



Environment, Health and Safety Review for the year to 31st December 2022

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1. Introduction

This report provides a review of Environment, Health and Safety for CSWDC from 1st January to 31st December 2022 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



Complaints





3. Health and Safety Performance

3.1 Injuries

During 2022 there were 15 injuries reported under the incident reporting procedure. Two accidents involving employees, nine accidents involved contractors, and four involving members of the public on the HWRC.

Of these, none (0) required reporting under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

Month of Injury	Group of Person	Location	Description
March	Public	HWRC	Grazed leg on own vehicle due to slipping and catching their foot in uneven tarmac
April	Public	HWRC	Cut own hand on own waste being disposed of at HWRC
April	Public	HWRC	Struck self on head whilst disposing of piece of wood waste
June	Contractor	Bunker Hall	Scratched eye with plastic banding on refuse grab during cleaning
June	Staff	HWRC	Tripped on uneven concrete ground whilst supervising a waste collection
July	Contractor	Furnace Hall	Foreign body in the eye
August	Contractor	Apron	Grazed shin whilst unloading mobile plant
August	Public	HWRC	Scratched face whilst disposing of own green waste
August	Staff	HWRC	Slipped on small piece of plastic waste left on the ground bruising knee
September	Contractor	Furnace Hall	Cut own hand with craft knife being used to open new lifting sling
September	Contractor	Furnace Hall	Slipped into a gap on the grate bruising knee
September	Contractor	Bunker Hall	Scratched face on faulty crane cable/rope due to faulty wrapping
November	Contractor	Furnace Hall	Scalded neck when hot condensate was released from faulty equipment above
November	Contractor	Furnace Hall	Contractor fingers fractured as they entered the boiler without advising their work team
November	Contractor	Ash dischargers	Bumped head on a 4 inch drain pipe, unlikely that helmet was worn

The 15 first aid injuries are detailed below:

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 and improvements to safe systems of work. Specific actions were implemented where possible to further reduce risk. 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 2021 performance; where there were 8 injuries. The injury rate per 100,000 hours worked for staff and contractors has increased from 2.39 injuries per 100k hours worked to 4.57. Whilst this increase may appear to be significant, it should be noted that 2021 results were by far the lowest on record and that a comparison with previous years shows a less dramatic increase.

Recorded staff injuries fell by 33% compared to 2021, from three to two in the 12-month period. Contractor injuries have increased significantly when compared to 2021 but less so when compared to previous years. This however has been an area of focus and specific measures have been implemented in order to address the recent rise in contractor injuries, which include:

- Increased behavioural safety activities during outages and other periods of higher activity
- Increased numbers of permitted work audits
- Increased focus on basic safety principles
- Continued use of the contractor assessment system
- Targeted discussions with contractors during outage management meetings

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Public injuries have increased from 2 in 2021, to 4 in 2022. The 2021 result was their lowest level for some years.

The public can 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
2017	3	6	1
2018	1	4	5
2019	5	5	3
2020	5	3	6
2021	3	3	2
2022	2	9	4







Most 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 152 hazards/near misses reported during 2022, which exceeds the target set at the start of the year (12 each month). The reporting of hazards and near misses is encouraged as it allows us to identify and 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. Reports include abusive customers at the HWRC.

Damage incidents have decreased slightly from 30 in 2021 to 28 in 2022. Though this is an improvement it remains disappointing as historical incident levels were much lower. The majority of damage incidents relate to the operation of equipment such as cranes and mobile

plant, and damage caused by client waste delivery drivers. There is also a possibility that reporting levels have increased due to changes in the management team in recent years.

The incident reporting levels from other areas such as operations and engineering remain 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 2022.

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. Senior manager attendance is being reduced slightly in 2023, by introducing a more rotational attendance system. The reason for this change is to encourage more members of staff to join the committee instead for a greater balance and improve staff awareness/participation.

3.4 Employer Liability & Public Liability Insurance Claims

No new insurance claims were raised in 2023. There has been no further communication regarding the noise induced hearing loss claim received in 2021.

3.5 Workplace Inspections

Monthly internally driven workplace inspections continue to be performed by management, supervisors and employee representatives on the EH&S committee. Completion percentage increased substantially from 73% in 2021 to 89% in 2022.

