APPLICATION FOR AN ENVIRONMENTAL PERMIT VARIATION UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED)

ENVIRONMENTAL PERMITTING TECHNICAL REQUIREMENTS

AMG RESOURCES

NEVILL'S DOCK, LLANELLI, CARMARTHENSHIRE, SA15 2HD

ECL Ref: ECL.008.01.04/EPTR
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ACRONYMS / TERMS USED IN THIS REPORT

AMG	AMG Resources Limited
AMP	Accident Management Plan
ASCR	Application Site Condition Report
BAT	Best Available Techniques
BREF	BAT Reference Document
CAR	Compliance Assessment Record
CCA	Climate Change Agreement
CCTV	Closed Circuit Television
DAA	Directly Associated Activities
EA	Environment Agency
ECL	Environmental Compliance Limited
EMP	Emissions Management Plan
EMS	Environmental Management System
EP Regs	Environmental Permitting (England & Wales) Regulations 2016 and subsequent amendments
EP	Environmental Permit
ERA	Environmental Risk Assessment
FLT	Fork Lift Truck
FPP	Fire Prevention Plan
IED	Industrial Emissions Directive
NRW	Natural Resources Wales
NVMP	Noise and Vibration Management Plan
OMP	Odour Management Plan
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
TCM	Technically Competent Manager

1. INTRODUCTION

1.1. Overview of Proposed Changes at the Installation

1.1.1. This Application (and its associated supporting documentation) has been prepared on behalf of AMG Resources Limited ("AMG") by Environmental Compliance Limited ("ECL"), and relates to the proposed variation of Environmental Permit ("EP") EPR/BM2381IQ to permit AMG to undertake a Specified Waste Operation – Non Hazardous Physical Treatment, in addition to the existing 2.2. Scheduled Activity at their Llanelli Site, hereafter referred to as 'the Installation'.

1.2. Installation Location

1.2.1. The Installation is located at Nevill's Dock, Llanelli, SA15 2HD, and is centred on National Grid Reference 250504 198981. The exact location of the Installation with the EP boundary outlined in green is indicated on Site Location Plan (Drawing ECL.008.01.04-001) contained in Appendix I. The proposed Specified Waste Operation – Non-Hazardous Physical Treatment will be located in a discrete area on the site occupying an area of approximately 0.84 hectare. The boundary of the Specified Waste Operation is outlined in red on the Site Layout Plan (Drawing Reference ECL.008.01.04-002), which is also provided in Appendix I of this document.

1.2.2. The Installation is situated within a predominantly residential area to the east and north, with ongoing building developments for future houses and a newly built school in close proximity. The surrounding land uses are described in Section 1.4 of this document. Access to the Installation is from New Dock Road (B4304) located to the south and east of the site as illustrated on Site Location Plan Drawing ECL.008.01.04-001. The wider local road network is also provided on the Site Location Plan.

1.3. The Applicant

1.3.1. AMG Resources Corporation is a large Anglo-American company specialising in the processing of ferrous and non-ferrous scrap metal and is a leading supplier of prime and secondary steel products. AMG has been operating a post-consumer metal packaging Installation located in Nevill's Dock, Llanelli since 1980. The site is currently regulated under NRW permit reference BM2381IQ, and subsequent variations.

1.3.2. AMG wish to undertake a Specified Waste Operation – 'Non-Hazardous Physical Treatment' whilst the Company investigate the possibility of recommencing de-tinning operations at the Llanelli Installation applying the streamlining techniques undertaken at AMG plants in the United States.

2. LISTED ACTIVITIES

2.1. Current Installation Activities

2.1.1. The current 2.2 Listed Activity under Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 as amended is detailed in Table 1.

Table 1: Proposed Schedule 1 Activities

Activity Reference	Activity listed in Schedule 1 of the EP Regulations	Description of Specified Activity	Limits of Specified Activity
Listed Activity			
A1	S2.2. A(1)(a)	Producing non-ferrous metals from secondary raw materials by metallurgical, chemical or electrolytic activities.	Chemical treatment of scrap metals and cans and electrolyte recovery of tin following electrolysis.

2.2. Proposed Installation Activities

2.2.1. In addition to the existing 2.2. Activity, AMG wish to undertake a Specified Waste Operation – Non-Hazardous Physical Treatment. This will involve the acceptance of 5 waste codes with an estimated throughput of 47,000 tonnes per annum.

2.2.2. Five metallic waste types are to be accepted as part of the Specified Waste Operation. These waste types are detailed in Table 2 which is contained in Section 4.3. of this EPTR.

2.2.3. The waste management operations to be carried out at the Installation as specified in Annex II of the Waste Framework Directive 2008 are detailed below:

- **R4**: Recycling/reclamation of metals and metal compounds; and
- **R13:** Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

2.2.4. Waste treatment at the Installation will consist of:

- physically sorting and separating of waste types; and
- baling of waste types for export from site.

3. MANAGEMENT TECHNIQUES

3.1. Technical Competence

3.1.1. AMG is required to demonstrate Technical Competence in order to undertake the Specified Waste Operation. Accordingly, a Technically Competent Manager ("TCM") will be required. Adrian Stewart will fulfil this role. A copy of his WAMITAB Certificate of Continuing Competence is provided in Appendix II of this document.

3.2. Overview of Existing Environmental Management System

3.2.1. AMG operate an environmental management system ("EMS") which addresses environmental aspects of the activities at the Installation. The EMS is based on the requirements of the international EMS standard BS EN ISO 14001 and adopts the Standard's Plan, Do, Check, Act approach. The existing system is based on the 14001:1996 standard, however, the system will be updated as described below to follow the 14001:2015 standard.

3.2.2. AMG's General Site Manager has overall responsibility for the Installation. Responsibility for environmental matters at the Installation also rests with the General Site Manager. The General Site Manager is based in the United States who will undertake frequent visits to the Llanelli site. However, day to day management duties are the responsibility of the Site Manager who possesses a dual role acting as the Maintenance Manager.

3.2.3. AMG employ ECL acting as their external Environmental Consultants employed to undertake monthly site visits to perform environmental management duties, including site walkovers and ensuring Environmental Permit reporting requirements are duly completed and submitted to Natural Resources Wales ("NRW").

3.2.4. AMG has established a documented EMS which:

- ensures compliance with all relevant legislation;
- ensures compliance with the conditions of the Installation's Environmental Permit;
- identifies, assesses and minimises the risks of pollution arising from the Installation's activities;
- comprises a range of written procedures that cover all aspects of the Installation's activities;
- identifies, sets, monitors and reviews environmental objectives and key performance indicators; and
- includes a requirement to report annually on environmental performance, objectives, targets and future planned improvements.

3.3. Environmental Policy

3.3.1. AMG has an Environmental Policy that covers the operation of the Installation. A copy of the Environmental Policy Statement is provided in Appendix III of this document.

3.4. Details of the Environmental Management System

3.4.1. Plan

3.4.1.1. The planning element of the EMS includes:

- identification of environmental impacts and aspects associated with the Installation's activities, and assessing their significance; including an assessment of the potential environmental risks posed by the work of contractors;
- identification and evaluation of relevant legal and other relevant requirements;
- identification of environmental objectives and targets that will be focussed on reducing the impact of the identified significant environmental aspects, in conjunction with financial planning and investment;
- a series of risk assessments to cover a range of issues, including site operations, maintenance, accidents, training and records; and
- details of how AMG ensure that any relevant standards, guidance and codes of practice are met on an ongoing basis.

3.4.1.2. The outcomes of the above are:

- a comprehensive understanding of the potential and actual impacts of the permitted activities on the surrounding environment and people's health;
- the correct appropriate measures selected to manage environmental risks and prevent or minimise their effects so as not to cause pollution;
- a series of documented procedures covering all aspects of the Installation's activities; and
- a series of documented environmental objectives and targets, together with an action plan/development programme to ensure that these are met.

3.4.2. Implementation and Operation (Do)

3.4.2.1. This element includes:

- ensuring that EMS roles and responsibilities are clearly defined and documented, and that site staff are made aware of these;
- ensuring that the Installation is operated by suitably competent staff who have received the necessary training in all aspects of the plant's operation, including where contractors are used, ensuring that they are suitably competent; in this regard:
    - the skills and competencies necessary for key posts are documented; these key posts include contractors, those responsible for liaising with contractors and those purchasing equipment and materials,
    - training requirements are identified by means of a documented training needs analysis,
    - documented training records are kept and updated as required,
    - training specifically addresses environmental awareness and environmental permit requirements, and
    - the requirement for ongoing/refresher training is identified;
- ensuring that there are site layout plans - including drainage plans - and that they are revised as required to reflect any changes at the Installation;
- ensuring that there are documented procedures covering internal and external communications;

- ensuring that there are procedures in place for staff and contractors to have access to the Installation's permit and management system requirements; with regard to contractors, ensuring that suitable instructions are provided with regard to protecting the environment whilst working on site;
- the establishment of a documented planned preventative maintenance regime ("PPMR") to ensure that all plant and site infrastructure are kept in suitable condition and operating effectively; this PPM programme details what maintenance, tests and inspections need to done and when; this also details the measures required to ensure continuing compliance with the permit conditions during maintenance/shutdown. The PPMR also:
    - identifies known or predictable malfunctions associated with the operations and the procedures, spare parts, tools and expertise required to deal with them,
    - includes a record of spare parts held, or details on where they can be sourced from, together with an assessment of how long they would take to obtain,
    - includes a defined procedure for identifying, reviewing and prioritising items of plant for which a preventative regime is appropriate,
    - includes all "Critical Equipment List" i.e. equipment or plant whose failure could directly or indirectly lead to an impact on the environment or human health and 'non-productive' items,
    - ensure the necessary spare parts, tools, and competent staff are available prior to commencing maintenance;
- ensuring that there are documented procedures covering document control;
- ensuring that there are suitable documented record-keeping arrangements in place;
- ensuring that there are documented operational procedures and work instructions covering all aspects of the Installation's operation;
- ensuring that there are documented procedures covering emissions monitoring undertaken at the Installation; these will specifically include details of the relevant standards/methods used, the equipment used, its maintenance and calibration requirements and the frequency required (i.e. continuous or periodic, and if periodic, the associated schedules);
- ensuring that there are documented procedures that incorporate environmental issues into the control of process/equipment/engineering change, capital approval and purchasing policy;
- ensuring that there are documented procedures to address non-conformities/non-compliances and the associated corrective and preventative action; these will detail the means by which any such non-conformities/non-compliances are reported to management and the means by which they are reported to NRW;
- ensuring that there is a documented procedure for dealing with complaints; this includes requirements to ensure that:
    - an appropriate person deals with the complaint,
    - the complaint is properly recorded,
    - the complaint is properly investigated,
    - any action necessary to deal with the cause of the complaint is recorded,
    - the impact of the activity causing the problem is minimised,
    - steps are taken to ensure that the problem is not repeated,
    - details of any justified complaints are reported to senior management,
    - that the complainant (or NRW, as appropriate) is responded to in writing,

- if the complaint came via NRW, a suitable documented response is provided to NRW,
- if the complaint has come from a neighbour or a member of the public, a suitable documented response is provided to the complainant, and, if the complaint is substantiated, a report is provided to NRW, and
- the EMS is amended accordingly to reflect any changes;

- ensuring that there are documented procedures covering emergency preparedness and response; these will cover such incidents as major plant failures, significant spillages of potentially polluting substances, loss of mains electrical power etc.; these are incorporated into an Accident Management Plan; AMG ensure that suitable measures are in place to communicate the Plan to all employees, management and contractors who work at the site; the Plan details:
  - the arrangements for response to an emergency, including defining specific responsibilities,
  - the measures for dealing with the consequences of an incident,
  - communicating with NRW and other relevant regulatory bodies,
  - communicating with the Installation's neighbours and the local community,
  - the measures for investigating incidents (and near-misses), including identifying suitable corrective action and following up implementation of that action,
  - the measures for recording incidents (and near-misses),
  - the measures for reporting incidents (and near misses) to Senior Management, and
  - the measures for reporting incidents to NRW;
- ensuring that there are documented procedures for carrying out internal audits; these describe how to schedule, conduct, report and manage internal audits;
- ensuring that there is a documented contingency plan in place that:
  - ensures compliance is maintained with all permit conditions and operating procedures during maintenance/shutdown at the Installation or elsewhere,
  - ensures that permitted storage limits are not exceeded and appropriate measures for waste storage and handling continue to be applied, and
  - includes ceasing the acceptance of waste unless a clearly defined method of recovery or disposal has been determined and sufficient permitted storage capacity is available.

3.4.2.2. The outcome of the above is evidence that day-to-day activities are taking place in accordance with the requirements of the EMS and the Installation's permit, specifically:

- that control measures and procedures are an integral part of the business operation;
- that the EMS is easy for staff to access, understand and use;
- that staff are suitably trained and competent to carry out procedures and control measures; and
- that the requirements of the EMS are effectively communicated to management, staff and contractors.

3.4.3. **Check**

3.4.3.1. This element includes:

- ensuring that all regulatory requirements in relation to monitoring and measurement are complied with, specifically:
  - the requirements relating to inspection and testing required under the applicable environmental legislation and the Installation's permit (including a list of the scheduled monitoring programmes) and the associated procedures and work instructions,
  - the requirements relating to inspection and testing required under the applicable health and safety legislation and the associated procedures and work instructions, and
  - the requirements relating to the control of all inspection, measuring and test equipment relating to environmental requirements;
- ongoing evaluation of compliance with environmental legal requirements, policy requirements and objectives and targets; this will include:
  - an annual review of AMG's environmental legal register,
  - regular plant inspections, and
  - internal audit procedures (as detailed below);
- ensuring that non-conformities/non-compliances are properly recorded, investigated and that the appropriate corrective action is taken by the due date;
- ensuring that the necessary reporting and record-keeping required under the various permits, licences and consents are complied with;
- ensuring that internal audits are carried out in accordance with the documented procedures and that any audit actions are followed up; and
- ensuring that the results of all audits are made available to Senior Management on a regular basis.

3.4.3.2. The outcomes of the above will be:

- that checks are carried out to ensure that the EMS is being implemented as intended, i.e. as documented; and
- the necessary preventative and corrective actions are undertaken to minimise non-compliances.

3.4.4. **Review**

3.4.4.1. This element will include:

- an annual management review of the EMS to ensure that it is appropriate, being implemented and kept up to date, e.g. that any supplementary plans have been included into the EMS;
- A management review of the EMS when:
  - there are changes on site (in activities and/or plant/equipment),
  - if there is an accident, complaint, or breach of permit conditions.
- an annual review of both individual and organisational training needs;
- ensuring that all changes to the EMS are properly recorded, and, if there are any major changes, NRW is informed;
- an assessment of whether the Installation's objectives, and any targets, have been

met and reported;

- a review of the Installation's objectives and targets, and, where appropriate, any revisions to these so as to effect continual improvement.

3.4.4.2. The outcomes of the above will be:

- the EMS is kept up to date, and
- the EMS is continually improved.

3.5. EMS Changes to Address the Variation Proposal

3.5.1. The existing EMS has been in place since the original permit issue in 2013. A system overhaul to update it to the new ISO 14001:2015 Standard was planned in 2017. However, due to the uncertainty of the site activities and whether de-tinning operations would recommence, the EMS update was postponed.

3.5.2. The existing system will be updated to ensure the EMS remains applicable taking account of the changes proposed as part of this permit variation application and will follow the ISO 14001:2015 standard.

3.5.3. The Environmental Policy has been updated in 2019 and is contained within Appendix III.

3.5.4. The procedure for determining risks and opportunities at the Installation will remain the same. The Environmental Risk Assessment ("ERA") (ECL.008.01.04/ERA) will be used to inform the new risks and opportunities at the Installation as a result of the proposed Specified Waste Operation.

3.5.5. The Environmental Aspects will remain the same but the associated risk ratings will be reassessed in light of the variation. Additional control measures will be implemented to prevent or reduce the additional risks. The Environmental Aspects Register updates will inform the continued development of the site, including the location of certain activities and the operational procedures required.

3.5.6. Environmental training will be provided for all employees by the TCM with emphasis on the new waste procedures, such as waste pre-acceptance and acceptance. Operators will be briefed on the environmental aspects and impacts associated with their specific job role. This will act as a refresher in regards to EMS principles and will focus on the EMS amendments and the varied EP.

3.5.7. AMG will continue to develop and maintain documented information to ensure the EMS is operating effectively. All changes will be documented, such as the Environmental Aspects Register and training material and records.

3.5.8. The EMS will be updated to include the process flow diagram shown in Figure 1 contained in Section 4.2. of this document.

3.5.9. Operational procedures will be amended to take account of the proposed waste processing and storage areas.

3.5.10. As identified in the Environmental Risk Assessment (ECL.008.01.04/ERA) undertaken as part of the permit variation, specific management plans have been created. The following management plans will be implemented as part of the EMS:

- Emissions Management Plan (ECL.008.01.04/EMP);
- Noise Management Plan (ECL.008.01.04/NMP); and
- Pest Management Plan (ECL.008.01.04/PMP).

3.5.11. The management plans contain a Daily Site Monitoring Check Sheet (see the relevant appendix of all management plans), which records a site inspection including monitoring of noise, presence of pests or visual observations of dust or litter. The check sheet will be completed by the Site Manger or deputy to monitor and record any visual observations, as well as noise nuisance and presence of pests within the Installation boundary.

3.5.12. Housekeeping techniques and checks will be recorded on the new EMS Site Check Form which will be contained within the EMS and relevant management plans.

3.5.13. The Accident Management Plan (ECL.008.01.04/AMP) has also been updated and will continue to form part of the EMS. A copy of this AMP is provided in Appendix IV.

3.5.14. Additionally, a Fire Prevention Plan (ECL.008.01.04/FPP) has been submitted as part of the EP variation and will be implemented and held within the EMS.

3.5.15. Monthly site walkovers will continue to be undertaken by an external Environmental Consultant, in addition to the daily site inspections being undertaken by AMG personnel.

3.5.16. In order to evaluate performance, AMG will interact with employees to discuss their views regarding the environmental performance of the site since the EP variation.

3.5.17. NRW site visits and correspondence, such as Compliance Assessment Record ("CAR") forms, will be taken into consideration when evaluating performance.

3.5.18. The methods for communication will remain the same. Notice boards will be updated, toolbox talks will be held with employees and if required, community dialogue, website updates and emails will be used.

3.5.19. The internal audit schedule will be updated to include the new operational waste procedures. In the first year of the permit variation issue, all waste operational procedures will be audited by an external Environmental Consultant, including a detailed audit of the Duty of Care waste paperwork. Following the implementation and operation of the Installation under the variation over a prolonged period of time, the frequency of the internal audits for operational procedures will be reduced and a representative sample will be selected annually.

3.5.20. AMG are well established possessing multiple connections within the waste sector and therefore, the General Site Manager will undertake sectoral benchmarking at other Waste Installations and Facilities. This will enable best practice to be established and any identified improvements following the benchmarking exercises, such as the development and implementation of cleaner technologies, will be documented and implemented at the Installation.

4. OPERATING TECHNIQUES

4.1. Technical Standards

4.1.1. **European Legislation -** The following European Legislation will be used to inform the variation application:

- the Industrial Emissions Directive ("IED") is intended to be a single legislative instrument for permitting, compliance and enforcement of environmental legislation across all member states. The requirement of the IED will therefore be considered relevant at this time; and
- the Best Available Techniques Reference Document ("BREF") for Waste Treatment, published in October 2018, will be considered as it covers Installations associated with a number of waste treatments, including recovery and disposal of waste.

