



# Merseyside Waste Disposal Authority

Established under the Local Government Act 1985

Licence No 359/05

Date of Application: 5th November 1991



PERMIT

## CONTROL OF POLLUTION ACT 1974

### LICENCE FOR A WASTE DISPOSAL FACILITY



OUTGOING

**Name and Address of Licensee**

Waste Management Limited,  
Rixton Old Hall,  
Manchester Road,  
Warrington, WA3 6EW

**Name and Address of Agent (if any)**

.....  
.....  
.....  
.....

**Address or Location of Facility**

Bromborough Dock South,  
Bromborough,  
Merseyside

**GRID REFERENCE**

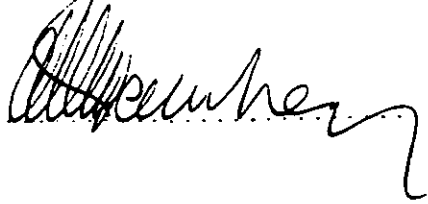
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**Nature of Facility** Landfill

In accordance with the provisions of the Control of Pollution Act 1974, the Merseyside Waste Disposal Authority **HEREBY LICENCE** Waste Management Limited

to operate the above facility, subject to the conditions set out in the attached schedule.

The licence is effective from the date hereon and will remain in full force and effect until the completion of the facility (if a land-fill site) or for the life-time of the facility (if a waste treatment plant) unless the licence is modified, revoked or cancelled.

Signed 

Date 28 July 1993

NOTHING IN THIS LICENCE MAY BE CONSTRUED AS ABSOLVING THE WASTE DISPOSAL FACILITY OPERATOR OR HIS MANAGEMENT & OPERATIVES FROM THEIR OBLIGATIONS UNDER THE HEALTH AND SAFETY AT WORK, etc., ACT 1974

Statement of an Applicant's rights arising from refusal or revocation of a licence or from conditions imposed in a licence or their subsequent revocation.

APPEALS.

Section 10 of the Control of Pollution Act 1974 provides that where:

- (a) an application for a disposal licence or a modification of a disposal licence is rejected; or
- (b) a disposal licence which specifies conditions is issued; or
- (c) the conditions specified in a disposal licence are modified; or
- (d) a disposal licence is revoked,

the applicant for the licence or, as the case may be, the holder or the last holder of it may, in accordance with regulations, appeal from the decision in question to the Secretary of State; and where on such an appeal the Secretary of State determines that the decision is to be altered it shall be the duty of the disposal authority concerned to give effect to the determination.

(2) While an appeal in pursuance of the preceding subsection is pending in a case falling within paragraph (c) or (d) of that subsection, the decision in question shall, subject to the following subsection, be ineffective; and if the appeal is dismissed or withdrawn the decision shall be effective again from the end of the day on which the appeal is dismissed or withdrawn.

(3) The preceding subsection shall not apply to a decision of a disposal authority as respects which the notice relating to the decision which was served on the holder of the relevant licence in pursuance of section 7 or section 9 (4) (b) of this Act includes a statement that in the opinion of the authority it is necessary for the purpose of preventing pollution of water or danger to public health that the preceding subsection should not apply to the decision; but if on the application of the holder or former holder of the relevant licence the Secretary of State determines that the authority acted unreasonably in including such a statement in the said notice, then --

- (a) if the appeal in question is still pending at the end of the day on which the determination is made, the preceding subsection shall apply to the decision from the end of that day; and
- (b) the holder or former holder of the licence shall be entitled to recover compensation from the authority in respect of any loss suffered by him in consequence of the statement;

and any dispute as to a person's entitlement to compensation in pursuance of paragraph (b) of this subsection or as to the amount of the compensation shall be determined by arbitration.

TRANSFER AND RELINQUISHMENT OF LICENCES

Under Section 8 of the Control of Pollution Act 1974 :

(1) The holder of a disposal licence may, after giving notice to the authority which issued the licence that he proposes to transfer it on a day specified in the notice to a person whose name and address are so specified, transfer the licence to that person; but a licence in respect of which such a notice is given shall cease to have effect on the expiration of the period of ten weeks beginning with the date on which the authority receives the notice if during the period of eight weeks beginning with that date the authority gives notice to the transferee that it declines to accept him as the holder of the licence.

(2) If by operation of law the right of the holder of a disposal licence to occupy the relevant land is transferred to some other person, that person shall be deemed to be the holder of the licence during the period of ten weeks beginning with the date of the transfer.

(3) Except as provided by the preceding provisions of this section, references in this Part of this Act to the holder of a disposal licence are references to the person to whom the licence was issued.

(4) The holder of a disposal licence may cancel the licence by delivering it to the authority which issued it and giving notice to the authority that he no longer requires the licence.

Forms for appeal to the Secretary of State can be obtained from Merseyside W.D. A., 4th Floor, Steers House, Cornhill Place, Liverpool, L1 8JA, to whom notices of the transfer or the relinquishment of a waste disposal facility licence should also be addressed.

