



OUTGOING



ASiantaeth yr
AMGYLCHEDD CYMRU
ENVIRONMENT
AGENCY WALES

Asiantaeth yr Amgylchedd

Llwyn Brain
Ffordd Penlan
Parc Menai
Bangor
Gwynedd
LL57 4BP
Ffon 01248 670770
Ffacs 01248 670561

Environment Agency

Llwyn Brain
Ffordd Penlan
Parc Menai
Bangor
Gwynedd
LL57 4BP
Tel 01248 670770
Fax 01248 670561



PERMIT

ENVIRONMENTAL PROTECTION ACT 1990 - PART II, SECTION 37

**NOTICE OF MODIFICATION OF
WASTE MANAGEMENT LICENCE**

Licence Number: 152/ 87

Licence Holder: CASTLE CEMENT (PADESWOOD) LIMITED

WHEREAS on 4th November 1987 a Waste Disposal Licence was granted under Section 5 of the Control of Pollution Act 1974 (number 152/ 87) by Alyn and Deeside District Council relating to a landfill site at Castle Cement, Padeswood, Mold, Flintshire, CH7 4HB.

NOTICE is HEREBY GIVEN that the Environment Agency in exercise of its powers under Section 37 (2)(a) of the Environmental Protection Act 1990 modifies Waste Management Licence No: 152/ 87 as follows:

See attached schedule of licence conditions.

Such modification shall take effect from 00:00 Hours, 26/10/ 2000

Signed Clare Walters

Name: CLARE WALTERS

Team Leader Waste Licensing – Northern Area (Welsh Region)

Dated: 25/10/2000

**YOUR ATTENTION IS DRAWN TO THE RIGHTS OF APPEAL DETAILED IN THE NOTES AT THE END
OF THIS NOTICE OF MODIFICATION**



Schedule

The following conditions shall be attached to Licence Number: 152/ 87

13.1 **Staffing and understanding of requirements of licence conditions and working plan**

Minimum staffing and supervision

- 13.1.1 Whenever the site is carrying out any of the specified waste management treatment or disposal operations, it shall be supervised by at least one member of staff who is suitably trained and fully conversant with the requirements of the licence and the working plan regarding:

- a waste acceptance and control procedures;
- b operational controls and environmental monitoring;
- c maintenance;
- d record-keeping;
- e emergency action plans;
- f notifications to the Agency.

Availability of licence and working plan

- 13.1.2 A copy of this licence and the working plan shall be kept available on site for reference when required by all site staff carrying out work under the requirements of the licence.

Understanding of licence and working plan

- 13.1.3 All site staff shall be, or shall work under the direct supervision of a member of staff who is, fully conversant with those aspects of the licence conditions and working plan which are relevant to their specific duties.

- 13.1.4 The Technically Competent Management shall be in attendance at the site in accordance with Agency policy & guidance. Attendance of the technically competent person(s) at the site shall be recorded in the site diary on arrival and departure. At all times during operational hours a technically competent person shall be capable of attending the site within one hour, or two hours where the site has been notified to the Agency as being either non-operational or closed.

13.2 **Changes in technically competent persons**

- 13.2.1 Any changes in the technically competent management of the site and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Agency in writing within 5 working days of the change in management. Technically competent management and technical competence shall be as defined under section 74 of the Environmental Protection Act 1990 and Regulations 4 and 5 of the 1994 Regulations.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

13.3 **Relevant convictions**

Notification of relevant convictions

- 13.3.1 In the event of the Licence Holder and/or any relevant person being convicted of any relevant offence and which is in addition to any already notified to the Agency, then full details shall be provided to the Agency within 14 days following sentencing, whether or not the conviction or sentence is subsequently appealed. Such details shall include, in respect of each relevant person (as defined in section 74(7) of the Environmental Protection Act 1990 or any subsequent amendments to that section), the nature of the offence, the place and date of conviction, and any fine or other penalty imposed.

Notifications of appeals against convictions

- 13.3.2 In the event that the Licence Holder and/or any relevant person lodges an appeal against any such conviction or sentence, the Licence Holder shall notify the Agency of this within 14 days of the lodging. The Licence Holder shall notify the Agency of the results of that appeal, within 14 days of the appeal being decided.

13.4 **Maintenance of financial provision**

- 13.4.1 Within 3 months of the issue of this modification the licence holder shall secure financial provision adequate to discharge the obligations arising under the licence.