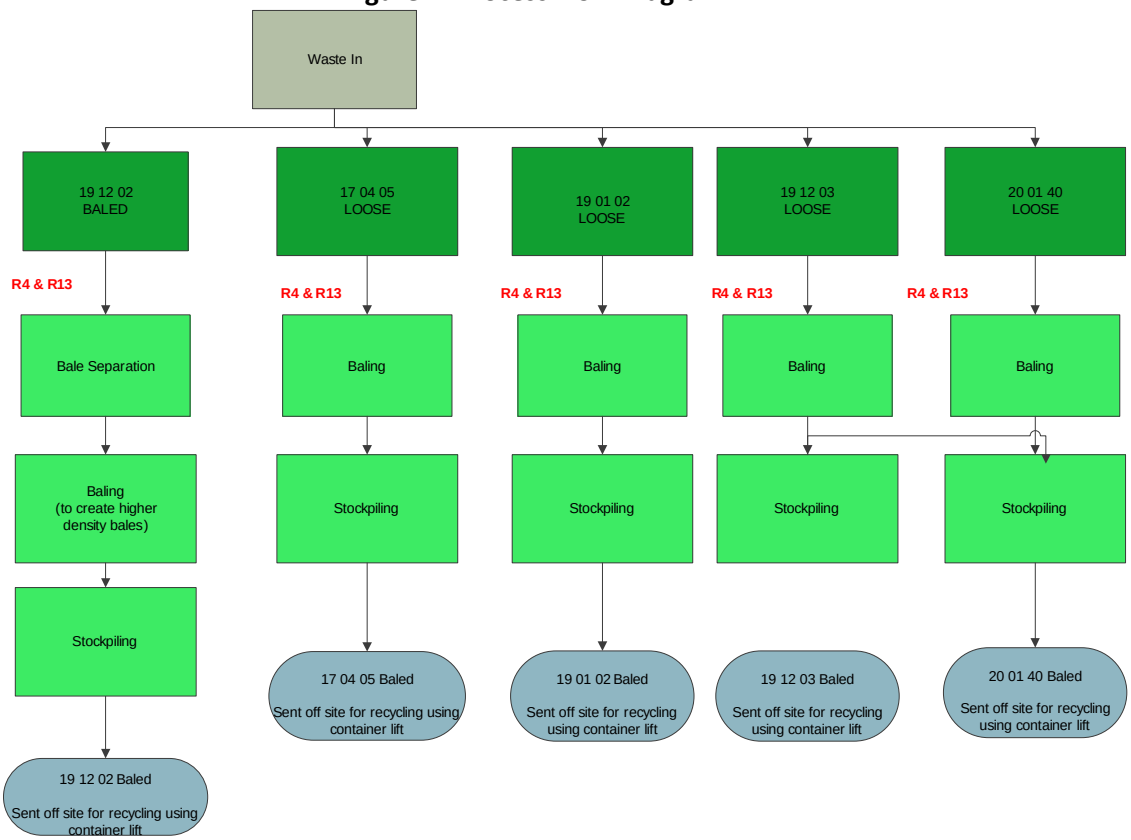
4.1.2. **National Legislation -** NRW implement the requirements of the IED via the EP Regulations and have provided a number of guidance documents to assist in the preparation of permit applications and the ongoing management of permitted installations. The NRW guidance documents that will be used in the preparation of this variation application will be:

- 'How to comply with your Environmental Permit' (Version 8, October 2014), which is applicable to all permitted activities; and
- Environment Agency ("EA") Sector Guidance Note IPPC S5.06 'Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste' (Issue 5, Date 2013). At the time of writing, NRW do not have an equivalent guidance note.

4.2. Overview of the Activities

4.2.1. An overview of the activities is provided in Figure 1. A detailed Site Layout Plan (ECL.008.01.04-02) is provided in Appendix I of this document.

Figure 1: Process Flow Diagram



4.2.2. The main operations will be as follows:

- separation;
- baling; and
- storage of baled material prior to lifting into containers for dispatch.

4.2.3. Waste processing equipment and machinery used in the outside processing areas will comprise of the following items of plant:

- Birim Makina Tiger Baler;
- Manitou Fork Lift;
- JCB 926;
- CAT 318;
- CAT 962 Front end loader;
- Skylift;
- A-Ward Container lifter; and
- CAT 932 crane

4.3. Waste Codes to be Accepted at the Installation

4.3.1. As part of AMG's EP variation, only 5 waste codes will be accepted at the Installation shown in Table 2, with an estimated throughput of 47,000 tonnes per annum.

Table 2: Proposed Wastes to be Accepted

Waste Code	Description
17	**CONTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 04	**Metals (including their alloys)**
17 04 05	Iron and Steel
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**
19 01	**Wastes from incineration or pyrolysis of waste**
19 01 02	Ferrous materials removed from bottom ash
19 12	**Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 02	Ferrous metal
19 12 03	Non-ferrous metals
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**Separately collected fractions (except 15 01)**
20 01 40	Metals

4.4. Waste Pre-Acceptance

4.4.1. AMG will put in place a fully documented waste pre-acceptance procedure, the purpose of which will be to ensure that wastes are subject to appropriate technical appraisal prior to acceptance at the site. In turn, this will ensure that unsuitable wastes are not accepted. These checks will be carried out before any decision is made to accept a waste.

4.4.2. When a waste enquiry is received the following information must be provided in writing by the waste producer:

- details of the waste producer, including address and contact details;
- the specific process from which the waste derives; and
- an indication of the waste streams produced, their quantity, physical form, composition, properties, classification and description.

4.4.3. Pre-acceptance checks and subsequent assessments will be conducted. If requested, the waste producer must also provide representative audit analysis of the waste they have produced. This audit analysis will be provided by a laboratory with suitably accredited test methods.

4.4.4. Following characterisation of the waste and confirmation of a match against the waste description, a technical assessment of the waste will be undertaken with regard to its suitability for treatment at the Installation.

4.4.5. The Site Manager and TCM will assess the waste producer's audit report. A record of the assessment will be kept, its conclusions, and any actions taken.

4.4.6. Where the audit report is partially incomplete or inadequate, the Site Manager will request and obtain the required information (or another audit report) prior to accepting the waste.

4.4.7. Should the Technical Assessment be undertaken by a third party, AMG will:

- ensure that all details of the content of any audit tools or methodologies and assessment criteria used by that party are provided to AMG;
- ensure that the methodology used by the third party meets AMG's own procedures in relation to pre-acceptance;
- keep a summary report from the third party which will demonstrate that pre-acceptance and assessment has been conducted on waste from the relevant producer with regard to the Installation which contains the following and that will be updated should any information contained within it change;
- confirmation of the producer types, waste types, containers etc.;
- confirm a composite waste classification, description, composition, and properties for each waste stream and container type destined for the Installation, derived from each of the pre-acceptance audits and with reference to the permitted wastes for the site;
- confirmation of any issues that have been identified and what action has been taken with regard to the producers and wastes affected;
- annually audit a random and representative cross-section of the other party's pre-acceptance checks to ensure both the quality of pre-acceptance checks, subsequent assessments, waste classification and descriptions;
- keep records of all audits; and
- keep electronic records of the pre-acceptance report and assessment.

4.4.8. All records relating to pre-acceptance at the site will be kept for a minimum of five years at the AMG Site Office. Electronic copies will be held on site to ensure direct access to those records for cross-reference and verification at the waste acceptance stage.

4.5. Waste Acceptance Arrangements

4.5.1. AMG will put in place a fully documented incoming waste acceptance procedure at the Installation, the primary purpose of which is confirm that the characteristics of the incoming waste matches the information provided at the pre-acceptance stage.

4.5.2. There is a clear distinction between sales and technical staff roles and responsibilities. In the case that non-technical sales staff are involved in waste enquiries, a final technical assessment prior to approval is made.

4.5.3. The waste is delivered by haulier lorries and on arrival, the lorry will be weighed and issued with waste acceptance paperwork and the following information will be recorded:

- weight;
- date of arrival on-site;
- time;
- original producers' details (or unique identifier); and

- a unique reference number.

4.5.4. Waste will only be accepted when there is sufficient treatment capacity within the Installation and a clear defined method of recovery or disposal has been determined.

4.5.5. All documents are checked by the Weighbridge Operator or nominated deputy prior to the waste being accepted.

4.5.6. Each delivery will be visually checked by the Weighbridge Operator prior to acceptance to ensure that the waste has been classified correctly. This is undertaken in a dedicated Waste Reception and Sampling Area adjacent to the weighbridge as noted on the Site Layout Plan (ECL.008.01.04-002). Waste acceptance will involve representative sampling from each waste load prior to acceptance onto site. Additional visual checks are undertaken when the waste is emptied in the storage bays. All information is recorded in the weighbridge records.

4.5.7. Any non-conforming waste observed will be removed off site and sent back to the supplier as soon as practically possible, however, such waste will only be stored in the Quarantine Area for a maximum of 5 working days. There are two Quarantine Areas shown on the Site Layout Plan (Drawing ECL.008.01.04-02) which is contained in Appendix I. Non-conforming wastes will be stored in the "Quarantine Area – Non-Conforming Waste" whilst the Fire Prevention Plan Quarantine Area is named "Fire Prevention Plan Quarantined Area". The supplier will be contacted without delay to inform them of the non-conforming waste and identify measures that can be implemented to prevent recurrence. NRW will also be informed as soon as practicable in the event of waste being rejected. The non-conforming waste will be stored within enclosed skips, each with a maximum volume capacity of approximately 216m^3 on concrete hardstanding within the Quarantine Area – Non Conforming Waste'.

4.5.8. Non-conforming waste is described as any waste that:

- the Installation is not authorised to accept;
- is not recorded on the accompanying waste documentation; or
- would not be expected, for any other reason, to be present.

4.5.9. The tracking system allows the movement, processing and storage of waste to be tracked and recorded to ensure the oldest waste is processed. This is achieved by all waste being deposited within appropriate storage bays according to the waste type. A record is maintained for each storage bay which confirms the date and time the following occurs:

1. the bay was empty;
2. the deposition of waste commenced into the empty bay;
3. the bay was filled with waste or the removal of waste commenced; and
4. all waste was removed from the bay.

4.5.10. The Site Manager carries out daily checks of each storage bay to ensure that the time between points 2 and 4 discussed above does not exceed the maximum storage duration.

4.5.11. If storage times are exceeded, the Site Manager will prevent any further waste from being accepted until tonnages are reduced on site and the importance of the waste tracking system will be reiterated to the staff. If required, the TCM will provide further

training on the waste tracking system.

4.5.12. Waste delivered to the site must be accompanied by a written description of the waste describing its composition and information specifying the original waste producer and process where required.

4.5.13. AMG will develop a procedure containing clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting such non-conformance.

4.6. Waste Handling, Storage, Processing and Dispatch

4.6.1. Waste Handling and Storage

4.6.1.1. On arrival into site, vehicles will be required to report to the weighbridge office and waste acceptance checks as per Section 4.7 will be undertaken using the concreted Waste Reception and Sampling Area. Once the load has been accepted and weighed, the vehicle will be directed by AMG personnel to the correct storage area for offloading in the designated concrete storage bays as illustrated on the Site Layout Plan (ECL.008.01.04-02) contained in Appendix I.

4.6.1.2. Waste storage arrangements are also described within the Installation's Fire Prevention Plan (Document Reference ECL.008.01.04/FPP) and illustrated on the Fire Prevention and Mitigation Plan (ECL.008.01.04-04) contained in the FPP.

4.6.1.3. Signage will be erected on each storage bay to ensure each bay is clearly marked with the waste type and maximum quantity of waste which can be stored in each.

4.6.1.4. The storage areas are located away from sensitive receptors where possible and all storage areas are within the secured perimeter covered by CCTV.

4.6.1.5. No double handling of waste will be required due to the number of available storage bays.

4.6.2. Waste Processing

4.6.2.1. All waste received at the Installation will be processed within 3 months of receipt excluding specific requirements outlined in the EMS, such as constraints required for pest management.

4.6.2.2. Waste processing at the Installation consists of physically separating of waste types and baling waste to be sent off-site for recycling.

4.6.3. Waste Dispatch

4.6.3.1. Finished product bales will be removed from the Installation in containers. A container lift will be used to unload and load containers onto the transportation vehicles.

4.6.3.2. Removal of waste materials from the site will be documented in accordance with Duty of Care requirements. All waste materials will be weighed prior to being removed from site. This will be carried out by the passage of vehicles carrying waste over the weighbridge prior to departure.

4.7. Records

4.7.1. A system will be implemented which will hold all the information generated during the pre-acceptance, acceptance, storage, treatment and removal off site.

4.7.2. Records are made and kept up to date on an ongoing basis to reflect deliveries, on-site treatment and despatches. The tracking system operates as a waste inventory control system and includes:

- date of arrival on-site;
- producers details;
- all previous holders;
- a unique reference number;
- pre-acceptance and acceptance analysis results;
- load/package type and size;
- intended separating/baling route;
- the nature and quantity of all wastes held on site (this includes all hazards);
- the physical location of the wastes in relation to the Site Layout Plan;
- where the waste is in the designated process flow; and
- identification of site staff who have taken any decisions regarding the acceptance or rejection of waste streams and the recovery or disposal options.

4.7.3. The reporting system can provide reports on the following:

- the total quantity of waste present on site at any one time;
- a breakdown of the waste quantities being stored pending on-site treatment;
- breakdown of waste quantities on site for storage pending onward transfer;
- breakdown of waste quantities by waste category;
- a comparison of the quantity of waste stored on site against the total permitted to be stored; and
- a comparison of the time the waste has been stored on site against the permitted limit.

4.7.4. All records are stored in the Site Office and a backup copy maintained and stored off site by the General Site Manager.

4.8. Existing Infrastructure Arrangements

4.8.1. The Installation is located within a secure compound, which is completely enclosed by metal palisade fencing. Access to the Installation is via a security gate, which is served by the weighbridge, manned during operational hours by the Weighbridge Operator.

4.8.2. The Hammer Mill building has been demolished to allow the construction of the proposed unprocessed waste storage bays. The shredder and baler have also been removed from this area.

4.8.3. The concrete bunker to be used for the Fire Prevention Plan Quarantine Area, as well as the concrete hardstanding area to be used for the Quarantine Area – Non Conforming Waste are already present on site and will be utilised in this EP variation.

4.8.4. The existing internal roadways will also be utilised as part of the proposed activities.

4.9. Proposed Infrastructure Arrangements

4.9.1. AMG will be required to complete infrastructure improvement works to meet appropriate BAT and Fire Prevention Plan guidance requirements, therefore, an Improvement Programme is provided in Section 11 of this EPTR.

4.9.2. The Installation will be covered by closed circuit television ("CCTV") which will maintained by Dyfed Alarms Limited. Any motion detected by the cameras is reported to a control centre where a contracted security company view the feed and determine if further action is necessary. Key members of staff are also on call to attend site on such occasions.

4.9.3. The proposed Specified Waste Operation will be undertaken on purpose built concrete hardstanding located entirely within a 0.3m bund wall with two vehicle ramps to enable vehicle movements, therefore, restricting all pathways to the drainage network.

4.9.4. Any potentially polluting spillages at the Installation will be captured within the purpose-built bund. Any spillage will be subject to the Installation's robust spill response procedure detailed in the Accident Management Plan ("AMP") (ECL.008.01.04/AMP) which would prevent such an occurrence. A copy of the AMP is provided in Appendix IV.

4.9.5. Additionally, AMG will install impermeable concrete in the area to be designated as the Waste Reception and Sampling Area.

4.9.6. AMG will implement a regime of visual site condition checks to be undertaken daily to ensure that the infrastructure is maintained in good condition. The site condition inspection checks will include:

- assessing the condition of the impermeable surfacing;
- assessing the integrity of bunding and undertaking an inventory check of spill kits;
- undertaking general housekeeping checks;
- assessing the operation of the security measures and emergency equipment; and
- ensuring vehicle and pedestrian routes to all areas of the Installation are clear of obstruction.

4.9.7. The results of these checks are recorded on the EMS Site Checks form, a blank example of which is provided in Appendix V. The details of any remedial action and maintenance that may be required to ensure good condition are also recorded on this form.

5. EMISSIONS

5.1. Point Source Emission to Air – Current Arrangements

5.1.1. As per EPR/BM238IQ(V006), AMG currently has two point source emissions to air, designated as A2 and A3. However, since the boiler was decommissioned in 29th April 2015, there have been no emissions from A2 or A3.

5.1.2. AMG are investigating the possibility of recommencing de-tinning operations at the Llanelli Installation applying the streamlining techniques undertaken at AMG plants in the United States. At present the de-tinning operations have been suspended and as a result, there are no point source emissions to air from A2 or A3.

5.2. Point Source Emissions to Air – Proposed Arrangements

5.2.1. There will be no emissions to air associated with the proposed change.

5.3. Point Source Emissions to Water – Current Arrangements

5.3.1. As per EPR/BM238IQ (V006), AMG currently has one point source emission to water; designated as W1. The emission limits and monitoring requirements are provided in Table 3.

Table 3: Point Source Emission Point to Water

Emission Point	Source	Parameter	Limit (including unit)	Monitoring Frequency
W1	Clean Roof Water Runoff	Total Oxidised Nitrogen (TON) as N mg l^{-1}	3 mg/l	Monthly

5.4. Point Source Emissions to Water – Proposed Arrangements

5.4.1. As part of the improvement works on site, partial removal of the main detinning building and the removal of the associated drainage pipes has meant that W1 no longer receives any flow. Consequently, sampling and analysis of effluent has not been possible since April 2018. At the time of writing, demolition works are being undertaken to demolish the entire main de-tinning building.

5.4.2. Therefore, AMG wish to remove the designated W1 from the EP (EPR/BM2381IQ) as this emission point was established for clean roof run off from the main detinning building. W1 emission point and the currently permitted drainage run are shown on the Site Layout Plan (Drawing Reference ECL.008.01.04-002).

5.4.3. AMG propose to permanently block W1 and backfill the entire drainage line in order to sever the connection. A groundworks contractor will install a permanent concrete plug within W1 and a polythene sheet will be placed around the pipe opening in addition to the concrete plug. Concrete will also be backfilled along the entire drainage connection. Following completion of these works, there will be no positive connection from the Installation through to W1 via the southern drainage run.

5.4.4. The proposed Specified Waste Operation will be undertaken in the designated area shown on the Site Layout Plan (ECL.008.01.04-002) contained in Appendix I. This designated area will be fully bunded preventing any emissions to water.

5.5. Point Source Emissions to Sewer – Current Arrangements

5.5.1. There are no emissions to sewer.

5.6. Point Source Emissions to Sewer – Proposed Arrangements

5.6.1. There will be no changes to emissions to sewer associated with the proposed change.

5.7. Point Source Emissions to Land – Current Arrangements

5.7.1. There are no emissions to land.

5.8. Point Source Emissions to Land – Proposed Arrangements

5.8.1. There will be no changes to emissions to land associated with the proposed change.

5.9. Fugitive Emissions to Air

5.9.1. The potential sources of fugitive emissions to air from the site include:

- movement of transport vehicles into and out of site;
- tipping of waste materials;
- storage of the waste materials prior to processing;
- the main operation and processing activities, including sorting and baling; and
- loading of finished product.

5.9.2. Section 3 and 4 of the EMP describes the potential dust emission levels at the Installation at different stages of operation and the likelihood of the emissions reaching nearby sensitive receptors and the mitigation measures to prevent this from occurring.

5.9.3. An Emissions Management Plan ("EMP") has been prepared and will form part of AMG's Environmental Management System ("EMS"). The EMP (Document Reference ECL.008.01.04/EMP) has been submitted as part of the permit variation application.

5.10. Fugitive Emissions to Surface Water, Sewer and Groundwater

5.10.1. The proposed Specified Waste Operation will be undertaken on impermeable concrete surfacing, surrounded by a bund wall isolated from the drainage network. In the event of rainwater accumulating in the bund, all clean surface runoff will either be utilised for dust suppression or will be tankered away for appropriate disposal.