4. Environmental Performance

4.1 Environmental Complaints/Incidents

There was one complaint received in 2022, which related to odour described as 'a styrene smell' by a neighbour and was as such very unlikely to have been attributable to CSWDC activity. Checks were made to all odour controls and a number of issues were identified, though the complainant did add that a neighbour undertook car bodywork repairs nearby, which are extremely likely to have been the actual source of the odour. Therefore this complaint has been classes as not valid.

4.2 Other Environmental Matters

Continuous Emission Monitoring System (CEM's)

The CEM's system has been upgraded so each line now has its own standby for greater redundancy should there be an issue with the equipment. The system has automatic switch over and all the standby units are housed in a separate cabin from the duty analysers to improve the business continuity fire risk as per the insurers recommendations.

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 13043.27 MWh_{Thermal}. It should be noted that for CSWDC to achieve R1 status this heat load would have to increase by a factor of 7.

UK Ammonia (NH₃) Shortage 2022

Following reports that CF Fertilisers were considering pulling out of the British market DEFRA and EA considered a regulatory position statement (RPS) to allow EFW's to run without ammonia dosing in the event of a shortage. CF fertilisers supply's 60% of the ammonia to British markets. There are 26 EFW's in England that would be affected. Initial talks indicated that air dispersion modelling would have to be carried out. CSWDC engaged Fichtner to carry out this modelling and submitted it for review and sign off by AQMUA (air quality monitoring unit in the EA) Sept-22. The Fichtner modelling showed CSWDC's EFW plant's impact over 6 months to be insignificant. AQMUA are yet to complete their sign off.

EA Enforcement

The sites EA enforcement officer; Gurinder Bains, visited site once on the 19/05/22 to undertake an audit of the CSWDC flood emergency response plan. The results of the audit were very positive.

Incinerator Bottom Ash (IBA)

No significant change has occurred regarding the classification of IBA in 2022. 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 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 carbon footprint, 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 65% 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 EQUANS (formally Engie) increasing their heat load.

R1 Energy Efficiency

There is an ongoing steer from the Environment Agency to achieve R1 status. CSWDC has been working with technical specialists Ramboll to achieve this. During 2022, they clarified that R1 was not currently achievable unless the district heating scheme was expanded by a factor of 7 or the sub cooling system (G1 bypass) was removed from service resulting in reducing the throughout rate from 300ktpa to 276ktpa.

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). The Environment Agency issued a permit variation EPR/NP3739PD/V009 on 05/10/22. CSWDC received a copy and were informed on 11/10/22. This variation is a consolidated permit, which incorporates all seven previous variations, the original permit and new BREF requirements. The new emission limit values (ELV's) do not come into force until the 03/12/23.

Work continues in preparation for the revised BREF, particularly BREF NO_{X} / NH_{3} slip optimisation:-

• QAL2 results have been received and inputted into the CEMS with no significant impact. A review is currently being carried out by a consultant regarding the CEMs,

focusing on the QAL2 functions. Further in-depth checks will be carried out onsite over a 2-day period

- Element have carried out additional trial testing w/c 05/12/22 using wet chemistry and their own calibrated FTIR machine. The line tested had two CEMS (duty and the standby) analysers monitoring at the same time to provide additional data regarding CEMS performance post QAL2 testing
- Raw NOx trial has been carried out on line 3 prior to shutting down before the November outage at the request of RJM. Line 3 is indicating an average 30 minute unabated NOX of <400mg/m3. This is positive as it indicates that our current SNCR system can manage those levels. The value was required as part of the improvement condition in the new permit
- Trials have been completed on unit 3 to help understand if operating the unit at the design point will result in the unit meeting the new BREF NOx/NH₃ ELV's
- SO₂ and HCL BREF trials on unit 3 were compliant
- Martin (grate and combustion control specialists), NOxSOL (SNCR specialists) and combustion / emissions specialists RJM are currently assisting the operations and engineering teams regarding NOx and NH₃ optimisation
- Line 1 and 2 raw NOx trials are planned for January (1) 2023 and March (2) 2023. RJM are currently carrying out CFD modelling and temperature mapping of the process.
- Ramboll are working on the electrical efficiency calculation BREF requirement

Carbon Footprint

An energy and resource efficiency section has been included within the EH&S leadership and statement policy. This has been communicated to all staff via the monthly team brief.

