

Planning Inspectorate
Room 3/20 Eagle Wing
Temple Quay House (2 The Square)
Temple Quay Road
Bristol
Avon
BS1 6PN

Your ref: Sofia Offshore Windfarm
and Doggerbank Teeside A
Date: 29 July 2020

Dear Sir/Madam

SOFIA OFFSHORE WINDFARM AND DOGGERBANK TEESIDE A

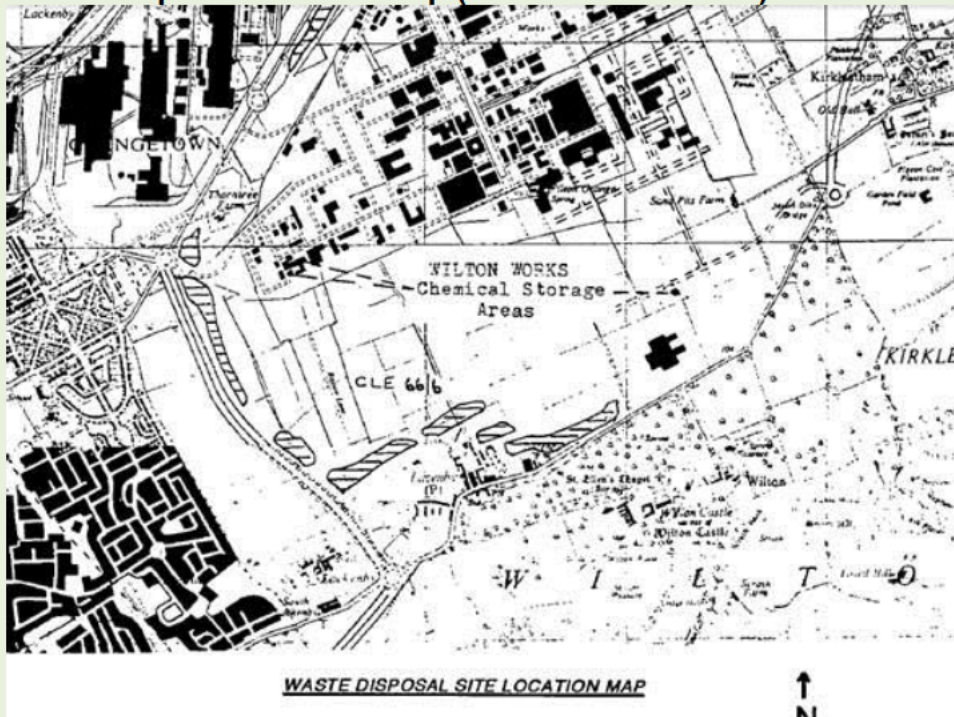
Environment Agency Position

The Environment Agency have no objections to the proposed non-material amendments. However, we have the following advice to offer with respect to the closed authorised landfill site.

Close landfill site

With respect to cabling works at grid reference NZ5654519768, it should be noted that the proposed works is situated on or next to a closed authorised landfill site, regulated by the Environment Agency.

Waste disposal location map (cross hatched area)



Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR.
Customer services line: 03708 506 506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk



For information, I have attached a copy of the permit. The permit allows for the following waste types and quantities:

Maximum quantities and types of waste to be disposed of daily		
	Incinerator Residues	160 tonnes
	Potentially Combustible Industrial Waste	100 tonnes
	Waste from the Construction Industry	1500 tonnes
	Inert and Non-Flammable Industrial Wastes	800 tonnes
	Mercury contaminated demolition material	250 tonnes
	Total Quantity of waste deposited annually shall not, exceed	24,999 tonnes

Note: Mercury contaminated waste has not been deposited in this location. However, some potentially biodegrade wastes may be present in the mounds.

Based on the information submitted, it is unclear whether the proposed open trenches are located on top of this closed landfill site. Development on top of or within 50 metres of any permitted landfill site that accepted hazardous or non-hazardous waste should be considered very carefully, as even with appropriate building control measures in place, landfill gas can accumulate in confined spaces and can gain access to service pipes and drains where it can accumulate or migrate away from the site. You should consider the potential risk to the development from landfill gas, ensuring that appropriate assessments have been carried out to identify potential risks. Where risks are identified you should ensure that any threats from landfill gas have been adequately addressed in the proposed development.

The following publications provide further advice on the risks from landfill gas and ways of managing these:

- Waste Management Paper No 27
- Environment Agency LFTGN03 'Guidance on the Management of Landfill Gas'
- Building Research Establishment guidance – BR 414 'Protective Measures for Housing on Gas-contaminated Land' 2001
- Building Research Establishment guidance – BR 212 'Construction of new buildings on gas-contaminated land' 1991
- CIRIA Guidance – C665 'Assessing risks posed by hazardous ground gases to buildings' 2007

Landfill gas boreholes

Attached is a plan showing the landfill gas boreholes on the perimeter mounds closest to the proposed works. The borehole must not be damaged in any excavation work in this area. The latest monitoring results (from 2004) do not indicate the presence of landfill gas.