Within 3 months of the issue of this modification the licence holder shall enter into an agreement with the Agency concerning the maintenance by the licence holder of the financial provision from the date of the agreement throughout the subsistence of this licence and the licence holder shall produce evidence of such provision whenever required by the Agency.

13.5 **Duration of activities - groundwater protection**

- 13.5.1 The activities of disposal, or tipping for the purpose of disposal of waste which are authorised by this licence shall cease and in the event that re-commencement of activities are authorised in accordance with this condition on every fourth anniversary thereafter, and shall not re-commence unless the investigation and risk assessment, or, after the initial cessation, the subsequent review of the investigation and risk assessment, carried out in accordance with sub-condition 13.5.2, shows that at the specified dates there is no risk to groundwater under the terms of Regulation 15 of the 1994 Regulations, and this has been accepted in writing by the Agency.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Investigation and risk assessment under regulation 15

- 13.5.2 The licence holder shall undertake an investigation to assess the actual and potential impact of discharges from the site in respect of Regulation 15 of the 1994 Regulations. The investigation shall include the following, or, in the case of a subsequent review, shall include a review of the following:-
- a any relevant site investigation and monitoring data already available and interpretation of that data;
 - b an examination of the hydrogeological conditions of the area in and around the site;
 - c an examination of the possible purifying powers of the soil and subsoil;
 - d an assessment of the risk of pollution and alteration of the quality of groundwater including the risk of harm to other aquatic systems and ecosystems and the likelihood of impeding exploitation of groundwater resources from any discharge, whether direct or indirect, of list I or list II substances.
- 13.5.3 The results of the investigation & review shall be submitted in a written report to the Agency. The report shall include the following, or in the case of subsequent reviews, reviews thereof:
- a recommendations of the essential technical precautions which must be taken, paying particular attention to the nature and concentration of the substances present in the matter being disposed of or tipped, the characteristics of the receiving environment and the proximity of the water catchment areas, in particular those for drinking, thermal and mineral water;
 - b recommendations of the technical precautions necessary:
 - i In the case where groundwater is considered to be permanently unsuitable for other uses, to ensure that no substance in list I can reach other aquatic ecosystems or harm other ecosystems, to ensure that the presence of any list I substance once discharged into the groundwater will not impede exploitation of ground resources and to prevent pollution of groundwater by list II substances; and
 - ii in the case where groundwater is not considered to be permanently unsuitable for other uses, to prevent any discharges into groundwater of substances in list I and to prevent any pollution of groundwater by substances in list II.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

14 Site engineering for pollution prevention and control

14.1 Leachate management systems

- 14.1.1 Within one week of the issue of this modification an emergency leachate management plan shall be submitted in writing to the Agency. This plan must be agreed by the Agency and any amendments to the plan shall be incorporated and the plan implemented within two weeks of the issue of this modification.
- 14.1.2 The site shall have an engineered leachate management system constructed, documented and recorded in accordance with the standards specified in conditions 14.1.4, 14.1.5, 14.1.6 and 14.1.7 below.
- 14.1.3 The engineered leachate management system provided for the site shall be used to maintain depths of leachate within the maximum permitted depth within the site based upon the results of the regulation 15 risk assessment.
- 14.1.4 Construction quality assurance of leachate management systems
- a Prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered leachate management system for the site will be submitted in writing to the Agency and the Agency has given its written consent to it;
 - b Prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing third party, Quality Assurance of the construction will be submitted in writing to the Agency and acknowledged in writing by the Agency.
- 14.1.5 The engineered leachate management system for the site shall be constructed and recorded in accordance with the Construction Quality Assurance Plan, and the construction shall be completed within 4 months unless otherwise agreed with the Agency.
- 14.1.6 Changes to the Construction Quality Assurance Plan, independent quality assurance, and detailed method statements shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 14.1.7 Within 1 calendar month following completion of the specified engineering for the site, the Validation Report on the construction of the engineered leachate collection and extraction system for the site shall be submitted in writing to the Agency.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

14.2 **Landfill gas management systems**

Provision of landfill gas management system

- 14.2.1 The site shall have an engineered landfill gas management system constructed, completed, documented and recorded in accordance with conditions 14.2.3, 14.2.4, 14.2.5 and 14.2.6.
- 14.2.2 The engineered landfill gas management system provided for the site shall be operated and maintained, and fully documented and recorded.