5.10.2. The process and storage areas are not directly linked to the surface water drainage network. Moreover, AMG wish to permanently disconnect the surface water drainage arrangements and consequently, there will be no risk of fugitive emissions to surface water. This is discussed in more detail above in Section 5.4 of this EPTR.

5.10.3. Any potentially polluting spillages at the Installation will be subject to the Installation's robust spill management procedure provided in the Installation's AMP (ECL.008.01.04/AMP) contained in Appendix V.

5.10.4. Fugitive releases to the groundwater will be prevented by conducting all operations, including the unloading and loading, storage of raw materials and finished product and processing on an area constructed of impermeable concrete hardstanding, therefore, an impervious barrier to prevent a pathway for migration to ground.

5.10.5. Adjacent to the old diesel tank is a concrete pad used for re-fuelling which drains to a three-stage oil water interceptor prior to discharge to soakaway.

5.10.6. The site is not connected to the mains sewage drainage network and therefore, there is no risk of fugitive emissions to sewer from the proposed operations.

5.10.7. The drainage and infrastructure arrangements at the AMG site are displayed on the Site Layout Plan and Fire Prevention and Mitigation Plan (Drawing ECL.008.01.04-002 and 004), which are contained within Appendix I of this document.

6. GENERAL REQUIREMENTS

6.1. Emissions Management Plan

6.1.1. The potential sources of dust and litter emissions from the site include:

- movement of transport vehicles into and out of site;
- tipping of waste materials;
- storage of the waste materials prior to processing;
- the main operation and processing activities- separating and baling; and
- loading of finished product.

6.1.2. As described in Section 5.9 of this document, an Emissions Management Plan ("EMP") has been prepared. The control measures outlined within the plan should prevent any dust, mud or litter nuisance from reaching the identified receptors.

6.1.3. The EMP will form part of AMG's EMS and will be reviewed annually to ensure the continuing effectiveness of the plan. The reviews will take account of compliance records, complaints history, site records and any recent sensitive developments on neighbouring land. The plan will be amended as necessary, including any changes to the control measures.

6.1.4. Table 5 of the EMP highlights control measures to reduce the overall risk of fugitive emissions reaching sensitive receptors, such as limiting the drop height of material, only offloading material in the designated covered bays located a significant distance from the Installation boundary and using suppression measures, such as water dampening during dry weather.

6.1.5. The EMP shall be submitted as part of the permit variation application (Document Reference ECL.008.01.04/EMP).

6.2. Odour Management Plan

6.2.1. The AMG site will only accept and process metallic waste. Therefore, it is considered that the changes will not give rise to any significant odour emissions. Consequently, it is considered that an Odour Management Plan ("OMP") is not required.

6.3. Pest Management Plan

6.3.1. The potential sources of pest nuisance from the site include:

- rodents being attracted to the site by any litter present; and
- fly eggs, larvae, pupae and adults to be brought onto site within the waste; and
- attraction of seagulls.

6.3.2. As part of this permit variation, a Pest Management Plan ("PMP") has been prepared. The PMP will form part of AMG's EMS. The control measures outlined within the plan should reduce the likelihood of the presence of pests and prevent any pest nuisance from reaching the identified receptors.

6.3.3. The PMP shall be submitted as part of the permit variation application (Document Reference ECL.008.01.04/PMP).

6.4. Fire Prevention Plan

6.4.1. As per the requirements of NRW 'Fire Prevention & Mitigation Plan Guidance – Waste Management' (Version 2.0, August 2017), the guidance applies to operators that store any amount of combustible water material including (but not limited to); fragmentiser waste (metal waste from materials recovery facilities) and scrap metals.

6.4.2. The Fire Prevention Plan ("FPP") shall be submitted as part of the permit variation application (Document Reference ECL.008.01.04/FPP). The FPP will form part of AMG's EMS and will be reviewed and updated annually or if any of the following occur:

- a fire on site;
- a change or review of legislation;
- if the site is instructed to do so by NRW; or
- changes to the contractors listed in the FPP.

6.5. Noise and Vibration Management Plan

6.5.1. The potential sources of noise and vibration at the site include:

- movement of transport vehicles into and out of site;
- separation and sorting of waste;
- external contractor vehicles when tipping of waste materials which can give rise to beeping during reversing, intermittent for 10-20 seconds as required for the health and safety of personnel.
- baling; and
- loading of finished bales using a container lift and the exportation from site.

6.5.2. As part of this permit variation, a Noise and Vibration Management Plan ("NVMP") has been prepared. The NVMP will form part of AMG's EMS. The control measures outlined within the plan should reduce the likelihood of th e noise and vibration emissions and prevent any noise or vibration nuisance from reaching the identified receptors.

6.5.3. Section 6.2 and 6.3 of the NVMP discuss how AMG will respond to complaints, including timescales in which they will be dealt with. Section 6.6 of the NVMP details how complaints will be escalated and the requirement to undertake a noise survey if frequent substantiated complaints are received at the Installation.

6.5.4. The NVMP shall be submitted as part of the permit variation application (Document Reference ECL.008.01.04/NVMP).

7. APPLICATION SITE CONDITION REPORT

7.1.1. It is considered that, as the proposed changes at the site are within the existing Installation boundary, the original Application Site Condition Report ("ASCR") submitted in support of the Installation's permit application remains valid.

7.1.2. Additionally, the types of waste proposed to be accepted are of a similar nature to those already permitted to be accepted as part of the 2.2. Scheduled Activity, consequently, there would be no change to the potentially polluting substances stored on site. Accordingly, no further work is proposed.

8. MONITORING

8.1. Monitoring of Emissions to Air

8.1.1. There are no point source emissions to air associated with the variation, therefore, no monitoring of emissions to air is proposed.

8.2. Monitoring of Groundwater

8.2.1. There will be no changes to the monitoring arrangements associated with the proposed variation. Monitoring arrangements will remain the same as currently permitted from G1, G2, G4, G5, G6 and G7.

8.2.2. Sampling from G3 has not been required since 2009 as the borehole no longer exists. This was confirmed in CAR 2778 issued by the Environment Agency (prior to the formation of NRW). Therefore, AMG request the Environmental Permit is updated accordingly.

8.3. Monitoring of Surface Water

8.3.1. As the Specified Waste Operation designated area will be fully bunded and isolated from the surface water drainage network, no monitoring is proposed.

8.3.2. Furthermore, as detailed in Section 5.4 of this EPTR, AMG wish to remove the designated W1 emission point to water from their EP (EPR/BM2381IQ). As no emissions to surface water are anticipated, no monitoring is proposed.

9. RESOURCE EFFICIENCY AND CLIMATE CHANGE

9.1. Energy Efficiency Measures

9.1.1. A number of energy efficiency measures will be implemented at the AMG site, such as:

- ensuring regularly inspection and maintenance of equipment to achieve optimum efficiency. For example, frequent lubrication to avoid high friction losses. This will be contained within the PPMR (provided in Appendix VI) which will form part of the EMS;
- optimising start up time, power down time and equipment sequencing;
- optimising operational planning to streamline equipment use;
- all lights will be turned off when not in use or when natural daylight is sufficient; and
- employees will be trained in the importance of energy management and basic energy saving practices.

9.1.2. Energy use will be monitored monthly to produce an energy balance record and any opportunities for energy efficiency improvement will be addressed as part of the EMS.

9.2. Energy and Fuel Consumption

9.2.1. The proposed Specified Waste Operation will not be an energy intensive process.

9.2.2. It is estimated that 69,000 kWh per annum of electricity will be consumed to operate the baler. Using the conversion factor of 2.4, the primary energy consumed will be 165,600kWh per annum.

9.2.3. It is also estimated that 40,000litres of diesel will be consumed per annum associated with the proposed activities.

9.3. Climate Change Agreement

9.3.1. The AMG site is not subject to a Climate Change Agreement (“CCA”).

9.4. Raw Material Justification

9.4.1. A full list of the raw materials used on-site together with their principal environmental characteristics may be found in Table 4.

9.4.2. The Installation’s EMS will include a procedure for the annual review of new developments in raw materials, and for the implementation of any suitable ones with an improved environmental profile.

Table 4: Raw Materials Properties and Use

Chemical Name	Properties (Contained in Material Safety Data Sheets)	Use	Capacity and Storage Arrangements
Red diesel	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Fuel oil for the operation of plant/machinery	15,000l tank bunded to 110% of the total tank capacity fitted with an electronic alarm to prevent overfill. Tank location is provided on the Site Layout Plan (ECL.008.01.04) contained in Appendix I.
Fuchs Renolin B20 VG68 Hydraulic Oil	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Hydraulic oil for baler	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Fuchs Titan Truck Plus 15W-40	Avoid contaminating waterways. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L. No information available on bioaccumulation potential persistence or degradability.	Engine oil for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Trent GP3 Universal Antifreeze	Must not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.	Anti-freeze for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Greasetek EP2 High Specification Grease	Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).	Grease/lubricant for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.

9.5. Waste Minimisation

9.5.1. The proposed process undertaken at AMG is a waste avoidance and recovery process in its own right. Through the application of the waste hierarchy, all waste material delivered to the Installation will be processed for recovery with the intention of being removed off site as product.

9.5.2. AMG commit to the reuse of drums and Intermediate Bulk Containers ("IBCs") following cleaning and reconditioning where technically and economically possible.

9.5.3. For waste emissions, the following should be monitored and recorded even though waste emissions will be minimal:

- the physical and chemical composition of waste;
- its hazard characteristics; and
- handing precautions and substances with which it cannot be mixed.

10. COMPLIANCE WITH BAT CONCLUSIONS

10.1. Overview

10.1.1. It is considered that the techniques that will be in use at the proposed Installation will constitute Best Available Techniques ("BAT") and will be appropriate and proportionate for the scale of the activities at the Installation and the risks that are posed to the environment by these activities.

10.1.2. The BAT requirements for the proposed variation have been taken from the Best Available Techniques Reference Document ("BREF") for Waste Treatment, published in October 2018, as it covers Installations associated with a number of waste treatments, including recovery and disposal of waste.

10.1.3. Consideration has also been given to the EA's Sector Guidance Note IPPC S5.06 Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste' (Issue 5, Date 2013*).* At the time of writing, NRW do not have an equivalent guidance note.

10.1.4. In addition, where necessary, reference has been made to NRW's Guidance Note 'How to comply with your environmental permit' (Version 8, October 2014*)*.

10.1.5. A demonstration of compliance with Waste Treatment BREF BAT Conclusions is provided in Tables 5 and 6 and compliance with BAT Conclusions contained in IPPC S5.06 is provided in Tables 7 and 8.

Table 5: Waste Treatment BREF- General BAT Conclusions

BAT Ref No.	BAT Requirement	Section of EPTR Document
Overall Environmental Performance		
1	In order to improve the overall environmental performance, BAT is to implement and adhere to an EMS that incorporates all of the following features: I. Commitment of the management, including senior management; II. Definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation; III. Planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment; IV. Implementation of procedures; V. Checking performance and taking corrective action; VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness; VII. following the development of cleaner technologies; VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life; IX. application of sectoral benchmarking on a regular basis; X. waste stream management (see BAT 2); XI. an inventory of waste water and waste gas streams (see BAT 3); - n/a XII. residues management plan (see description in Section 6.6.5); - n/a XIII. accident management plan (see description in Section 6.6.5); XIV. odour management plan (see BAT 12); - n/a XV. noise and vibration management plan (see BAT 17).	3.2, 3.4 & 3.5, 11.3 Accident Management Plan ("AMP") (ECL.00.01.04/AMP) Noise and Vibration Management Plan ("NVMP") (ECL.008.01.4/NVMP)

Table 5: Waste Treatment BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of EPTR Document
Overall Environmental Performance		
2	In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques given below: a) Set up and implement waste characterisation and pre-acceptance procedures; b) Set up and implement waste acceptance procedures; c) Set up and implement a waste tracking system and inventory; d) Set up and implement an output quality management system; e) Ensure waste segregation; f) Ensure waste compatibility prior to mixing or blending of waste; and g) Sort incoming solid waste.	4.6, 4.7, 4.8 & 11.3
3	In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the EMS that incorporates the following features: (i) information about the characteristics of the waste to be treated and the waste treatment processes, including: (a) simplified process flow sheets that show the origin of the emissions; and (b) descriptions of process-integrated techniques and waste water/waste gas treatment at source including their performances; (ii) information about the characteristics of the waste water streams, such as: (a) average values and variability of flow, pH, temperature, and conductivity; (b) average concentration and load values of relevant substances and their variability (e.g. COD/TOC, nitrogen species, phosphorus, metals, priority substances / micropollutants); (c) data on bio eliminability (e.g. BOD, BOD to COD ratio, Zahn-Wellens test, biological inhibition potential (e.g. inhibition of activated sludge)) (see BAT 52); (iii) information about the characteristics of the waste gas streams, such as: (a) average values and variability of flow and temperature; (b) average concentration and load values of relevant substances and their variability (e.g. organic compounds, POPs such as PCBs); (c) flammability, lower and higher explosive limits, reactivity; (d) presence of other substances that may affect the waste gas treatment system or plant safety (e.g. oxygen, nitrogen, water vapour, dust).	n/a

Table 5: Waste Treatment BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of EPTR Document
Overall Environmental Performance (Cont.)		
4	In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below. a) Optimised storage location; b) Adequate storage capacity; c) Safe storage operation; and d) Separate area for storage and handling of packaged hazardous waste.	4.6 & Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP)
5	In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.	4.6
Monitoring		
6	For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point, at the point where the emission leaves the installation).	n/a
7	BAT is to monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	
8	BAT is to monitor channelled emissions to air with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	
9	BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques listed.	
10	BAT is to periodically monitor odour emissions.	
11	BAT is to monitor annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year.	3.4, 9.1, 9.4 & 9.5

Table 5: Waste Treatment BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of EPTR Document
Emissions to Air		
12	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the EMS.	n/a
13	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques listed.	n/a
14	In order to prevent, or where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques listed.	6.1 & Emissions Management Plan ("EMP") (ECL.008.01.04/EMP)
15	BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns)	n/a
16	In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both the techniques given below.	n/a
Noise and Vibrations		
17	In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the EMS, that includes all of the following elements: I. a protocol containing appropriate actions and timelines; II. a protocol for conducting noise and vibration monitoring; III. a protocol for response to identified noise and vibration events, e.g. complaints; and IV. a noise and vibration reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.	6.5 & Noise and Vibration Management Plan ("NVMP") (ECL.008.01.04/NVMP)

Table 5: Waste Treatment BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of EPTR Document
Noise and Vibrations (Cont.)		
18	In order to prevent, or where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given below. (a) Appropriate location of equipment and buildings; (b) Operational measures; (c) Low noise equipment; (d) Noise and vibration control equipment; and (e) Noise attenuation.	6.5.& NVMP
Emissions to Water		
19	In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques listed.	n/a
20	In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques listed.	n/a
Emissions from Accidents and Incidents		
21	In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan. (a) Protection measures; (b) Management of incidental/accidental emissions; and (c) Incident/accident registration and assessment system.	3.4, 3.5. & Accident Management Plan ("AMP") (ECL.008.01.04/AMP)
Material Efficiency		
22	In order to use materials efficiently, BAT is to substitute materials with waste.	9.4 & 9.5
Energy Efficiency		
23	In order to use energy efficiently, BAT is to use both the techniques given below. (a) Energy efficiency plan; and (b) Energy balance record	9.1
Reuse of Packaging		
24	In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan.	9.5.

Table 6: Waste Treatment BREF – BAT Conclusions for the Mechanical Treatment of Waste

BAT Ref No.	BAT Requirement	Section of EPTR Document
General BAT Conclusions for the Mechanical Treatment of Waste		
Emissions to Air		
25	In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin like PCBs, BAT is to apply BAT 14d and to use one or a combination of the techniques given below. a) Cyclone; b) Fabric filter; c) Wet scrubbing; d) Water injection into the shredder – n/a shredding is not proposed.	5.2, 5.9 & EMP

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, 2.1 In Process Controls - Section 2.1.1, Pre-Acceptance Procedures to Assess Waste		
1	From the waste disposal enquiry, the Operator should obtain information in writing relating to: • The type of process producing the waste; • The specific process from which the waste derives; • The quantity of waste; • Chemical analysis of the waste (individual constituents and as a minimum their percentage compositions); • The form the waste takes (solid, liquid, sludge etc.); • Hazards associated with the waste; and • Sample storage and preservation techniques.	4.4
2	Unless a sample and analysis has already been completed by a third party and the Operator has a sufficient written information from them, then the Operator should in every case obtain representative sample(s) of the waste from the production process/current holder and compare it against the written description to ensure it is consistent.	
3	Other than for pure product chemicals or laboratory smalls, the chemical analysis should relate to an actual analysis and not simply be based on product data sheets or an extrapolation of information on product data sheets. For example, taking the concentrations as specified and applying a dilution factor is not acceptable.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.1.1, Pre-Acceptance Procedures to Assess Waste		
4	Wastes should not be accepted at the installation without a clear method or defined treatment and disposal route being determined in advance and costed before the waste is accepted at the installation.	4.4
5	The Operator should ensure that the sample is representative of the waste and has been obtained by a person who is technically competent to undertake the sampling process.	
6	The type of information that would demonstrate the reliability of the sample includes: • Location of sample point, for example, effluent tank; • Capacity of vessel sampled (for samples from drums an additional parameter would be the total number of drums); • Method of sampling, e.g. sampling tap (mid flow), "top" sample; • Number of samples and degree of consolidation; • Operating conditions at time e.g. normal operation, shut-down, maintenance and/or cleaning; and • Preservation techniques.	
7	Samples should be clearly labelled and any hazard identified.	
8	Sample tracking systems within the installation should be established and be auditable.	
9	Analysis should be carried out by a laboratory with robust quality assurance and quality control methods and record keeping.	
10	Analysis required will vary depending upon the nature of the waste, the process to be used and what is known about the waste already. Results of analysis should be kept within the tracking system. These details should include: • Check on constituents declared by waste producer/holder to ensure Permit compliance, treatment plant specification and final disposal; • All hazardous characteristics; • Physical appearance; • Colour; • pH; • presence, strength and description of odour assessment (note COSHH implications).	
11, 12 & 13		n/a
14	Following characterisation of the waste, a technical assessment should be made of its suitability for treatment or storage to ensure Permit conditions are being met.	4.4.