New environmental standards for EfW plants published by the European Commission in 2019 and adopted by the UK will see lower limits introduced for almost all pollutants, including oxides of nitrogen (NOx) and particulate matter. CSWDC will be required to meet the new limits by December 2023.

Carbon Zero Strategy Summary

The Company is committed to assisting the UK in achieving its goal of net zero carbon emissions by 2050 and believe the best strategy for doing so is by the business playing an integral part in the circular economy. Energy from Waste (EfW) plants provides affordable, green (circa 60% of residual waste is biogenic), secure energy supply solutions that form part of the developing circular economy by reducing reliance on landfills and obtaining the maximum value from waste streams. Even with increased levels of recycling and reuse, there will be significant feedstock's available for EfW plants for some time.

The Company can demonstrate a net carbon benefit when comparing disposal of residual waste via its EfW plant against landfill. However, the government is unlikely to accept carbon offsetting, such as comparing to landfill or afforestation and reforestation, in any future legislation. This is because this method of offsetting is seen as controversial and is often described as 'greenwashing' due to the lack of rigour and consistency in underlying or applied standards. Consequently, carbon capture and storage (CCS) is currently the only solution for the Company to achieve net carbon zero carbon emissions. However, CCS infrastructure, particularly storage, is in the early stages of development with the storage areas located a significant distance from the Company in the North and Irish Sea exhausted oil fields. As a result, the level of carbon emissions emitted through transporting 100,000 tonnes of carbon each year would currently negate the carbon savings from installing a CCS plant. The CCS plant would also need to be located on the site of the current HWRC with an estimated cost of £78m and with no government financial assistance available. It is, therefore, not currently deemed viable to invest in retrofitting an expensive

CCS plant onto an EfW plant constructed in 1975. Notwithstanding these issues, over the course of the remaining years of the service level agreements the business will continue to play a key part within the UK circular economy whilst also continuing to look at ways to reduce its carbon footprint wherever possible, for example by plant efficiency improvements. The progress of the recently implemented government waste policies, such as the plastic tax and extended producer schemes which are in place to reduce residual waste volumes and plastics, will also be closely monitored. Before 2030 it is intended that the Company will consider a replacement solution for the plant taking into consideration future capacity requirements and the latest low carbon technology.

4.3 Unauthorised Releases

There were no unauthorised releases reported to the Environment Agency during 2022. The sampling and analysis processes were checked and reviewed, with further sampling undertaken and analysed at two different laboratories to ensure accuracy. Both retests returned compliant data and it is believed that the elevated level was due to a calculation error.

Year	Yearly Total
2022	0
2021	1
2020	1
2019	2
2018	3
2017	1
2016	0
2015	1
2014	1
2013	2
2011	4

Unauthorised Release Historical Data

4.4 Other Release Notifications

Abnormal Operation

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

Veer	Line 1	Line 2	Line 3	Total hours
rear	60hr limit	60hr limit	60hr limit	180 hrs
2022	8.33	0	4.5	12.83
2021	1.5	1.65	1.5	4.73
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

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 2022.



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 as a percentage of the Emission Limit Value. NOx emissions remain controlled at levels below the current ELV by a system which balances the emission level with the amount of ammonia that is injected. A similar system is in operation on the SO₂ sorbent 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, with comparison for the preceding 4 years to show trending.

Dust levels have increased due to some installation difficulties relating to new design filter bags, as well as the filter medium nearing end-of-life on unit 3. CO levels have increased slightly most likely caused by changes in waste make-up and changes in controls that have been introduced to improve reduction of NOx emissions ready for the introduction of lower ELVs at the end of 2023.

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 2022.

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) decreased during 2022 over 2021 results, from 473086m³ to 445,471m³. Town's water use increased from 110,921m³ to 122,128m³ whilst abstracted borehole water use decreased from 362,165m³ to 323,343m³ and effluent to sewer levels decreased from 119,165m³ in 2021 to 105,726m³ in 2022.

Overall water use when measured against waste throughput was marginally lower than in 2021. The increase in the use of town's main water and reduction in borehole water use is due to an unplanned fault on the borehole water system which affected its availability in July.

The volume of gas consumed by the site decreased by a small margin from 3,960,900ft³ to 3,896,100ft³. This is largely due to fewer minor breakdowns requiring the use of the burners.

The exported electrical energy generated per tonne of waste has remained similar to last year's performance with 0.36 MW/tonne generated.

