

4. SITE OPERATIONS

The following section describes the management procedures that will be undertaken at the site to ensure the safe operation of the facility. It should be read in conjunction with Section 6 (Amenity Management and Reporting.) to ensure both on-site and off-site impacts of site operations are controlled.

4.1 Control of Mud and Debris

The Landfill Site is situated approximately 1km from the public highway. As a result vehicles are clear of mud and debris before reaching the public highway. The access road and public highway is under constant inspection and cleaned using a road sweeper, when required.

4.2 Potentially Polluting Leaks and Spillages of Waste

The following procedures apply to the storage of fuel and chemicals used on the site:

- all above ground container(s) for bulk liquids e.g. gas oil are of sound construction and sited within a bund or secondary container. The floor and bund wall, or the secondary containment, are constructed of a material that is impervious and chemically resistant to the material(s) stored. A bund must be capable of containing at least 110% of the volume of the container(s);
- all pipes, gauges and valves are enclosed within the bund wall or secondary containment so that, should a spillage occur, it is contained. Where applicable, all pipes and valves are securely locked at the end of each working day;
- any liquid accumulating within the bund or secondary containment will be removed and disposed of at a suitably licensed facility when

the depth of the liquid reaches 0.1 metres. A record of any removal will be made in the site diary;

- any chemicals that are used on site are stored in secure compounds or buildings. These compounds or buildings are locked at the end of each working day;
- any spillage of materials will be cleaned by means of sand/sawdust spreading procedures, and the resultant contaminated absorbents disposed of at a suitably licensed facility;
- all accidental spillages and leaks are recorded and steps taken to identify the cause and prevent further occurrence.

4.3 Fires on the Site

Procedures to minimise the potential for outbreak of fires at the site include:

- no smoking or open fires will be permitted on the site. Smoking will be permitted in other designated areas, such as the site buildings;
- all site vehicles are fitted with dry chemical fire extinguishers;
- all personnel are trained in the use of the appropriate fire extinguishers;
- the site officers are equipped with fire extinguishers and blankets, where appropriate;
- the site offices are fitted with smoke alarms.

Site staff are instructed to treat any fire on the site as an emergency and to take the following action:

- notify the Fire Brigade immediately;
- isolate the burning area until the fire is extinguished;
- notify the Environment Agency as soon as practicable;

- carry out the Company's 'Emergency Procedures FIRE', a copy of which is in Appendix 17.

Procedures for site staff to minimise outbreak of fire from a vehicle breaking down or parked within the operational area are:

- have the vehicle off loaded if possible;
- tow the vehicle to non-operational part of the site;
- ensure that the vehicle is parked at least 30 metres from the most recently deposited waste.

The weighbridge operator will visually check incoming vehicles. In the event that a hot load is suspected, the following procedures will be actioned:

- have the vehicle off loaded if possible;
- tow the vehicle to a non-operational part of the site.

Fire extinguishers for electrical and non-electrical fires shall be maintained at the site office for use in the event of fire within the office; all site staff shall be trained in the use of such appliances in accordance with the manufacturer's guidelines.

4.4 Waste Acceptance, and control procedures

No new waste stream will be accepted without prior approval of a duly authorised officer of the company. In the case of difficult wastes, prior agreement shall also be sought from the Agency, before the new waste stream is accepted. Amgen Rhondda intends to use the Greater Manchester Waste Regulation Authority Guidelines on Contaminated Soils, (Appendix 2) and the EA Guidance on the Disposal of Contaminated Soils (Appendix 3) in order to assess new waste streams.