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.1.1, Pre-Acceptance Procedures to Assess Waste		
15	There must be a clear distinction between sales and technical staff roles and responsibilities. If non-technical sales staff are involved in waste disposal enquiries, then a final technical assessment prior to approval should be made. It is this final technical checking that should be used to avoid build-up of accumulation of waste.	4.4
16	All records relating to pre-acceptance should be maintained at the installation for cross-reference and verification at the waste acceptance stage. These records should be kept for a minimum of 3 years.	
17	For laboratory smalls, whether or not the installation Operator packs them on behalf of the producer, a full list of laboratory smalls should be created and transported with the waste.	n/a
IPPCS5.06, Section 2.1.2, Acceptance Procedure When Waste Arrives At The Installation		
Load Arrival		
1	On arrival loads should: • be weighed, unless alternative reliable volumetric systems linked to specific gravity data are available; • not be accepted into site unless sufficient storage capacity exists and site is adequately manned to receive waste; • have all documents checked and approved, and any discrepancies resolved before the waste is accepted; and • have any labelling that does not relate to the contents of the drum removed before acceptance on site.	4.5
2	Hazardous wastes should only be received under the supervision of a suitably qualified person (HNC qualified chemist or higher).	n/a
Load Inspection		
3	Visual inspection. Where possible, confirmatory checks should be undertaken before offloading where safety is not compromised. Inspection must in any event be carried out immediately upon offloading at the installation.	4.5 & 4.7
4	Check every container to confirm quantities against accompanying paperwork. All containers should be clearly labelled and should be equipped with well-fitting lids, caps and valves secure and in pace. Any damaged, corroded or unlabelled drums should be put into a quarantine area and dealt with appropriately. Following inspection, the waste should then be unloaded into a dedicated sampling/reception area.	
5	At this stage, the waste tracking system unique reference number should be applied to each container. Each container should be also labelled with the date of arrival on-site and primary hazard code.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.1.2, Acceptance Procedure When Waste Arrives at The Installation		
6	Where containers are bulked, the earliest date of arrival of the bulked wastes should be transposed from the original container on to the bulk container.	n/a
7	The inspection, unloading and sampling areas should be marked on a plan and have suitably sealed drainage systems.	Drawings ECL.008.1.04-002 & 004
Sampling – Checking - Testing of Wastes - Storage		
8	Other than pure product chemicals and laboratory smalls, no wastes should be accepted at the installation without sampling, checking and testing being carried out. Reliance solely on the written information supplied is not acceptable, and physical verification and analytical confirmation are required. All wastes, whether for on-site treatment or simply storage, must be sampled and undergo verification and compliance testing.	4.5
9	The Operator should ensure that waste delivered to the installation is accompanied by a written description of the waste describing: • the physical and chemical composition; • hazard characteristics and handling precautions; • compatibility issues; and • information specifying the original waste producer and process.	
10	On-site verification and compliance testing should take place to confirm: • the identity of the waste; • the description of the waste • consistency with pre-acceptance information and proposed treatment method; and • compliance with permit.	
11	The Operator should have clear and unambiguous criteria for the rejection of waste, together with a written procedure for tracking and reporting such non-conformance. This should include notification to the customer/waste producer and the Regulator. Written/computerised records should form part of the waste tracking system information.	
12	Documentation provided by the driver, written results of acceptance analysis, details of offloading point or off-site transfer location should be added to the tracking system documentation.	
13	A record of sampling regime for each load and justification for the selection of this option should be maintained at the installation.	
14	Wastes must not be deposited within a reception area without adequate space.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.1.2, Acceptance Procedure When Waste Arrives At The Installation		
16	Should the inspection or analysis indicate that the wastes fail to meet the acceptance criteria (including damaged or unlabelled drums), and then such loads should be stored in a dedicated quarantine area and dealt with appropriately. Such storage should be more a maximum of five working days. Written procedures should be in place for dealing with wastes held in quarantine, together with a maximum storage volume.	4.5
17	If the cause of failure to meet acceptance criteria is due to incompatibility, then the wastes should be segregated immediately to remove the hazard.	
18	Tankered wastes should be sampled prior to acceptance. There should be no storage pending sampling.	n/a
19	The driver of the vehicle carrying the waste may arrive at the installation with a sample that has been taken at some stage beforehand. This should be the exception.	4.5, 4.6 & 4.9
20	The installation should have a designated sampling point or reception area. These should be in close but safe proximity to the laboratory/checking facility and the sampling point should be visible (or covered by CCTV), if sampling is not directly supervised by, for example, laboratory staff.	
21	The offloading, sampling point/reception and quarantine areas should have impervious surface with self-contained drainage, to prevent any spillage entering the storage systems or escaping off-site. Most spills and leaks during sampling are on a small scale, resulting from releases from the back valve of a tanker if the sample is being obtained in this way. Attention should be given to ensuring that incompatible substances do not come into contact resulting from spills from sampling, for example, within a sump serving the sampling point. Absorbents should be made available.	
Reference No. 22-30		n/a
Waste Rejection Procedures		
Reference No. 31-33		n/a
34	The operator should have clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting such non-conformance. This should include notification to the customer/waste producer and the Environment Agency. Written/computerised records should form part of the waste tracking system information. The operator should also have a clear and unambiguous policy for the subsequent storage and disposal of such rejected waste. This policy should achieve the following: • identifies the hazards posed by the rejected wastes; • labels rejected wastes with all information necessary to allow proper storage and segregation arrangements to be put in place; and • segregates and stores rejected wastes safely pending removal.	4.5

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
Records		
35	The waste tracking system should hold all the information generated during pre-acceptance, acceptance, storage, treatment and/or removal off-site. Records should be made and kept up to date on an ongoing basis to reflect deliveries, on-site treatment and despatches. The tracking system should operate as a waste inventory/stock control system and include as a minimum: • date of arrival on-site; • producers details; • all previous holders; • a unique reference number; • pre-acceptance and acceptance analysis results; • package type and size; • intended treatment/disposal route; • record accurately the nature and quantity of wastes held on site, including all hazards and identification of primary hazards; • where the waste is physically located in relation to a site plan; • where the waste is in the designated disposal route; and • identification of operator staff that have taken any decisions re acceptance or rejection of waste streams and decided upon recovery/disposal options.	4.5 & 4.7
36	All records relating to pre-acceptance should be maintained and kept readily available at the installation for cross-reference and verification at the waste acceptance stage. Records should be held for a minimum of two years after the waste has been treated or removed off-site. Records should be held in an area well removed from hazardous activities to ensure their accessibility during any emergency.	4.7
37	The system adopted should be capable of reporting on all of the following: • total quantity of waste present on-site at any one time, in appropriate units; • breakdown of waste quantities being stored pending on-site treatment, classified by treatment route; • indication of where the waste is located on site relative to the site plan; • comparison of the quantity on site against total permitted; • comparison of time the waste has been on-site against permitted limit. These records should be held in a designated area, as agreed with the Agency, well removed from hazardous activities to ensure their accessibility during any emergency.	
38	Back-up copies of computer records should be maintained off-site.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
39	Wastes should not be accepted at the installation without a clear defined method of recovery or disposal being determined and costed and ensuring there is sufficient capacity being available. These checks should be performed before the waste acceptance stage is reached.	4.4, 4.5 & 4.7
40	The Operator should ensure that the installation personnel who may be involved in the sampling, checking and analysis procedures are suitably qualified (HNC qualified chemist or higher) and adequately trained, and that the training is updated on a regular basis.	
41	Analysis should be carried out by a laboratory with suitably accredited test methods.	
42	Samples should be retained on-site for a minimum of two days after the waste has been treated or removed off-site including all residues from its treatment.	
43	Once analysis has confirmed that the waste is acceptable, the Operator should only then create a batch for treatment or a load for off-site removal. Once a batch has been assembled for treatment, the operator should create a composite sample for analysis prior to treatment. Scope of analysis depends upon intended treatment but should be specified.	
44	There must be a clear distinction between sales and technical staff roles and responsibilities. If non-technical sales staff are involved in waste enquiries then a final technical assessment prior to approval should be made. It is this final technical checking that should be used to avoid build-up of accumulations of wastes and to ensure that sufficient capacity exists.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

BAT Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.1.3, Waste Storage		
Offloading/Discharge of Waste		
1	The Operator should have in place a system to ensure that the correct discharge point or storage area is used. The options for this include: • ticket systems; • supervision by site staff and if relevant CCTV; • keys; and • colour-coded points/hoses or fittings of a specific size.	4.6
2	Offloading and quarantine points should have an impervious surface with self-contained drainage, to prevent any spillages entering the storage systems or escaping off-site.	4.5 & 4.9
3	Damaged hoses and connections must not be used.	n/a
4	Only couplings of the correct size for the connection should be used and the coupling should be able to withstand the maximum shut valve pressure of the transfer pump.	n/a
Record Keeping		
5	The Operator should have an internal tracking system which should satisfy the objectives and minimum standards given.	4.7
General Storage Requirements		
6	Storage areas are often the most visible aspects of the installation. Storage areas should be located away from watercourses and sensitive perimeters, for example, those which may be adjacent to public rights of way, housing or schools, and within the security-protected area of the installation to prevent vandalism.	4.6
7	Storage areas should be located to eliminate or minimise the double handling of wastes within the installation.	
8	Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	
9	The total maximum storage capacity of the site should be clearly and unambiguously stated in writing, accompanied with details of the method used to calculate the volumes held against this maximum and set out in the site plan. The stated maximum capacity of storage areas should not be exceeded and the site plan updated to reflect any changes before they are implemented.	4.5, 4.6. & Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP)

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
10	All containers should be clearly labelled with the date of arrival, relevant hazard code(s), chemical identity and composition of the waste and a unique reference number or code enabling identification through stock control and cross-reference to pre-acceptance and acceptance records.	n/a
11	Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage/treatment areas via the drainage system.	4.9 & FPP
12	Procedures must be in place for the regular inspection and maintenance of storage areas, including drums, vessels, pavements and bunds. Inspections should pay particular attention to signs of damage, deterioration and leakage. Records should be kept detailing action taken. Faults must be repaired as soon as practicable. If containment capacity or capability of bund, sump or pavement is compromised, (unless effecting a repair is more expedient and working with wastes in close proximity does not compromise safety), then waste must be immediately removed until the repair is completed.	4.9
13	There should be daily inspection of the condition of containers and pallets and written records should be kept of these inspections. If a container is found to be damaged, leaking or in a state of deterioration, it should immediately be over-drummed or the contents transferred to another container or processed.	
14	Over-drumming should be seen as an emergency measure and take place, if appropriate, in a designated location equipped with Local Exhaust Ventilation (LEV) as necessary	n/a
15	There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area.	4.9
16	All spillages of hazardous wastes should be logged, where spillages >200 litre then additionally the Regulator should be informed.	5.10
17	Activities that create a clear fire risk should not be carried out within the storage area, even if it is not formally classified as hazardous. Examples include grinding, welding or brazing of metalwork, smoking, parking of normal road vehicles except while unloading, charging of the batteries of fork lift trucks.	6.4 & FPP
Turnover		
18	Storage within the reception area should be for a maximum of five working days. Following receipt, wastes should be treated or removed off-site as soon as possible. The total storage time will depend upon the characteristics of a particular site and the waste types being stored.	4.5
Storage of Drummed Waste and other Containerised Wastes such as IBCs		
Reference No. 19-26		n/a
Storage of Aerosols		
27	Storage of aerosols should take place under cover in closed containers or cages. Aerosols should not be stored in open containers.	n/a

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
Remaining Headings		
Reference No. 25-64		n/a
Treatment General Principles, Immobilisation, Secondary Liquid Fuel, Oil Processing, Biological Process, Carbon Absorption, Wet Air Oxidation, Air Stripping, Settlement, Drum Washing, Crushing, Shredding and Cutting, Road Tanker Washing, Sludge Treatment and Disposal, Point Source Emissions to Air, Point Source Emissions to Surface Water and Sewer and Point Source Emissions to Groundwater.		All n/a
IPPCS5.06, Section 2.2.4, Fugitive Emissions to Air		
1	Dust - The following general techniques should be employed where appropriate: • covering of skips and vessels • avoidance of outdoor or uncovered stockpiles (where possible) • where dust creation is unavoidable, use of sprays, binders, stockpile management techniques, windbreaks and so on • regular wheel and road cleaning (avoiding transfer of pollution to water and wind blow) • closed conveyors, pneumatic or screw conveying (noting the higher energy needs), minimising drops. Filters on the conveyors to clean the transport air prior to release • regular housekeeping • enclosed silos (for storage of bulk powder materials) vented to fabric filters. The recycling of collected material should be considered under Section 2.6; and • enclosed containers or sealed bags used for smaller quantities of fine materials.	5.9 & EMP (ECL.008.01.04/EMP)
IPPCS5.06, Section 2.2.5, Fugitive Emissions to Surface Water, Sewer and Groundwater		
3	For surfacing: • design appropriate surfacing and containment or drainage facilities for all operational areas, taking into consideration collection capacities, surface thicknesses, strength/reinforcement; falls, materials of construction, permeability, resistance to chemical attack, and inspection and maintenance procedures; • have an inspection and maintenance programme for impervious surfaces and containment facilities; and • unless the risk is negligible, have improvement plans in place where operational areas have not been equipped with: o an impervious surface o spill containment kerbs o sealed construction joints – connection to a sealed drainage system.	4.9 & 5.10

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
4	All above-ground tanks containing liquids whose spillage could be harmful to the environment should be bunded. Bunds should: • be impermeable and resistant to the stored materials; • have no outlet (that is, no drains or taps) and drain to a blind collection point; • have pipework routed within bunded areas with no penetration of contained surfaces; • be designed to catch leaks from tanks or fittings; • have a capacity greater than 110 percent of the largest tank or 25 percent of the total tankage, whichever is the larger; • be subject to regular visual inspection and any contents pumped out or otherwise removed • under manual control after checking for contamination; • where not frequently inspected, be fitted with a high-level probe and an alarm, as appropriate; • where possible, locate tanker connection points within the bund, otherwise provide adequate containment; • be subject to programmed engineering inspection (normally visual, but extending to water testing where structural integrity is in doubt).	9.4 & AMP (ECL.008.01.04/AMP)
IPPCS5.06, Section 2.3., Management		
Operations and Maintenance		
1	Effective operational and maintenance systems should be employed on all aspects of the process whose failure could impact on the environment, in particular there should be: • documented procedures to control operations that may have an adverse impact on the environment; • a defined procedure for identifying, reviewing and prioritising items of plant for which a preventative maintenance regime is appropriate; • documented procedures for monitoring emissions or impacts; • a preventative maintenance programme covering all plant, whose failure could lead to impact on the environment, including regular inspection of major 'non-productive' items such as tanks, pipework, retaining walls, bunds ducts and filters	3.4.

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.3., Management (Cont.)		
2	The maintenance system should include auditing of performance against requirements arising from the above and reporting the result of audits to top management.	3.4
Competence and Training		
3	Training systems, covering the following items, should be in place for all relevant staff which cover: • awareness of the regulatory implications of the Permit for the activity and their work activities; • awareness of all potential environmental effects from operation under normal and abnormal circumstances • awareness of the need to report deviation from the Permit; and • prevention of accidental emissions and action to be taken when accidental emissions occur.	3.4
4	The skills and competencies necessary for key posts should be documented and records of training needs and training received for these posts maintained.	
5	The key posts should include contractors and those purchasing equipment and materials;	
6	The potential environmental risks posed by the work of contractors should be assessed and instructions provided to contractors about protecting the environment while working on site.	
7	Where industry standards or codes of practice for training exist (e.g. WAMITAB) they should be complied with.	3.1
Accidents/Non Conformances		
8	There should be an accident plan which: • identifies the likelihood and consequence of accidents; and • identifies actions to prevent accidents and mitigate any consequences	3.4.2 & AMP ECL.008.01.04/AMP
9	There should be written procedures for handling, investigating, communicating and reporting actual or potential non-compliance with operating procedures or emission limits	
10	There should be written procedures for handling, investigating, communicating and reporting environmental complaints and implementation of appropriate actions.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.3., Management (Cont.)		
11	There should be written procedures for investigating incidents, (and near misses) including identifying suitable corrective action and following up.	3.4.2 ECL.008.01.04/AMP
Organisation		
12	The following are indicators of good performance which may impact on the Regulator's resources, but not all will necessarily be insisted upon as Permit Conditions:	-
13	The company should adopt an environmental policy and programme which: • includes a commitment to continual improvement and prevention of pollution; • includes a commitment to comply with relevant legislation and other requirements to which the organisation subscribes; and • identifies, sets, monitors and reviews environmental objectives and key performance indicators independently of the Permit.	3.3
14	The company should have demonstrable procedures (e.g. written procedures) which incorporate environmental considerations into the following areas: • the control of processes and engineering change on the installation; • design, construction and review of new facilities and other capital projects (including provision of decommissioning) • capital approval; and • purchasing policy.	3.4.
15	The company should conduct audits, at least annually, to check that all activities are being carried out in conformity with the above requirements. Preferably, these should be independent.	
16	The company should report annually on environmental performance, objectives and targets, and future planned improvements. Preferably, these should be published environmental statements.	
17	The company should operate a formal Environmental Management System. Preferably, this should be registered or certified EMS/ISO 140001 system (issued and audited by an accredited certification body).	3.2

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.3., Management (Cont.)		
18	The company should have a clear and logical system for keeping records of, amongst others: • policies; • roles and responsibilities; • targets; • procedures; • results of audits; • results of reviews.	3.4
IPPCS5.06, Section 2.4., Raw Materials		
1	The Operator should maintain a list of raw materials and their properties as noted above.	9.4
2	The Operator should have procedures for the regular review of new developments in raw materials and for the implementation of any suitable ones with an improved environmental profile.	
3	The Operator should have quality-assurance procedures for controlling the impurity content of raw materials.	
4	The Operator should complete any longer-term studies needed into the less polluting options and should make any material substitutions identified.	
IPPCS5.06, Section 2.6., Waste Recovery or Disposal		
1	Waste production should be avoided wherever possible. Any waste that is produced should be recovered, unless it is technically or economically impractical to do so.	9.5
2	Where waste must be disposed of, the Operator should provide a detailed assessment identifying the best environmental options for waste disposal – unless the Regulator agrees that this is unnecessary. For existing disposal activities, this assessment may be carried out as an improvement condition to a timescale to be approved by the Regulator.	
Contaminated Containers		
5	Most drums and IBC's are designed, manufactured and marked to enable reconditioning/refurbishment. As such, 250l drums, 800l and 1000l IBCs should be cleaned and reconditioned to enable re-use where technically and economically possible.	9.5
6	Containers that cannot be re-used where there is no reconditioning market and which have been cleaned can be released into the secondary materials market.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.7., Energy		
Basic Energy Requirements (1)		
1	The Operator should provide the energy consumption information, shown in the table on page 86 of IPPC S5.06 Sector Guidance Note, in terms of delivered energy and also, in the case of electricity, converted to primary energy consumption.	9.2
2	The Operator should provide the following Specific Energy Consumption (SEC) information. Define and calculate the SEC of the activity (or activities) based on primary energy consumption for the products or raw material inputs that most closely match the main purpose or production capacity of the installation. Provide a comparison of SEC against any relevant benchmarks available for the sector.	
Basic Energy Requirements (2)		
1	Operating, maintenance and housekeeping measures should be in place in the following areas, where relevant: • operation of motors and drives; • lubrication to avoid high-friction losses; • boiler operation and maintenance e.g. optimising excess air; and • other maintenance relevant to the activities within the installation.	9.1
2	Basic low cost physical techniques should be in place to avoid gross inefficiencies. These should include insulation, containment methods (such as seals and self-closing doors) and avoidance of unnecessary discharge of heated water or air (fitting simple control systems such as timers and sensors).	n/a
3	Energy efficient building services should be in place.	n/a
4	Energy management techniques should be in place, according to the requirements of Section 2.3, in particular, the need for monitoring of energy flows and targeting of areas for reductions.	9.1
5	An energy efficiency plan should be provided that: • Identifies all techniques relevant to the installation, estimates of CO_2 savings that would be achieved by each measure over its lifetime and in the case that the activities are not covered by CCA or DPA, provides information on the equivalent annual costs of implementation of the technique, the costs per tonne CO_2 saved and the priority for implementation.	9.1

