

## 1.0: Purpose

The procedure sets out how DLS shall determine the relative significance of environmental aspects, set objectives and targets for improvements, and set the resulting action plans and progress them to completion, as required by clause 4.3.1 of ISO 14001.

## 2.0: Responsibility

The Environmental manager is responsible for ranking the significance of environmental aspects, presenting the results in the Managers and Directors Meeting, writing and circulating environmental action plans, progressing the plans and reporting to management.

The Managements review meeting sets Improvements Action Plans

Designated people manage Improvement Action Plans to Completion

## 3.0: Definitions

**Normal** - Standard working operations carried out on a regularly, scheduled basis

**Abnormal** – Operations which are infrequent or unscheduled, but are still within operational parameters that do not require emergency actions.

**Emergency** – Any incident or occurrence which is unforeseen that requires immediate action to prevent or minimise environmental damage.

**Significance** – How drastically an environmental aspect can impact the environment. This can be either a positive or negative impact as shown below:

Significance		
Description	Positive Factor	Negative Factor
Minimal Environmental impact	+1	-1
Low environmental impact	+2	-2
Moderate environmental impact	+3	-3
High environmental impact	+6	-6
Severe environmental impact	+10	-10

**Frequency Factor** – The likelihood of an occurrence in a given time frame scored by the table below:

Frequency Factor	
Description of Recurring Frequency	Factor
Low Frequency	1
Moderately Low Frequency	2
Moderate Frequency	3
Moderately High Frequency	4
Highly Frequency	5

**Relative Impact** – the overall weighted outcome that an environmental aspect has on the environment determined by the frequency and significance. This is calculated by the following equation:

$$\text{Relative Impact} = \text{Significance} \times \text{Frequency Factor}$$

#### 4.0: Relative Impact Score

Relative Impact Assessment	
Relative Impact Score	Outcome
Greater Than 1	Positive environmental practices which are to be continued, maintained and if possible improved and applied to other areas of the business. Each aspect needs to be reviewed periodically to ensure that these practices are being maintained.
Between -1 and -9	Negative impact on the environment however within tolerable limits. Each aspect needs to be reviewed periodically to ensure that the score does not decrease or if any changes can be made to improve the score.
Less than -10	Harmfully impacts on the environment or potentially harmful impacts to the environment. Requires an action plan to reduce environmental impact or emergency plan to be enacted in the event of occurrence.

#### 5.0: Review

The Register of Environmental Aspects and the importance of aspects shall be reviewed and updated at least annually or if there is any significant change to processes, equipment or operation practices.

#### 6.0: Areas of Operation Environmental Impact

Each site controlled by DLS will have different Environmental Aspects which can be impact on the environment. The following areas will be considered independently of each other:

Company Department / Operation Area	
Area / Operations Assessment	Divisions Covered
DLS Head Office	Div. 9
DLS Tata Site Office / Welfare Facilities / Stores	Div. 9
PT Workshops / Fuel / Plant yard	Div. 8
Pyle Workshops	Div. 8
Morfa Landfill	Div. 1 A
Morfa Landfill Waste Treatment Facility	Div. 1 A
Haulage (Skips / Dump trucks / Tractor & Trailers / HGV / Tankers / Sludge Management)	Div. 1B / Div. 2A / Div. 2C / Div. 7
HAA Aggregate Waste Treatment Facility	Div. 2A
Regen Scrap Handling	Div. 4
Yard Zero Waste Treatment Facility - Batching Plant / HCAAT / Mill scale Recycling / Block Making Operations	Div. 2
DCS	Div. 5 / Div. 6
Civils Works	Div. 7
Morfa Coke Ovens	Div. 3
Plant Hire	Div. 7

Note: Tabs Highlighted in green are current/ active operations. Tabs in yellow are operations which have been significantly changed and require a new assessment and/or inactive. Tabs in red are operations which are inactive and unlikely to be reinstated