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 production increasing marginally due to increased lime use. Ferrous metal collection remained steady at 2.7% of throughput mass.

5. Contacts with Regulatory and Other Bodies

5.1 Health & Safety Executive

There were no visits to site nor any other formal communications received from the HSE during 2022.

5.2 Environment Agency

During 2022 the Environment Agency PPC Compliance Officer made one visit to site to audit the flood emergency response plan. The audit went well with a small number of minor point that needed clarification.

5.3 EH&S Management System Audits

The third party auditing body carried out a triennial recertification audit of the Company Environmental, Health & Safety Management System (EHSMS) during September 2022. The system was certified for continued compliance to the environmental ISO14001 and the health and safety ISO45001/2018 standard. During the visit, all previous corrective action requests and observations for improvement were closed out.

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

Internal audits were performed on the integrated EH&S systems on a monthly basis during 2022. Two 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 reauditing 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 2022, there were no visits to site for educational purposes. It is hoped these can restart in 2023 with the continued relaxation of restrictions, though interest has not been forthcoming.

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 site induction is available via the website 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 excellent, with the majority of targets being met. The notable exception is the increased number of injuries to persons, which increased from 8 in 2021, to 15 in 2022.

Thankfully most injuries were minor in nature and none were reportable under RIDDOR.

Whilst the increase to 15 is disappointing, it is notable that 2021 was a 'best-ever' performance, much lower than the 2020 result of 14.

Given that 9 or the 15 injuries in 2022 involved contractors, it is hoped that measures that have been implemented will support a reduction this year.

Damage incidents, although still high at 28, remain lower than in 2021 and it is hoped that steps taken to deter careless driving of waste delivery vehicles and mobile plant will prove effective.

The target set for 95% of area inspections to be completed was not met, though the result of 90% is a worthwhile improvement on the previous year.

The targets set for reducing carbon footprint was met with small but worthwhile reductions in gas and water use.

The target for behavioural conversations was also met. Changes to the inspection and behavioural strategy in 2023 will further embed this activity into the company culture.

Abnormal operations increased to a total of 12.83 hours from 4.74, though they were well within the 60-hour limit total across each of the three units.

One action on the 2022 improvement programme (Appendix 5) has been carried over to 2023, this is due to the project in question being a medium term project that is expected to run over a number of years – plant labelling and identification.

Objectives, targets and the improvement plan for 2022 can be found in Appendix 6, with 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 applicable 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 2020 and has been regularly updated when required by changes to UK Government guidance. In spring 2022 it was archived and replaced with a 'Living with COVID' document, with the most recent revision being in November 2022 when the surface cleaning was eventually removed.

Staff awareness remains heightened, though reality has returned almost fully, with the majority of meetings now being held in person again. Teams still has a place within the business as it is an ideal medium for holding meetings with remote persons without the cost, time and carbon footprint of travelling to a common venue.

Shareholders and stakeholders within the community rely on the essential service the business provides, and this was again fulfilled with increased reliability of plant ensuring shareholder wastes was processed effectively and efficiently.

The revised ELVs that are part of the new Environmental operating permit come into force later in 2023. Some of these limits will be challenging for the business and will require effort and discipline to meet due to the expected changes in operating ideology.

There were changes to PPE (the need to supply to casual workers employed by the company but not 'on the books') and Fire Safety legislation (relating to residential buildings) but these areas of change did not apply to CSWDC Ltd employees or premises.



APPENDIX 1 - INJURY STATISTICS 2022







APPENDIX 2 – INCIDENT & NEAR MISS SUMMARY 2022

Incidents, Hazards & Near Misses by location:







Damage and Environmental incident trends 2022



APPENDIX 3 - ENVIRONMENTAL PERFORMANCE KEY PERFORMANCE INDICATORS 2022

Gross resource use

	Туре	2022	2021	2020	2019	2018
	Waste Throughput	297821	295135	313268	298854	288976
Waste Disposal	APC	11846	11344	12904	11661	10450
(tonnes)	Bottom Ash	43365	42617	47961	44065	44217
	Incinerated Metal	8035	7988	8450	7697	7155
Electrical Generation (MWh)	Exported	108267	105452	113052	110071	109581
	Town's supply	122128	110921	112340	84650	81887
Water Usage (m^3)	used					
water Usage (iii)	Site abstracted -	323343	362165	381169	405917	424614
	river + borehole					
Water Discharges (m ³)	Effluent to Sewer	105726	119165	123312	109390	114150
Gas Usage (ft ³)	Site Consumed	3896100	3960900	2853800	2994700	2493800
Electricity Usage (MWh)	Site Consumed	22847	22202	23404	21928	22142
	Total Steam Flow (t)	897054	875108	927980	919066	913824
Steam Flows	Steam /t waste	3.01	2.96	2.96	3.08	3.16
	Steam (t)/MWh _{Export}	8.29	8.3	8.21	8.35	8.34