SCHEDULE OF CONDITIONSGeneral

1. This licence shall only apply to the areas delineated in red on the attached drawings 55/4/2 and 55/4/4.
2.
  - (a) *out* No controlled wastes shall be deposited at the site, other than inert materials necessary for site preparation, unless at least one month previously a working plan has been agreed with the Waste Disposal Authority, giving details of the proposed conduct of operations, and all the listed preparatory works have been carried out.
  - (b) Any proposed change in the working plan shall be notified to and agreed with the Waste Disposal Authority in writing before any such changes are implemented.
  - (c) In the event of any conflict between the conditions of this licence and the working plan, the licence conditions shall prevail.
3. *out*
  - (a) In-filling of the main area of the dock shall not commence until the area is separated from tidal effects by a barrier of selected material and the standing water drained from the dock via a sluice.
  - (b) The existing surface water drains, which terminate in the dock walls, shall be sealed against the migration of any existing gases and the surface water shall be diverted to a suitable alternative location.
  - (c) A gas venting curtain with a minimum width of 500 mm shall be installed between the dock walls and the fill as infilling proceeds in all phases. This shall be constructed using inert, free draining durable coarse granular material, with a particle size greater than 5 mm, which is free from fines and either selected from the waste streams arriving at the site, or other suitable granular material imported to the site. The curtain shall extend from the existing silt layer to the top of the dock wall.
4. *out* A site office shall be erected in the reception area adjacent to the site entrance.

- 3 5. A notice board, of durable construction and finish, shall be erected at the site entrance.

This shall show the names, addresses and telephone numbers of the operator and the Waste Disposal Authority together with the words "no unauthorised tipping".

- 4 6. Site gates and fencing shall be installed to isolate the site and prevent unauthorised access.

- 5 7. Copies of this licence and a copy of the working plan shall be displayed in the site office and made known to all personnel at the site. *Brook N. Office*

#### Wastes

8. The types of wastes permitted to be deposited at the site shall be as follows:-

*out* 8.1 Inert, non-toxic and non-combustible industrial wastes arising from the construction and demolition industries free from contaminants or organic materials.

9. The following wastes shall not be deposited on the site:-

9.1 Putrescible wastes such as domestic and commercial wastes.

9.2 Malodorous Wastes.

9.3 Special Wastes as defined in the Control of Pollution (Special Waste) Regulations 1980.

*out* 9.4 Liquids and sludges other than silt arisings on the site.

9.5 Clinical wastes.

9.6 Plaster and plasterboard products.

9.7 Earth contaminated with heavy metals in excess of levels typical for normal soils.

9.8 Wastes containing more than 10% by volume of bonded asbestos.

9.9 Timber and timber products.

- out* 10. The maximum quantity of waste deposited on the site shall not exceed 4000 tonnes per day.

## Operational Conditions

11. The site shall be operated so as not to cause pollution of water, danger to public health or become seriously detrimental to the amenities of the locality affected by the activities and comply with the Environmental Protection (Duty of Care) Regulations 1991.

12. The opening hours of the site shall be:

Mondays to Fridays 0730 - 1800 hours  
Saturdays 0730 - 1230 hours

The site shall be closed on Sundays and Bank holidays.

13. Not with standing Condition 12 no operations shall take place during the hours of darkness unless lighting to a standard adequate for safe working has been provided.

14. A site manager, whose name shall be notified to the Waste Disposal Authority in writing, shall be in attendance at all times when the site is operational to manage and supervise the infilling operations and to ensure that the following duties are carried out:-

14.1 Checking the nature and quantities of waste delivered to the site.

14.2 Ensuring that the wastes deposited are permissible within the terms of the site licence.

14.3 Ensuring that accurate and up to date records of waste deposits are maintained at the site.

14.4 Ensuring that the site is operated in a safe manner and in conformity with the conditions of this licence and the operational plan.

15. There shall be a minimum staffing level of two personnel at all times when the site is operational.

16.

16.1 A record shall be kept of the quantities of waste deposited at the site. These records shall be available for inspection at reasonable times by authorised officers of the Waste Disposal Authority.

16.2 A monthly return of the waste deposited shall be made to the Waste Disposal Authority on the forms provided not later than 14 days after the end of each calendar month.

17. The site shall be maintained in a tidy condition and it shall be level and tidy at the end of each working day.

*in*  
18. No waste shall be burned on the site and any fire shall be taken as an emergency and all necessary steps shall be taken to extinguish it.

*mud*  
19. Effective steps shall be taken to deal with any insects or vermin including baiting and spraying as necessary.

*out*  
20. In dry weather steps shall be taken to suppress dust.

*out*  
21. Mud or debris shall not be tracked out on to the public highway and suitable wheel cleaning equipment shall be provided and used when necessary by all waste vehicles leaving the site.

*mud*  
22. No contaminated water shall be discharged to any sewer without the prior consent of North West Water plc or to any water course without the consent of the National Rivers Authority.

*out*  
23. All plant used on the site shall be fitted with an effective silencer and be maintained in good working order.

#### Landfill Gas Management

24. a) The concentration (by volumes) of:

- i) Methane
- ii) Carbon Dioxide
- iii) Oxygen

shall be measured in each of the boreholes 58 to 75, installed in accordance with the specification in Applied Geology Report No. 10557.F40, at least once per week.

The pressure of gases in boreholes 55, 56 and 57 shall be measured at least once per week.