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Please do not hesitate to contact me if you have any questions regarding this letter.

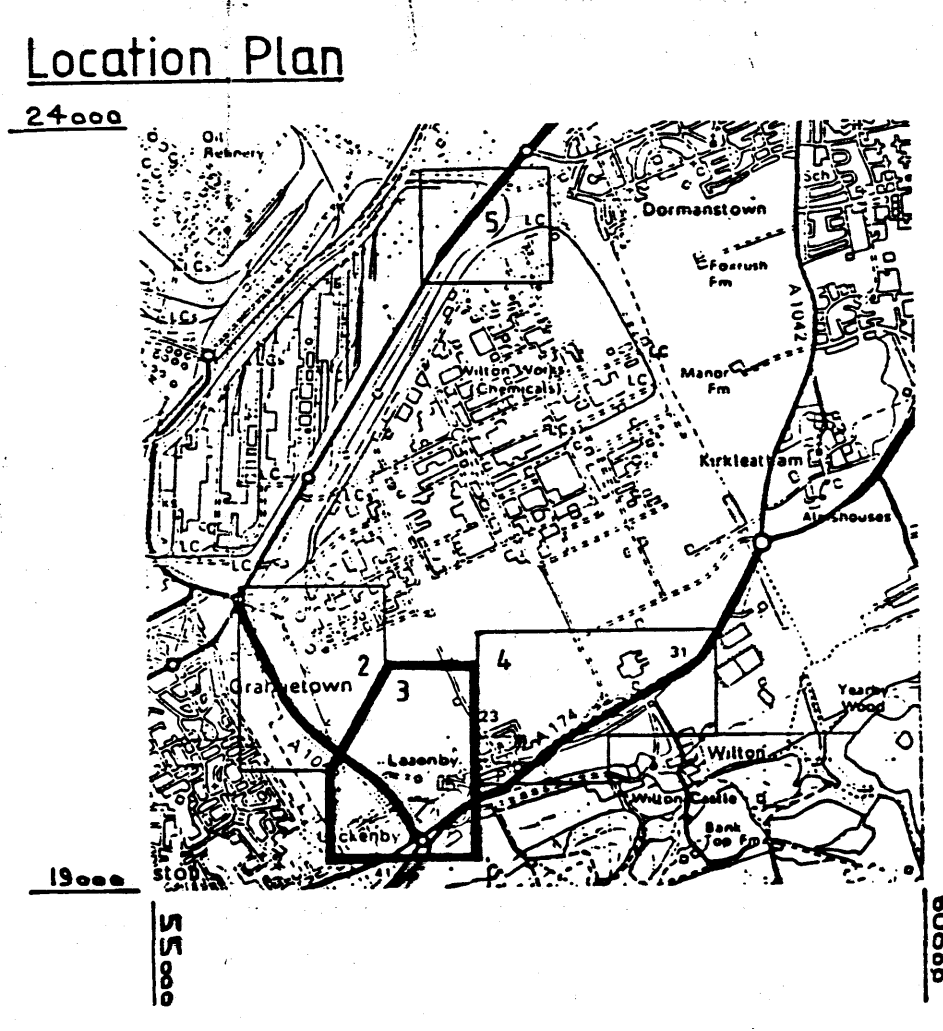
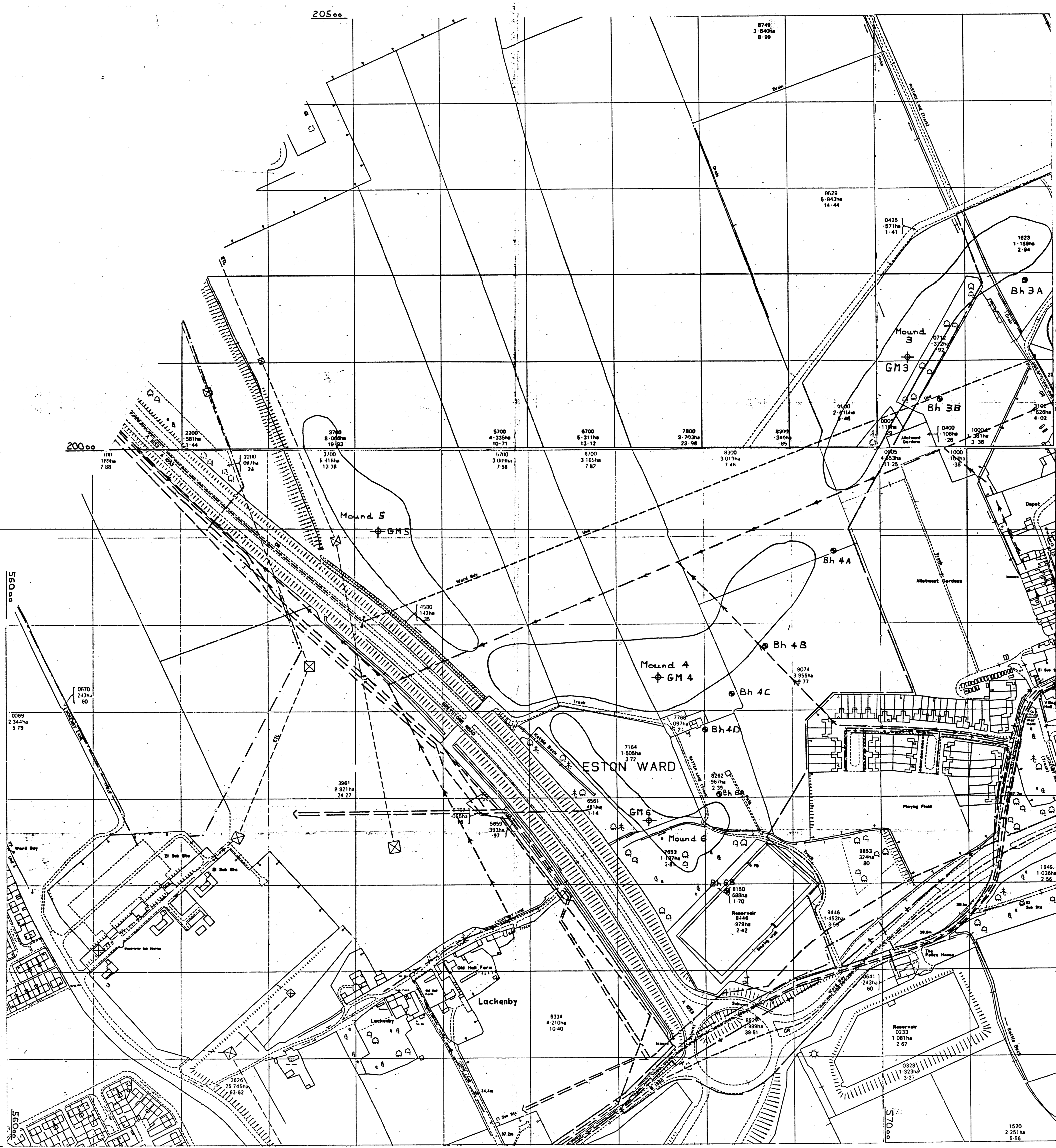
Many thanks

