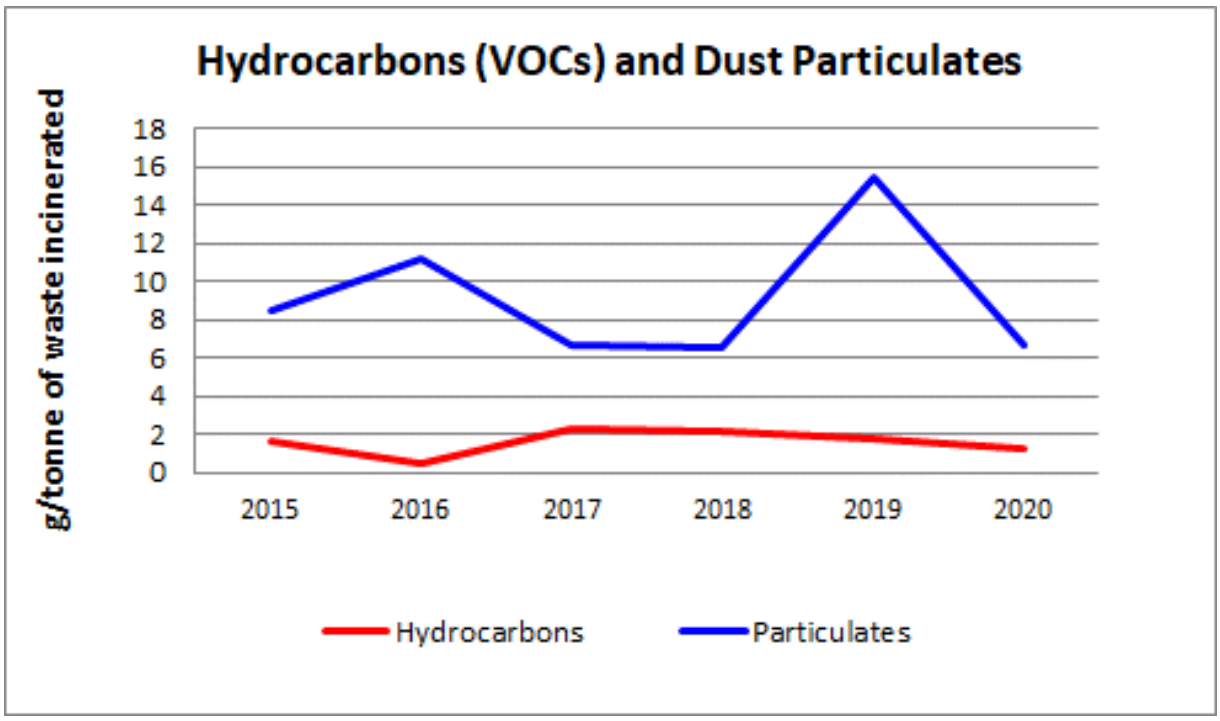
Water use trends 2020

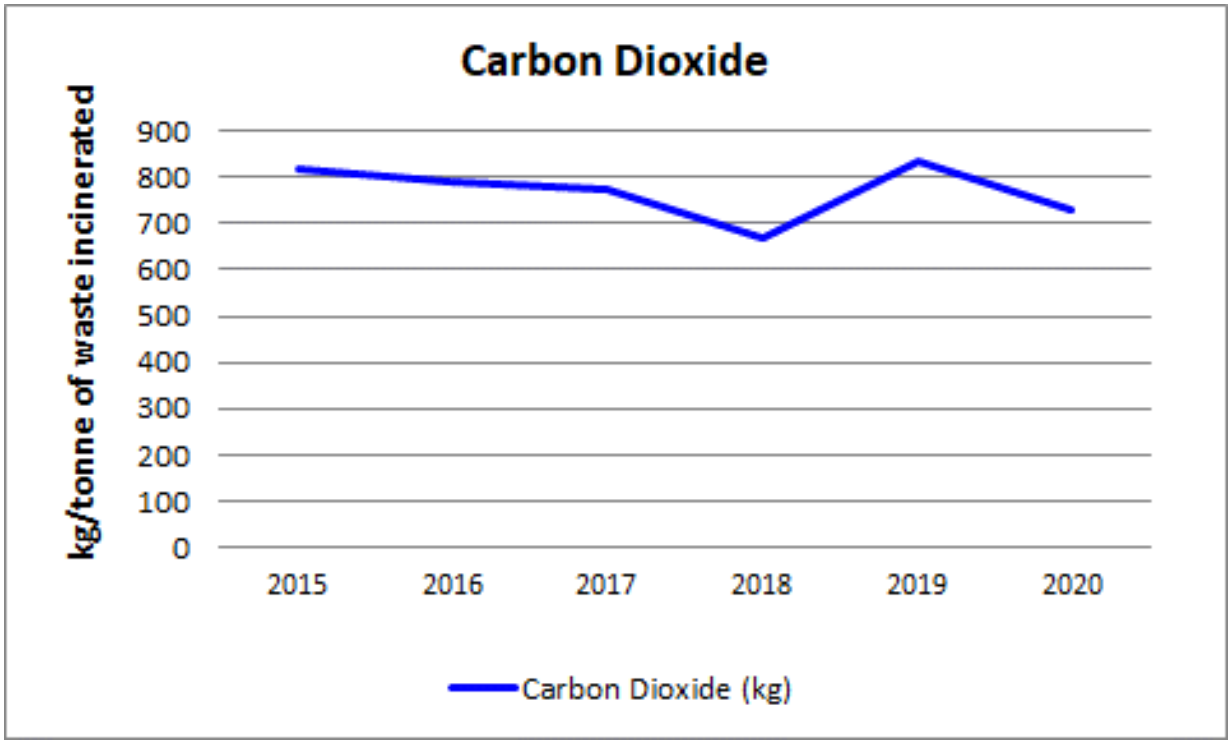