Indicators per tonne of waste processed

INDICATORS PER TONNE	2022	2021	2020	2019	2018
WASTE PROCESSED					
Incinerated metal (tonnes)	0.027	0.027	0.027	0.026	0.025
APC Residue (tonnes)	0.04	0.038	0.041	0.039	0.036
Bottom Ash (tonnes)	0.146	0.14	0.15	0.15	0.15
Electrical Generation	MWh	MWh	MWh	MWh	MWh
Electrical energy exported	0.36	0.36	0.36	0.37	0.38
Electrical energy consumed	0.076	0.075	0.07	0.07	0.08
Water Usage/Discharges	M ³				
Town's water consumed	0.41	0.38	0.36	0.28	0.28
River/Borehole water abstracted	1.09	1.23	1.22	1.36	1.47
Effluent discharged to sewer	0.36	0.4	0.39	0.37	0.40
Gas Usage	Cu ft				
Gas consumed	13.08	13.42	9.11	10.02	8.63

Water use trends 2022



APPENDIX 4 – EMISSION PERFORMANCE (last 5 years)











Note* Dioxins are present is such small numbers that the limits of detection relating to the instruments used can affect overall results. The 2022 result is not excessive, though it is higher that previous years

#	Ohiective	Project Description		Who?	Information / Comment	
1	EH&S	Improve plant identification, labelling and drawings	Dec-23	Eng./Ops	This project is continued from 2021 and will continue to be carried out in parts over the next 3 years due to the size of the task.	
2	Safety and Health	Formalise a random testing section of the Drugs & Alcohol policy, to include staff and contractors. Update the induction film to suit the changes in the policy	Oct-22	CPC	Needs planning and careful consideration. HR advisors to be involved. MS drafted policy - EP submitted to Peninsula who have signed it off - MS currently planning implementation with providers. Update - paperwork in place HR approved, briefing to be completed for staff asap, induction to be amended, trial to run in October to ensure compliance. Policy completed ready for implementation.	>
3	Safety	Crane bay fire escape improvements - modernise and maintain a user friendly hatched escape system, existing is poorly maintained and very difficult to use	Oct-22	Projects	Review existing system with view to improve user experience. BM has started review. Further work ongoing with Ben and Mick as per IP meeting. The review is completed design requires modification to allow user to gain access to the ladder safely. New project date extended to Dec 2022	>
4	Safety	Improve water meter access to enable reading of values - options of altering meter positions, improving access covers, etc.	Dec-22	Projects	Needs firstly assessing in order to understand the required improvements. Review of what is required has been carried out. Star Civil scheduled to complete first week Jan '23 In the meantime moving to daylight hours and some tree work by Gould's has made the area much more accessible.	•
5	Environment	Review and improve the office energy efficiency policy	Dec-22	CPC/ Projects	Assess and target largest contributors such as heaters, air conditioning, lighting and PC's. Improvements can be made by installing more efficient heaters and adjusting settings on AC units. Improve how this is communicated to staff. Meeting in diary to review updated policy and actions .Following discussions between the senior management team, the Leadership and Policy Statement section of the EH&S management system has been amended to include an Energy and Resource Use Policy. This has been issued as a team brief in October.	¢
6	Environment	Review and improve the paper reduction policy in order to move towards a paperless office	Sep-22	CPC	Review where we waste paper - Roll call tests, permits and documents being printed by staff unnecessarily. How can we control how many documents are printed - control/restrict user usage on the photocopier. Mick has approached Capita and they are currently working on electronic roll calls. Reviewed areas for improvement. Following discussions between the senior management team, the Leadership and Policy Statement section of the EH&S management system has been amended to include an Energy and Resource Use Policy. This action is completed.	>
7	Environment and business continuity	Improve CEMs redundancy by installing a complete back up in another location on the plant as per insurers recommendation	Dec-22	Projects	Included in 22/23 Capex program, cabin on inverter roof, two separate sets of 3 CEMs with auto switch over. Design work completed, CBISS quote updated with additional unit. End of year for installation.	¢
8	Health and safety	Furnace pressure transmitter replacement CARRIED OVER FROM 2021	Dec-22	Eng.	Enabling better combustion chamber pressure control and reducing hazardous fugitive emissions from the chambers into the plant space. In planning. Stuart Barnett has scoped project, parts have been ordered and once delivered will be installed. 26/01/22 update carried over to 2022 plan. Requires to be completed when units are shutdown - Line 2 in February-22, Line 1 in May-22 and Line 3 in June-22. Delays due to parts being delayed and installation requiring an outage.	>
9	Environment	Salt saturator water level control CARRIED OVER FROM 2021	Mar-22	Projects	Reduction in water use though improved control of water. Stuart Barnett has scoped project and ordered parts. Original date of Sep-21 moved to Dec-21 to complete due to Major Outage and Crane Installation. Completed	>
	COMPLETED	✓	IN PROGRESS		OVERDUE	Х