Lucy

Lucy Mo
Planning Technical Specialist - Sustainable Places
Direct dial 020847 46524
Direct e-mail lucy.mo@environment-agency.gov.uk

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR.
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Legend

Public Utilities

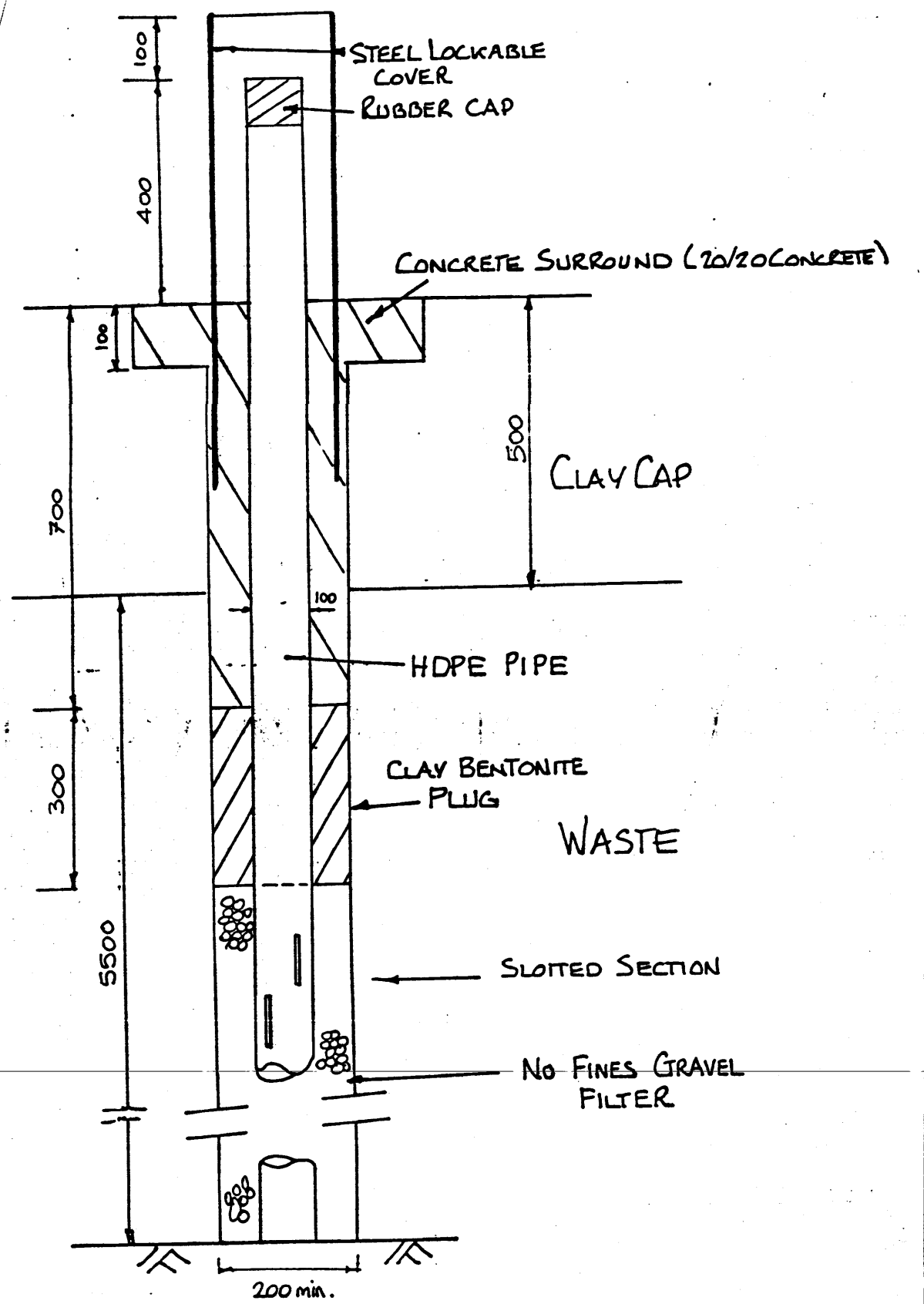
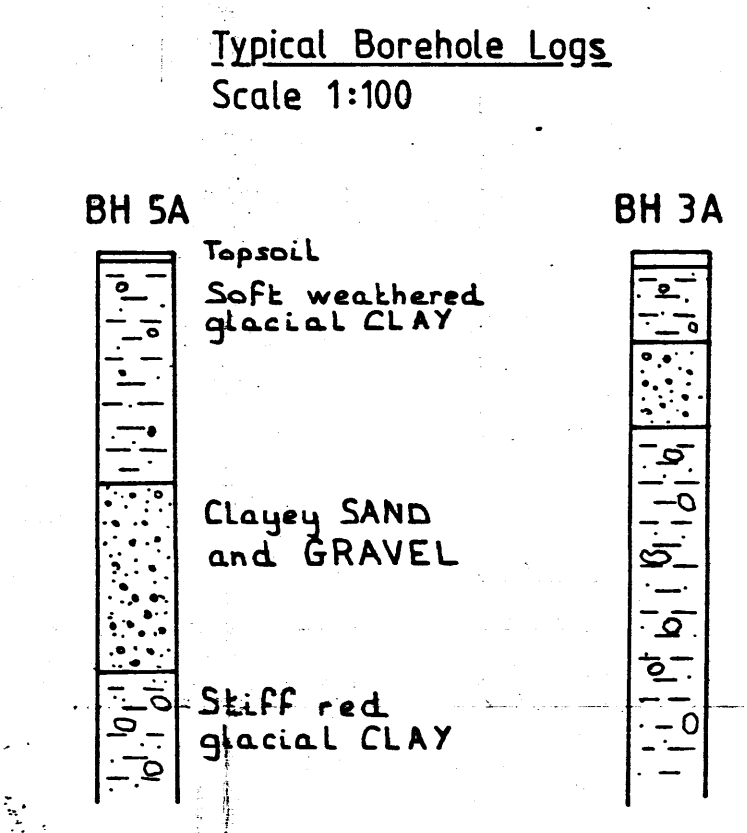
- British Gas
- Northern Electric
- Northumbrian Water
- Langbaurgh BC Sewers
- British Telecom

ICI Services

- Drainage
- Tees Valley Water
- Raw Water
- Cooling Water
- Cables - Electric
- Telephone
- Lighting

Site Investigation Borehole ● Bh 1A

Gas Monitoring Borehole ⊕ GM 1



Detail - Gas Monitoring Borehole
Scale 1:10

- Notes**
- Gas monitoring boreholes to be formed by minimum 200mm diameter cable percussion methods to BS 5930. Depth of borehole to be 6m.
 - During boring, appropriate safety precautions to be implemented in the event of inflammable gas being encountered and all personnel should be issued with protective clothing and trained in the handling and disposal of dangerous substances that may be brought to the surface.
 - Filter material shall be no fines gravel falling wholly between BS test sieves 5mm and 10mm