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.8., Accidents		
1	A formal structured accident management plan ("AMP") should be in place.	AMP ECL.008.01.04/AMP
2	The AMP should include: A – Identification of hazards to the environment posed by the installation using a methodology akin to a Hazop study. Areas to consider include, but should not be limited to, the following: • arrangements for the receipt, and checking of incoming wastes, including rejection and quarantine; • arrangements for the storage, segregation and separation of differing waste types; • procedures for the internal transfers, including "bulking up" of waste materials; • transfer of substances (e.g. filling or emptying vessels); • overfilling of vessels; • emissions from plant or equipment (e.g. leaking from joints, over-pressurisation of vessels, blocked drains); • failure of containment (e.g. physical failure or overfilling of bunds or drainage sumps); • failure to contain firewaters; • wrong connections made in drains or other systems; • incompatible substances allowed to come into contact; • unexpected reactions or runaway reactions; • failure of main services (e.g. power, steam, cooling water); • operator error; and • vandalism.	
3	Identification of the techniques necessary to reduce the risks. The listed techniques are relevant to most installations: • there should be an up to date inventory of substances, present or likely to be present, which could have environmental consequences if they escape. This should include apparently innocuous substances that can be environmentally damaging if they escape. The Permit will require the Regulator to be notified of any significant changes to the inventory;	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.8, Accidents (Cont.)		
3 (cont.)	• there should be an up-to-date site plan showing the precise location of wastes having specific hazard characteristics (e.g. oxidising, flammable, dangerous when wet etc.) with clear identification of the perimeters of the various designated storage areas and their maximum storage capacity; • procedures should be in place for checking and handling raw materials and wastes to ensure compatibility with other substances with which they may accidentally come into contact; • storage arrangements for raw materials, products and wastes should be designed and operated to minimise risks to the environment; • there should be automatic process controls backed-up by manual supervision, both to minimise the frequency of emergency situations and to maintain control during emergency situations. Instrumentation will include, where appropriate, microprocessor control, trips and process interlocks, coupled with independent level, temperature, flow and pressure metering and high or low alarms; • physical protection should be in place where appropriate (e.g.. barriers to prevent damage to equipment from the movement of vehicles); • there should be appropriate secondary containment (e.g.. bunds, catchpots, building containment); • techniques and procedures should be in place to prevent overfilling of tanks - liquid or powder - (e.g. level measurement displayed both locally and at the central control point, independent high-level alarms, high-level cut-off, and batch metering); • where the installation is situated in a floodplain, consideration should be given to techniques which will minimise the risk of the flooding causing a pollution incident or making one worse; • security systems to prevent unauthorised access should be provided where appropriate; • there should be formal systems for the logging and recording of all incidents, near-misses, abnormal events, changes to procedures and significant findings of maintenance inspections. • there should be procedures for responding to and learning from incidents, near-misses, etc. • the roles and responsibilities of personnel involved in in incident management should be formally specified. • clear guidance should be available on how each accident scenario might best be managed (e.g. containment or dispersion, to extinguish fires or to let them burn). • procedures should be in place to avoid incidents occurring as a result of poor communications between staff at shift change or during maintenance or other engineering work. • safe shutdown procedures should be in place.	AMP ECL.008.01.04/AMP

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.8, Accidents		
3 (cont.)	• communication channels with emergency services and other relevant authorities should be established, and available for use in the event of an incident. Procedures should include the assessment of harm following an incident and the steps needed to redress this. • appropriate control techniques should be in place to limit the consequences of an accident, such as; fire walls, firebreaks isolation of drains, provision of oil spillage equipment, alerting of relevant authorities and evacuation procedures. • personnel training requirements should be identified and training provided. • the systems for the prevention of fugitive emissions are generally relevant and in addition, for drainage systems: o procedures should be in place to ensure that the composition of the contents of a bund sump, or sump connected to a drainage system, are checked before treatment or disposal; o drainage sumps should be equipped with a high-level alarm or with a sensor and automatic pump to storage (not to discharge); o there should be a system in place to ensure that sump levels are kept to a minimum at all times; o high-level alarms and similar back-up instruments should not be used as the primary method of level control. • duplicate or standby plant should be provided where necessary, with maintenance and testing to the same standards as the main plant; • spill contingency procedures should be in place to minimise accidental release of raw materials, products and waste materials and then to prevent their entry into water. • process waters, potentially contaminated site drainage waters, emergency firewater, chemically-contaminated waters and spillages of chemicals should be contained and, where necessary, routed to the effluent system and treated before emission to controlled waters or sewer. Sufficient storage should be provided to ensure that this can be achieved. Any emergency firewater collection system should take account of the additional firewater flows and fire-fighting foams, and emergency storage lagoons may be needed to prevent contaminated firewater reaching controlled waters • consideration should be given to the possibility of containment or abatement of accidental emissions from vents and safety relief valves/bursting discs. Where this may be inadvisable on safety grounds, attention should be focused on reducing the probability of the emission.	AMP ECL.008.01.04/AMP

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.8, Accidents		
3 (cont.)	o spillage prevention controls must be in place during the transfer of substances (for example, transfer of bulk liquid waste from tanker to storage vessels) o The weakest link and subsequently the main source of spillage during transfer from the vehicle to storage arises from the transfer hoses. This is due to either: o "tanker drive-off" - a vehicle pulling away whilst still coupled (systems should be in place to prevent this); o or because the hose couplings have become damaged or are incompatible. Although the spillages tend to be relatively small, measures should be taken to ensure that the couplings are the correct fit and system. This will prevent the coupling loosening or becoming detached, and in turn will also be helped by the installation providing and maintaining its own hoses. o A more serious event would occur if the coupling were unable to withstand the maximum shut valve pressure of the transfer pump o Although the volume lost during routine operations due to ill-fitting or damaged hoses may be relatively small, persistent spillage may have a cumulative effect on the surface of the area, which in the long term may damage the surface and lead to a fugitive emission o spillages of this nature may also be a source of odour (see Section 2.2.6 on page 72) and represent poor "housekeeping" practice, requiring constant attention and cleaning. Protection of the transfer hose may not be necessary where a gravity feed system is in place. It will however still be important to maintain a sound coupling at each end of the transfer hose. o a more acute accident situation may arise due to the failure of plant or equipment. This may include the failure of a pump seal or the blockage of a filter pot commonly used at transfer points. The prevention of these situations should be addressed by the provision of routine maintenance. A further type of acute incident is associated with the failure of the seal on the road tanker. The prevention of such an incident is outside the control of the Operator of the installation (though not necessarily beyond that of the company that operates the installation). Some provision should be made within the installation for emergency storage for leaking vehicles. o in addition to accidents connected with some failure in the transfer equipment, measures should be taken to ensure that the correct waste is discharged to the correct transfer point and that the waste is then transferred to the correct storage point. In order to prevent an unauthorised discharge, a lockable isolating valve should be fitted to loading connection. It should be kept locked during periods when there is no supervision of the unloading points. o drainage from discharge points can be connected or transferred to relevant storage for wastes that have been sampled and checked.	AMP ECL.008.01.04/AMP

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.8, Accidents		
3 (cont.)	• unloading/movement of drums and containers o – typically drums and containers are delivered on wooden pallets and the pallets are unloaded by forklift. The drums are usually secured together often by shrink-wrap. All pal- lets should be sound and undamaged and forklift drivers should be trained in the handling of palletised goods. o any damaged pallets should be replaced on arrival and not transferred into storage. Transfer of damaged pallets may lead to other pallets being stored on top, resulting in further damage and possible collapse of the stack o adequate space should be provided within drum storage areas and drivers should be adequately trained to minimise forklift truck damage to the integrity of drums o accumulations of liquids in bunds, sumps, etc., should be dealt with promptly o such accumulations requiring removal should be analysed to ensure the correct disposal route, for example, pH, COD, heavy metals and other known contaminants from the spillage	AMP ECL.008.01.04/AMP
IPPCS5.06, Section 2.9, Noise		
1	The Operator should employ basic good practice measures for the control of noise, including adequate maintenance of any parts of plant or equipment whose deterioration may give rise to increases in noise (for example, bearings, air handling plant, the building fabric, and specific noise attenuation kit associated with plant or machinery).	6.5 & NVMP (ECL.008.01.04/NVMP)
2	The Operator should employ such other noise control techniques necessary to ensure that the noise from the installation does not give rise to reasonable cause for annoyance, in the view of the Regulator. In particular, the Operator should justify where Rating Levels (LAeq, T) from the installation exceed the numerical value of the Background Sound Level (LA90, T).	
3	Further justification will be required should the resulting field rating level (LAR,TR) exceed 50 dB by day and a facade rating level exceed 45 dB by night, with day being defined as 07:00 to 23:00 and night 23:00 to 07:00.	
4	In some circumstances “creeping background” (i.e. creeping ambient) may be an issue. Where this has been identified in pre-application discussions or in previous discussions with the local authority, the Operator should employ such noise control techniques as are considered appropriate to minimise problems to an acceptable level with the BAT criteria.	
5	Noise surveys, measurements, investigations (e.g. on sound power levels of individual items of plant) or modelling may be necessary for either new or for existing installations, depending upon the potential for noise problems. Where appropriate, the Operator should have a noise management plan as part of its management system.	

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.10 Monitoring		
1	Monitoring should generally be undertaken during all phases of operation (i.e. commissioning, start up, normal operation and shutting down) unless the Regulator agrees that it is inappropriate.	8.1-8.3
2	Continuous monitoring and recording are likely to be required under the circumstances provided.	n/a
3	Where effective surrogates are available, they may be used with the agreement of the Regulator (and without prejudice to legal requirements) to minimise monitoring costs.	
4	Where monitoring shows that substances are not emitted in significance quantities, it may be reasonable to reduce the monitoring frequency.	8.1-8.3
5	Monitoring and reporting of emissions to water and sewer should include at least parameters page 96 of the IPPC S5.06.	8.2-8.3
Monitoring and Reporting of Air Emissions		
6	Where appropriate, periodic visual and olfactory assessment of releases should be undertaken to ensure that all final releases to air should be essentially colourless, free from persistent trailing mist or fume and free from droplets.	8 ECL.008.01.04/EMP
7	The Operator should also have a fuller analysis carried out covering a broad spectrum of substances to establish that all relevant substances have been taken into account when setting the release limits	
8	Any substances found to be of concern, or any other individual substances to which the local environment may be susceptible and upon which the operations may impact, should also be monitored more regularly.	
9	In some sectors there may be releases of substances that are more difficult to measure and whose capacity for harm is uncertain, particularly when combined with other substances.	
Monitoring and Reporting of Waste Emissions		
10	For waste emissions, the following should be monitored and recorded: • the physical and chemical composition of waste; • its hazard characteristics; and • handling precautions and substances with which it cannot be mixed.	4.7
11	Monitoring of process elements for emissions to water	n/a
Environmental Monitoring (beyond the installation)		
1	The Operator should consider the need for environmental monitoring to assess the effects of emissions to controlled water, groundwater, air or land, or emissions of noise or odour.	5 & 6

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.10 Monitoring (Cont.)		
2	Environmental monitoring may be required, for example, when: • there are vulnerable receptors • the emissions are a significant contributor to an Environmental Quality Standard (EQS) that may be at risk; • the Operator is looking for departures from standards based on lack of effect on the environment; and • to validate modelling work.	
3	The need should be considered for: • groundwater, where it should be designed to characterise both quality and flow and take into account short- and long-term variations in both. Monitoring will need to take place both up gradient and down-gradient of the site; • surface water, where consideration will be needed for sampling, analysis and reporting for upstream and downstream quality of the controlled water • air, including odour • land contamination, including vegetation, and agricultural products; and • assessment of health impacts; and • noise.	5 & 6
4	Where environmental monitoring is needed, the following should be considered in drawing up proposals: • determinands to be monitored, standard reference methods, sampling protocols • monitoring strategy, selection of monitoring points, optimisation of monitoring approach • determination of background levels contributed by other sources • uncertainty for the employed methodologies and the resultant overall uncertainty of measurement • quality assurance (QA) and quality control (QC) protocols, equipment calibration and maintenance, sample storage and chain of custody/audit trail • reporting procedures, data storage, interpretation and review of results, reporting format for the provision of information for the Regulation.	
Monitoring of Emissions to Air		
5	Daily visual monitoring to air for smoke, dust, litter, plumes and daily olfactory odour monitoring	6.1, 6.2, 6.3 & 6.5

Table 7: IPPC S5.06 Guidance Document - Techniques for Pollution Control: BAT Requirements (Cont.)

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 2.10 Monitoring (Cont.)		
Monitoring of Emissions to Land		
6	It is unlikely that sludge would be re-used for agricultural benefit or ecological improvement or where sensitive soil systems or terrestrial ecosystems are at risk from indirect emission via the air. Otherwise there should be no emissions to land and consequently there are no monitoring requirements.	n/a
Monitoring of Emissions to Groundwater		
7	Groundwater monitoring should take place where: • there are any subsurface structures carrying or holding waste or other harmful substances for example, fuel; and • there is uncertainty about surfaces on operational areas and drainage systems, especially on older sites.	8.2
Monitoring of Process Variables		
1	Some process variables may affect the environment and these should be identified and monitored as appropriate.	n/a
2	Monitoring of Resource Use - Table 2.16 of IPPC S5.06	9
Quality Assurance for CEMS		
Reference No 1 - 8		n/a
IPPCS5.06, Section 2.11 Closure		
1	Operations during the life of the IPPC Permit should not lead to any deterioration of the site if the requirements of the other sections of this and the specific-sector notes are adhered to. Should any instances arise which have, or might have, impacted on the state of the site, the Operator should record them along with any further investigation or ameliorating work carried out. This will ensure that there is a coherent record of the state of the site throughout the period of the IPPC Permit. This is as important for the protection of the Operator as it is for the protection of the environment. Any changes to this record should be submitted to the Regulator.	11
2	Care should be taken at the design stage to minimise risks during decommissioning. For existing installations, where potential problems are identified, a programme of improvements should be put in place to a timescale agreed with the Regulator.	
3	A site closure plan should be maintained to demonstrate that, in its current state, the installation can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state. The plan should be kept updated as material changes occur.	
4	For existing activities, the Operator should complete any detailed studies, and submit the site closure plan as an improvement condition to a timescale to be agreed with the Regulator	

Table 8: IPPC S5.06 Guidance Document - Impact: BAT Requirements

Ref No.	BAT Requirement	Section of EPTR Document
IPPCS5.06, Section 4 Impact Assessment		
1	Provide a description, including maps as appropriate, of the receiving environment to identify the receptors of pollution. The extent of the area may cover the local, national and international (for example, transboundary effects) environment as appropriate.	Environmental Risk Assessment (ECL.008.01.04/ERA) & Relevant Management Plans
2	Identify important receptors, which may include: areas of human population including noise or odour-sensitive areas, flora and fauna (that is, Habitat Directive sites, special areas of conservation, Sites of Special Scientific Interest ("SSSI" or in Northern Ireland "ASSI") or other sensitive areas), soil, water, groundwater and watercourses (for example, ditches, streams, brooks, rivers), air, including the upper atmosphere, landscape, material assets and the cultural heritage.	
3	Identify the pathways by which the receptors will be exposed (where not self-evident)	
4	Carry out an assessment of the potential impact of the total emissions from the activities on these receptors.	
5	In particular it will be necessary to demonstrate that an appropriate assessment of vent and chimney heights has been made.	n/a
6	Where appropriate, the Operator should also recognise the chimney or vent as an emergency emission point and understand likely behaviour.	
7	Consider whether the responses to Sections 2 and 3 and this assessment adequately demonstrate that the necessary measures have been taken against pollution, in particular by the application of BAT, and that no significant pollution will be caused. Where there is uncertainty about this, the measures in Section 2 should be revisited as appropriate to make further improvements	Environmental Risk Assessment (ECL.008.01.04/ERA) & Relevant Management Plans
8	Where the same pollutants are being emitted by more than one permitted activity on the installation, the Operator should assess the impact both with and without the neighbouring emissions.	n/a

11. SITE IMPROVEMENT PROGRAMME

11.1. Overview

11.1.1. A gap analysis against the BAT Conclusions outlined in Section 10 and the proposed operating techniques as described in Section 4 has been undertaken to identify areas of planned works and associated investment required to ensure both the BAT and operating techniques can be achieved.

11.1.2. Table 9 and 10 describes the documentation improvements, general site preparation works and infrastructure improvements required. Each action required has an associated timescale and responsible person.

11.2. Documentation Improvement

11.2.1. The documentation improvements required as part of this EP variation are provided in Table 10.

Table 9: Documentation Improvements

No.	WT BREF BAT Ref	IPPC S5.06 BAT Ref	Improvement Action Required	Timescale	Responsible Person
1	1 & 21	17 & Section 2.8 'Accidents'	EMS to be updated to include new waste types accepted and waste operational procedures.	On issue of the draft permit variation	Site General Manager
2	2, 5 & 26	Section 2.1.1; 1-14 & Section 2.1.2; 1-21 & 34-38	Training and implementation of the pre-acceptance and acceptance waste procedures	On issue of the draft permit variation	TCM
3	-	Section 2.11; 3	Site Closure Plan to be updated to include the proposed activities	6 months after issue of permit variation	Site General Manager
4	2d	-	Creation of an output Quality Management System	On issue of the draft permit variation	Site General Manager & Weighbridge Operator

11.3. Infrastructure Improvements

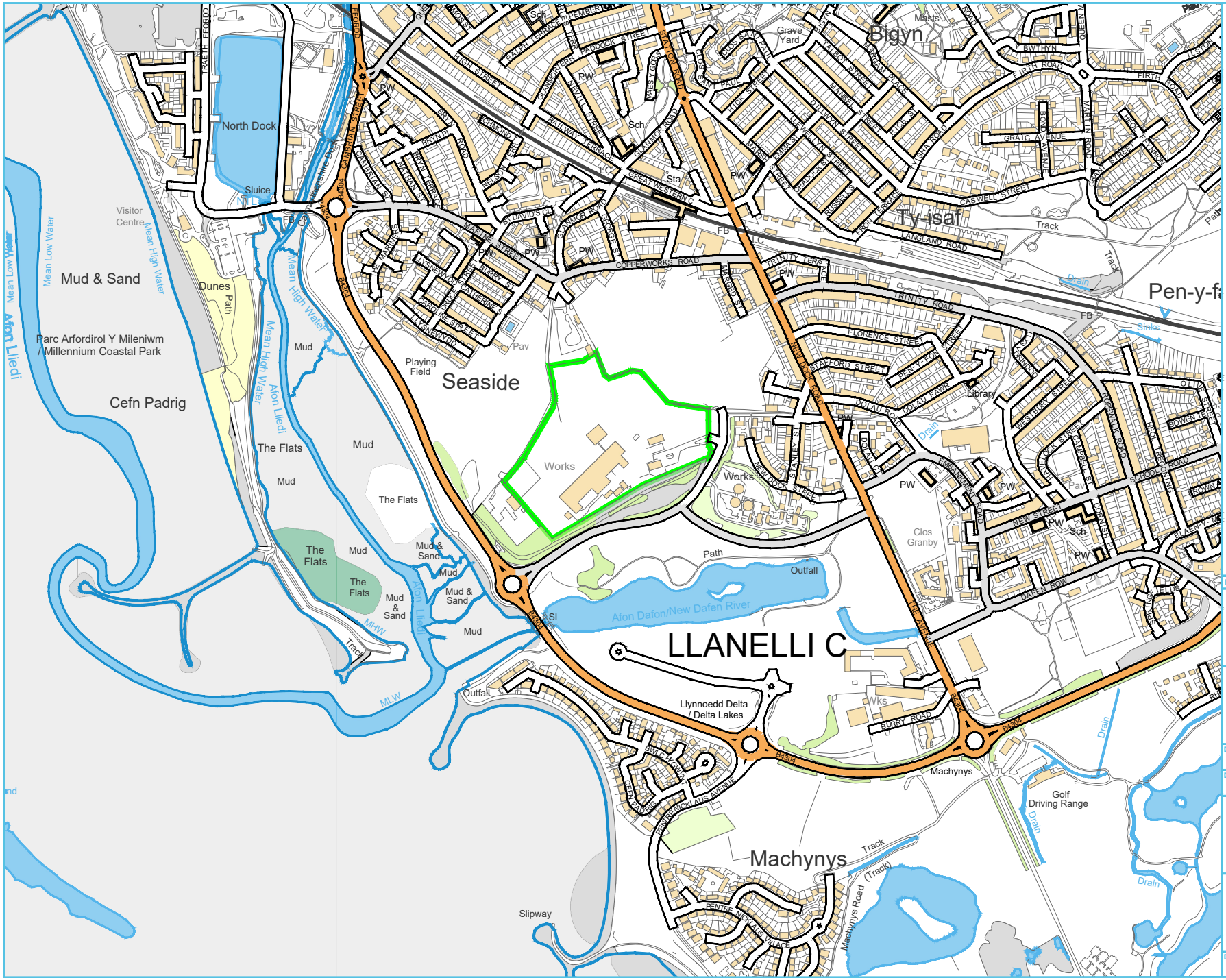
11.3.1.1. The infrastructure improvements as part of the EP variation are provided in Table 10.