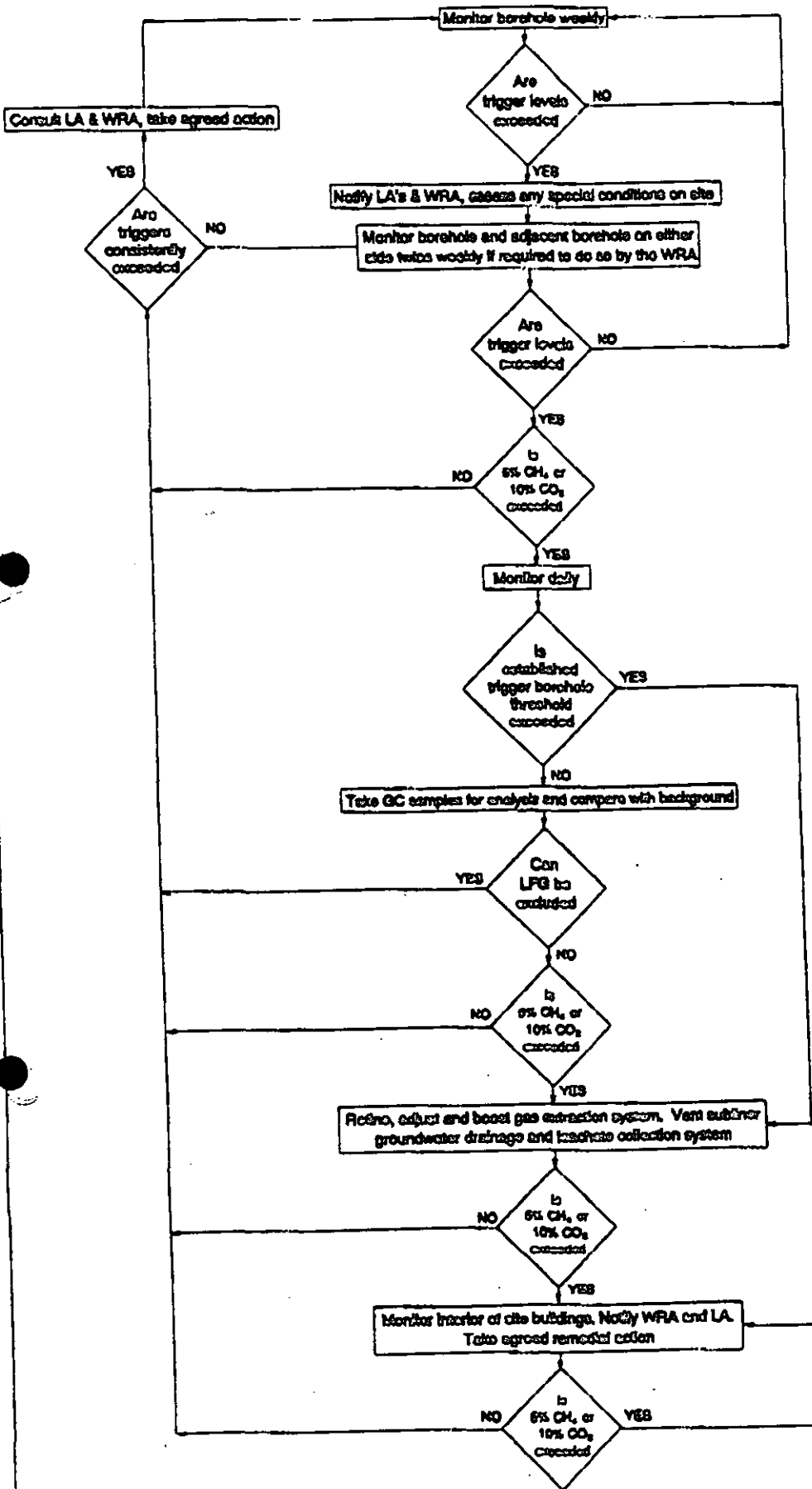
- b) In addition a monthly walk-over gas survey shall be carried out along the boundaries of the site.
- c) The results of all monitoring shall be recorded and notified to the Waste Disposal Authority each month to arrive not later than the fifteenth day of the following month.
- d) Any reduction in the frequency of monitoring must be agreed in writing with the Waste Disposal Authority before it is implemented.

25. a) Samples of the gases detected in the boreholes prior to the commencement of tipping shall be taken from boreholes 57G, 64 and 69R and subjected to analysis by the GLC/Mass Spectrometry technique

to obtain a "finger print" of the constituents and composition of existing gases.

- b) The results of such analysis shall be notified to the Waste Disposal Authority prior to the commencement of tipping.
- 26.
- a) If the concentration (by volume) of methane or carbon dioxide in any of the designated boreholes exceed the trigger levels listed below, the provisions of protocol 1 shall immediately be implemented.
  - b) If the concentration (by volume) of methane in any of the designated boreholes exceeds 5% the Waste Disposal Authority shall be informed immediately.
  - c) The designated boreholes and associated trigger levels shall be as follows:-
    - i) Boreholes 59R, 61R, 61G, 64, 65R, 65G, 66, 67R, 67G, 68, 69R, 70, 71, 74R, 74Y  
TRIGGER LEVEL 1% METHANE (by volume)
    - ii) Boreholes 58, 60, 69G, 73, 74G, 75  
TRIGGER LEVEL 4% METHANE (by volume)
    - iii) Boreholes 60, 61R, 61G, 62, 64, 65R, 65G, 67R, 68, 69G, 71, 74R, 75  
TRIGGER LEVEL 5% CARBON DIOXIDE (by volume)
- 27.
- a) Boreholes 55, 56 and 57 shall be fitted with approved pressure measuring sensors to record the pressure of gas present in these boreholes.
  - b) The gas pressure in these boreholes shall be measured and recorded on a weekly basis over a three month period to establish the background pressure thresholds.
  - c) The results shall be reported to the Waste Disposal Authority on a monthly basis to arrive not later than the fifteenth of the following month.
  - d) At the end of the three month monitoring period background pressure threshold levels shall be agreed with the Waste Disposal Authority.
- 28.
- a) The licence shall then be modified to include the threshold pressure trigger levels.