DRG. TITLE:		ED PROJECT No:	
WILTON WASTE MOUNDS - GAS MANAGEMENT PLAN			
WORKS: WILTON	BUILDING:	PLANT:	SECTION:
GEOG. AREA	SYSTEM No:	IMPERIAL CHEMICAL INDUSTRIES PLC ENGINEERING DEPARTMENT	
P.L.C.'S:			
SCALES: 1:2500			
DRG. TYPE:	DO LOC:	THIS DRAWING IS THE PROPERTY OF IMPERIAL CHEMICAL INDUSTRIES PLC IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF IMPERIAL CHEMICAL INDUSTRIES PLC AND MUST BE RETURNED.	
DRAWN BY: P.G.	DATE: October 1994		
CHECKED:	DATE:		
APPROVED:	SECTION DATE:		
APPROVED:		DATE:	
ISSUE		DRAWING No.	
REVISION		GM/0003	
GRID DRN APP DATE FILMED ISSUE		REV.	

ROBERT SCOTT GEOTECHNICS
25 DENTON PARK CENTRE
WEST DENTON WAY
NEWCASTLE UPON TYNE
NE5 5ZJ

ISSUE	REVISION	GRID	DRN	APP	DATE	FILMED	ISSUE	REVISION	GRID	DRN	APP	DATE	FILMED	ISSUE

CLEVELAND COUNTY COUNCIL

WASTE DISPOSAL LICENCE NO. CLE 66/6

CONDITIONS

1. No deposit of waste shall take place unless at least one month previously a working plan, giving details of the proposed conduct of operations at the site, has been submitted to the Council; and the licence holder shall notify the Council of any proposed change in the actual conduct of operations from the proposals shown in the plan at least one month before the proposed change is implemented.
2. Operations shall be carried out in such a way as to prevent the deposition of material on a public highway. Any material which is deposited on a public highway shall be removed immediately.
3. No deposit shall take place until a site identification board of durable material and finish has been displayed at the site entrance, showing the hours when the site is open and giving the name of the site, the name, address and telephone number of the operator and of the Council responsible for issuing the site licence.
4. Operations shall be carried out in such a way as to prevent either water pollution or flooding.
5. The site shall be adequately manned and supervised during working hours.
6. Solid waste shall be compacted and formed into a layer as soon as possible after deposit and not later than at the end of the working day on which the waste is received.
7. The layer of waste shall be formed using suitable compaction equipment with a blade or some other appropriate levelling device.
8. The depth of a layer of waste shall not after initial compaction exceed 2.5 metres.
9. Waste shall either (a) be deposited on the surface of the site behind the face and partially compacted by a tractor or other compacting machine before being pushed over the face or it shall (b) be deposited on the ground forming the base of the site or on a previous layer in front of the face and shall be formed into a compacted layer by being pushed upwards and driven over by a tractor or other compacting machine.
10. Before covering, working faces and flanks shall be compacted to form gradients not steeper than 1 in 3.

FO3AAF

11. Not less frequently than once a week any loose waste which may be lying on the site shall be gathered and disposed of in such a way as to keep the site tidy.
12. No waste material shall be burnt within the boundaries of the site, and a fire at the site shall be regarded as an emergency and immediate action shall be taken to extinguish it. All outbreaks of fire shall be notified forthwith to the Council.
13. Precautions shall be taken to deal effectively with any vermin and insect pests on the site. All pesticides, pesticidal products and where appropriate pest control techniques, shall have been cleared for their intended use through the Pesticides Safety Precaution Scheme (see Department of the Environment Circular 90/76 of 24 September 1976).
14. A record shall be kept of the types and quantities of waste deposited.
15. The terms of the site licence shall be made known to any person who is given responsibility for the management or control of the site.
16. Each layer of waste and covering material shall be laid to a fall to encourage surface water run-off.
17. Should it be that any nuisance arises from noise, dust or odours, suitable steps shall be taken to deal effectively with the nuisance arising therefrom.
18. The types and quantities of wastes deposited daily at the site shall not exceed the following:-

Incinerator Residues	160 tonnes
Potentially Combustible Industrial Wastes	100 tonnes
Inert and Non Flammable Industrial Wastes	800 tonnes
Wastes from the Construction Industry	1500 tonnes
Mercury contaminated demolition material	250 tonnes

The total quantity of waste deposited annually at the site shall not exceed 24,999 tonnes per annum.

19. No deposit shall take place until gates and fencing have been provided to the following specification:-

Gate : One metre high timber/steel gate covering the full width of the access road. The gate to be securely locked when the site is not in use.

Fencing : One metre high post and rail/post and wire fencing around the perimeter of the landscape areas except where adequate hedges are in existence.

They shall be maintained to the reasonable satisfaction of the Council and all reasonable precautions shall be taken to prevent unauthorised access to the site.