APPENDIX 5 - SAFETY HEALTH AND ENVIRONMENT IMPROVEMENT PLAN 2022

APPENDIX 6 OBJECTIVES AND TARGET RESULTS FOR 2022

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 OHSAS18001 management systems.

Env 1	2 or less breaches of environmental permit for the year	>	H&S 1	Increase behavioural conversations ≥ 14 a month	>
Env 2	Improve carbon footprint	>	H&S 2	Minimise the number of injuries to persons (staff, contractors, MoPs, visitors)	×
Env 3	Zero valid environmental complaints for the year	>	H&S 3	Maintain RIDDOR reportable injuries to zero for the year	>
Env 4	Reduce unnecessary shut down and start up cycles by installing a full standby CEMs for each unit	>	H&S 4	To maintain near miss reporting at its current level. Target is ≥ 144 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	>

Target Attainment: (see 3.5 and 4.1 for more details)

SAFETY HEALTH AND ENVIRONMENT IMPROVEMENT PLAN 2023

#	Objective	Project Description	Date	Who?	Information / Comment	
1	EH&S	Improve plant identification, labelling and drawings	Dec-23	Eng./Ops	This project is continued from 2021 and will continue to be carried out in parts over the next 3 years due to the size of the task.	
2	Safety and Health	Implement the random testing section of the Drugs & Alcohol policy, to include staff and contractors.	Jul-23	CPC Admin	Implementation of the revised plan following changes in procedure.	
3	Environment	Improve and reduce emissions of NOx and NH3 slip	Dec-23	Snr Mgt	Investigate and determine differences causing elevated emissions values compared to historical values	
4	Safety	Review traffic management plan	Jun-23	CPC	Review existing systems, develop a site plan for each traffic route/vehicle type	
5	Environment Health and Safety	Review and revise the structure of the sharepoint intranet system to provide a more logical and user friendly information hub	Dec-23	CPC / Finance	Facilitate management systems to be linked into one hub, so all areas of the business link to and/or from a single core	
6	Health and Safety	Develop and implement a single risk assessment and method statement document thus reducing volumes of documentation and better linking the two	Dec-23	CPC	Develop a new form - Consider whether it could be linked to Nav or the permit software system	
7	Environment	Review the possibility of removing from service the by- pass dampers in FGT system to prevent inadvertent dust emissions issues due to failures	Dec-23	Eng. / CPC	Consider their purpose and weld closed, having first conducted a HAZOP.	
8	Environment Health and Safety	Review and revise the 2 to 5 year plan, almost all items on the original plan have been completed effectively	Apr-23	Snr Mgt	New plan with medium to long term objectives to continue to bring the company forward, improving culture and inter-departmental cohesion, whilst ensuring compliance with changing legislation and social values	
9	Safety	Install solar powered belisha beacons at the pedestrian crossing next to the HWRC to encourage MoPs to stop	Sep-23	Projects	Source and install suitable devices MS has an example quote/estimate	
10	Safety	Review PTW software.	Aug-23	Operations /Finance	Review alternative PTW software solutions taking account of the RAM's review above.	
	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