Construction quality assurance of landfill gas management systems

- 14.2.3
- a Prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered landfill gas management system for the site will be submitted in writing to the Agency and the Agency has given its written consent to it;
 - b Prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction will be submitted in writing to the Agency and acknowledged in writing by the Agency.
- 14.2.4 The engineered landfill gas management system for the site shall be constructed and recorded in accordance with the Construction Quality Assurance Plan, and the construction shall be completed within 4 months of the completion of the baseline monitoring referred to in condition 15.2.8.
- 14.2.5 Changes to the Construction Quality Assurance Plan, third party, quality assurance, and detailed method statements shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 14.2.6 Within 1 calendar month following completion of the specified engineering works for the site, the Validation Report on the construction of the engineered landfill gas collection and extraction system for the site shall be submitted in writing to the Agency.

14.3 **Engineered surface water management systems**

Provision of engineered surface water management systems

- 14.3.1 Engineered surface water management systems for the site shall be provided, which shall have been constructed, completed, documented and recorded in accordance with conditions 14.3.3, 14.3.4, 14.3.5 and 14.3.6.
- 14.3.2 The engineered surface water management system provided for the site shall be operated and maintained, and fully documented and recorded.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Construction quality assurance of engineered surface water management systems.

- 14.3.3 **a** Prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered surface water management system for the site will be submitted in writing to the Agency and the Agency has given its written consent to it;
- b** Prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction will be submitted in writing to the Agency and acknowledged in writing by the Agency.
- 14.3.4 The engineered surface water management system for the site shall be constructed and recorded in accordance with the Construction Quality Assurance Plan, and the construction shall be completed within 4 months unless otherwise agreed with the Agency.
- 14.3.5 Changes to the Construction Quality Assurance Plan, and to the quality assurance procedures and detailed method statements shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 14.3.6 Within 1 calendar month following completion of the specified engineering works for the site, the Validation Report on the construction of the engineered surface water management system for the site shall be submitted in writing to the Agency.

14.4 **Installation, maintenance and protection of final capping**

Provision of final cap

- 14.4.1 The site shall not be left without a final cap for longer than 6 months after completion of landfilling or such longer period as may be agreed in writing by the Agency.

Construction quality assurance of final cap

- 14.4.2 A Construction Quality Assurance Plan covering the final cap for the site will be submitted in writing to the Agency and agreed as being technically adequate.
- 14.4.3 At least one month prior to the commencement of capping details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction will be submitted in writing to the Agency and acknowledged in writing by the Agency.
- 14.4.4 The engineered final cap for the site shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.
- 14.4.5 Changes to the Construction Quality Assurance Plan, and to the quality assurance procedures and detailed method statements shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.

WML Number: 152/ 87

Date of Issue: 25/10/2000

Clare Walters, Team Leader Waste Licensing.....

Clare Walters

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

14.4.6 Within 1 calendar month following completion of the final cap for the site, the Validation Report on the construction of the final cap for the site shall be submitted in writing to the Agency.

14.5 **Site completion - final landform and engineering**

- a) In the event that the specified waste management operations on the site cease and it is confirmed to the Agency that they will not be resumed, the Licence Holder shall ensure that any uncompleted areas are provided with the leachate and landfill gas collection and extraction systems and final cap and protection required under the other conditions of this licence.
- b) Surface water is drained from the site to a surface water drainage system provided in accordance with condition 14.3.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

15 Pollution control, monitoring and reporting

15.1 Landfill gas monitoring and reporting within the waste

Landfill gas monitoring and sampling programme

- 15.1.1 Monitoring and sampling of landfill gas within the waste body of the site shall be carried out and recorded in accordance with this condition and the standards specified in Table 15.1A below.