20. The final layer deposited shall be subject to the minimum compaction and shall, to a depth of not less than 500 millimetres be kept free of material likely to interfere with final restoration or subsequent cultivation.
21. The records of the types and quantities of waste deposited on the site shall be retained for a period of two years and every three months a summary shall be sent to the Council.
22. No deposit shall take place unless a road has first been provided within the site. This shall be constructed to the following specification:-

Surface : compacted slag or hardcore
Gradient : Maximum of 1 in 13
Width : Minimum of 7.3 metres

and shall run from the site entrance to the tipping point in use. The road shall be maintained to the reasonable satisfaction of the Council.
23. No deposit shall take place until a site control office has been provided on the site, and a copy of the site licence shall be displayed therein.
24. No deposit shall take place until suitable facilities have been provided for storing and maintaining equipment used on the site.
25. No deposit of waste which can become airborne by wind shall take place until movable screens have been provided around the operational areas having regard to wind direction so as to ensure that wind blown paper and other materials are contained on the site. Materials arrested by such screens shall be removed and disposed of as necessary to maintain the efficiency of the screens and the tidiness of the site.
26. All deposits of potentially combustible industrial wastes shall be covered progressively with inert wastes throughout the working period each day, so that by the end of the day all exposed surfaces including flanks and face shall have been covered to a depth of not less than 150 millimetres.
27. All large articles such as crates and hollow containers likely to cause voids shall be crushed, broken up or flattened and covered each day by other wastes in such a position that they are not within one metre of the surface or two metres of the flanks or face.
28. Site roads shall, in dry weather, be sprayed with water to

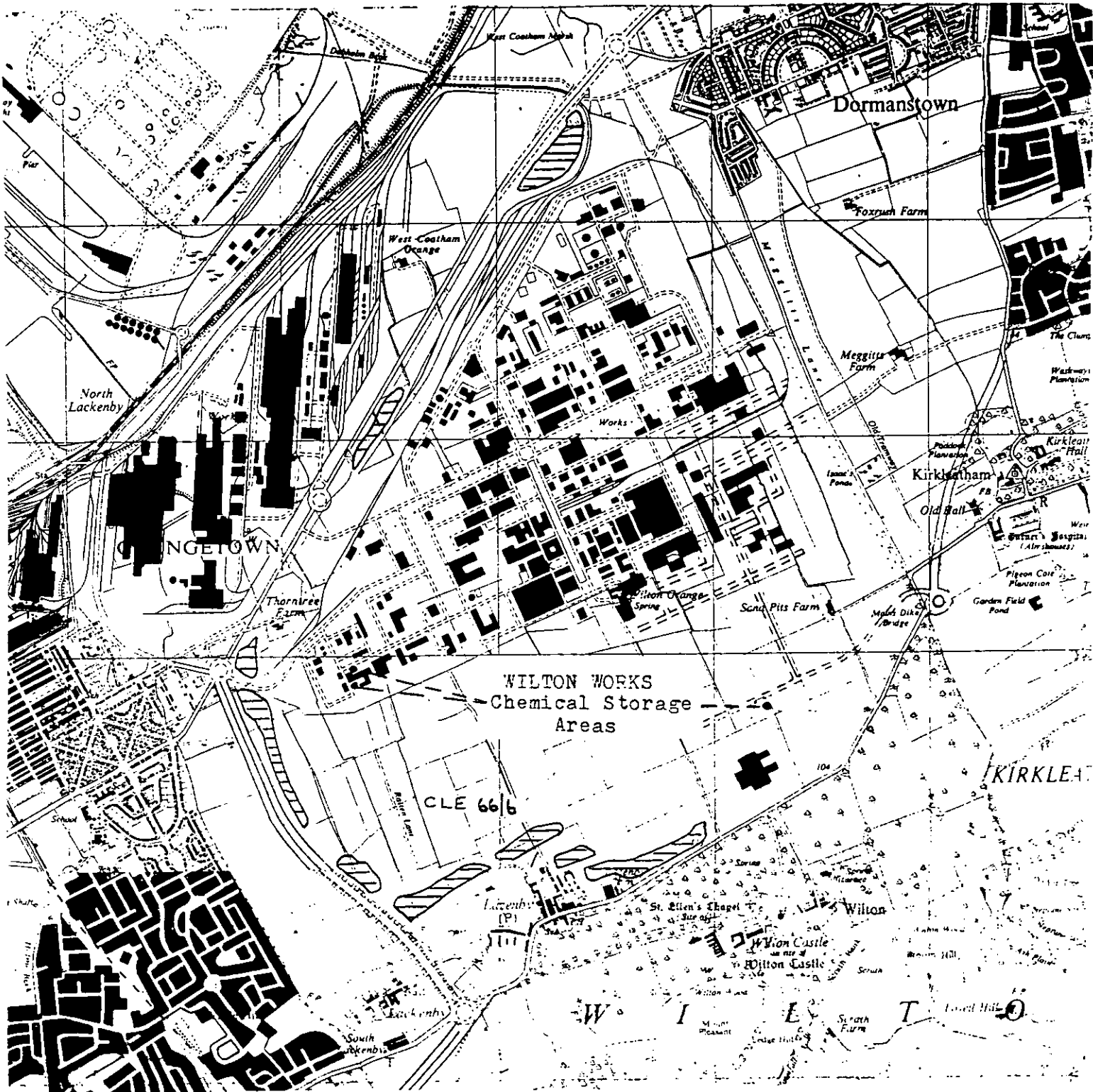
suppress dust.