11.3.1.2. AMG will take into consideration the environmental impacts from the eventual decommissioning of the plant at the stage of designing the new infrastructure arrangements and throughout its operating life.

Table 10: Infrastructure Improvements

No.	WT BREF BAT Ref.	IPPC S5.06 BAT Ref.	Improvement Action Required	Timescale	Responsible Person
1	-	-	Demolition of Hammer Mill	Complete	Maintenance Manager
2	-	-	Demolition of Main Building	In progress – Q4 2019	Maintenance Manager
3	-	-	Sever W1 and associated southern drainage network	Q4 2019/ Q1 2020	Maintenance Manager
4	4	Section 2.2.5.	Assess the integrity of existing concrete surfacing. Undertake any improvements and expansion to cover entire area designated as Specified Waste Operation.	In progress - Q1 2020	Maintenance Manager
5	4	Section 2.1.3.	Installation of 9 covered concrete block bays for unprocessed waste storage.	Q1 2020	Maintenance Manager
6	4, 19	Section 2.2.5.	Installation of bund wall and vehicle ramps	Q1 2020	Maintenance Manager
7	21	Section 2.1.2.	Installation of concrete in area designated as Waste Reception and Sampling Area	Q1 2020	Maintenance Manager

APPENDIX I
DRAWINGS



Rev	Date	Details	Chkd

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Client
AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:10K @ A4	GTB	SJ	SB

Drawing Status
FINAL ISSUE

Project Title
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title
SITE LOCATION PLAN

Drawing Number	Rev
ECL.008.01.04-001	-

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m^2)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
- RED DIESEL TANK
- S SOAKAWAY
- I 3 STAGE OIL/WATER INTERCEPTOR
- FIRE PREVENTION PLAN QUARANTINE AREA
- QUARANTINE AREA NON-CONFORMING WASTE (ENCLOSED SKIP)
- WASTE RECEPTION & SAMPLING AREA (10m X 10m)
- ①② WASTE PILE CODES 17-04-05
- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- W1 EMISSIONS POINT TO WATER TO BE REMOVED
- SOUTHERN DRAINAGE LINE TO BE REMOVED

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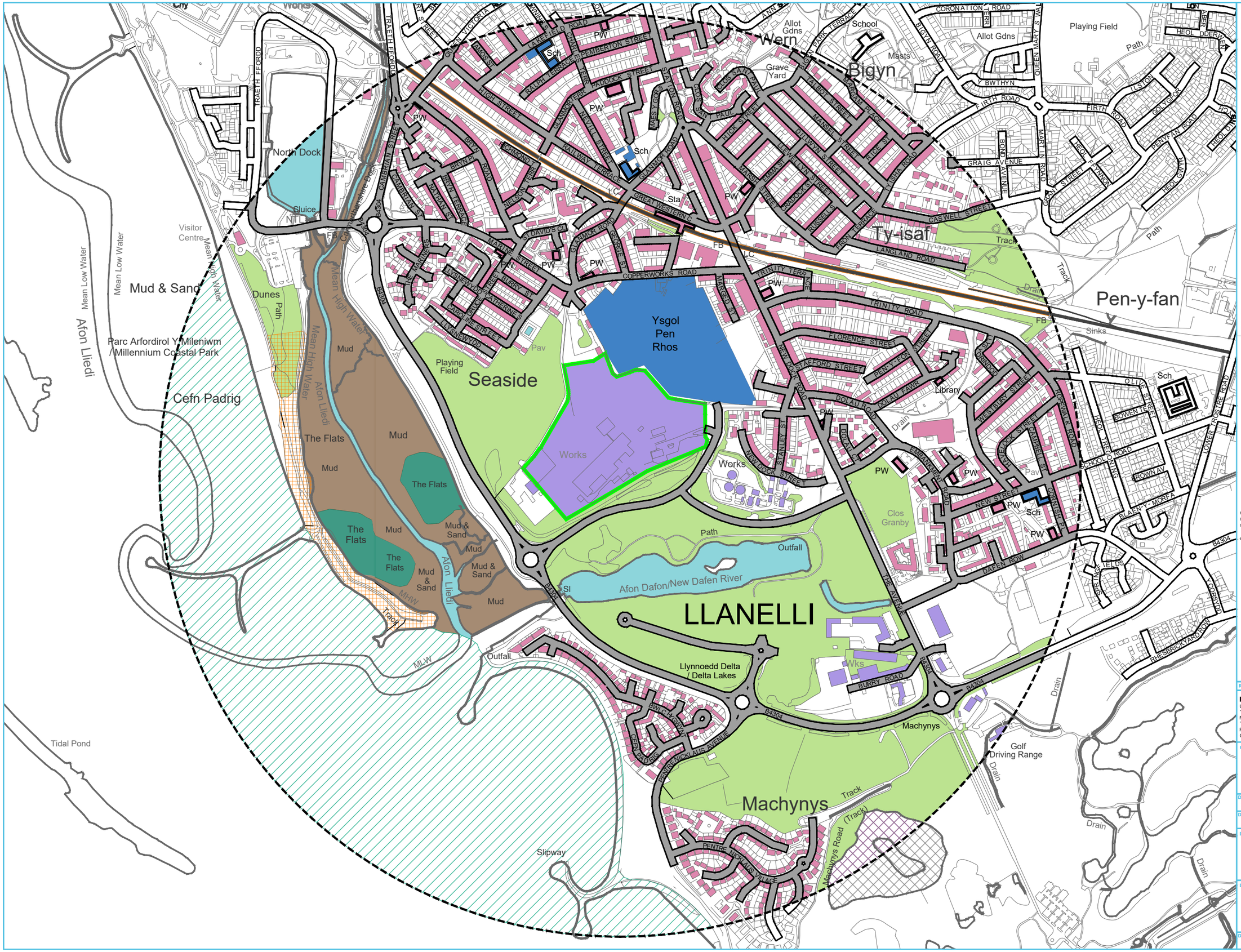
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title: SITE LAYOUT PLAN

Drawing Number	Rev
ECL.008.01.04-002	-



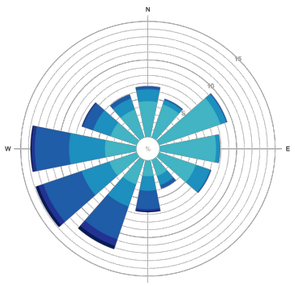
LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- 1000m OFFSET BOUNDARY
- DOMESTIC DWELLINGS
- AREAS OF OPEN SPACE / PLAYING FIELDS
- SCHOOLS
- HOSPITALS
- INDUSTRIAL / COMMERCIAL PREMISES
- ROAD FEATURES
- RAILWAY FEATURES
- SURFACE WATER FEATURES
- MARSH FEATURES
- MUD FEATURES
- SAND FEATURES
- NORTH DOCK DUNES - LNR
- BURY INLET - RAMSAR SITE, SSSI, SAC & SPA
- MACHYNYS PONDS - SSSI

HOURLY MEAN WIND ROSE FOR PEMBREY SANDS

Met Office

NGR: 2365 E 2044 N
SEASON: ANNUAL
ALTITUDE: 3 metres AMSL
Period of data: Jan 2008 ~ Dec 2017



86,515 OBSERVATIONS
0.0% CALM
0.0% VARIABLE

1–10	11–16	17–27	28–33	>33

Hourly mean wind speed (knots)

Rev	Date	Details	Chkd

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19/11/2019	1:7.5K @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
SENSITIVE RECEPTOR PLAN

Drawing Number: ECL.008.01.04-003
Rev: -

0m 50m 100m

N

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m²)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
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- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- ROUTE OF EMERGENCY SERVICES
- FIRE ASSEMBLY POINT
- FIRE ALARM
- FIRE EXTINGUISHER C = CO_2 F = FOAM P = POWDER W = WATER
- GAS CYLINDER CAGE
- H WATER HYDRANT
- SPILL KIT
- EMERGENCY INFORMATION PACK
- CHEMICAL STORAGE (e.g. LUBRICANTS)

Rev	Date	Details	Chkd

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Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
FIRE PREVENTION AND MITIGATION PLAN

Drawing Number	Rev
ECL.008.01.04-004	-

APPENDIX II
WAMITAB OPERATOR COMPETENCE CERTIFICATE

Certificate No. CCC18839

Continuing Competence Certificate

This certificate confirms that

Adrian Leigh Stewart

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 12/10/2018

TSNH Transfer - Non Hazardous Waste

Awarded: 12/10/2018

Expiry Date: 12/10/2020

Authorised

WAMITAB Chief Executive Officer

CIWM Executive Director

00117304

APPENDIX III
ENVIRONMENTAL POLICY

AMG RESOURCES
Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD
Tel: +44 (1554 750791

ENVIRONMENTAL POLICY

AMG Resources Limited ("AMG") main operations are waste avoidance and recovery processes in their own right. Through the application of the waste hierarchy, all waste delivered to site will be recovered and removed off site as a product, hence diverting a considerable quantity of waste from landfill.

AMG regards environmental protection as an integral part of its operation and is committed to conducting business in a manner which will protect the environment, health and safety of its employees, customers and the community in which they operate.

The company recognises that its operation could have an impact on the environment and will manage its operation to ensure that any impact is as low as practically possible by: -

- *establishing and maintaining an Environmental Management System ("EMS") that will ensure continual environmental performance;*
- *identify, monitor and comply with all applicable environmental legislation, regulations and other company requirements and policies;*
- *prevent pollution by adopting best industry practice, undertaking emission monitoring and giving consideration to the design, manufacture, installation and maintenance of relevant equipment;*
- *minimise waste production by setting targets and re-using or recycling waste wherever practicable;*
- *ensure efficient use of raw materials and other resources, such as electricity and water, by monitoring and measuring consumption and setting targets;*
- *promoting continuous improvement by setting and reviewing environmental objectives and targets;*
- *ensuring all employees have the knowledge, training and resources required to identify the potential environmental effects of their work and by implementing the above guiding principles, thus reducing the impact of their activities on the environment; and*
- *ensuring that the Environmental Policy is communicated to all employees working on or on behalf of AMG (including contractors) as part of the company training programme and made available to the public on request.*

Paul Tobin
Site General Manager ***Date: November 2019***

APPENDIX IV
ACCIDENT MANAGEMENT PLAN

ACCIDENT PREVENTION AND MANAGEMENT PLAN

NEVILL'S DOCK, LLANELLI, CARMARTHENSHIRE, SA15 2HD

ECL Ref: ECL.008.01.04/AMP
Version: Issue 1
November 2019

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMNS/ABBREVIATIONS IN THE TEXT

AMG	AMG Resources Limited
AMP	Accident Management Plan
BAT	Best Available Techniques
BREF	Best Available Techniques Reference Document
CCTV	Closed Circuit Television
COSHH	Control of Substances Hazardous to Health
EA	Environment Agency
ECL	Environmental Compliance Limited
EMP	Emissions Management Plan
EMS	Environmental Management System
EP	Environmental Permit
FPP	Fire Prevention Plan
FRS	Fire Rescue Service
MSDS	Material Safety Data Sheet
NRW	Natural Resources Wales
NMP	Noise Management Plan
NVMP	Noise and Vibration Management Plan
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
SGN	Sector Guidance Note
TCM	Technically Competent Manager
WT	Waste Treatment

1. INTRODUCTION

1.1. Requirement for an Accident Prevention and Management Plan

1.1.1. Environmental Compliance Limited ("ECL") has been commissioned by AMG Resources Limited ("AMG") to produce an updated Accident Prevention and Management Plan ("AMP") for the Installation at Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD.

1.1.2. This document presents a revised AMP which has been reviewed and updated to take account of current legislation and regulatory guidance, current practices at the Installation, the changes proposed as part of the permit variation application and any relevant issues that have arisen since the last review.

1.1.3. This AMP only relates to the proposed Specified Waste Operation – Non Hazardous Physical Treatment involving the separation and baling of 5 metallic waste types. The AMP will be updated in the event that the 2.2. Schedule Activity recommences. At the time of writing, AMG is investigating the possibility of recommencing de-tinning operations at the Llanelli Installation applying the streamlining techniques undertaken at AMG plants in the United States.

1.1.4. The AMP forms part of AMG's Environmental Management System ("EMS") and the AMP will be reviewed at least every 2 years or as soon as practicable after an accident or after a significant change at the Installation.

1.1.5. The next anticipated scheduled review is November 2021.

2. CURRENT GUIDANCE FOR ACCIDENT PREVENTION AND MANAGEMENT PLANS

2.1. Legislation and Guidance Documents

2.1.1. The Natural Resources Wales ("NRW") guidance documents or Environment Agency ("EA") in the absence of NRW guidance, that are relevant to the activities undertaken at the Installation which have been taken into consideration include the following:

- Online Guidance – *'How to comply with your environmental permit'* (Version 8, October 2014);
- Sector Guidance Note ("SGN") S5.06 – *'Recovery and Disposal of Hazardous and Non-Hazardous Waste'* (Issue 5, 2013);
- *Best Available Techniques Reference Document ("Bref") for Waste Treatment* (October 2018); and
- Online Guidance – '*Risk assessments for your environmental permit'* (Updated Jan 2019) and '*Risk assessments for specific activities: environmental permits'* (Published Feb 2016).

2.2. NRW Online Guidance – 'How to Comply with your Environmental Permit'

2.2.1. EMS online guidance addresses the requirements of an AMP in section: "*Accidents and Incidents*.

2.2.2. This section states that operators must prepare and maintain "*a plan for dealing with any incidents or events that could result in pollution*."

2.2.3. The AMP is based on the risk(s) of pollution that could arise from the Installation's activities and, in particular, the results of the associated risk assessment (see Section 5 of this document).

2.2.4. The AMP is to be communicated to all employees, managers and contractors who work at the Installation.

2.2.5. The plan must identify potential accidents, for example fires, vandalism, flooding or other extreme weather conditions such as drought, heat waves or strong winds.

2.2.6. For each potential incident, it must also state the:

- likelihood of the accident happening;
- consequences of the accident happening;
- measures taken to avoid the accident happening; and
- measures taken to minimise the impact if the event of an accident.

2.2.7. The AMP must demonstrate how the operator will record, investigate and respond to accidents or breaches against the Environmental Permit ("EP") (Permit Reference EPR/BM2381IQ).

2.2.8. The AMP must also include:

- date it was reviewed;
- next scheduled renewal date;
- list of emergency contacts and how to reach them;
- list of substances stored at the site and storage facilities;
- forms to record accidents; and
- site plan which identifies location of any emergency kits or equipment for fire, spill kits and drain caps.

2.2.9. Other areas to consider for the AMP are:

- make emergency services aware of all activities at the Installation;
- ensure the appropriate insurance covers any lean up following an accident, including firewater;
- check whether there are flood risks and register with Flood Warning Direct if required;
- keep up to date with other organisations' advice regarding dealing with extreme weather;
- exercises to test AMP procedures, ensuring all employees are fully trained and competent; and
- have a site evacuation plan and assembly points for all staff.

2.2.10. AMG operate under an Installation Environment Permit and therefore, they are required to display a notice board at or near the site entrance informing the public about the site. The notice board includes:

- the permit holder's name;
- an emergency contact name and telephone number;
- a statement that the site is permitted by Natural Resources Wales ("NRW");
- the EP number; and
- NRW telephone number (03000 653000) and incident hotline (03000 653000).

2.3. SGN S5.06 – Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste

2.3.1. The relevant indicative BAT requirements of Section 2.8 Accidents of Sector Guidance Notes ("SGN") 5.06 have been adopted in this AMP. The requirements are based on the documented system to identify, assess and minimise the environmental risks and hazards of accidents and their consequences.

2.3.2. The formal structured AMP should be implemented which covers the following aspects:

A. identification of the hazards;
B. assessment of the risks; and
C. identification of the techniques necessary to reduce the risks.

2.4. Best Available Techniques Reference Document for Waste Treatments

2.4.1. BAT Conclusion 1 relates to the implementation of an EMS which must incorporate Point XIII - Accident Management Plan.

2.4.2. Section 6.6.5. 'Management Techniques' within the WT BREF states that the AMP is part of the EMS and must identify hazards posed by the plant and the associated risks and defines measures to address these risks. The AMP must also consider the inventory of pollutants present or likely to be present which could have environmental consequences in the event of loss of containment.

2.4.3. Guidance provided in Chapter 2, Section 2.3.13. of the WT BREF has been taken into consideration in the preparation of this AMP.

2.5. EA Online Guidance – 'Risk assessments for your environmental permit' and 'Risk assessments for specific activities: environmental permits'

2.5.1. EA online guidance addresses risk assessments for certain aspects of an Installation's activities including accidents.

2.5.2. The risk assessment approach referred to within the online guidance is based on the source – pathway – receptor approach and has been adopted for the risk assessments undertaken as part of the AMP. This is covered in detail in Section 5 of this document.

3. IDENTIFICATION OF HAZARDS ASSOCIATED WITH THE INSTALLATION'S ACTIVITIES

3.1. Hazard Identification

3.1.1. An environmental risk is posed by any activity which could harm the environment or human health. For a risk to be realised, three separate factors must be in place, namely:

- a source of pollution or hazard;
- a receptor that can be affected by that source of pollution; and
- a pathway between the source and the receptor.

3.1.2. Table 1 details each of the potentially hazardous occurrences that could occur at the Installation and the associated pathways by which the hazard could impact on a receptor (environmental or human).

Table 1: Potentially Hazardous Occurrences

Operational Process/Activity	Hazard	Pathway(s)	Receptor(s)
Lorries transporting waste to the Installation	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
	Noise		
	Pests	Overland routes	Human population in the surrounding area.
	Spillage of fuel from transportation vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Storage of waste prior to processing	Pests (flies, vermin and scavenging birds)	Overland routes	Human population in the surrounding area.
	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
Handling and storage of raw materials, such as diesel	Spillage or leakage of fuel on site during delivery, offloading, storage or handling.	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Waste processing	Dust	Release to atmosphere – windblown dispersion.	Human population and sensitive ecological receptors in the surrounding area.
	Noise		
	Pests	Overland routes	
	Spillage of fuel from processing equipment and vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Transportation of waste material off site	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
	Noise		
	Pests	Overland routes	
	Spillage of fuel from transportation vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.

Table 1: Potentially Hazardous Occurrences (Cont.)

Operational Process/Activity	Hazard	Pathway(s)	Receptor(s)
Major fire	Products of Combustion - smoke emissions from burning of waste and/or infrastructure.	Release of gases/vapour to the atmosphere – windblown dispersion.	Human population and sensitive ecological receptors in the surrounding area.
	Potentially contaminated firewater runoff.	Downward migration through the soil/made ground.	Contamination of groundwater.
Vandalism	Any of the above	Any of the above.	Any of the above.

4. RISK REDUCTION MEASURES AND ACCIDENT MANAGEMENT ARRANGEMENTS

4.1. Introduction

4.1.1. The revised AMP has been written based on the accident management plan requirements detailed in Section 2 of this document.

4.1.2. The accident management arrangements in place at the Installation are based on a combination of robust management procedures, suitable process control measures and appropriate physical infrastructure.

4.1.3. The exact location of the Installation is provided on the Site Location Plan (Drawing Reference ECL.008.01.04-001). The Site Layout Plan (Drawing Reference ECL.008.01.04-002) illustrates the proposed layout of the Installation including the infrastructure arrangements, waste storage and processing areas. The Fire Prevention Plan ("FPP") (Drawing Reference ECL.008.01.04-004) provides the location of the emergency response equipment for use in the event of a spillage or fire. All drawings are provided in Appendix I of this AMP.