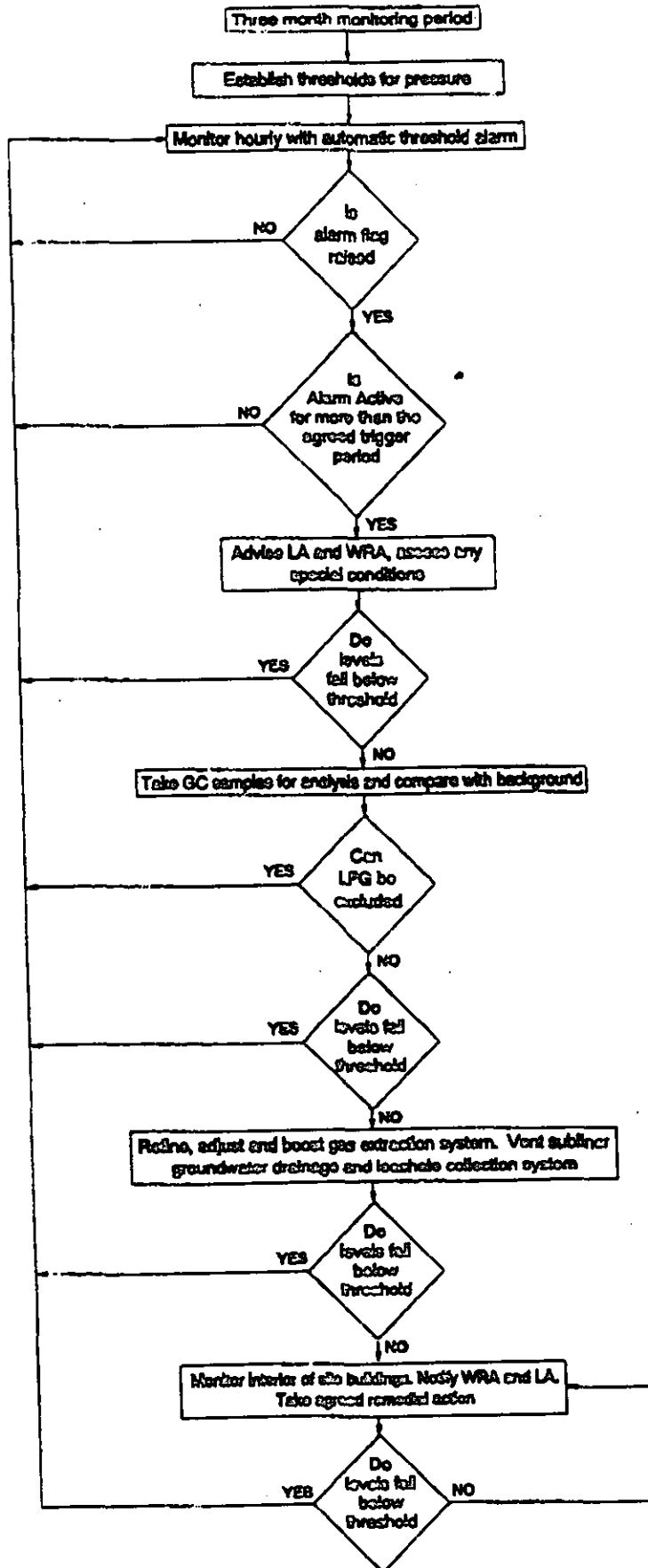
- b) The gas pressures in boreholes 5, 56 and 57 shall continue to be monitored and reported as under 27 b) and c) above.
  - c) Should the threshold pressure trigger levels be exceeded, the provisions of protocol 2 shall immediately be implemented.
29. a) Gas samples shall be taken from at least 5% of the monitoring boreholes at least once per month and analysed by GLC to establish the concentration of:-
- i) Methane
  - ii) Carbon Dioxide
  - iii) Oxygen
  - iv) Nitrogen
- as interalia, a check on the accuracy of the portable equipment used.
- b) Gas anyalysis carried out "in house" in the Waste Management Laboratory at Rixton, shall be subject to a bi-annual check using independent analysts.
  - c) All results shall be notified in writing to the Waste Disposal Authority on a monthly basis by not later than the fifteenth of the following.
30. If necessary additional monitoring shall be installed as required by the Waste Disposal Authority.
31. The monitoring boreholes, shall be maintained throughout the life of the site and if a borehole fails it shall be replaced.



**Trigger Boreholes**

- Trigger Level 1% Methane (by volume)  
Boreholes 59R, 61R, 61G, 64, 65R, 65G, 66, 67R, 07G, 68, 69R, 70, 71, 74R, 74Y
- Trigger Level 4% Methane (by volume)  
Boreholes 58, 60, 69G, 73, 74G, 75
- Trigger Level 5% Carbon Dioxide (by volume)  
Boreholes 60, 61R, 61G, 62, 64, 65R, 65G, 67R, 68, 69G, 71, 74R, 75

Project <b>BROMBOROUGH DOCK - SOUTH</b> Site License 359/05	Project No. <b>11017</b>	
	Date <b>May 1993</b>	
Title <b>Gas Monitoring - Response Protocol 1</b>	Drawing No <b>11017/102</b>	