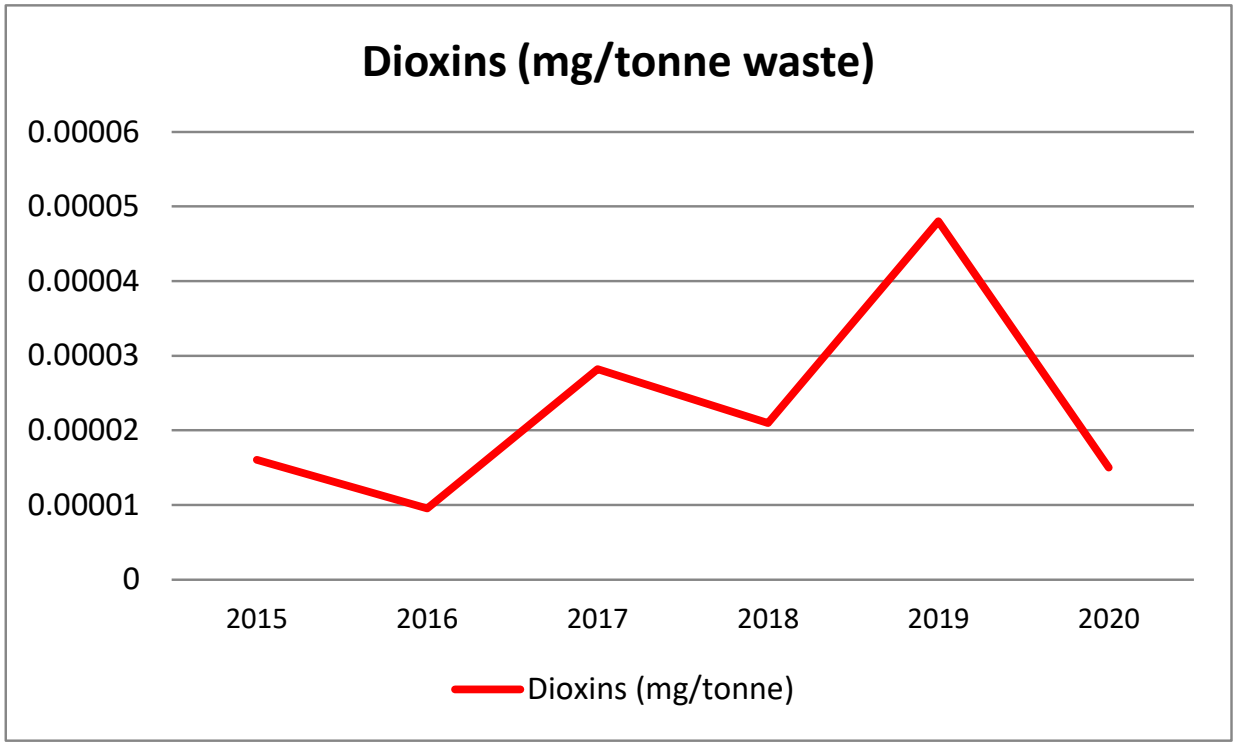
APPENDIX 4 – EMISSION PERFORMANCE (last 5 years)