29. When landfilling commences top-soil stripping shall be carried out in stages and only to the extent necessary to maintain a reasonably adequate area for landfilling at any one time. Top-soil thus stripped shall be retained on the site for use as final cover.
30. Until final restoration, completed areas of landfilling shall be graded and maintained in a tidy condition and where necessary action shall be taken to control or destroy weeds.
31. Any polluting liquors, either leachate or polluted surface runoff arising from the site, shall be disposed of to the satisfaction of the Council.
32. There must be prior consultation with the Council before work can be carried out on the following:-
 - a) Alteration of any existing drainage interests in the area;
 - b) Diverting, culverting or bridging of any watercourses;
33. The mercury contaminated demolition material shall be dispersed through the site by concurrent deposition with inert materials so that the average mercury level within any 1000m³ of fill material does not exceed 4mg mercury/kg. All wastes containing mercury shall be covered at the end of the working day with a minimum of 150 millimetres of inert cover material.
34. The licence holder shall comply with the requirements of the attached Annex No. LFG 7/89/E relating to landfill gas monitoring and control.
35. Not less than 14 days notice shall be given in writing to the Council of the date on which landfilling is to commence or recommence in the event of a temporary cessation for a period in excess of one month.
36. Any temporary cessation of operations for a period in excess of one month shall be notified in writing to the Council.
37. When the operations to which this licence applies are completed, and the licence is no longer required it must be returned to the County Surveyor and Engineer, Gurney House, Gurney Street, Middlesbrough, Cleveland.
38. This licence shall be kept intact and shall be produced to any authorised officer of the Council upon demand and shall be forwarded to the County Council with any written application for amendment, renewal or transfer.
39. Any proposal to transfer this licence must be notified in writing

to the County Surveyor and Engineer, Gurney House, Gurney Street, Middlesbrough, Cleveland, prior to such transfer, setting out the date upon which the transfer is to take place and the name and address of the person to whom the licence is to be transferred.

These conditions are to ensure that waste disposal is carried out with no unacceptable risk to the environment and to public health, safety and amenity.

Compliance with this licence does not remove the statutory obligations which may rest on the licence holder under other legislation.



WASTE DISPOSAL SITE LOCATION MAP



Plan No. : P/CLE 66/6/571219
 Scale : 1:2500
 National Grid Ref. : NZ571219
 Licence Number : CLE 66/6
 Operator : I.C.I. Chemicals & Polymers Ltd
 Location : Perimeter Of Wilton Site
 Wilton Works
 Middlesbrough
 CLEVELAND

ADDITIONAL CONDITIONS RELATING TO THE MONITORING AND CONTROL OF
LANDFILL GAS

LFG1 The Licence Holder shall be responsible for monitoring the site for the production and migration of landfill gas and where necessary (see LFG11) the surrounding land, nearby buildings and underground services for the presence of landfill gas. The aim of monitoring is to establish whether any gas production is taking place and if it is whether it is giving rise to a hazard or nuisance.

LFG2 Monitoring for landfill gas shall involve the planned testing for the components of landfill gas in accordance with an agreed monitoring programme (see LFG 6).

The gas monitoring programme shall incorporate routine testing for at least flammable gas, carbon dioxide and oxygen at test points within the body of the waste and outside the area of the wastes but within the site, for example, at the site boundary.

LFG3 The testing of the atmosphere in specially constructed boreholes is the preferred technique for gas monitoring. This technique shall be used at sites where there are buildings or underground services to which there is a potential for landfill gas to migrate within 250 metres of the site boundary.

Boreholes which are installed shall be to the full depth of the waste.

LFG4 Gas testing may be achieved by the use of portable instruments, which in the case of flammable gas shall be calibrated to detect methane.

Portable instruments shall be maintained and periodically recalibrated in accordance with the manufacturer's instructions.

Gas testing using portable instruments shall be supplemented by the analysis of gas samples at least twice per year by gas chromatography.

LFG5 The Licence Holder shall ensure that in any subsurface test point or borehole within the site but outside the area of wastes or the area of influence of any gas control system which has been installed :

- i) the flammable gas concentration of methane from the landfill shall not exceed 1% by volume (20% of the Lower Explosive Limit) and

- ii) the concentration of carbon dioxide shall not exceed 1.5% by volume.

