

APPENDIX 2

**GD ENVIRONMENTAL SERVICES LTD**

**Environmental Risk Assessment and Management Plan**

| Hazard   | Receptor                       | Pathway                   | Management Plan  | Probability | Consequence   | Risk   |
|--|--------------------------------|---------------------------|--|-------------|---|--|
| TO AIR FROM SITE ACTIVITIES  |                                |                           |  |             |   |  |
| Dusts and Particulates   | Industrial Residents 50m away. | Air transport/ Wind blown | <p>The waste materials handled are under normal circumstances of solid form and the potential for dust generation is therefore limited. Compliance with waste acceptance procedures will prevent the receipt of dust generating wastes.</p> <p>The wastes and process residues will be adequately stored and treated in designated areas and in a manner so as to prevent the potential release of dusts and particulates. Storage and containment may include managed stockpiles, bays, bins, skips, containers, stillages, sacks or drums.</p> <p>All activities take place on impermeable surface with sealed drainage system, or on a hardstanding minimising the risk of generation of dusts from site surfacing. Integrity of the surfacing is maintained. Environment Plans are maintained.</p> <p>Good housekeeping will be employed to reduce quantities of particulates and dust on the site.</p> <p>Dust/particulates are controlled through the ongoing monitoring of site operations by the site management team who will undertake regular inspections and undertake remedial action if dust/particulates are identified as a problem.</p> <p>Dust suppression techniques such as dampening and the use of a mechanical sweeper will be employed as necessary to prevent unacceptable emissions.</p> <p>Where appropriate and reasonably practicable, the parts of the mechanical Shredder Treatment process with the potential to give rise to dusts are fitted with dust suppressing technology to eliminate fugitive emissions from plant and machinery during the process.</p> <p>Drop heights will be kept to a minimum to prevent the generation of fugitive emissions of dusts.</p> <p>Distances that material has to travel will be kept to a minimum with due care and consideration being given to unloading and loading areas and distance from storage area.</p> <p>Meteorological conditions such as prevailing wind direction and speed will be taken into account where there is the potential for activities to give rise to dusts.</p> <p>Traffic speed including vehicles and mobile plant is limited to minimise dust generation by vehicle movement on site.</p> <p>Any complaints regarding dusts/particulates will be investigated and appropriate action taken if the</p> | Medium      | Dust Nuisance, loss of amenity<br>Respiratory illness | Low / Not significant with measures indicated in place |
| Releases of particulates or dust from mechanical processing                        | Ecosystems                     | Air quality               |  |             |   |  |
| Releases of particulates or dust from storage and handling of wastes and residues. |                                |                           |  |             |   |  |

|  |                               |  |   |          |                                     |  |
|--|-------------------------------|--|---|----------|-------------------------------------|--|
|  |                               |  | site is found to be the source of the emission. All complaints will be recorded.  |          |                                     |  |
| Noise & Vibration  | Industrial Residents 50m away | Air transport and vibration through the ground | Permits (WML & WP) require activities free from noise levels likely to cause annoyance. Where appropriate waste treatment process which represents the greatest risk of noise will be located with due care and regard having been given to the proximity of sensitive receptors. Mobile plant is silenced to current recommended standards. All equipment and vehicles will be maintained in line with manufacturer's recommendations. Vehicles, plant and machinery are switched off when not in use where practicable. Drop heights (deliveries and products) are kept to the practical minimum in line with company best practice. Site staff will undertake regular inspections and undertake remedial action if noise or vibrations are identified as a problem. Control and monitoring of waste acceptance procedures ensure wastes likely to cause explosions are minimised. Monitoring and control of explosions through proactive education of suppliers. Any complaints regarding noise or vibration will be investigated and appropriate action taken if the site is found to be the source. All complaints will be recorded. | Medium   | Noise Nuisance, loss of amenity     | Low / Not significant with measures indicated in place |
| Noise and vibrations from plant, machinery and vehicle movements |                               |  |   |          |                                     |  |
| Noise from general waste handling                                |                               |  |   |          |                                     |  |
| Noise and vibrations from treatment operations                   |                               |  |   |          |                                     |  |
| Odour from waste acceptance                                      | Industrial Residents 50m away | Air transport/ Wind blown                      | Permits (WML & WP) require activities free from odour levels likely to cause annoyance. The waste types handled are unlikely to give rise to malodours and compliance with waste acceptance procedures to prevent receipt of odour generating wastes. The processes do not give rise to malodors or residues with malodors. Site staff will undertake regular inspections and undertake remedial action if odour is identified as a problem. Good housekeeping will be implemented across the site to minimise the risk of odours occurring. Any complaints regarding odour will be investigated and appropriate action taken if the site is found to be the source of odour. All complaints will be recorded.  | Low      | Odour Nuisance, loss of amenity     | Low / Not significant with measures indicated in place |
| Evaporative emission of  | Industrial Residents          | Air Transport/                                 | Insignificant source of fugitive emissions of VOC – No treatment of petroleum products, No combustion processes on sites. No storage of petroleum for use. Vehicles/plant almost entirely   | Very Low | Deterioration in local air quality. | Very Low/Not   |