Table 15.1A Standards for landfill gas monitoring and sampling programme	
Landfill gas monitoring determinands	Monitoring frequencies
Methane	Monthly
Carbon dioxide	Monthly
Oxygen	Monthly
Temperature	Monthly
Differential pressure	Monthly
Atmospheric pressure	Monthly

Landfill gas monitoring and sampling records

- 15.1.2 A record of the landfill gas monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table 15.1B below.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.1B Standards for landfill gas monitoring and sampling records

Landfill gas monitoring and sampling records	Specified standards
Making of records	a) Data storage media: paper or computerised records b) Data content including: i) Determinands monitored/sampled; ii) Specified details of measurements/samples to support analytical and QA requirements; e.g. dates, times, locations, other relevant parameters; iii) Results of measurements/sample analyses, with error limits; iv) Interpretation and review of results against site design lifetime and projected waste stabilisation curve; v) Validation of accuracy and validity of results by designated quality assurer.
Submission of records	A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out, in a format agreed with the Agency.

Clare Walters

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

15.2 **Landfill gas monitoring and reporting external to the waste**

Provision of engineered external landfill gas monitoring system

15.2.1 Engineered landfill gas monitoring systems shall be provided to enable monitoring of the gases in the ground outside the waste body, in accordance with this condition.

15.2.2 The engineered external landfill gas monitoring system provided for the site shall be:

- a** designed, constructed, completed, and shall be fully documented and recorded; and
- b** inspected and maintained, and fully documented and recorded;

Construction quality assurance of landfill gas monitoring systems

15.2.3 **a** A Construction Quality Assurance Plan covering all elements of the engineered external landfill gas monitoring system for the site will be submitted in writing to the Agency;

b Details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction will be submitted in writing to the Agency.

15.2.4 The engineered external landfill gas monitoring system for the site shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.

15.2.5 Changes to the Construction Quality Assurance Plan, quality assurance, and detailed method statements shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.

15.2.6 Within 1 calendar month following completion of the specified engineering works for the site, the Validation Report on the construction of the engineered external landfill gas monitoring system for that cell shall be submitted in writing to the Agency.

Landfill gas monitoring and sampling programme

15.2.7 Monitoring and sampling of landfill gas external to the waste body of the site shall be carried out and recorded in accordance with the standards specified in Table 15.2A below.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.2A Standards for landfill gas monitoring and sampling programme (external to the site)	
Landfill gas monitoring determinands	Monitoring frequencies
Methane	Monthly
Carbon dioxide	Monthly
Oxygen	Monthly
Temperature	Monthly
Differential pressure	Monthly
Atmospheric pressure	Monthly

Gas Trigger Levels

- 15.2.8 A report shall be submitted in writing to the Agency within 15 months of the issue of this modification which shall provide an interpretation of the gas monitoring results for the 12 month period following the issuing of this modification and suggested trigger levels and a gas action plan.

Monitoring and sampling records

- 15.2.9 A record of the landfill gas monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table 15.2B below.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.2B Standards for landfill gas monitoring and sampling records	
Landfill gas monitoring and sampling records	Specified standards
Making of records	a) Data storage media: paper or computerised records b) Data content including: i) Determinands monitored/sampled; ii) Specified details of measurements/samples to support analytical and QA requirements; e.g. dates, times, locations, other relevant parameters; iii) Results of measurements/sample analyses, with error limits; iv) Interpretation and review of results against site design lifetime and projected waste stabilisation curve; v) Validation of accuracy and validity of results by designated quality assurer.
Submission of records	A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out, in a format agreed with the Agency.

15.3 Leachate monitoring and reporting

Leachate monitoring and sampling programme

- 15.3.1 Monitoring and sampling of leachate arising from the site shall be carried out and recorded for each of the leachate monitoring points.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.3A Standards for monitoring and sampling programme for leachate	
Leachate monitoring determinands	Monitoring frequencies
Depth of leachate from the base of the site (referenced to Ordnance Datum)	Monthly
pH	Monthly
Temperature	Monthly
Electrical Conductivity	Monthly
CL	Quarterly
Nh4-N	Quarterly
SO4	Quarterly
Alkalinity	Quarterly
COD	Quarterly
BOD	Quarterly
TON	Quarterly
TOC	Quarterly
Al	Quarterly
Na	Quarterly
K	Quarterly
Ca	Quarterly
Mg	Quarterly
Fe	Annually
Mn	Annually
Cd	Annually
Cr	Annually
Cu	Annually
Ni	Annually
Pb	Annually
Zn	Annually

Leachate monitoring and sampling records

15.3.2

A record of the leachate monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table 15.3B below.

WML Number: 152/ 87

Date of Issue: 25/10/2000

Clare Walters, Team Leader Waste Licensing.....