4.4.1 Load Checking-In Procedures

The weighbridge attendant is responsible for the reception and initial inspection of all waste to the Landfill. This will be undertaken by following the procedure:-

- On arrival the waste carrying vehicle will pull onto the weighbridge. The driver will provide, with the exception of uncontrolled domestic waste, a waste transfer note and, if a new customer, a copy of the Companies waste carriers license;
- the weighbridge operator will hand the Landfill Site safety rules to any new drivers;
- The load will be checked against the transfer note (either a yearly note or one that the weighbridge operator will establish, so far as he/she is able, that the description of the waste given to him by the carrier is accurate and that the waste material is authorised for acceptance by the licence. CCTV is operated by the weighbridge operator to view the top of the waste delivery vehicles;
- Loads considered suitable will be directed to the tipping face;
- For loads requiring segregation or special placement procedures the weighbridge operator will radio the compactor driver and inform of the loads arrival. The load will not be directed to the place of deposition until the compactor driver is ready to accept the waste;
- The weighbridge attendant is in communication with the working face via two-way radios. He will inform the site operatives of any vehicles that have closed bins that require checking, of any vehicles containing inert materials and of any other matter relating to the reception and control of waste;
- If the weighbridge operator has concerns regarding the load then the driver will be instructed to pull up and park. The attendant will then inform the Site Manager who will inspect the waste carrier. Should there be any doubt as to the suitability of a load, or the load is not

within the licence conditions, or if the consignment documents are incorrect or cannot be produced then tipping will not be permitted;

- If considered necessary by the management, the Company may require a sample of the wastes to be taken for chemical analysis. Sampling should be carried out in the presence of a Company representative and a split-sample given to the Company by the Customer. The load will be removed from site and no further loads accepted from this consignment until the results of the chemical analysis have been received and shown to conform to the site licence. The Greater Manchester Waste Regulation Authority Guidelines on Contaminated Soils and other Wastes will be used. ARL intend to receive wastes up to and including those which fall into Category C, within the said guidelines.
- If the Company is in doubt over the results of the chemical analysis advice will be sought from the Environment Agency.

When a sample is taken in these circumstances, the following information shall be attached to the sample container:

- date and time;
- site name and address;
- description of waste (accompanies the load);

4.4.2 Unauthorised Waste

Unauthorised wastes may be identified either at the weighbridge, site office, or after deposit at the landfill face. Such wastes are to be removed from the site in a manner that ensures their satisfactory disposal, unless otherwise approved by the Environment Agency.

Prior to the Company agreeing to accept waste, carriers will be notified of the waste types authorised by the Site Licence and reminded of their duty of care to ensure that non-conforming waste is not delivered to the Site.

In the event of noncompliant carriers arriving at the Site, they will be refused entry and turned away.

Procedures Following Arrival at the Site Weighbridge

A member of the site staff will conduct a visual inspection of the loaded vehicle for any visible non-conforming material. If there is, the vehicle will be turned away. If none visible, the Load Checking In Procedures, as in Section 4.4.1, will then be carried out.

The Machine Operator at the disposal face will make a further inspection when the vehicle has unloaded.

Procedures if Unauthorised Waste is Discovered After Unloading

If unauthorised waste is discovered after unloading, instructions to site staff are:

- The machine operator and/or another member of the site staff must request verification of non-conformity from the delivery vehicle driver.
- If reasonably practicable and safe to do so, non-conforming material must be reloaded onto the delivery vehicle and the driver advised that it must be delivered to a site licensed to accept such material.
- If non-conforming material cannot be reloaded, it must be moved away from the immediate operational area or isolated, pending alternative arrangements for removal to an appropriately authorised facility.
- On discovery of unauthorised material, the Site Manager shall be contacted at once.
- Should it be apparent or suspected that unauthorised material is dangerous, the area where it was deposited must be isolated and

other delivery vehicles must be directed to off load in another area until the dangerous material has been removed or an alternative approved with the Environment Agency.

Manager's Procedures on Being Contacted

- Inform the waste producer by telephone.
- Inform the Environment Agency by telephone as soon as reasonably practicable, but immediately, if the material is considered to be dangerous.
- Record the incident and subsequent action in the Site Diary. The record to include, time of rejection, driver's name, carrier's name, vehicle registration, reason for rejection.