|  |  |   |  |   |  |  |
|--|--|---|--|---|--|--|
| Volatile Organic Compounds   | 50m away   | Wind blown  | diesel.<br>Contained in designated sealed storage vacuum tanks with gauges.<br>Integrity of tanks inspected regularly.   | Can react with NOx to form ground-level ozone which at high concentrations can be harmful to human health, damage crops, other plant life and materials such as rubber. | significant  |  |
| <b>TO WATER FROM SITE ACTIVITIES</b>   |  |   |  |   |  |  |
| Potentially contaminated run off from  | Sensitive ecosystems/  | Run-off, via drainage system                        | All treatment takes place on impermeable surface with sealed drainage system, or on a hardstanding and the integrity of the surfacing and drainage system are monitored and maintained minimising the risk of contaminated run off escaping the containment of site. Environment Plans are maintained and infrastructure improvement plans are in place where required.  | Medium  | Deterioration of water quality of aquatic ecosystems | Low/Not significant with measures indicated in place |
| Waste storage and treatment including oil contaminated materials, Hazardous WEEE | Potable water supplies/ abstraction points<br>Ground water<br>Land<br>Ecosystems | Through the ground or cracks in impermeable surface | Drainage system including gullies, drains, silt traps and interceptors are regularly inspected and maintained where appropriate. Interceptor will periodically be cleaned out.<br>Good housekeeping will prevent the build up of dust/ mud and debris on site which has the potential to adversely affect the water quality. Please see dust and particulates and mud and debris section for more details.<br>The discharge is monitored and where appropriate it is sampled in accordance with discharge consents, permits or internal guidance.<br>Compliance with waste acceptance procedures will prevent the receipt of non permitted wastes eg transformers containing PCBs for example which have pollution potential.<br>The wastes and process residues will be adequately stored and treated in a manner so as to prevent the escape of potentially contaminating run off. Hazardous wastes will be stored on impermeable pavement sealed drainage system with additional containment where appropriate. For eg. weatherproof covering will be provided where hazardous WEEE is damaged and has the potential to leach polluting materials and lead acid batteries will be stored in leak proof acid resistant containers with lids to prevent the ingress of water.<br>Permits require potentially polluting wastes to be adequately contained,<br>Site staff will undertake regular inspections of waste storage areas and undertake remedial action if potentially contaminated run off is identified as a problem. | Loss of amenity<br>Loss of resource   |  |  |
| <b>TO LAND FROM SITE ACTIVITIES</b>  |  |   |  |   |  |  |
| Mud and  | Industrial   | Vehicles  | Appropriate measures to be taken to prevent/ minimise debris and mud being generated on site and   | Low   | Mud Nuisance,  | Low / Not  |

|   |  |  |  |     |  |   |
|---|--|--|--|-----|--|---|
| Debris  | Residents<br>50m away.<br>Ecosystems               | entering<br>and<br>leaving<br>site             | tracked off site.<br><br>Please see Dust and particulate management.   |     | loss of amenity.<br>Health & Safety.                 | significant<br>measures<br>indicated<br>in place                      |
| Litter from<br>wastes<br>received on<br>site                  | Industrial<br>Residents<br>50m away.<br>Ecosystems | Air<br>transport/<br>Wind<br>blown             | The waste materials handled are under normal circumstances of heavy solid form and the potential for litter generation is therefore limited. Compliance with waste acceptance procedures will prevent the receipt of litter generating wastes.   | Low | Litter Nuisance,<br>loss of amenity                  | Low / Not<br>significant<br>with<br>measures<br>indicated<br>in place |
| Litter from<br>storage of<br>waste and<br>process<br>residues |  | Scavenger<br>Birds and<br>animals –<br>Pests   | Duty of care - the wastes and process residues will be adequately stored and treated in a manner so as to prevent the potential release of litter. This containment will be sufficient to prevent escape of litter and may constitute a designated storage bay or skip. Wastes with significant potential to generate fugitive emissions of litter would be stored in a covered skip, container or sack.   |     |  |   |
| Litter from<br>processing.                                    |  | Vehicles<br>entering<br>and<br>leaving<br>site | Processes with the potential to generate litter will be adequately contained. Where it is not possible to contain processes with the potential to generate litter, activities will be undertaken with due regard for meteorological conditions such as prevailing wind direction and speed.<br><br>Duty of Care where appropriate, vehicles, skips, containers are covered which minimises risk of wastes escaping the control of the producer/hauler/site operator.<br><br>Site staff will undertake regular inspections and undertake remedial action if litter is identified as a problem. Good housekeeping will be implemented across the site to minimise the risk of litter accumulating on site.<br><br>The waste materials handled are under normal circumstances unlikely to contain wastes that attract pests.<br><br>Appropriate measures to prevent/ minimise pests include regular inspections by site management and where appropriate, pest control contractors.<br><br>Any complaints regarding litter will be investigated and appropriate action taken if the site is found to be the source of litter. All complaints will be recorded.<br><br>Any escape of litter beyond the boundary of the site will be cleared up as soon as it is practicable and safe to do so. |     |  |   |
| <b>TO AIR, WATER &amp; LAND FROM ACCIDENTS</b>                |  |  |  |     |  |   |
| Containers<br>or boxes<br>could be<br>dropped or<br>contents  | Ecosystem  | Run-off,<br>via<br>drainage<br>system          | All treatment takes place on impermeable surface with sealed drainage system, or on a hardstanding and the integrity of the surfacing and drainage system are monitored and maintained minimising the risk of contaminated run off escaping the containment of site.<br><br>Plant operatives suitably trained.   |     | Contamination<br>of local<br>watercourse or<br>sewer | Low/ Not<br>significant<br>with<br>measures<br>indicated              |