Clare Walters

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.3B Standards for monitoring and sampling records for leachate	
Leachate Monitoring and Sampling Records	Specified Standards
Making of records	a) Data storage media: paper or computerised records b) Data content including: i) Determinands monitored/sampled; ii) Specified details of measurements/samples to support analytical and QA requirements; e.g. dates, times, locations, other relevant parameters; iii) Results of measurements/sample analyses, with error limits; iv) Interpretation and review of results against site design lifetime and projected waste stabilisation curve; v) Validation of accuracy and validity of results by designated quality assurer.
Submission of records	A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out, in a format agreed with the Agency.

Reference elevations for leachate level monitoring points

- 15.3.3 On installation of each leachate level monitoring point, a reference elevation mark shall be permanently inscribed on the leachate level monitoring point and levelled-in to Ordnance Datum.
- 15.3.4 If the value of the reference elevation mark is changed as a result of damage, alteration, extension or movement to a monitoring point, the mark shall be re-levelled. Re-levelling shall take place before the next monitoring round or within 2 weeks, whichever is the sooner.

15.4 Groundwater monitoring and reporting systems

Provision of engineered groundwater monitoring system

- 15.4.1 Engineered groundwater monitoring systems shall be provided to enable monitoring of the groundwater outside the waste body in accordance with this condition.
- 15.4.2 The engineered external groundwater monitoring system provided for the site shall be:
- a** designed, constructed, completed, and shall be fully documented and recorded; and
 - b** inspected and maintained, and fully documented and recorded;

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Construction quality assurance of groundwater management systems

- 15.4.3
- a A Construction Quality Assurance Plan covering all elements of the engineered groundwater monitoring system for the site will be submitted in writing to the Agency;
 - b Details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction will be submitted in writing to the Agency and acknowledged in writing by the Agency;
 - c The engineered external groundwater monitoring system has been constructed and recorded in accordance with the Construction Quality Assurance Plan;
 - d Changes to the Construction Quality Assurance Plan, quality assurance, and detailed method statements have been notified in writing to the Agency, and the Agency has given its written consent to those changes prior to their implementation;
 - e The Validation Report on the construction of the engineered groundwater monitoring system has been submitted in writing to the Agency and acknowledged in writing by the Agency.

Groundwater monitoring and sampling programme

- 15.4.4
- Monitoring and sampling of groundwater external to the waste body of the site shall be carried out and recorded in accordance with the standards specified in Table 15.4A below.

Clare Walters

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.4A Standards for groundwater monitoring and sampling programme	
Determinands	Monitoring frequencies
Water level (referenced to Ordnance Datum)	Weekly for first 4 weeks, then monthly (and quarterly)
pH	Weekly for first 4 weeks, then monthly (and quarterly)
Temperature	Weekly for first 4 weeks, then monthly (and quarterly)
Electrical conductivity	Weekly for first 4 weeks, then monthly (and quarterly)
Dissolved oxygen	Weekly for first 4 weeks, then monthly (and quarterly)
Ammoniacal nitrogen	Weekly for first 4 weeks, then monthly (and quarterly)
Chlorides	Weekly for first 4 weeks, then monthly (and quarterly)
Sulphates	Quarterly
Total alkalinity (as CaCO ₃ at pH 4.5)	Quarterly
Total oxidised nitrogen	Quarterly
Total organic carbon	Quarterly
Al	Quarterly
Na	Quarterly
K	Quarterly
Ca	Quarterly
Mg	Quarterly
Fe	Quarterly
Mn	Quarterly
Cd	Quarterly
Cr	Quarterly
Cu	Quarterly
Ni	Quarterly
Pb	Quarterly
Zn	Quarterly

Groundwater monitoring and sampling records

15.4.5

A record of the groundwater monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table 15.4B below.

WML Number: 152/ 87

Date of Issue: 25/10/2000

Clare Walters, Team Leader Waste Licensing.....*Clare Walters*

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.4B Standards for groundwater monitoring and sampling records	
Groundwater Monitoring and Sampling Records	Specified Standards
Making of records	a) Data storage media: paper or computerised records b) Data content including: i) Determinands monitored/sampled; ii) Specified details of measurements/samples to support analytical and QA requirements; e.g. dates, times, locations, other relevant parameters; iii) Results of measurements/sample analyses, with error limits; iv) Interpretation and review of results against site design lifetime and projected waste stabilisation curve; v) Validation of accuracy and validity of results, by designated quality assurer.
Submission of records	A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out, in a format agreed with the Agency.