4.2. Site Management Arrangements

4.2.1. AMG operate an environmental management system ("EMS") which addresses environmental aspects of the activities at the Installation. The EMS is based on the requirements of the international EMS standard BS EN ISO 14001 and adopts the Standard's Plan, Do, Check, Act approach. The existing system is based on the 14001:1996 standard, however, the system will be updated as described below to follow the 14001:2015 standard.

4.2.2. AMG has appointed the General Site Manager with the overall responsibility for implementing and maintenance of the EMS.

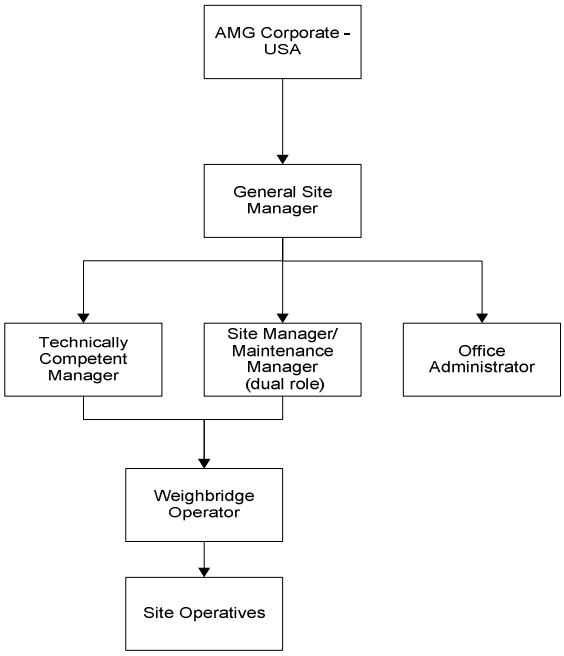
4.2.3. Work instructions, job descriptions and procedures exist for critical areas of AMG's activities and will be issued or made available to the personnel responsible for undertaking these tasks.

4.2.4. Routine preventative maintenance and reactive breakdown maintenance are the responsibility of the Maintenance Manager.

4.2.5. All operational staff at the site are responsible for maintaining an awareness of general process performance during their day-to-day activities on the site. Staff are encouraged to note any unusual occurrences and report these to the Site Manager/Maintenance Manager without delay. If there is a potential impact on the environment or the Installation's neighbours, the General Site Manager will be informed.

4.2.6. AMG's Organogram reveals the structure of the organisation and the different positions which can be seen in Figure 1.

Figure 1: AMG's Organogram



4.3. General Control Measures and Procedures

4.3.1. AMG recognises that planned preventative maintenance is essential for ensuring that site equipment and infrastructure are maintained in good condition. In turn, such maintenance will reduce the risk of avoidable accidents taking place.

4.3.2. Accordingly, there is a comprehensive Planned Preventative Maintenance Regime ("PPMR") at the Installation to ensure that all plant and infrastructure are kept in suitable condition and operating effectively.

4.3.3. The site will undergo daily housekeeping and infrastructure inspections recorded on Daily Site Monitoring Check Sheet (See Appendix IV). Chemical/diesel container integrity checks are also included in these checks.

4.3.4. The detailed PPMR programme is provided in Appendix II of this AMP.

4.3.5. Maintenance is only undertaken by suitably trained and qualified personnel and details of all maintenance carried out are recorded. Specific environmental training is also provided as part of the site's induction programme.

4.4. Substance Inventory

4.4.1. AMG maintains an up-to date inventory of substances used at the Installation. This contains all approved materials/chemicals used at the Installation and their appropriate use. The Material Data Safety Sheets ("MSDS") for each chemical are held on record. The data is compiled as part of the Installation's Control of Substances Hazardous to Health ("COSHH") system.

4.4.2. Table 2 provides the list of chemicals and their associated chemical properties which have been approved and are in use at the Installation. This has been taken into consideration during the assessment of risks (Section 5 of this AMP).

4.4.3. The list of chemicals will be reviewed annually. The inventory will be updated by means of incoming receipts of chemicals and oils and the subsequent issuing of chemicals/oils to individual users/areas of use.

Table 2: Approved Chemicals and their Associated Properties

Chemical Name	Properties (Contained in Material Safety Data Sheets)	Use	Capacity and Storage Arrangements
Red diesel	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Fuel oil for the operation of plant/machinery	15,000l tank bunded to 110% of the total tank capacity fitted with an electronic alarm to prevent overfill. Tank location is provided on the Site Layout Plan (ECL.008.01.04) contained in Appendix I.
Fuchs Renolin B20 VG68 Hydraulic Oil	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Hydraulic oil for baler	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Fuchs Titan Truck Plus 15W-40	Avoid contaminating waterways. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L. No information available on bioaccumulation potential persistence or degradability.	Engine oil for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Trent GP3 Universal Antifreeze	Must not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.	Anti-freeze for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Greasetek EP2 High Specification Grease	Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).	Grease/lubricant for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.

5. ASSESSMENT OF RISKS ASSOCIATED WITH THE ACTIVITIES

5.1. Risk Assessment Approach

5.1.1. The risk assessment is based on the Source – Pathway – Receptor approach described in Section 3.1. of this AMP.

5.1.2. Other factors which have been taken into account in the preparation of the risk assessment are:

- the likely frequency of occurrence of the event;
- the nature and quantities of any potentially harmful substances that could be released to the environment;
- the environmental fate of any such substance released, taking into account the pathways and potential receptor(s);
- the magnitude – i.e. the seriousness of the effects of any such releases on the potential receptors identified; and
- the risk reduction and control measures in place at the Installation that could mitigation both the likelihood of such an event occurring and the effects of any substances that may be released.

5.2. Risk Assessment

5.2.1. The activities at the Installation which could result in accidents or abnormal operations causing unplanned potentially harmful releases to the environment are identified in Table 3.

5.2.2. For each activity or event, the associated hazards have been identified, together with an assessment of the risk posed by the hazard; the associated risk reduction and mitigation measures in place at the Installation are also described.

Table 3: Risk Assessment

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Dust	Release to atmosphere	Human population in the surrounding area.	Materials will be delivered to the Installation in enclosed vehicles and will be offloaded within the dedicated tipping areas within the Installation. Finished product will also be stored within separate dedicated areas within the Installation. Daily visual inspection of fugitive emissions will be undertaken and if necessary, water suppression techniques will be employed depending on weather conditions. An Emissions Management Plan ("EMP") (Document Reference ECL.008.01.04/EMP) has been prepared to provide detailed assessment of potential dust sources and the associated risk management measures. This EMP should be consulted in addition to this AMP.	Medium Risk management measures should prevent release from reaching identified receptors.	Dust Nuisance	Not significant

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Noise	Release to atmosphere	Human population in the surrounding area.	Site vehicles will be kept to a minimum with all vehicles limited to 10 kph on site. A one-way vehicle route has been designed to reduce the need for vehicular movements on site and hence will reduce the intermittent reversing alarms being generated as required for health and safety purposes. All operations and processing activities are located within dedicated areas of the Installation located in a discrete area of the site to reduce any noise emissions which may reach sensitive receptors. All site plant and equipment will be covered by the ("PPMR") contained within the EMS to ensure adequate maintenance of any parts of plant or equipment of which deterioration may give rise to increased noise levels. Any tipping activity will be supervised by an AMG competent person with drop heights controlled to 3.5m during all tipping of waste materials to reduce generation of noise. A site inspection will be undertaken daily by the Site Manager and/or deputy, monitoring and recording any activities that could give rise to noise outside the Installation boundary. This will be recorded on the Daily Site Monitoring Check Sheet. (Appendix IV). A Noise Management Plan ("NMP") (ECL.008.01.04/NMP) has been prepared provide detailed assessment of potential noise sources resulting from the operations and the associated risk management measures. This NMP should be consulted in addition to this AMP.	Low/Medium Risk management measures should prevent release from reaching identified receptors.	Noise Nuisance	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Pests	Release Overland	Human population in the surrounding area.	Daily inspections of the site will be undertaken to ensure strict housekeeping standards. During the summer months (April-October), storage time on site will be reduced to a maximum of 1 week reducing the likelihood of potential fly infestation to develop. Waste will be stored for a maximum of 3 months outside of this period. This will be monitored by the Site Manager and the waste tracking system will prevent the exceedance of storage times. A Pest Management Plan ("PMP") (ECL.008.01.04/PMP) has been prepared to provide a detailed assessment of potential pest sources resulting from the operations and the associated risk management measures. This PMP should be consulted in addition to this AMP. A specialist pest management company 'Pest Force' are retained on an annual contract by AMG to provide expert assistance and routine site inspections and to ensure that the appropriate controls are being implemented to prevent pest nuisance problems occurring. Monthly visits will be set up which will be the responsibility of the Site Manager/Technically Competent Manager ("TCM") to ensure these visits are undertaken as per the agreed schedule. Records of the visits will be retained by AMG. The pest contractor will also be available on emergency call out in the event of specified incidences of pests.	Medium – High Risk management measures should prevent release from reaching identified receptors.	Pest Nuisance	Low-medium if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Spillage of fuel and raw materials	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill	During any transfer of any diesel, checks are undertaken to ensure all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred. A member of AMG will supervise the unloading of fuel at all times. The filling coupling is also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured. All other pipework associated with the storage tank is located within the bund. The diesel filling pump is locked when not in use to prevent spillage and theft. Integrity checks and maintenance of pipework, tanks and bunds will be undertaken as part of the Company's PPMR. Site personnel are trained in spill response procedure as outlined in EMS and can be seen in (Appendix V). Spill kits are well stocked and placed in strategic locations on site. Site personnel are trained in spill response procedure as outlined in EMS. Spill kits are well stocked and placed in strategic locations on site. All spillages of hazardous materials should be logged, where spillages >200 litre then additionally the Regulator should be informed. Each kit contains a variety of spill control materials depending on the type of spill hazards identified in each area. Typically, kits contain absorbent booms, flexible absorbent sheeting, absorbent granules, disposal sacks and chemical-resistant drain covers.	Low. Risk management measures should prevent release from reaching identified receptors.	Contamination of ground and groundwater in the vicinity of the spill	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Fire	Release of gases/vapour to air.	Human population in the surrounding area.	The site will be operated in accordance with the approved Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP). This FPP should be consulted in addition to this AMP. The pre-acceptance and acceptance procedures ensure no non permitted waste is accepted at the Installation. Any non-conforming waste that is identified will be removed from the waste and quarantined. The design, installation and maintenance of the Fire Alarm System will continue to be undertaken by PES Fire & Security Systems Ltd. The Fire Alarm System will be monitored out of hours and the Site Manager will attend site immediately to assist the Fire Rescue Service ("FRS") and ensure the FPP is adhered to. A Permit to Work system is in place to control high risk activities including hot works. Preventative maintenance on all electrical equipment is undertaken. Designated smoking areas strategically located away from processing areas and combustible wastes are imposed on site. Emergency procedures are in place and reviewed as part of the EMS. Training will be provided to all site personnel in relation to preventing fires, identifying fire risk with the provision of manual extinguishers and firefighting training provided to nominated personnel.	Medium. Risk management measures should prevent release from reaching identified receptors.	Smoke, localised nuisance.	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Release of firewater	Overland routes across the site surface and percolation into the ground.	Contamination of controlled water(s)	The Specified Waste Operation will be undertaken on purpose built concrete hard standing with sealed drainage. Any potentially polluting spillages including firewater at the Installation will be captured within the purpose-built bund. Firewater would be tankered off site to an appropriately licensed Facility.	Low. Risk management	Contamination of controlled water(s).	Low if procedures adhered to
Vandalism	Any of the above	Any of the above	The Installation is secured by a fence and large gate which is locked when the site is non-operational. A remote closed-circuit television ("CCTV") monitoring system is in place which is maintained by Dyfed Alarms Ltd. Any motion detected by the cameras is reported to a control centre where a contracted security company view the feed and determine if further action is necessary. Key members of staff are also on call to attend site on such occasions.	Low. Risk management measures should prevent vandalism.	Any of the above	Low if procedures adhered to rigorously.

6. IMPLEMENTATION OF THE ACCIDENT MANAGEMENT PLAN

6.1. Emergency Response

6.1.1. AMG will undertake the necessary actions in order to minimise the environmental consequences of the accident, including, where necessary, taking the appropriate measures to clean up after the accident or incident. The Site Manager/Maintenance Manager and the TCM are responsible for ensuring this is undertaken.

6.1.2. Where relevant, AMG will aim to get the plant back to normal operation as soon as possible.

6.1.3. All relevant personnel at the Installation are made aware of the contingency and control/mitigation measures that are appropriate for dealing with a specific environmental accident. Appropriate training is provided where required; details of any such training provided are recorded in the individual Staff Training Files.

6.1.4. Specifically related to the emergency response required in relation to a loss of containment, the Spill Response Procedure will be followed. This procedure forms part of the Installation's EMS and is provided in Appendix III of this AMP for ease of reference.

6.1.5. As a result of the risk assessment (see Table 3 of this AMP), the following management plans have been prepared and the measures contained within the relevant plan will be implemented during an emergency event:

- Emissions Management Plan ("EMP") (Document Reference ECL.008.01.04/EMP);
- Pest Management Plan ("PMP") (Document Reference ECL.008.01.04/PMP);
- Noise and Vibration Management Plan ("NVMP") (Document Reference ECL.008.01.04/NVMP); and
- Fire Prevention Plan ("FPP") (Document Reference ECL.008.01.04/FPP).

6.1.6. These management plans detail the potential sources identified as a result of the proposed activities and the risk management measures to be followed in the emergency situation.

6.2. Roles and Responsibilities

6.2.1. AMG manages the reporting and investigation of accidents and incidents in compliance with all relevant legislation (including the conditions of the site's Environmental Permit) and Environmental Policy.

6.2.2. The General Site Manager and the Site Manager/Maintenance Manager hold the responsibility for ensuring that all such occurrences are recorded and reported to NRW where applicable.

6.2.3. It is the responsibility of all employees to identify and report environmental accidents and near misses as soon as they occur to the General Site Manager.

6.2.4. It is the responsibility of all managers to proactively participate in the completion of an incident investigation in relation to their processes, work areas or activities.

6.2.5. It is the responsibility of the Site Manager/Maintenance Manager to communicate investigation outcomes to all relevant site personnel. It is also their responsibility to monitor the effectiveness of the Incident Reporting procedure and highlight any findings at the Management Review Meetings.

6.3. Internal Accident Reporting

6.3.1. All accidents, near misses and abnormal events that occur at the Installation are documented within an Incident Report Form (Appendix V).

6.3.2. Information regarding the accident must be collated including witness statements as soon as possible.

6.3.3. The Environmental Risk Assessment relating to the process/work area/work tasks associated with the accident/incident must be reviewed.

6.4. External Incident Reporting

6.4.1. AMG has made all key personnel aware of the procedures for contacting the relevant emergency services and external bodies in the event of an incident or occurrence that could have an impact on the environment or the surrounding receptors. Relevant contact numbers are contained within Section 7 of the AMP and within the relevant sections of management plans.

6.4.1.1. The NRW Site Inspector will be informed immediately and Part A of the Schedule 5 Notification will be submitted to NRW within 24 hours of detection. Part B of the Schedule 5 Notification will be submitted to NRW as soon as practicable.

6.4.2. In the event of an accident or incident arising that could pose a risk to the environment or human health AMG will immediately take the actions detailed in the following documents:

- this AMP; and
- the relevant management plans.

6.4.3. The Site Manager/Maintenance Manager will be responsible for co-ordinating the emergency response.

6.5. Accident Investigation

6.5.1. Following an environmental accident, AMG will undertake an investigation to:

- ascertain the root cause of the accident;
- consider if the response and actions taken were adequate;
- if necessary, put in place measures to prevent reoccurrence; and
- if necessary, review and amend the AMP to reflect any changes that have been implemented.

6.5.2. The Site Manager/Maintenance Manager will be responsible for initiating and undertaking the investigation and implementing any resultant remedial measures that may be required.

6.5.3. The AMP will be reviewed following any significant environmental accident or incident and if the investigation identifies areas for improvement or the requirement for additional measures, the AMP will be updated accordingly. The updated AMP will be sent to NRW for approval following any significant alterations.

6.6. Follow up Procedures

6.6.1. The actions agreed on the Incident Report Form are to be undertaken by the relevant person. At the end of each calendar month the Site Manager/Maintenance Manager and the TCM will check the progress of each action with the individuals concerned.

6.6.2. The Office Representative will maintain records of accident/incidents for a minimum of three years for future reference.

6.6.3. At the end of each year, the Site Manager/Maintenance Manager will send a summary of the actions undertaken in response to any accidents / incidents, together with any outstanding work that may be required, to the Site General Manager and Senior Management Team.

6.6.4. If there are any areas where improvements are required, these shall be implemented as soon as is practicable. All improvements and deadlines will be discussed with NRW to ensure that appropriate timescales can be set.

7. LIST OF KEY CONTACTS

7.1. The key contacts provided in Table 4 should be used in the unlikely event of an incident or accident, such as those detailed in this AMP, occurring at the Installation.