Oxides of Nitrogen and Carbon Monoxide
g/tonne of waste incinerated
1200
1000
800
600
400
200
0
2015
2016
2017
2018
2019
2020
Oxides of Nitrogen
Carbon Monoxide


Hydrocarbons (VOCs) and Dust Particulates
g/tonne of waste incinerated
18
16
14
12
10
8
6
4
2
0
2015
2016
2017
2018
2019
2020
Hydrocarbons
Particulates


Carbon Dioxide
kg/tonne of waste incinerated
900
800
700
600
500
400
300
200
100
0
2015
2016
2017
2018
2019
2020
Carbon Dioxide (kg)


Dioxins (mg/tonne waste)
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2015
2016
2017
2018
2019
2020
Dioxins (mg/tonne)

APPENDIX 5 - SAFETY HEALTH AND ENVIRONMENT IMPROVEMENT PLAN 2020

#	Objective	Project Description	Due date	Who?	Information / Comment	Status
1	Health	Air conditioning for HWRC cabins to improve working environment in hot weather	Jun-20	DL	Installation ongoing of air conditioning units in main office and mess room to reduce heat stress in the summer	✔
2	Safety	HWRC Signage improvements to clarify bays and zones for staff and MOPs	Dec-20	DL	Delayed due to COVID however project has been completed and sign company have the designs. Actual Installation will be carried out early 2021.	✔
3	EHS	New HWRC kiosk at Public Site, existing is old and in need of improvement	Dec-20	DL	Work is completed	✔
4	Environment	BREF - second trial of NOx and SNCR to gather further data on reliability of the relation between the SNCR dosing and resulting NOx values	Dec-20	CPC	2020 project work completed - 2021 project work planned.	✔
5	Safety	Assess the need to raise bunker wall height to meet current standard for handrails 1100mm. Existing is 900-950mm which does not give adequate protection in all cases	Dec-20	Projects	The review meeting in Dec to finalise actions for 2021 if required. Initial findings indicate the raising the walls may lead to issues with crane access.	✔
6	Health and safety	Fit CCTV to the ash cab to improve ergonomics and grab control for drivers	Dec-20	BM/ EP	Commissioning completed on 24/11/20	✔
7	Environment	Bulk water tank over flow outlet flows to the river. Although this is essentially clean water, as it is process effluent, it should diverted to sewer instead of river.	Dec-20	Projects	Completed	✔
8	EHS	Implement ISO45001 to replace the OHSAS18001 standard that is being phased out	Aug-20	EHS	Completed and certificate issued	✔
9	Safety	Consider installation of further traffic calming measures	Dec-20	Projects	Visual or physical reminders for all drivers when they use excessive speed. Automated speed signs installed Sept	✔
	COMPLETED	✔	**IN PROGRESS**	▲	**OVERDUE**	X

APPENDIX 6 OBJECTIVES AND TARGETS FOR 2020

Objectives:

To prevent pollution, increase recycling, reduce waste and reduce the use of natural resources within company processes.