Project **BROMBOROUGH DOCK - SOUTH**  
Site License 359/05

Title **Gas Monitoring - Response Protocol 2**

Project No. **11017**

Date **May 1993**

Drawing No **11017/103**



**BROMBOROUGH DOCK - SOUTH BASIN**

**WASTE DISPOSAL LICENCE APPLICATION**

**WASTE MANAGEMENT LIMITED  
RIXTON OLD HALL  
MANCHESTER ROAD  
RIXTON  
WARRINGTON  
CHESHIRE  
WA3 6EW**

**JUNE 1993**

## OPERATIONAL/WORKING PLAN

### 1.0 Access

- 1.1 Access to the site from the A41 will be via Port Causeway, Dock Road South and internal site roads, as shown on plan number 55/4/3.
- 1.2 These roads are used to service the Bromborough industrial complex and have been used to transport similar material for the River Dibbin channel works.

### 2.0 Waste Input and Traffic Flow

- 2.1 The volume of the South Dock Basin is approximately 160,000m<sup>3</sup>. Each tipping cell will have a volume of 40,000m<sup>3</sup>.
- 2.2 It is anticipated that each cell will take approximately 1 year to fill.

Therefore, annual input = 40,000m<sup>3</sup> = approx. 80,000 te/yr  
(assuming 2 tonnes per m<sup>3</sup> of waste)

The infill of the South Dock Basin will take 4 years, allowing for pre-tipping and post closure works, the site will be fully completed by mid 1996.

- 2.3 Annual input = 80,000 tonnes.  
Assuming a 5.5 day week x 52 = 286 working days/year  
Therefore, average daily input = 280 tonnes/day

**NB** To take account of seasonal fluctuations a maximum daily input of 1000 tonnes is required. However, it is expected that the input of waste to the site will be substantially lower than this for the majority of the time.

### **3.0 Site Management**

- 3.1** Before any preparatory works, such as cell bund construction, are carried out, it will be necessary to seal off the South Basin from the rest of the dock. Selected inert material will be tipped to complete the revetment across the dock, joining it to the gabion wall adjacent to the lock. The sluice shown on drawing 55/4/1A will then be used at low tide to drain as much as possible the standing water from the South Basin. Should it become necessary a pump will be employed for this function.
- 3.2** The sealing off of the South Dock will prevent the mobilisation of any contaminants in the silts from being discharged to the River Mersey during any preparatory works.
- 3.3** The sluice or the re-opening of the revetment can then be used to re-flood the dock, should it be found necessary, for example, due to odour problems as the silt dries out. Re-flooding would only be carried out when the cell dividing bund on the working phase is in place. Thus no tipping, even for cell bunds, will be carried out into standing water or until the revetment has been made good.
- 3.4** It is proposed to fill the South Dock Basin working from South to North. Drawing number 55/4/1A shows the fill sequence proposed. The Dock will be divided into 4 cells, numbered 1 to 4. Each cell will then be infilled from West to East.
- 3.5** Each cell will be constructed prior to any infilling with waste. The cell walls will be constructed from inert waste material as shown on drawing number 55/4/1A. These will ensure that tipping is carried out within a confined area allowing more control to be exercised over the infill process.

- 3.6 Incoming waste material will be checked upon arrival at the site by the site operative at the site control cabin. Each load will be logged and a written record kept on site. There will be no requirement for a weighbridge.**
- 3.7 Waste vehicles will travel along a haul road adjacent to the new River Dibbin channel to gain access to the tipping cells. The haul road will be constructed from hardcore and other suitable material.**
- 3.8 Waste will be end-tipped in the cell to form a ramp. A bulldozer will be used to spread the waste out into the cell. No waste vehicle will approach closer than 5 metres from the working face, before discharging its load.**
- 3.9 The waste will be tipped into each cell displacing the silt in the base of the Dock. It is proposed to fill each tipping cell to 0.5 metres above Spring High Water level, which is approximately 1.3 metres below the existing Dock Quay level.**
- 3.10 A gas venting curtain shall be installed between the infilled waste material and the dock wall using free draining durable coarse granular materials with a particle size of 5mm or greater and free from fines. The vent curtain shall be 500mm in width and shall be constructed by excavating a trench and backfilling with the granular material. The vent curtain shall be installed progressively as the infill of the dock proceeds.**
- 3.11 Any surface water outlets or other drains in the dock wall which flow into the dock will be sealed off using a cement-based grout material. This will prevent the possibility of them acting as migration routes for landfill gas. The grouting of all drains and ducts will be carried out progressively as the infill of the dock is carried out, prior to the waste reaching the level of the drain or duct.**

3.12 If silt builds up at the Eastern end of each tipping cell as a result of displacement, it will be removed by excavator and incorporate within the main body of the cell. Each cell will be completed to 0.5 metres above Spring High Water level to allow for the displacement of the silt. Tipping to final level will then be carried out in each cell in turn to complete the infill of the South Dock Basin. This will allow for both depositing silt displaced by tipping in subsequent cells, and for any settlement to occur.

3.13 The final level will be approximately 1.0 metre above the level of the surrounding Dock Quay, and will be graded out at the perimeter to form a gentle slope.

3.14 The proposed opening hours are in accordance with the planning permission.

Opening Hours

Monday to Friday	0730 - 1800
Saturday	0730 - 1230

This is in keeping with the working hours of the neighbouring industrial complex.