Normal Operations - Llanwern SSQ Aggregate Waste Transfer Facility						
Environmental Aspect	Impact on Environments	Use In Area / Source of Generation	Control Measures / Actions Carried Out	Frequency Factor	Significance	Relative Impact
Electricity	Electricity generation consumes natural resources (oil, gas, coal) and creates atmospheric emissions.	Electricity supplied by diesel generator (heavy usage) and mains power (light usage). Main consumption of electrical energy is from: 1) Lights (light usage) 2) Computer equipment (light usage) 3) Heaters (light usage) 4) Screens (heavy usage) 5) Crushers (heavy usage)	Lights, heaters and equipment are all turned off whilst not in use. Computers set to sleep when idle. Equipment maintained to reduce energy loss. Electrical equipment is PAT tested and PUWER checks are carried out on all powered tools / equipment.	3	-3	-9
Water usage	Depletion of natural resources.	Wash systems for screening, Dust suppression on screens & crushers, Drinking water, Toilet & kitchen use Clean weighbridge Road dust suppression	Wash systems recirculate the water to reduce waste. Dust suppression only utilised during hot / dry weather. Water only utilised on weighbridge cleaning where removal by shovel is not practical. Water used not potable.	3	-1	-3
Effluents & Drainage	Domestic effluents contaminating ground. Uncontained spills could soak through ground.	Domestic Effluents Surface water run off Wash water	1) Domestic effluents channelled to tank as portable system being used. 2) Surface water free to infiltrate 3) Wash water is recirculated through the plant and then tankered off-site.	3	-2	-6
Plant Emissions	Fuel combustion creates CO <sub>2</sub> and CO emissions from exhaust fumes to atmosphere, and depletes natural resources.	Excavators Loading Shovels Screens Crushers	All site and company vehicles are regularly checked, maintained and serviced ensuring vehicle emissions are low and fuel consumption in nominal.	3	-3	-9
Storage / Containment / Use of Hazardous Materials	Hazardous substances can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Fuels, greases & oils	Small quantities of materials stored in containers. No chemicals are to be tipped to ground, adequate containment must be prepared for use of any hazardous materials.	2	-2	-4
Onsite Traffic & Transport	Fuel combustion creates CO <sub>2</sub> and CO emissions from exhaust fumes to atmosphere, and depletes natural resources.	Company vehicles HGVs Visitor vehicles Dump trucks	All site and company vehicles are regularly checked, maintained and serviced ensuring vehicle emissions are low and fuel consumption in nominal. Haul distances shorted by operating in 3 areas.	3	-3	-9
Environmental Training	Promotes good environmental practice, and keen awareness on the impact of operations on the local environmental	Operational procedures and working ethic carried out during operations.	Waste management training, operation procedures, in-house environmental training carried out and on the job reference/check card provided.	4	6	24
Housekeeping	Influences workers & visitors behaviour to maintain and improve environmental practices.	Visual impact of office space and surrounding environment.	Site to be kept clean and tidy. External appearances and equipment to be maintained. Roads kept clean and maintained. All waste is to correctly segregated to preventing cross contamination. All litter is immediately removed.	3	2	6
Diesel / Petrol	Depletion of refined natural resources. Hazardous substances - can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Fuel used for: Mobile plant Site Machinery Generators Vehicles - Haulage & personnel	All vehicles / Mobile Plant / machinery / Generators are serviced and maintained to ensure continue fuel efficiency. Fuel usage is recorded and monitored for efficiency for the site. Haul distances shorted by operating in 3 areas.	4	-2	-8
Oil / Grease	Depletion of refined natural resources. Hazardous substances - can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Regular proactive maintenance / operational requirements of site plant & vehicles.	All significant maintenance activities are to be carried out at off-site workshops. Haul distances shorted by operating in 3 areas.	2	-2	-4
Recycled Materials	Recovered resources. Material which would have been sent to Landfill and been recovered for reuse within Tata Steel Port Talbot or been sold to external business for further processing or reuse.	Through mechanical means, ferrous materials, engineering aggregates and external valued products are segregated from waste streams.	Waste is inspected and segregated according to each waste type and categorised in to various grades for a wide application of uses. Some contraries are sent for recovery and all other materials are stockpiled for engineering projects or for external sale.	4	3	12
General Waste	Waste of resources. Disposal of waste to landfill takes up landfill space increasing the potential land pollutant. Organic waste create methane which acts as a greenhouse gas.	General rubbish, paper, plastic, electrical equipment, fluorescent tubes, batteries, scrap and Ink cartridges	All general waste from offices is separated at source for recycling with only small fraction disposed.	3	-3	-9
Noise	Any noise emitted from site will be offensive to local environment.	Screens Crushers Excavators & Shovels Water Bowser Haulage vehicles	All vehicle are maintained to reduce engine noise emissions. Site is remote but any disturbance to the public to be recorded, investigated, monitored and actioned. Work is carried out in day hours.	3	-2	-6