4.5 Weighbridge

Drawing No 2 shows the location for site services and facilities. The following facilities are provided:

Site office and weighbridge control. The site office and weighbridge control is housed within the brick built building forming the combined weighbridge and site offices. Within the site office and weighbridge control, the following items shall be retained at all times:

1. A current copy of the Site Licence and Working Plan;
2. A working telephone;
3. A working fax machine
4. First aid equipment;
5. Fire fighting equipment;
6. A copy of the action procedure for assessing incoming waste.

A surface mounted road vehicle weighbridge is located adjacent to the site office, as shown on Drawing 2. Waste inputs are measured through the weighbridge and recorded by a computerised system in the weighbridge control office. The weighbridge will be maintained in a condition passed fit to trade, in accordance with Section 11 of the Weights and Measures Act 1985. Information relating to the operation of the weighbridge is available for inspection on demand by the Environment Agency.

4.6 Waste quantity and measurement systems

A weighbridge is installed at the site to record the quantity of waste being deposited at the site. The procedure for weighbridge operation is summarised below:

- All vehicles intending to deposit waste must pass over the weighbridge on the way in and on the way out of the site.
- The weight of waste deposited is calculated and a ticket issued. The ticket also records the type of waste, where it originated and the carrier. This enables cross checks with waste transfer notes to be carried out.
- The ticket is counter signed by the driver, who retains one copy, the other is kept with the site file.
- For certain vehicles the tare weights are pre-recorded and the weight of waste deposited calculated as the vehicle passes over the weighbridge on the way in. In this case it is not necessary to weigh the vehicle on the way out, although periodic checks are undertaken.
- Should the power fail both the weighbridge and computer system both have battery backup to allow the site to continue to operate.
- A weighbridge maintenance protocol will be agreed in consultation with the Agency and in event of weighbridge breakdown, weight conversion tables will be utilised.

4.7 Waste Placement Procedures - Landfill Operations

Waste which complies with the requirements of the disposal licence is incorporated into the waste mass within the current working cell of the landfill. A specialised landfill compactor is used to place the wastes within the prepared cell from which a number of benefits accrue:

- a) The maximum, practical waste density is achieved so as to fully utilise void space.
- b) Uneven settlement of the wastes is minimised.
- c) Voids, smells, rodents, birds and insects are kept to a minimum.
- d) Wind blown litter is minimised.
- e) Rainwater infiltration is minimised.
- f) The ability of air to penetrate the wastes is minimised, thus reducing the risk of underground fires.

The following placement procedures are adopted:

- a) All vehicles will be directed to the tipping face by the weighbridge operator.
- b) Before tipping, vehicles must be on firm level ground. If in doubt the vehicle should be repositioned or the driver should seek assistance.
- c) All drivers of articulated vehicles must position their vehicles as instructed. When an articulated vehicle is tipping no other vehicle should be at the tipping face. Other drivers must wait until the articulated body is fully lowered before proceeding to the face.
- d) When any vehicle is tipping, other vehicles must stay well clear.
- e) Waste is deposited within the site in a series of 'lifts', which should not, following initial compaction, exceed 2.0 m in height, the tipping width should not exceed 13.0 m.

- f) Each lift is composed of a number of layers of waste which are spread out by the compactor from the point of deposit in the working area (see below).
- g) The waste is compacted in thin layers by being repeatedly driven over by the compactor. The machine is driven directly up and down the slope to reduce the risk of overturning.
- h) Successive layers of waste are placed so that they adopt the same profile as the previous layers within the lift.
- i) All large items, which are likely to cause voids, are given special attention. They will be crushed or flattened as much as possible and then placed at the base of the current working face, at least 2 m from the edges or flanks of the face, or the sides of the working cell and not within 1 m of the surface. Long objects, including trees, posts, etc shall be reduced in length prior to landfilling or crushed/broken by the compactor.
- j) Problem wastes that are awkward to handle (e.g. tree roots, mattresses and wire) which the site is licensed to receive, will be placed at the base of the working face and covered with other waste as soon as possible. Such wastes are kept out of the final layer (top 1m) of waste to reduce settlement problems.
- k) Selected waste will be used to form the first 2.0 m lift above the basal liner. The selection process will involve removing all problem wastes such as tree roots, posts, wires and other items which have a potential to cause damage to the liner.
- l) Other problem wastes (e.g. light materials such as paper or polystyrene) are covered immediately to minimise wind blown litter problems.
- m) The final lift of waste, 1m below the pre-settlement contours, shall be completed with suitable selected or graded domestic waste, only with difficult or large objects broken up or removed to prevent future damage to capping materials.
- n) Material suitable as cover material that is in excess of the daily requirement will be stockpiled at appropriate locations on the site.