**4.0 Environmental Control**

4.1 Due to the inert nature of the waste material, vermin, pests or birds will not be attracted to the site.

4.2 Litter will not be a problem due to the type of waste to be used. Waste material will be spread out on arrival by the bulldozer to ensure that the site is kept in a clean and tidy condition at all times.

4.3 Should it be found necessary, the site access road will be swept with a road brush to keep it in a clean condition. A drive-through wheel cleaner will be

installed if found necessary, to prevent mud and debris being tracked off site by the waste vehicles.

- 4.4 The existing fence around the Dock will be maintained for safety reasons to help prevent access to the Dock.

**APPENDIX I**

**Merseyside Waste Disposal Authority - Waste Disposal Licence Application**  
**Landfill Sites - Part I 5(b)**

Planning permission was granted for a controlled landfill on the site of the former Bromborough Dock and associated dredgings area, by the Secretary of State for the Environment in his letter of 27 December 1990, outlining the findings of planning appeal reference APP/W4325/A/89/132897. A copy of the appeal findings are attached.

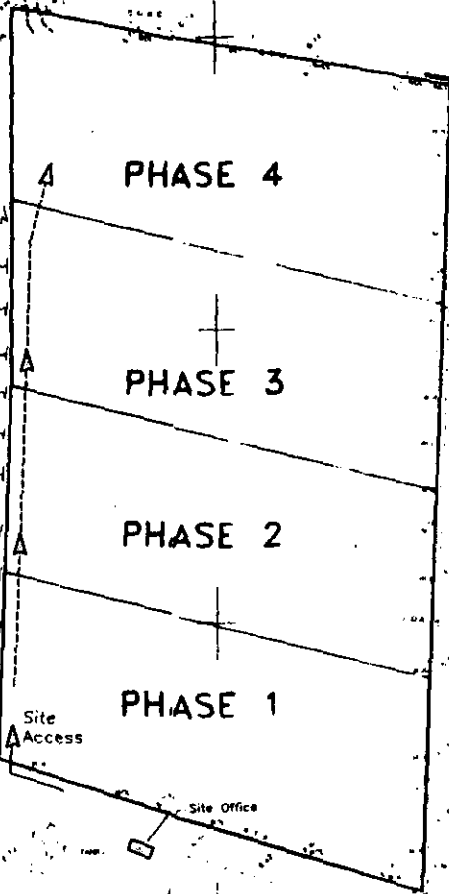
## **APPENDIX 2**

### **SPECIFICATION FOR THE INFILL MATERIAL** **AT THE SOUTH BASIN, BROMBOROUGH DOCK**

The materials shall be dry materials from excavations construction or demolition operations but excluding:-

- (i) any explosive combustible or dangerous matter
- (ii) peat logs stumps timber and other perishable materials
- (iii) material susceptible to spontaneous combustion
- (iv) material in frozen condition
- (v) clay of liquid limit exceeding 90 and plasticity index exceeding 65
- (vi) material contaminated with oil or other toxic compounds
- (vii) any hard inert materials exceeding a nominal size of 600mm x 600mm x 600mm.

Approx. location  
of sluice



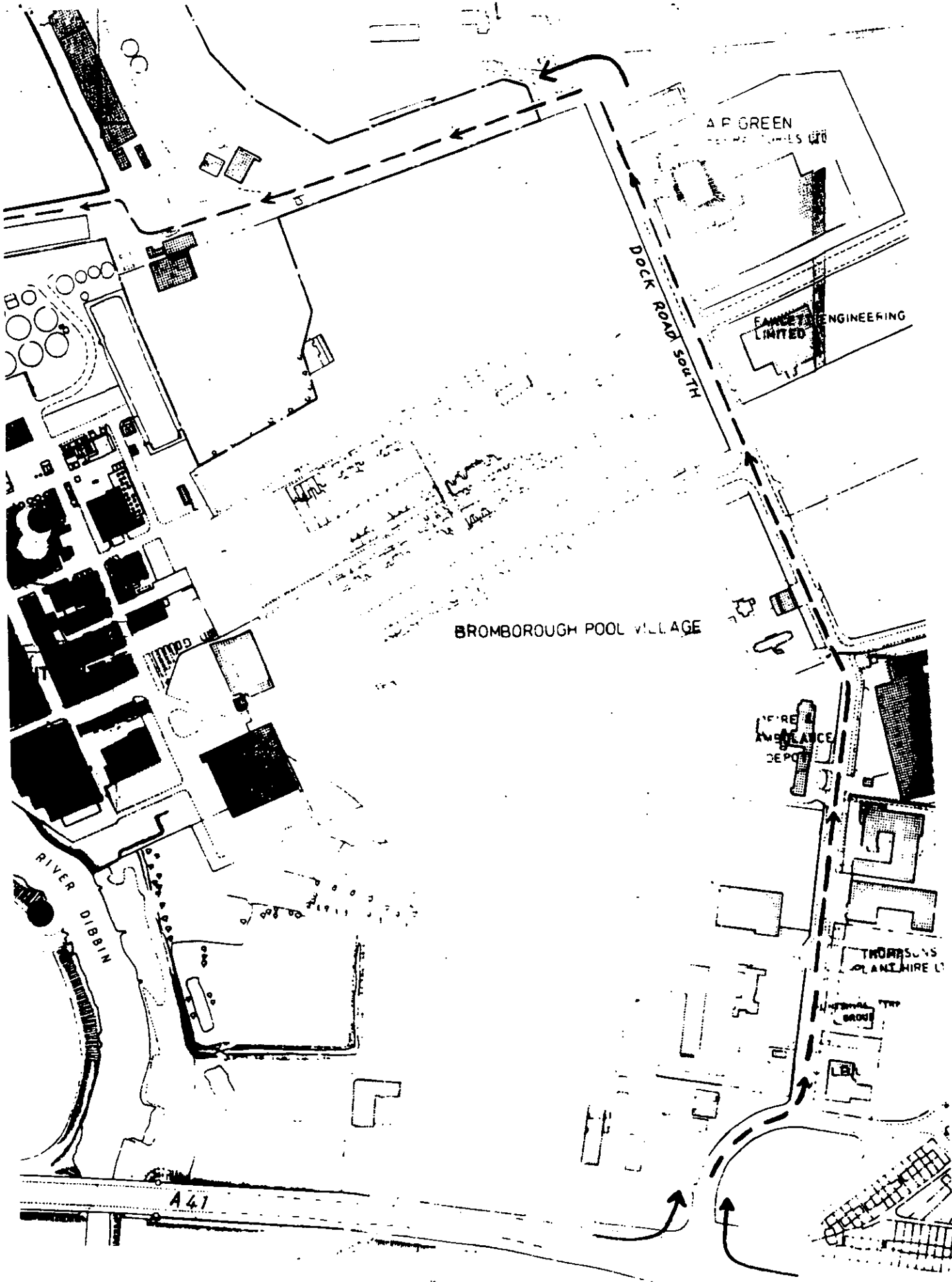
Based on a survey by MRM Partnership  
May 1991 (JD 05502)