Odours	Any odours emitted from site will be offensive to local environment.	General waste	Waste bins emptied on regular basis.	2	-1	-2
Dust	Dust and PM <sub>10</sub> emission from site will be offensive to local environment. Dust fall out will impact on local inhabitants in the Margam area.	Screens Crushers Excavators & Shovels Water Bowser Haulage vehicles	Dust suppression utilised during dry weather. Controlled heights that materials will fall onto stockpiles maintained to reduce dust emissions. Only designated suppressed routes to be used. Visual assessments carried out twice a day to assess dust emission levels.	3	-3	-9
Engineering Materials	Use of recycled materials preventing the depletion of natural resources.	Recovered aggregates used as site engineering materials for bunds / roads / pathways.	All engineering materials regularly used at the steelworks / SSQ come from recycled materials onsite which would have normally be landfilled as a steel making waste	3	2	6
Paper Usage	Paper manufacture consumes trees, water and bleaching chemicals	Office / administration use	Promotion of digital recording and reporting systems. Advised not to print where practical.	3	-2	-6
<b>Abnormal Operations - Llanwern SSQ Aggregate Waste Transfer Facility</b>						
Environmental Aspect	Impact on Environments	Use In Area / Source of Generation	Control Measures / Actions Carried Out	Frequency Factor	Significance	Relative Impact
Water usage	Depletion of natural resources.	1) Extended use of Wash systems for screening, 2) Prolonged dry weather requiring dust suppression on screens & crushers, 3) Prolonged wet weather requiring more frequent cleaning of the weighbridge	Wash systems recirculate the water to reduce waste. Dust suppression only utilised during hot / dry weather. Water only utilised on weighbridge cleaning where removal by shovel is not practical.	2	-3	-6
Screen & Crusher Maintenance	1) Emissions from welding & burning 2) Depletion of natural resources while welding or burning (Oxygen and Propane)	Burning/Welding fumes	Where possible grinding/cutting during maintenance is used to reduce burning operations. Materials are cleaned of any greasy, paint or coating where practical before any welding or burning takes place to minimise the release of harmful toxic fumes to the atmosphere.	1	-6	-6
Scrap Waste	Recovered resources. Material which would have been sent to Landfill and been recovered for reuse within DLS or to be sold to external business for further processing or reuse.	1) Scrap materials from screen & crusher repairs. 2) Worn cone plates	Scrap taken off site and sold externally to scrap vendors for recycling.	1	3	3
Housekeeping	Lapse in workers & visitors behaviour whilst maintaining environmental practices.	Visual impact of workshop area and surrounding environment.	Periodic clean of work spaces, and regular maintenance work conducted on all external appearances.	1	-2	-2
Noise	Any noise emitted from site will be offensive to local environment.	Extended operational hours Pecking concrete Drop ball skulls	All vehicle are maintained to reduce engine noise emissions. Monitoring at site boundaries to be conducted regularly.	1	-3	-3
Dust	Dust and PM <sub>10</sub> emission from site will be offensive to local environment. Dust fall out will impact on local inhabitants in the Margam area.	Additional site operations / extended operational hours / dust alerts / hot dry weather	Non essential operations stopped during high level alerts.	3	-3	-9
Storage / Containment / Use of Hazardous Materials	Hazardous substances can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Construction work, additional specific task requirements	Any additional chemicals / Hazardous material brought into the office must adhere to the COSHH controls.	1	-6	-6
Onsite Visual WAC Failure	Banned or site specific non compliance wastes can have adverse effects on site behaviour (decomposition rates, gas emissions, leachate properties) or have hazardous properties which can cause major environmental incidents (fires/explosions).	Contaminated waste discovered in deposited load	Waste identification card and banned listed issued to operators / vehicle drivers. Material quarantined or if possible immediately loaded back on to transport vehicle. NRW notified and incident logged in WAC log book. All Non conformant materials to be removed from site and taken to the correct treatment facility.	1	-10	-10
Chemical WAC Failure	Out of compliance wastes can have adverse effects on the SSQ behaviour (emissions and leachate properties) or have hazardous properties which can cause major environmental incidents (fires/explosions).	Chemical analysis shows material to be out of compliance with WAC protocols.	Materials quarantined. NRW notified and incident logged in WAC log book. Wastes from the specific waste stream stopped until an investigation and actions are carried out to ensure continued compliance of that specific materials. All Non conformant materials to be removed from site and taken to the correct treatment facility.	1	-6	-6
<b>Emergency Situations -Llanwern SSQ Aggregate Waste Transfer Facility</b>						
Environmental Aspect	Impact on Environments	Use In Area / Source of Generation	Control Measures / Actions Carried Out	Frequency Factor	Significance	Relative Impact
Dust	Dust and PM <sub>10</sub> emission from site will be offensive to local environment. Dust fall out will impact on local inhabitants in the Margam area.	Breach of dust from site boundaries / Uncontrolled and heavy dust emissions from processing plant	If breached halt operations contributing to the dust breach/uncontrolled emissions. Notify to NRW and local council. Investigate the cause of uncontrolled dust emissions or breach for implementation of additional measures to contain/reduce emissions.	1	-10	-10

