

INSPECTORS REPORT
WASTE LICENCE REGISTER NUMBER W036

(1) Summary:

Name of Applicant	MinChem Chemicals Ltd.
Facility Name(s)	MinChem Waste Transfer Station.
Facility Address	Tolka Quay Road, Dublin 1.
Description of Principal Activity	Storage of hazardous wastes for transhipment to the UK and mainland Europe for incineration and disposal to landfill.
Quantity of waste (tpa)	20,000 tpa.
Environmental Impact Statement (EIS) Required	No but an EIS (original and fifteen copies) was supplied voluntarily with the application. It was not required under Article 13 of SI 133 and therefore was treated as additional information.
Number of Submissions Received	Two.
INSPECTOR'S RECOMMENDATION	The proposed decision as submitted to the Board be approved.

Notices	Issue Date(s)	Reminder(s)	Response Date(s)
Article 14 (2) (b) (i)	Not Applicable		
Article 14 (2) (b) (ii)	23 rd June 1998		6 th July 1998
Article 14 (2) (a)	27 th July 1998		
Article 16	11 th August 1998		11 th September 1998
			9 th October 1998
	7 th October 1998		16 th October 1998

Applicant Address	MinChem Chemicals Ltd., 4 Haddington Terrace, Dun Laoghaire, County Dublin.
Planning Permission Status and Date Granted (if appropriate)	Planning Permission granted. Decision date: 26/03/98; Decision Order No. P1118.
Planning Authority	Dublin Corporation, Civic Offices, Woodquay, Dublin 8.
For Local Authority applicants, is the facility within its own functional area	Not Applicable.
Is the facility an existing facility	No.
Prescribed date for application	Prior to 1 st May 1998.
Date Application received	22 nd April 1998.
For Certified Sites, Have Matters in the EIS relating to environmental pollution been considered as required by Article 21 of SI 133 of 1997	Not Applicable.
Location of Certificate in Application	Not Applicable.
Confidential Information Submitted	Yes: three pages received in reply to Article 16 notice sent on 7 th Oct 1998 relating to financial provision and was accepted as confidential information by the Agency.
Location of Planning Documents in Application	B.4
Location of EIS in Application	Volume 3

FACILITY VISITS:

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
2 nd July 1998	To inspect site and site notice under Article 7 of SI.133 1997.	S. Duffy	In compliance with Art 8 of S.I. 133 of 1997, as amended.
12 th Oct. 1998	To observe progress on construction of new facility.	S. Duffy	Facility due to be ready for commissioning by mid-December 1998

(2) Class/Classes of Activity

**The class(es) of activities for which the applicant has applied are marked below.
The principal activity is indicated by (P).**

Waste Management Act, 1996			
THIRD SCHEDULE Waste Disposal Activities		FOURTH SCHEDULE Waste Recovery Activities	
1.	Deposit on, in or under land (including landfill).	1.	Solvent reclamation or regeneration.
2.	Land treatment, including biodegradation of liquid or sludge discards in soils.	2.	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
3.	Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.	3.	Recycling or reclamation of metals and metal compounds.
4.	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	4.	Recycling or reclamation of other inorganic materials.
5.	Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.	5.	Regeneration of acids or bases.
6.	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.	6.	Recovery of components used for pollution abatement.
7.	Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination).	7.	Recovery of components from catalysts.
8.	Incineration on land or at sea.	8.	Oil re-refining or other re-uses of oil.
9.	Permanent storage, including emplacement of containers in a mine.	9.	Use of any waste principally as a fuel or other means to generate energy.
10.	Release of waste into a water body (including a seabed insertion).	10.	The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system,
11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	11.	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
12.	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	X	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.
13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	P	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
			X

Class Description:

Third Schedule:

Class 12:

The applicant has stated that this item has been selected in order to cover emergency activities which might be required in the case of accidental spillage or the receipt of defective containers (ref: Attachment B.7 of the application).

Class 13: Principal Activity

The principal activity is the storage on site of (mainly hazardous) waste materials.

Fourth Schedule:

Class 13:

Storage of waste that may be subjected to a recovery activity (e.g. recovery of Hydrochloric acid and carbon used for activated carbon units, etc.)

(3) Facility Location

Appendix 1 contains a (i) Location Map showing Dublin Port and (ii) Site Location Map.

The facility is located in Dublin Port on land that was reclaimed in 1972 with the subsoils of the area mainly comprising sandy fill. The land upon which the facility is sited belongs to Dublin Port Company, Port Centre, Alexandra Road, Dublin 1. There are no residential areas nearby.