A	Addition of sluice and change to boundary	SJW	28/1/92
REV	DESCRIPTION	APPROVED	DATE

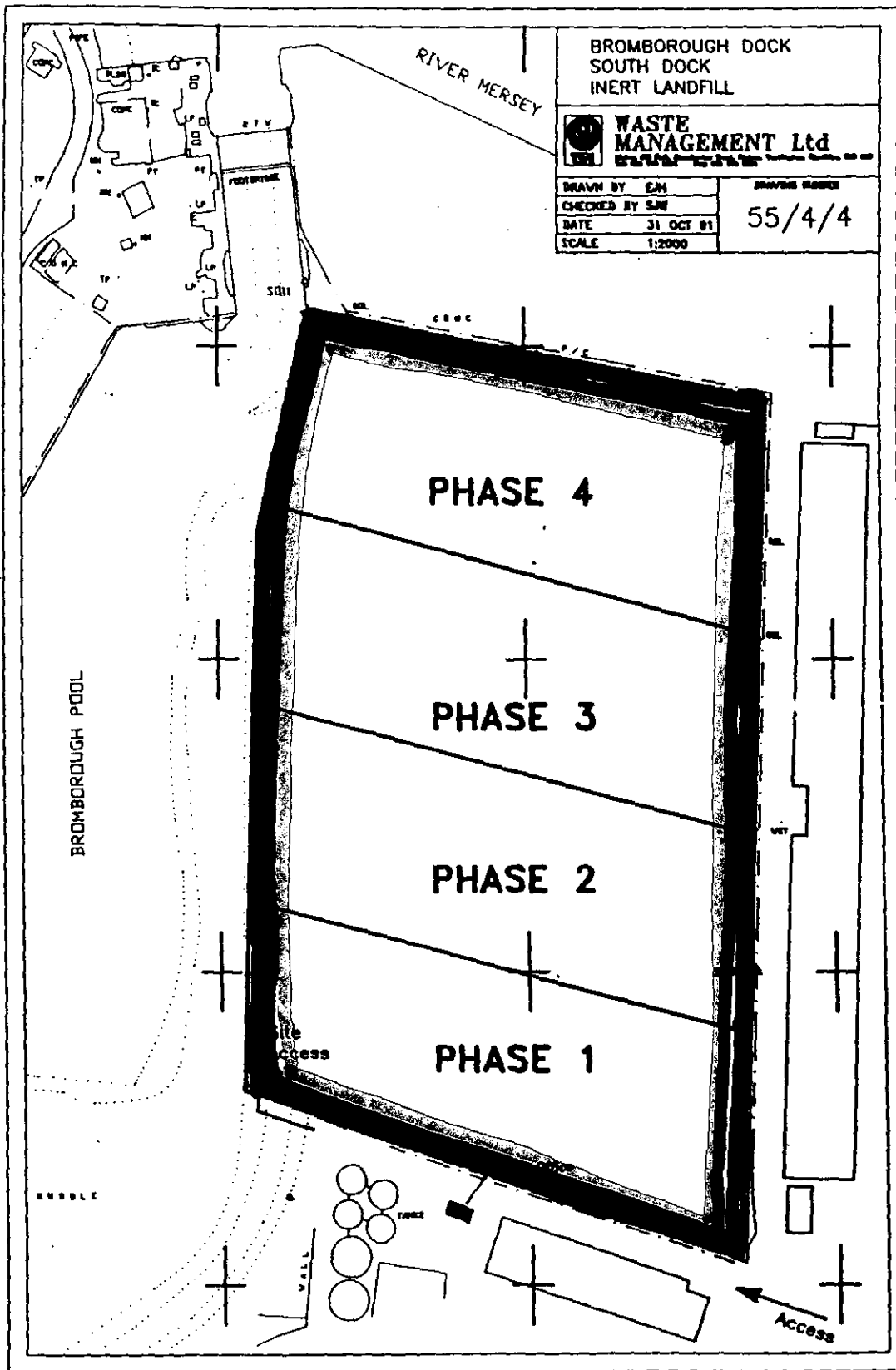
BROMBOROUGH DOCK  
SOUTH DOCK  
PROPOSED INERT LANDFILL

**WASTE MANAGEMENT Ltd**  
Units 10A 10B, Broomhedge Road, Milton, Warrington, Cheshire, WA3 8SW  
 Tel: 061 778 1811 Fax: 061 778 7891