Silicosis	Any airborne silica emitted from site will be harmful to local environment.	Breaking / excessive movement of silica refractory bricks	Minimise movement of materials. Spray / latex stockpiles to reduce emissions. Despatch whole bricks, no crushing or screening of bricks to occur. If breached halt operations and notify to NRW and local council. Investigate further implementation of additional measures to contain/reduce emissions.	1	-10	-10
Fire	Release of noxious smoke, and CO <sub>2</sub> to atmosphere. Water suppressant will pick up contaminants then leaked to ground contaminating ground.	Malfunctioning electrical equipment, uncontrolled flammable substances, uncontrolled burning activities, incorrect storage of flammable/explosive containers and smoking.	PAT testing and regular checks on electrical equipment, designated smoking areas and disposal points and designated storages for flammable substances away from ignition sources. Emergency services called if required / fire is uncontained. Fire extinguishers located in various points at the SSQ.	1	-10	-10
Containment of Waste Materials	Any waste breaching site containment could have a harmful effects on the immediate environment. Chemical properties can leach out to the surrounding environment and metals and other harmful aspects can enter the surrounding ecosystems.	Breach of Containment	Only non-hazardous waste processed. All waste is to be contained with the processing areas. If insufficient room available, waste is not to be accepted onto area. If breached, material and any immediate loose ground is to be removed and taken to the contaminated stock pile.	1	-6	-6
Transportation spillages and machine leaks	Spillages during transportation or leaks from plant machines can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Oil and fuel leaks in damaged vehicles	Spill kits to be utilised to contain contamination. Contaminated materials are to be taken to Hazardous Landfill.	1	-10	-10
Storage / Containment / Use of Hazardous Materials	Hazardous substances can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Breach of chemical containers, spills to ground.	Spill kits to be utilised to contain contamination. Contaminated materials are to be taken to Hazardous Landfill.	1	-6	-6
Reactive Maintenance	Oils from plant & machinery spilled to ground during breakdown repairs can contain heavy metals and VOCs which contaminate surrounding land, and when entered into the watercourse can have harmful effect on the ecosystems and wildlife. Flammable substance when ignited causing greenhouse gasses CO <sub>2</sub> and CO to be released to atmosphere.	Machine & plant breakdowns	Where practical, machine repairs are to be conducted off site in a workshop. Spill kits are to be used onsite for any spills. All contaminated materials to be disposed in the hazardous landfill cell.	2	-3	-6
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