Clare Walters

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Reference elevations for groundwater monitoring points

- 15.4.6 On installation of each groundwater level monitoring point, a reference elevation mark shall be permanently inscribed on the groundwater level monitoring point and levelled-in to Ordnance Datum.
- 15.4.7 If the value of the reference elevation mark is changed as a result of damage, alteration, extension or movement to a monitoring point, the mark shall be re-levelled. Re-levelling shall take place before the next monitoring round or within 2 weeks, whichever is the sooner.

15.5 **Surface water quality monitoring and reporting systems**

Provision of surface water monitoring system

- 15.5.1 Monitoring of surface water quality shall take place at locations that are physically marked and that are at the locations specified in Table 15.5A below, to ensure that periodic measurements of quality and level are taken at the same position.

Table 15.5A Locations for surface water monitoring and sampling system

Surface water monitoring point designation	Location
Up gradient of the site	The peripheral stream
Down gradient of the site	The peripheral stream

Surface water monitoring and sampling programme

- 15.5.2 Monitoring and sampling of surface water in the vicinity of the site shall be carried out and recorded in accordance with the standards specified in Table 15.5B below.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.5B Standards for surface water monitoring and sampling programme	
Determinands	Monitoring frequencies
PH	Monthly (and quarterly)
Temperature	Monthly (and quarterly)
Electrical conductivity	Monthly (and quarterly)
Dissolved oxygen	Monthly (and quarterly)
Ammoniacal nitrogen	Monthly (and quarterly)
Chlorides	Monthly (and quarterly)
Chemical oxygen demand	Monthly (and quarterly)
Sulphates	Quarterly
Total alkalinity (as CaCO ₃ at pH 4.5)	Quarterly
Total oxidised nitrogen	Quarterly
Total organic carbon	Quarterly
Al	Quarterly
Na	Quarterly
K	Quarterly
Ca	Quarterly
Mg	Quarterly
Fe	Quarterly
Mn	Quarterly
Cd	Quarterly
Cr	Quarterly
Cu	Quarterly
Ni	Quarterly
Pb	Quarterly
Zn	Quarterly

Monitoring and sampling records

15.5.3

A record of the surface water monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table 15.5C below.

Schedule

The following conditions shall be attached to Licence Number: 152/ 87

Table 15.5C Standards for surface water monitoring and sampling records	
Surface water monitoring and Sampling Records	Specified standards
Making of records	a) Data storage media: paper or computerised records b) Data content including: i) Determinands monitored/sampled; ii) Specified details of measurements/samples to support analytical and QA requirements; e.g. dates, times, locations, other relevant parameters; iii) Results of measurements/sample analyses, with error limits; iv) Interpretation and review of results against site design lifetime and projected waste stabilisation curve; v) Validation of accuracy and validity of results by designated quality assurer.
Submission of records	A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out, in a format agreed with the Agency.

Clare Walters



ASiantaeth Yr
Amgylchedd Cymru
ENVIRONMENT
AGENCY WALES

RIGHTS OF APPEAL

Section 43(1) of the Environmental Protection Act 1990 provides that:

Where, except in pursuance of a direction given by the National Assembly for Wales,

- a** an application for a licence or a modification of the conditions to the licence is rejected
- b** a licence is granted subject to conditions

The applicant may appeal from the decision to the National Assembly for Wales

Therefore if you feel aggrieved by the decision or any of the conditions to the licence as granted you may obtain the appropriate form on which to give notice of an appeal from:-

National Assembly for Wales
Cathays Park
Cardiff
CF10 3NQ

This notice of appeal should be accompanied by the following information: a copy of the licence; a copy of any correspondence relevant to the appeal; a copy of any other document relevant to the appeal including, in particular, any relevant consent, determination, notice, planning permission, established use certificate or certificate of lawful use or development; and a statement indicating whether you wish the appeal to be in the form of a hearing or on the basis of written representations. You are also required to serve a copy of your notice of appeal, together with copies of any of the above documents that have accompanied your notice of appeal, on the Environment Agency (at the address overleaf). You should appeal within 6 months of the date that this notice takes effect but the National Assembly for Wales may allow notice of appeal to be given after the expiry of this time period.