To reduce accidents and risks of injury and ill health to all persons working for us or on our behalf, whilst raising awareness of hazards and reinforcing a culture where no hazard is ignored.

To maintain our existing certifications to ISO14001 and ISO45001 management systems.

Targets:

Env 1	Maintain breaches of permit at 2 or less for the year	✔	H&S 1	Improve on 2019 levels of injuries to persons	✘
Env 2	Improve energy efficiency in office and operational areas	✔	H&S 2	Reduce the injury frequency rate for staff and contractors in line with injury target for the year. Target 4.0/100,000 hours worked	✔
Env 3	Maintain valid environmental complaints to 1 for the year	✔	H&S 3	Reduce RIDDOR reportable injuries to zero for the year	✔
Env 4	Reduce pollution risk to the immediate environment	✔	H&S 4	To maintain near miss reporting at its current level. Target is 144 or more for the year (12/MONTH)	✔
EHS 1	Perform area inspections and audits to the respective plan for the year	✘	H&S 5	Carry out 5 x emergency response mock scenarios in the year	✔
EHS 2	Ensure all incident reports are effectively actioned	✔	H&S 6	To identify and manage all instances of work related ill health affecting employees	✔

SAFETY HEALTH AND ENVIRONMENT IMPROVEMENT PLAN 2021

#	Objective	Project Description	Due date	Who?	Information / Comment	Status
1	EH&S	Improve plant identification, labelling and drawings	Dec-21	Eng/Ops	Produce a plan to improve plant identification, labelling and drawings. This project will be carried out in parts over the next 3 years. First part (2021) will be to agree the scope of work, a numbering system and then to update the revelent drawings	
2	Safety	HWRC signage modernisation and simplification	Apr-21	Waste	Delayed due to COVID in 2020, however initial project work has started in conjunction with staff on site, regarding improvements and simplification of the signage. Also addition of more 'one way' and 'no entry' signs to reduce occurrences of MOPs breaching traffic the management plan	
3	Safety and Environment	Tipping Hall door widening and relocation of pedestrian access route to site	Dec-21	Projects	Consider door widening to improve access space for vehicles (to reduce vehicle collision damage to roller shutters). This may require an alternative pedestrian route to be found, therefore viability of this project will depend on a cost/benefit analysis	
4	Environment and Health	Develop a Carbon footprint policy	Dec-21	All	Develop a plan to reduce the company's carbon footprint - This will include a carbon balance assessment, EV charging points, cycle to work scheme, further lighting modernisation and possible home working (subject to business requirements)	
5	Environment and Health	Noise reduction at plant cleaning vacuum system	Sep-21	Projects	Improves personnel health and reduces nuisance noise from the rear of the plant, helps communication for anyone in the area	
6	Safety	Safety rules audit	Nov-21	Ops Eng CPC	Assess continued suitability of all aspects of the system for all users and ensure the system effectively meets its intended purpose	
7	Health and safety	Furnace pressure transmitter replacement	Dec-21	Eng	Enabling better combustion chamber pressure control and reducing hazardous fugitive emissions from the chambers into the plant space	
8	Environment	Salt saturator water level control	Sep-21	Projects	Reduction in water use though improved control of water	
9	Environment and Health	Remove mag sep and conveyors, thus removing electro magnet and motors	Nov-21	Projects	Scope needs agreement as tins pit may serve as a stand-by ash pit at times. Some coveyors may remain after mag sep removal	
	COMPLETED	✔	**IN PROGRESS**	▲	**OVERDUE**	X

GLOSSARY OF TERMS

BAT	best available technique
BREF	best available technique reference document
EA	Environment Agency
ELV	emission limit value
G1/G2	generator 1 / generator 2
HSE	Health and Safety Executive
HWRC	household waste recycling centre
IBA	incinerator bottom ash
KPI	key performance indicator
RAMS	risk assessment and method statement
RIDDOR	reportable injuries diseases and dangerous occurrences