(4) Waste Types and Quantities

Total quantities and types of wastes accepted by the facility are shown below. See Table B.8.1 of application.

YEAR	NON-HAZARDOUS WASTE (tpa)	HAZARDOUS WASTE (tpa)	TOTAL ANNUAL QUANTITY OF WASTE (tpa)
1999	500	18,500	19,000
2000	500	19,500	20,000

(5) Facility Operation/Management

- **Waste Handling**

Drawing No. FD-001 of the application shows a flow diagram of the trail of wastes as they arrive at the facility.

The classification of Hazardous Goods used by MinChem at the facility is as per The United Nations 'Recommendations on The Transport of Dangerous Goods, Model Recommendations' (Orange Book) Tenth revised edition published in 1997.

The UN Recommendations divide Dangerous Goods into nine separate classes as follows: Explosives, Gases, Flammable Liquids, Flammable Solids, Oxidisers/Organic peroxides, Toxics/Infectious materials, Radioactives, Corrosives and Miscellaneous.

Wastes arriving at the facility will be delivered by container trucks mostly containing 200 litre drums on 1m x 1m pallets. Forty-foot box containers are also accepted and up to four of these can be stored in a designated area as shown on Drawing No. 7015\CD\003 Revision P1 entitled 'Proposed Site Layout'. Twenty-foot bulk tankers containing solvents are accepted periodically at the site.

Condition 3.17 sets out the record keeping to be undertaken at the facility. There will be a networked computer in the facility office through which staff can access the "Tracker" system that MinChem employ at their main office in Dun Laoghaire and add data to it as necessary. Staff and visitor parking are to be provided and there will be landscaping with trees around the front of the facility.

The waste to be stored will be weighed on an electronic platform scales located within the transfer station facility either on an individual drum by drum basis or on a pallet basis.

The facility is fully banded. Eight different classes of hazardous waste

materials will be stored in drums on pallets in four designated banded storage areas, three of which will be covered with a steel roof canopy. Effectively these storage areas are banded areas within the main banded facility. The facility is designed such that it can contain a total of 800 x 200 litre drums in these storage areas.

The designated storage areas will be used for the storage of hazardous waste materials as follows:

- a) class 5 (area of 16m x 5m) *oxidising materials*, which will be stored in the unroofed storage area in an enclosed unit such that other materials with the prior agreement of the Agency can be stored in the remainder of the area;
- b) class 2.3 *toxic compressed gases* and class 6 *toxic and infectious substances* (area of 7m x 16m);
- c) class 8 *corrosive substances* (area of 7m x 16m);
- d) class 2.1 *flammable compressed gases*, class 2.2 *non flammable/non toxic compressed gases*, class 3 *flammable liquids* and class 4 *flammable solids* (area of 16m x 15m).

The banded storage area for bulk containers measures 15mx 8m. There is a pumphouse and a store room as indicated on Drawing No. 7015\CD\001, Revision B, entitled "Site Plan and Location Map". Any drums found to be defective are stored in the store room for further investigation or are sent for re-packing as per procedures identified below.

All movement of drums will be by fork-lift truck. The aisles between pallet rows in the storage areas have been designed for easy fork-lift access.

Asbestos will be stored within a locked container to which nominated staff only will have access. Any asbestos accepted will be bagged or contained in accordance with standard procedures (see Condition 5.6).

There is a designated area for container trucks, bulk tankers and containers (double stacked) for U.N. Class 9 (*miscellaneous dangerous substances and articles*) wastes such as PCBs or asbestos.

Attachment D.2/D.3 of the application contains the procedures for the operations to be carried out at the facility:

Procedure No. TS 3.1: Procedure for Acceptance of Waste at MinChem Transfer Station in Dublin Port.

Procedure No. TS 3.2: Procedure for Staff Competence -Transfer Station.

Procedure No. TS 3.4: Procedure for General Spill Clean-Up.

Procedure Operations 3.1: Procedure for Moving a Waste Load under Transfrontier Shipment Form (TFS) to the Continent

Procedure Operations 3.2: Procedure for Moving a Waste Load under Transfrontier Shipment Form (TFS) to the UK.

Procedure Operations 4.7: Procedure for the Inspection of Packages for Carrying Waste.

Procedure (Contractors Manual): Procedure for On-Site Repackaging of Waste.