LFG6 The Licence Holder shall agree in writing with the Council a gas management scheme incorporating :-

- i) a monitoring programme to test at the licence holder's expense for (a) the generation of landfill gas from the waste deposited on the site and (b) the migration of this gas away from the site by underground routes.
- ii) appropriate gas control measures to contain and vent within the site any landfill gas that may be produced so that the requirements of condition LFG5 are met.
- iii) any necessary emergency procedures for action to be taken to deal with situations where concentrations of landfill gas in excess of 5% of the Lower Explosive Limit of flammable gas or carbon dioxide in excess of 1.5% by volume are detected in buildings or underground services, for example during monitoring of buildings/services (see LFG11) identified as being potentially at risk from migration (see LFG8).

The gas management scheme shall be implemented from an agreed date and maintained by the licence holder for the duration of the licence.

LFG7 The results of the monitoring programme shall be recorded in writing and made available on request to the Council and additionally shall be submitted to the Council along with the other records required by this licence.

LFG8 The gas monitoring programme submitted in accordance with condition LFG6 shall include the following information :

- i) A plan showing the locations of all buildings and underground services within 250 metres of the site boundary.
- ii) Details of the geology and hydrogeology of the site and its surroundings including the results of any site investigations. Where relevant this should include information on any quarrying or mining activities carried out on the site.
- iii) An assessment, taking into account the information in (i) and (ii) above of the likelihood of gas migration, the potential pathways by which landfill gas might migrate from the site and the risk to any nearby development, crops and vegetation. Buildings or underground services which are considered to be potentially at risk and might need to be monitored if

potentially at risk and might need to be monitored if the levels given in condition LFG5 are exceeded shall be identified.

- iv) The provision of gas monitoring boreholes or other test points with the proposed positions marked on a plan of the site. The positioning of monitoring test points shall take account of the assessment of possible migration pathways in (iii) above and the location of any gas control system installed. Particular attention should be given to the provision of boreholes between the waste and any areas identified as being potentially at risk if underground migration were to occur.

The design, construction and depth of boreholes shall be given.

- v) The equipment to be used to test for landfill gas, gases to be tested for, the frequency of testing, the personnel who will be carrying out testing (including details of experience, qualifications or training) and the manner of keeping records.
- vi) The procedure for testing any buildings/services should the need arise (see condition LFG11).
- vii) Any necessary provisions for the routine testing of buildings situated on the site.

LFG9

Acceptable gas control shall, where necessary be achieved by the provision of one or more of the following measures :-

- i) gas barriers
- ii) permeable venting trenches
- iii) gas wells
- iv) pumped gas venting systems

Where the installation of a gas control system is necessary, the provision of a single control measure may not be adequate except possibly for sites in remote locations.

At all other sites a combination of gas control measures shall be provided.

LFG10

Any emergency procedures which are drawn up shall include provisions for the following :-

- i) The evacuation of buildings. This should take place if concentrations at or above either of those given in LFG5 are detected.
- ii) The informing of the relevant Authorities such as the Waste Disposal Authority, the Health and Safety

Executive, Environmental Health Authority, emergency services and British Gas.

iii) Further gas monitoring measures.

LFG11 If concentrations of flammable gas or carbon dioxide in excess of the levels indicated in condition LFG5 are detected the following action shall be taken :-

i) the licence holder must notify the Council within 1 day of the result being recorded and in calculating this period any weekend or statutory holiday should be disregarded.

ii) gas control measures shall be taken or, if control measures are already in existence, additional measures shall be installed within a time period to be agreed with the Council to reduce the concentrations below those specified in condition LFG5.

iii) within 24 hours a survey of the surrounding land and any buildings or underground services identified as being potentially at risk in the monitoring programme shall be carried out to determine the extent of any migration and the concentrations of gas present in the buildings/ services.

The Council shall be informed within 1 day (calculated as in i) above) of the results of this survey and of any difficulties in gaining access encountered in carrying it out.

LFG12 The licence holder shall allow any duly authorised officer* of the Council to enter the site to carry out tests for landfill gas in accordance with the provisions of Section 91 and 92 of the Control of Pollution Act 1974.

LFG13 The terms used in this Annex shall have the following meanings :-

Landfill Gas - gas arising from the degradation of wastes and which can contain methane, carbon dioxide and other gases.

Underground Services - any underground electricity, gas, telephone, television, water, sewerage or drainage services and associated ducts, chambers and similar installations.

- Gas Control System - a system to prevent the uncontrolled escape of gas from a landfill site.
- Borehole - a hole drilled into wastes or ground to allow the testing of underground gases.
- Migration - the underground movement of landfill gas away from the body of wastes in which it was produced.
- Gas control measures specified in condition LFG9 - these measures are described in more detail in Waste Management Paper No. 27.
- Duly Authorised officer - is an officer authorised by the Council to exercise statutory powers under the Control of Pollution Act 1974 described in the warrant form issued by the County Secretary for the Council.