Other materials considered useful for other purposes on site may also be separated and stockpiled such as:

- material for the construction and maintenance of haul roads;
- material suitable for the construction of gas vents or drainage layers;
- topsoils and subsoils which are suitable for the site's restoration.

At the end of the day the working area will be left in a neat and tidy condition.

At high wind speeds particular care will be taken to limit windblown material.

4.8 Use of Cover Material

4.8.1 Daily Cover

By the end of each working day, daily cover will be placed over exposed wastes. This will comprise imported inert material, surplus material excavated on-site, or suitable alternative, and will be placed to a depth to ensure adequate covering of the waste whilst ensuring sufficient traction to delivering vehicles. The minimum thickness of daily cover will be equal to/greater than 0.15m, to prevent waste becoming airborne and deter vermin, birds and other pests whilst being thin enough to minimise the future risks of perching of leachate in the waste mass. A stockpile of cover material will be retained on site at all times.

4.8.2 Intermediate Cover

Intermediate cover shall be placed over the waste when operations cease for longer than 7 days or when waste is filled to pre-settlement, pre-

restoration levels. This will comprise either imported inert material, site excavated material, or suitable alternative, placed to a thickness equal to/greater than 0.3m.

Where waste is filled to pre-settlement contour levels a minimum thickness of 300mm of temporary capping material will be placed. The 300mm capping layer will be graded to encourage the flow of surface water off of the landfilled area to the existing surface collection system. Regular inspections will be made of the capping material and areas of damage or erosion will be repaired as soon as practicable. Trafficking plant will be restricted over the capping area, except where specific access roads are constructed.

4.9 Plant Equipment and Communication.

4.9.1 General

All plant and equipment must be maintained in good working order and in accordance with the supplier's/ manufacturer's recommendations. Plant operators will be responsible for the daily and weekly checks and maintenance of their respective machines, any serious defects must be reported to the Site Manager immediately.

4.9.2 Plant Inspections

Machine operators to complete an operator maintenance check and defect sheets every day and report any serious defects to the Site Manager immediately. Non-serious defects are to be reported on the form and passed to the Site Manager at the end of each week.

4.9.3 Site Equipment Schedule

The following equipment is currently available for use on-site:

- waste compactor
- wheeled loading shovel
- bulldozer
- suitable dump-truck
- water bowser and mechanical brush to be employed as and when necessary

All plant will be regularly checked and maintained and in the event of mechanical failure, fitters will be called to Site as soon as practicable. If necessary additional machinery will be brought to site in order to continue landfilling operations.

4.9.4 Machine Breakdown

If the machine used for levelling and compacting the waste breaks down, the Site Manager will, as a matter of urgency, make arrangements for its repair or replacement and note the details in the site diary. In the case of the compactor, should the repair or replacement of the machine not be achieved by the end of the day on which the breakdown occurs, a tracked excavator or tracked loading shovel shall be used as a temporary means of compacting ,levelling and covering the waste until the compactor has been repaired or replaced.

4.9.5 Site Communications

Radios and/or mobile phones are to be used by staff in the site office and in the operational landfill area to provide assistance with waste control and safety matters e.g.:

- to provide advance warning of a suspicious load;
- to provide warning of site congestion problems;
- to provide warning of vehicles that have not reported to the site office.

Radios will be regularly checked and replaced when necessary.