On leaving the facility, closed waste containers of 40ft (12.2m) size will be weighed on the Dublin Port weighbridge prior to shipping. MinChem anticipates this procedure to be more economical than the installation of a weighbridge at the transfer station facility. Occasionally 20ft (6.1m) containers will be used, as will taut canvas liner covered containers to the UK. The primary destinations of the waste will be to the UK and Germany via Rotterdam.

- **Waste Acceptance Procedures**

The waste acceptance procedure to be adopted at the facility is included in the application.

All types of hazardous wastes as described in Table E.1.2 of the application are to be accepted at the facility with the exception of motor vehicle batteries. The maximum amount of waste expected to be accepted per annum at the site is 20,000 tpa which breaks down as follows (see Condition 5.1):

Waste Type	Tonnes per Annum
pharmaceutical waste	12,000
meat and bone meal	5,000
contaminated rubble and soil	1,000
cytotoxic waste	1,000
PCB's	24
Non-hazardous waste	550
Other wastes	426
Total	20,000

The meat and bone meal referred to above is derived from two sources. The first source is where an entire herd of cattle is destroyed because one cow is found to have BSE. The infected animal is buried in lime but the rest of the herd may be accepted by MinChem and sent for disposal by incineration. The second source is the brains, spinal cords and spleens of slaughtered animals from non-infected herds.

MinChem are required to comply with the Waste Management (Hazardous Waste) Regulations, S.I 163 of 1998 and have undertaken to do so.

- **Nuisance Control**

Further to the storage of meat and bone meal at the facility, MinChem have stated that if required they will hire Rentokil or a similar organisation to control vermin. Condition 6.4. requires a once-off report on a Vermin Control Plan be submitted to the Agency within three months of the date of grant of the licence.

Fire control is provided at the facility with the installation of fire hydrants and a fire protection water ringmain. There is a fire water retention tank at the facility. There will also be portable fire control equipment such as powder appliances, foam appliances and CO₂ appliances. Fire prevention and control courses are to be attended by staff working at the facility.

Condition 6.3 of the Proposed Decision requires the company to ensure that no odours will impact significantly on the environment beyond the facility boundary.

- **Hours of Operation**

The hours for waste acceptance are to be from 0800hrs to 1800hrs Monday to Friday as specified in Condition 5.7 of the Proposed Decision. These can be changed to facilitate any exceptional circumstances with the prior written agreement of the Agency.

(6) Facility Design

The site is leased by MinChem Chemicals Limited from Dublin Port Company. While the entire area of the site for licensing is 91m x 91m, at present the area under development for use as the waste transfer station by MinChem is 51m x 52m (see Site Location Map, Appendix 1 (ii)). The construction work is due to be completed on 9th December 1998. The further area is not in use at present, although MinChem have indicated that they hope to expand the facility into this area in the future.

(7) Decommissioning and Aftercare

No special decommissioning or aftercare provisions have been listed in the application for the closure of this facility. A proposal for a Decommissioning and Aftercare Plan is to be submitted to the Agency within six months of the licence being granted. Additionally, a financial bond will be required to be put in place to cover any unplanned closure of the site (see Condition 11.3).

In terms of landscaping, MinChem propose to plant a row of trees at the facility as shown on drawing No. 7015\CD\001 Revision P1.

(8) Emissions to Air

There will be no emissions to air with the exception of fugitive emissions. Baseline air monitoring was carried out and the interpretation of the results conclude that there is a concentration of some Volatile Organic Compounds in the air in the vicinity of the facility. Benzene compounds were included indicating petroleum based emissions which is consistent with the location of the facility being on the main thoroughfare at Dublin Port and hence having a large volume of traffic passing by. The air emissions are to be monitored on an annual basis as set out in Schedule E.2.

(9) Emissions to Groundwater

There are to be no direct emissions to groundwater. Baseline monitoring of the groundwater of the area involved the drilling of two boreholes, monitoring well 1 (MW-1) at the northern boundary and monitoring well 2 (MW-2) at the southern boundary of the site, with a gradient from north to south of approximately 0.15m. The gradient is consistent with the groundwater flowing to the Irish Sea. One set of baseline data were taken. This monitoring was extensive and covered metals, standard chemistry, semi-volatile organic compounds and volatile organic compounds. The groundwater was found to be of a brackish nature. The standard chemical analysis showed that several of the parameters measured in MW-2 were significantly higher than the same parameters in MW-1.