Table 4: Key Contact Details

Operator	**AMG Resources Limited**		
Environmental Permit Reference	**EPR/ EPR/BM2381IQ**		
Site Address	**Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD**		
Name	**Description**	**Contact Details (Office Hours)**	**Contact Details (Out of Hours)**
Internal			
Paul Tobin	General Site Manager	07711107267	07711107267
Mike Vaughan	Site Manager/Maintenance Manager	07801101894	07801101894
Beverly Gravell	Main Office Administrator	01554750971	
Adrian Stewart	Technically Competent Manager	07774903373	
External – Emergency Services			
Fire and Rescue Service Mid and West Wales Fire Service	Non-Emergency	0370 6060699	-
	Emergency	999	
Medical Assistance Ty-Elli Surgery, The Avenue, Llanelli SA15 2DP	Non-Emergency	01302 865865	-
	Emergency Only	999	
Police – Dyfed Powys	Non-Emergency	101	
	Emergency Only	999	
External - Regulators			
NRW	Environmental Regulator Incident Hotline	0300 065 3000 Option 1	
Carmarthenshire County Council	Local Council Emergency Contact Number – Pollution to the Environment	01267 234567	0300 333 2222
External – Key Services			
Dyfed Recycling Services Ltd	Removal of Waste Material	01554 772478	
Castle Environmental Ltd	Containment and Removal of Firewater	02920 496467	
Dwr Cymru Welsh Water	24 Hour Emergency Contact Water Supplier and Waste Water Treatment	0800 052 0130 - Water 0800 085 3968 - Sewerage	

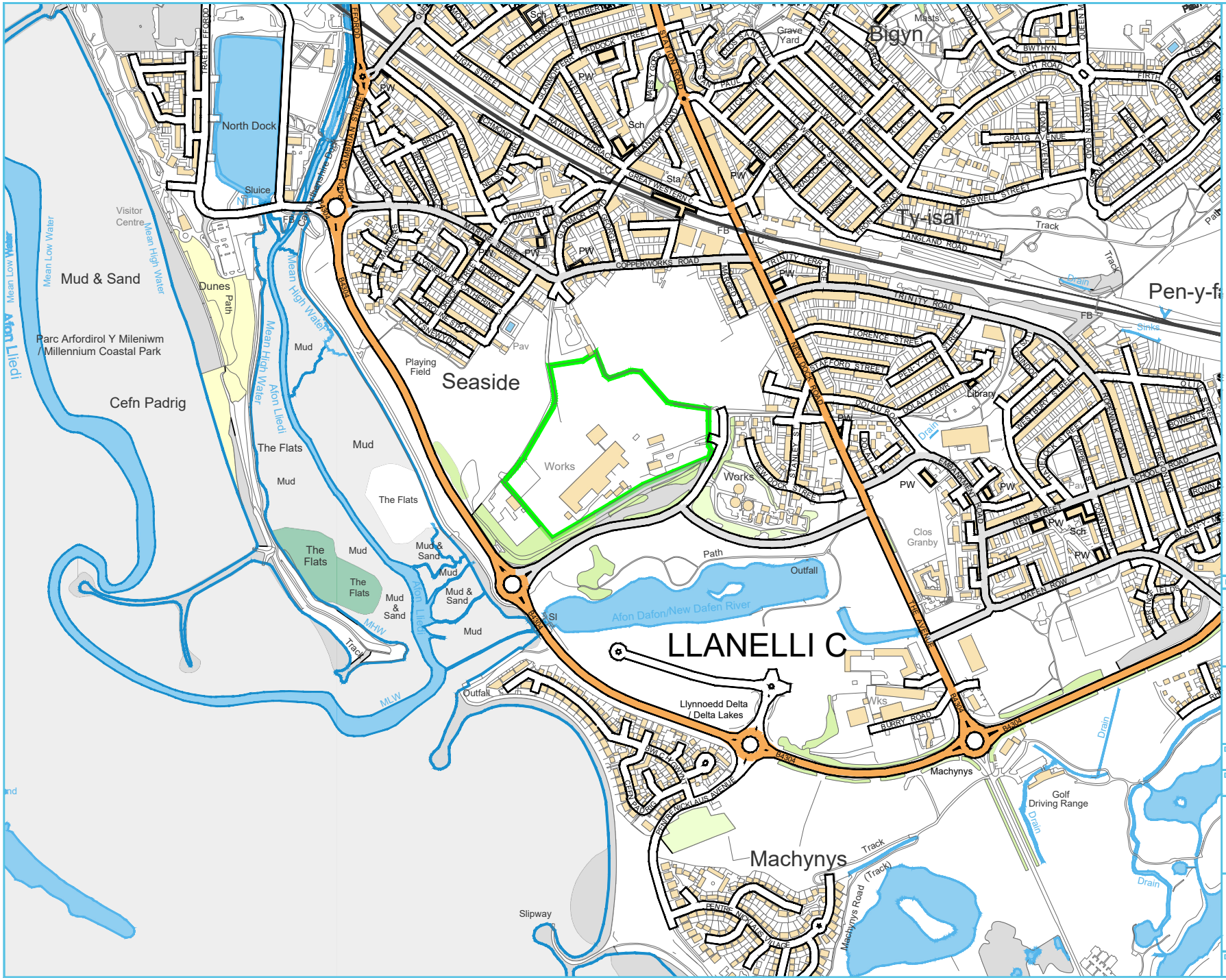
Table 4: Key Contact Details (Cont.)

Operator	AMG Resources Limited		
Environmental Permit Reference	EPR/ EPR/BM2381IQ		
Site Address	Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD		
Name	**Description**	**Contact Details (Office Hours)**	**Contact Details (Out of Hours)**
External – Key Services			
Western Power Distribution	Energy Supplier	0800 052 400	
Dyed Alarms Ltd	Security System	01267 231595	
PES Fire & Security Systems Ltd	Fire Alarm System	01792 702020	
Pestforce Limited	Specialist Pest Management Company	0333 567 0577	
Environmental Compliance Ltd	Specialist Environmental Advisors	01443 841760	-

7.2. A notice board at the site entrance is present to inform the public about the site. The notice board includes:

- the permit holder's name – AMG Resources Limited;
- an emergency contact telephone number – 07801101894;
- a statement that the site is permitted by the NRW and the EP number – EPR/BM2381IQ; and
- NRW telephone number (03000 653000) and incident hotline (03000 653000).

APPENDIX I
DRAWINGS



Rev	Date	Details	Chkd

Environmental Compliance Ltd.
Unit G1
The Willowford
Main Avenue
Treforest Industrial Estate
Pontypridd.
CF37 5YL
Tel: 01443 841760
Fax: 01443 841761
Email: info@ecl.world
Web: www.ecl.world

Client
AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:10K @ A4	GTB	SJ	SB

Drawing Status
FINAL ISSUE

Project Title
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title
SITE LOCATION PLAN

Drawing Number	Rev
ECL.008.01.04-001	-

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m^2)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
- RED DIESEL TANK
- S SOAKAWAY
- I 3 STAGE OIL/WATER INTERCEPTOR
- FIRE PREVENTION PLAN QUARANTINE AREA
- QUARANTINE AREA NON-CONFORMING WASTE (ENCLOSED SKIP)
- WASTE RECEPTION & SAMPLING AREA (10m X 10m)
- ①② WASTE PILE CODES 17-04-05
- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- W1 EMISSIONS POINT TO WATER TO BE REMOVED
- SOUTHERN DRAINAGE LINE TO BE REMOVED

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
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CF37 5YL
Tel: 01443 841760
Fax: 01443 841761
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Web: www.ecl.world

Client: AMG RESOURCES

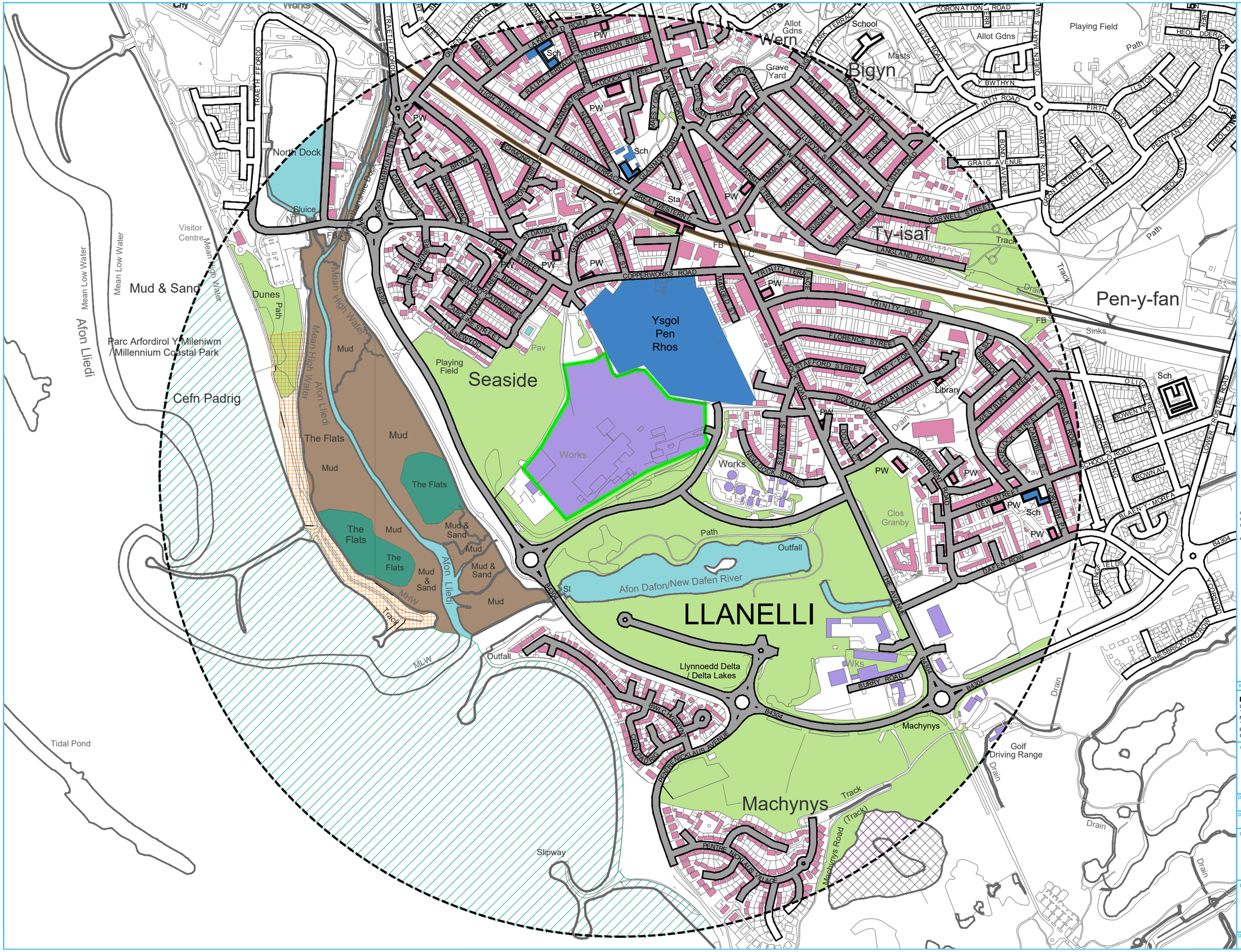
Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title: SITE LAYOUT PLAN

Drawing Number	Rev
ECL.008.01.04-002	-



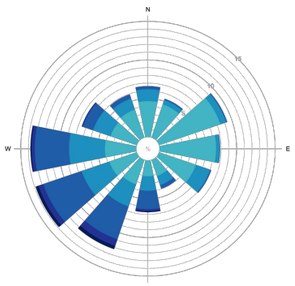
LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- 1000m OFFSET BOUNDARY
- DOMESTIC DWELLINGS
- AREAS OF OPEN SPACE / PLAYING FIELDS
- SCHOOLS
- HOSPITALS
- INDUSTRIAL / COMMERCIAL PREMISES
- ROAD FEATURES
- RAILWAY FEATURES
- SURFACE WATER FEATURES
- MARSH FEATURES
- MUD FEATURES
- SAND FEATURES
- NORTH DOCK DUNES - LNR
- BURY INLET - RAMSAR SITE, SSSI, SAC & SPA
- MACHYNYS PONDS - SSSI

HOURLY MEAN WIND ROSE FOR PEMBREY SANDS

Met Office

NGR: 2365 E 2044 N
SEASON: ANNUAL
ALTITUDE: 3 metres AMSL
Period of data: Jan 2008 ~ Dec 2017



86,515 OBSERVATIONS
0.0% CALM
0.0% VARIABLE

1–10	11–16	17–27	28–33	>33

Hourly mean wind speed (knots)

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
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The Willowford
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CF37 5YL
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Fax: 01443 841761
Email: info@ecl.world
Web: www.ecl.world

Client: AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:7.5K @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
SENSITIVE RECEPTOR PLAN

Drawing Number: ECL.008.01.04-003
Rev: -

0m 50m 100m

N

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m²)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
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- MADE GROUND
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- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
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- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- ROUTE OF EMERGENCY SERVICES
- FIRE ASSEMBLY POINT
- FIRE ALARM
- FIRE EXTINGUISHER C = CO_2 F = FOAM P = POWDER W = WATER
- GAS CYLINDER CAGE
- H WATER HYDRANT
- SPILL KIT
- EMERGENCY INFORMATION PACK
- CHEMICAL STORAGE (e.g. LUBRICANTS)

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
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Main Avenue
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Client: AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
FIRE PREVENTION AND MITIGATION PLAN

Drawing Number	Rev
ECL.008.01.04-004	-

APPENDIX II
PLANNED PREVENTATIVE MAINTENANCE REGIME

AMG RESOURCES - LLANELLI
MAINTENANCE SCHEDULE FOR MOBILES
2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date:												
Forklift				LOLER						LOLER		
Breakdowns												
Cat 962			Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service
Breakdowns												
Container Lifter									Annual Ins Check			
Breakdowns												
Cat 932									Annual Ins Check			
Breakdowns												
Skylift				LOLER						LOLER		
Breakdowns												
JCB 926				LOLER						LOLER		
Breakdowns												
Lid Baler		Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service	
Breakdowns												
Cat 318									Annual Ins Check			
Breakdowns												
Breakdowns												
Breakdowns												
Breakdowns												

LOLER: Lifting Operations and Lifting Equipment Regulations 1998 - Equipment is fit for purpose, appropriate for the task, suitably marked and subject to periodic thorough examination. Records must be kept of all thorough examinations and any defects reported to both person responsible for equipment and the relevant enforcing authority.

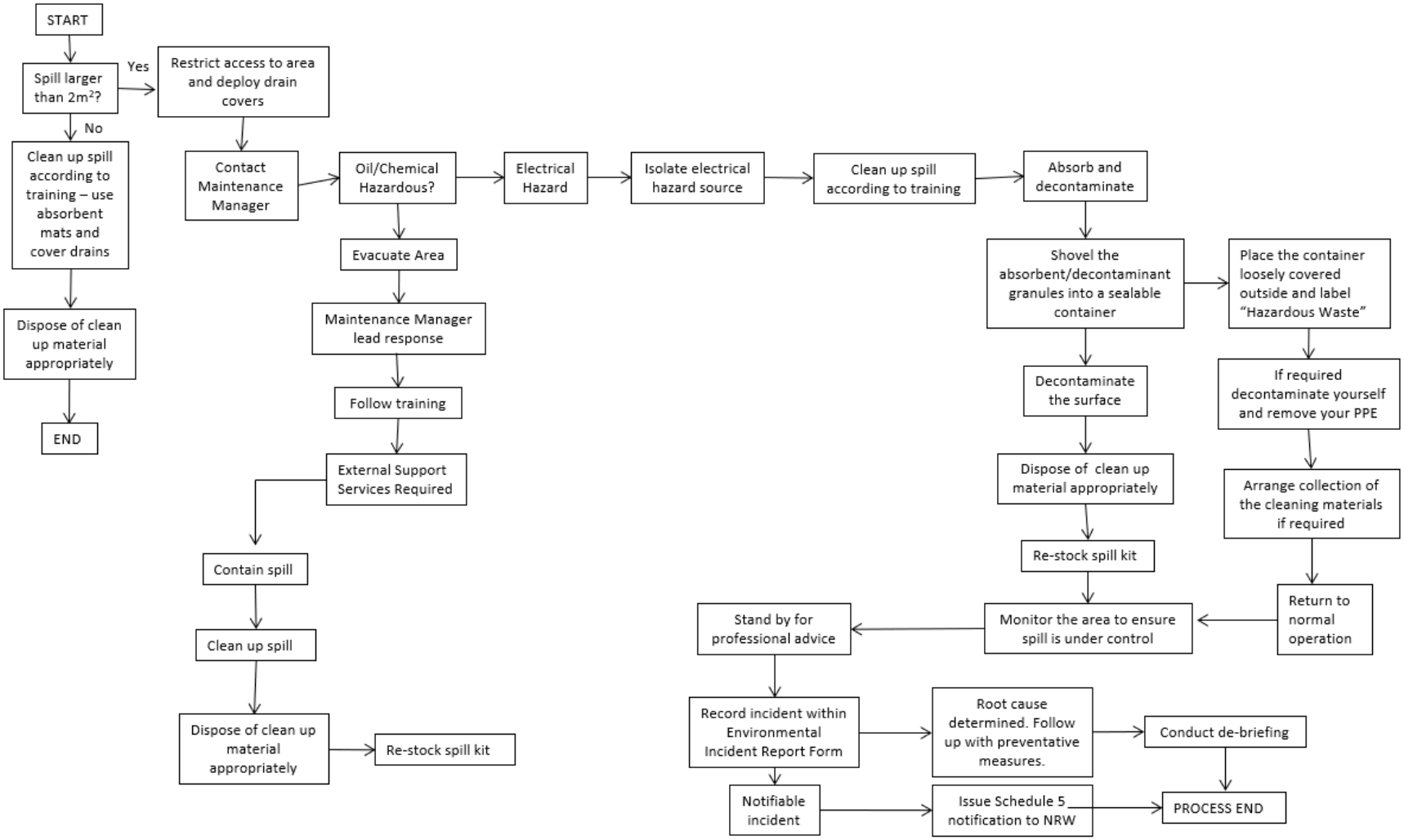
X = Scheduled P= Partial C = Completed N= Not Completed

APPENDIX III
SPILL RESPONSE PROCEDURE

SPILL RESPONSE PROCEDURE

In the event of a spill of any substances you are required to stop, contain and clean up the substance. You must understand the safety requirements of all substances when dealing with them. You can find the required information on the Material Safety Data Sheet provided in the storage area for the substance.

Follow the steps shown in the flow chart below in case of spillage:



APPENDIX IV
DAILY SITE MONITORING CHECK SHEET

AMG RESOURCES

DAILY SITE MONITORING CHECKSHEET

INSPECTION	COMMENTS	ACTION TAKEN	RESPONSIBLE PERSON
Meteorological Conditions			
Details of Operations			
Visual Obs (e.g. dust) Storage & processing areas, weighbridge and internal roads			
Dust Suppression. Required? If yes, provide details.			
Presence of pests/litter or mud			
Presence of noise and/or vibration			
Any Other Comments:			

Name: Job Title: Date:

APPENDIX V
INCIDENT REPORT FORM

ENVIRONMENTAL INCIDENT REPORT FORM

Section 1 – To be completed by Employee

Name of person involved				**Date of Incident:**	
				Time:	
Job Title:				**Supervisor name:**	
Incident Details					
Location of Incident					
Incident Type (please circle)	Fire	Spillage	Emissions related	Pest related	Other (provide details)
Consequence of Incident (please circle)	Environmental Damage	Nuisance to Sensitive Receptors	Property Damage	Near Miss	Other (provide details)
Witness names:					
Witness Statement (State what you were doing and what happened):					

Section 2 - To be completed by Management

At the time of the incident:

(a) Should the employee have been on the premises?	Yes/No
(b) Was he/ she carrying out normal duties?	Yes/No
(c) Was he/she acting in accordance with the company rules?	Yes/No
(d) Was he/she trained and competent in the task being carried out?	Yes/No
(e) Was the equipment used in a safe condition and maintained?	Yes/No

Provide details on a separate sheet, if any answer is No.

State immediate actions which were taken on detecting the incident:

State actions to prevent reoccurrence:

Completion and Close Out of Actions (please circle)	Yes	No Details of Follow Up Required:

Signature of Employee Recording Incident: **Date:**

Signature of Site Manager: **Date:**

APPENDIX V
EMS SITE CHECKS FORM

AMG RESOURCES

Version: 1
Date: November 2019

EMS SITE CHECKS

INSPECTION	FREQUENCY	COMMENTS	ACTION TAKEN	RESPONSIBLE PERSON
Security Measures Infrastructure e.g. fencing, gate, entrance doors Operation of CCTV Any breaches of security/raised alarm of intrusion	Daily			
Housekeeping Surfaces clean and clear of waste/debris and clean No protruding objects Vehicle and pedestrian routes clear General office waste placed in 770l dedicated containers Storage areas orderly Site welfare in clean and working condition	Daily			
Infrastructure Surfacing is in good condition (i.e. no cracks or depressions) Block bay walls are in good condition (i.e. no cracks) Block bay covers are in good condition and in place Bunding is in good condition and area clear of water/debris	Weekly			
Machinery/Plant Clean Down and Blowdown Required? Daily Plant Inspection Checksheet completed	Daily			
Emergency Equipment Fire Extinguishers in place and fully stocked First Aid Kit in place and fully stocked Fire alarms operational Emergency lighting in working order	Weekly			
Spillage Response Any evidence of spillages Spill kits in place and fully stocked	Daily Weekly			
Any other observations/issues noted:				

Assessor Name: **Job Title:** **Date:**

APPENDIX VI
PLANNED PREVENTATIVE MAINTENANCE REGIME

AMG RESOURCES - LLANELLI
MAINTENANCE SCHEDULE FOR MOBILES
2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date:												
Forklift				LOLER						LOLER		
Breakdowns												
Cat 962			Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service
Breakdowns												
Container Lifter									Annual Ins Check			
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Cat 932									Annual Ins Check			
Breakdowns												
Skylift				LOLER						LOLER		
Breakdowns												
JCB 926				LOLER						LOLER		
Breakdowns												
Lid Baler		Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service	
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Cat 318									Annual Ins Check			
Breakdowns												
Breakdowns												
Breakdowns												
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