DRAWN BY	EJH	DRAWING NUMBER	55/4/1A
CHECKED BY	SJW		
DATE	4 OCT 91		
SCALE	1:1250		



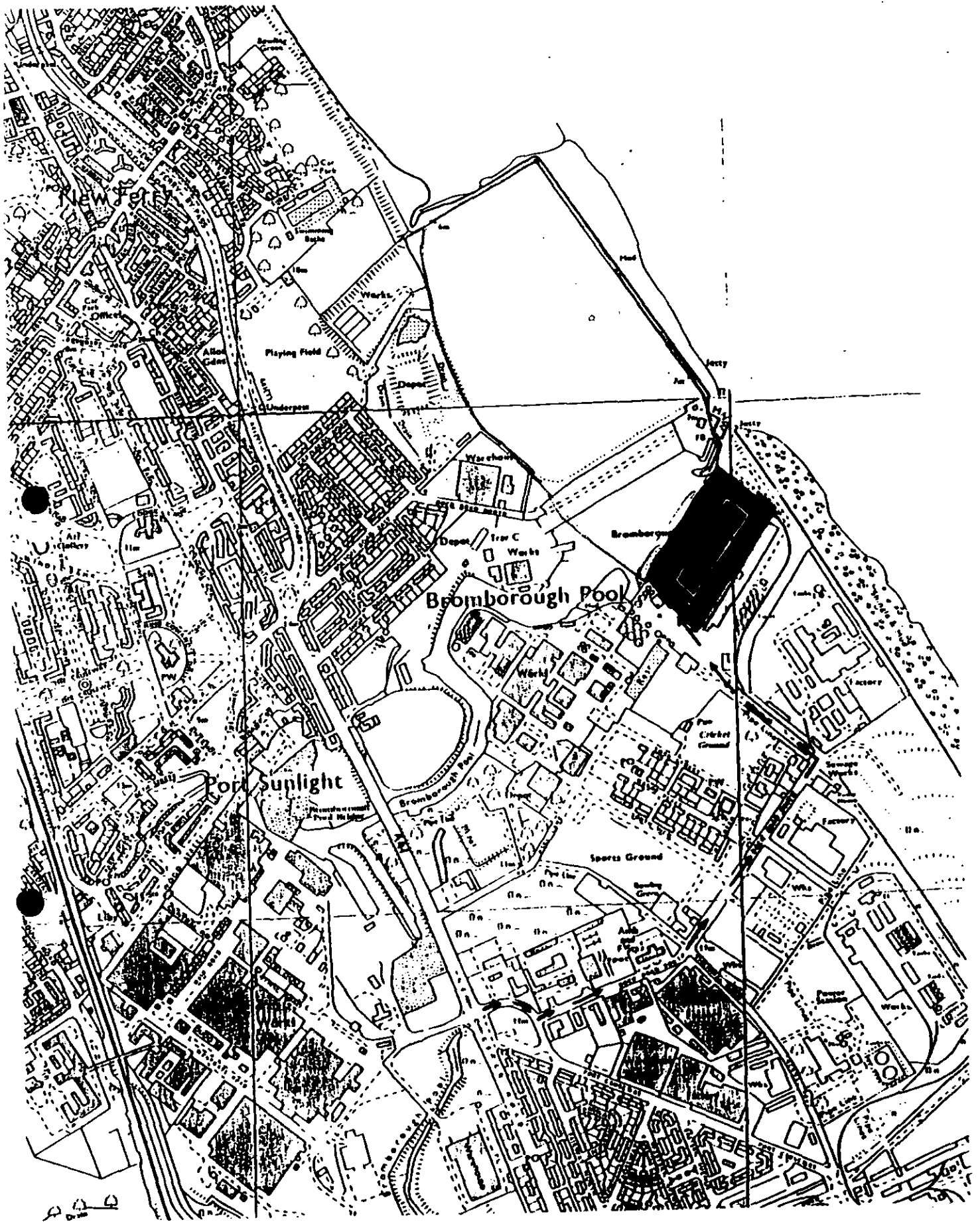
 <b>WASTE MANAGEMENT Ltd</b> <small>ESTD 1978</small>	<b>BROMBOROUGH DOCK</b> <b>SOUTH DOCK</b> <b>PROPOSED INERT LANDFILL</b>		DRAWN BY: E.M. CHECKED BY: S.M. DATE: 4 OCT 91 SCALE: 1:2500	<b>55/4/3</b>



BROMBOROUGH DOCK  
SOUTH DOCK  
INERT LANDFILL



DRAWN BY	EM	PROJEN NUMBER	55/4/4
CHECKED BY	SM		
DATE	31 OCT 91		
SCALE	1:2000		



**WASTE MANAGEMENT Ltd**

**BROMBOROUGH DOCK  
SOUTH DOCK  
PROPOSED INERT LANDFILL**

REV	DESCRIPTION	APPROVED BY
DRAWN BY	E.H.	
CHECKED BY	S.W.	
DATE	4 OCT 91	
SCALE	1:50,000	

**55/4/2**