|  |                      |   |  |     |   |   |
|--|----------------------|---|--|-----|---|---|
| split during transfer.<br>Forks could puncture containment   |                      | Through the ground or cracks in impermeable surface | Vehicles suitable maintained<br>Appropriate containment including lids where appropriate.<br>Careful location of containment of substances with pollution potential to minimise risk of damage of containment.   |     | Deterioration of water quality of aquatic ecosystems  | in place  |
| Plant or equipment failure   | Ecosystem            | As above  | Scheduled programme of maintenance for plant and equipment. Approved contractors are used<br>Records kept.<br>Failure of plant and equipment used for waste treatment alone would not result directly in a fugitive emission.  | Low | As above  | Low/ Not significant                                  |
| Containment failure including:<br>Leak from diesel storage<br>Leak from oil storage<br>Breach of containment bund.<br>Vandalism of containment | Ecosystem            | As above  | All activities take place on impermeable surface with sealed drainage system, or on a hardstanding and the integrity of the surfacing and drainage system are monitored and maintained minimising the risk of contaminated run off escaping the containment of site. Environment Plans are maintained and infrastructure improvement plans are in place where required.<br>Drainage system including gullies, drains, silt traps and interceptors are regularly inspected and maintained where appropriate. Interceptor will periodically be cleaned out.<br>Good housekeeping will ensure spills are attended to immediately.<br>All potential polluting liquids (both for use and wastes) will be stored in containers with secondary containment capable of holding more than 110% of the tank capacity. The ancillary equipment will also be banded. The capacity and integrity of bunds will be monitored and remedial action taken where necessary.<br>Drums and IBC will also be appropriately contained. Banded storage and drip trays will not be overloaded. All containers will be labelled.<br>The integrity of Underground storage tanks will be assessed by competent persons.<br>A number of spill kits will be sited at strategic locations around the site. All appropriate personnel will be trained on Pollution Prevention and Control. Spillages will be attended to immediately. Storage areas will be regularly inspected. Damaged/leaking storage containers will be repaired/replaced.<br>Emergency Contingency Plan includes documented procedures for handling spillages to minimise impacts.<br>The site is secure minimising the risk of unauthorised access & vandalism. | Low | Contamination of local watercourse or sewer<br>Deterioration of water quality of aquatic ecosystems | Low/ Not significant with measures indicated in place |
| Fumes/ smoke from  | Industrial Residents | Air Transport/                                      | Waste acceptance and storage procedures include provision of fire breaks where appropriate and highlight specific storage and handling requirements for wastes identified as fire risk such as   | Low | Smoke nuisance, loss of   | Low / Not significant                                 |

|  |  |                                   |  |     |  |                                  |
|--|--|-----------------------------------|--|-----|--|----------------------------------|
| accidental combustion of incoming / stored wastes; or Vandalism/ Arson | 50m away. Ecosystems                                 | Wind blown                        | batteries and tyres.<br>Permitted activity does not allow burning waste.<br>Site security prevents unauthorised access and minimise risk of arson.<br>Fire prevention, management and training.<br>Fire Extinguishers in key locations.  |     | amenity, respiratory irritation<br>Deterioration of air quality<br>Chance of fire spreading. | with measures indicated in place |
| Failure to contain Fire Fighting water                                 | Ecosystems   | Drainage system                   | Site personnel appropriately trained in the use of fire fighting equipment.<br>Wastes handled generally non hazardous so fire waters should be relatively uncontaminated.<br>Drainage infrastructure designed to direct water to interceptors. Site Management and Fire Brigade responsible in event of emergency. | Low | Contamination of local watercourse   | Low / Not significant            |
| Incompatible wastes coming into contact                                | Industrial Residents 50m away<br>air, water and land | Drainage system,<br>Air Transport | Waste acceptance and control procedures. Rejection or quarantine of non conforming waste types.<br>Designated storage areas.<br>Waste handled easily identifiable and with solid properties that mean they are generally compatible with other waste types handled.  | Low | Fumes, smoke nuisance, potential H&S implications.<br>Contamination of waters                | Low/Not significant              |
| Emissions of effluent prior to testing                                 | Ecosystem  | Drainage system                   | There are no emissions of industrial process effluents or water treatment systems within the company. There are therefore no possible sources of fugitive emissions regarding this potential hazard.   | N/A | N/A  | N/A                              |