Determinand	Units	MW-1	MW-2
Conductivity	microS/cm	1420	3040
Calcium	mg/l	160	280
Magnesium	mg/l	35	70
Sodium	mg/l	140	350
Potassium	mg/l	17	32
Manganese	mg/l	0.40	0.77
Chloride	mg/l	225	860
Sulphate	mg/l	183	275
Total Ammonia	mg/l	0.63	0.46

Monitoring of groundwater quality at MW-1 and MW-2 is to be undertaken on a quarterly basis to ensure that deterioration of quality is detected should it occur (see Table E.4.2 of the Proposed Decision).

(10) Noise Emissions

A background noise survey was carried out prior to the construction of the facility using five monitoring points around the boundary of the site. The interpretation of the results indicated some high levels of traffic noise at Dublin Port. Noise emissions will be limited to those set in Condition 7.1 of the Proposed Decision. There are no nearby

noise sensitive locations. Condition 9.1 of the Proposed Decision requires a noise survey annually as specified in Table E.3.2.

(11) Emissions to Sewer

Although there are to be no emissions of trade effluent from the facility, the Agency decided that the materials to be stored therein were of such a nature that Dublin Corporation should be notified. This was done under Section 52 of the Waste Management Act, 1996, where Dublin Corporation were informed of the intention of the applicant to discharge to public sewer albeit after stringent monitoring and testing.

The liquid to be discharged to the sewer from the facility will consist of washings from the entire hardstanding area and the designated storage areas. There are separate stand-alone collection sumps in each covered bunded area. Authorised staff, appropriately qualified, will inspect the liquid collected in each sump (visually, odour and pH testing). There is no proposal for a laboratory on site at this stage but there will be some sampling equipment such as pH meters etc. available on site.

Should unsatisfactory monitoring results be obtained, the contingency arrangements set out in Condition 10.4 of the Proposed Decision will be activated. Upon satisfactory results the liquid will be sent to the main sump, which will also contain all the other runoff from the site. Condition 9.3 states that compatibility must be checked before discharge from the bunded storage areas to the main sump. On further visual, pH and odour monitoring in the main sump, the liquid is pumped automatically to the large storage tank (of capacity 177 cubic metres). As a safety measure, liquid cannot be pumped if the valve connecting the storage tank to the public sewer is open. There will be no discharges to the public sewer prior to monitoring. The monitoring to be undertaken prior to discharge to sewer is set out in Table E.1.2 of the licence. The planning permission granted by Dublin Corporation contains a condition requiring that an analysis of the contents of the storage tank be submitted to their Drainage Division on a quarterly basis in the interests of orderly development. The storage tank has sampling points at four levels throughout its' height so that a representative sample can be obtained.

Emission limit values to the surface water sewer on Tolka Quay Road were set under the Section 52 notice indicating the emission limit values and frequency as shown in Table G.1 of the Proposed Decision. General conditions were attached also. These requirements are contained in Conditions 7 and 9 of the Proposed Decision and details for monitoring in Schedule E.

(12) Emissions to Surface Waters

There are to be no emissions to surface water. There are no nearby surface water bodies. The river Tolka flows into the Irish sea at approximately 1.5 km to the north west of the proposed facility.

(13) Other Significant Environmental Impacts of the Development

None.

(14) Waste Management, Air Quality and Water Quality Plans

No relevant plans exist.

(15) Submissions/Complaints

Appendix 2 contains a list of all submissions received relating to the application. The dates received and the details of the individual, department, group or organisation making the submission are provided.

An overview of all submissions received in relation to the waste licence application is provided. This includes a summary of all issues raised in the submissions and clearly shows how these issues are dealt with in the proposed decision.

Two submissions were received, both from Duchas, The National Heritage Service :

1. Date received: 11th November 1998

Issue:

This submission is from Heather A. King, Archaeologist; National Monuments and Historic Properties.

The letter states that the National Monuments have no recommendations to make in connection with the works as Tolka Quay Road is outside the zone of archaeological potential and there is unlikely to be any material dating to the pre-1700's.

2. Date received: 19th November 1998

Issue:

This submission is from Bridgen Kelly, National Monuments and Historic Properties.

17/11/2004

The letter states that Duchas have no archaeological objections to the proposed development.

Signed _____

Dated:

Sara Duffy

APPENDIX 1
LOCATION PLAN

(i) Location Map showing Dublin Port

(ii) Site Location Map

APPENDIX 2

LIST OF PERSONS MAKING SUBMISSIONS

1. Duchas, The Heritage Service: two submissions