

INSPECTORS REPORT
WASTE LICENCE REGISTER NUMBER 41-1

(1) Summary:

Description of the activity:

Shannon Environmental Services accept and process a wide range of hazardous and non-hazardous waste from industry and the commercial sectors. The following are the activities being carried on:

- storage of waste awaiting export
- bulking of waste solvent prior to export (proposed activity)
- recovery of materials from waste
- physico-chemical treatment of waste (neutralisation, precipitation, redox etc.)
- biological treatment of waste

Residues from the treatment of waste (the latter two bullet points) are generally in the form of a liquid discharge to sewer, a sludge for landfill or a material to be shipped to another facility for further processing.

Name of Applicant	SHANNON ENVIRONMENTAL SERVICES LTD
Facility Name(s)	Shannon Environmental Services Ltd
Facility Address	Smithstown Industrial Estate, Shannon, County Clare
Description of Principal Activity	Recovery and disposal of non-hazardous and hazardous waste
Quantity of waste (tpa)	32,809 tonnes per annum (projected for 1999)
Environmental Impact Statement Required	Yes
Number of Submissions Received	9
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)	30/6/98	27/10/98	13/8/98 13/10/98 27/11/98
Article 14 (2) (a)	18/3/99		
Article 16	13/5/99 21/10/99	3/8/99	20/7/99 5/8/99 29/10/99 18/11/99 22/11/99 23/11/99 26/11/99 29/11/99 30/11/99

Applicant Address	Smithstown Industrial Estate, Shannon, County Clare
Planning Permission status and date granted	Permission granted 21/3/85 and 19/5/99
Planning Authority	Clare County Council
Is the facility an existing facility:	Yes
Prescribed date for application:	Prior to 1 May 1998
Date Application received:	30 April 1998
Confidential Information Submitted	No
Location of Planning Documents in Application	Attachment B.4
Location of EIS in Application	Standalone document dated November 1998

FACILITY VISITS:

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
19/6/98	Site notice inspection	B. Meaney	
17/7/98	Site notice inspection and site tour	B. Meaney	
22/11/99	Site tour	B. Meaney and T. Nealon	

(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 (including evaporation, drying and calcination) 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.	P	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.	✓	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 this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	✓	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. ✓

* Application for Class 1 of the Fourth Schedule was withdrawn in correspondence dated 29/10/99.

Class description:

The applicant described the classes of activity as follows:

Third Schedule activities

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 this Schedule.

At least 50% of all waste received on-site for treatment undergoes a physico-chemical treatment stage. This is generally a multi-stage chemical treatment involving the addition of a variety of treatment chemicals including oxidising agents, reducing agents, acids, alkalis, flocculants and coagulants. The resultant mixture is separated into two phases. The aqueous phase is transferred to activity 6 in the Third Schedule (biological treatment). The [settled] sludge undergoes further chemical addition before being dewatered in a recessed membrane plate and frame press. This produces a dry filter cake which [may be] suitable for landfill. The filtrate from this process is returned for biological treatment. Further details on physico-chemical treatment are listed as unit process C in Attachment D.2 and the plant procedures connected with this unit process are available in Attachment E.3.

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 this Schedule.

This is finishing stage for many of the other treatment processes. It enables Shannon Environmental Services to comply with the sewer discharge licence issued by Shannon Development as the sewer owner in Smithstown. Biological Treatment is also used directly in the treatment of aqueous organics. Further details on biological treatment are listed in unit process F in Attachment D.2 and the plant procedures connected with this unit process are available in Attachment E.3

11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Some wastes received on-site are blended directly into acid and alkaline pre-treatment tanks. The wastes undergo compatibility checks before any blending occurs. Wastes are also blended in batches for direct discharge to the reactors for treatment and these also undergo compatibility checks.

12. Repackaging prior to submission to any activity referred to in this Schedule

Some containers need to be repacked on arrival on site and some containers may deteriorate during storage. Further details on repackaging are available in unit process N

in Attachment D.2 and the plant procedures connected with this unit process are available in Attachment E.3.

13. Storage prior to submission to any activity referred to in this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Wastes which are suitable for bulking into the preparation tanks or storage tanks can be transferred to storage until a suitable batch of waste becomes available for treatment. The waste can be segregated by hazard class in storage. Further details on Storage are available in unit Process K in Attachment D.2 and the plant procedures connected with this unit process are available in Attachment E.3.

Fourth Schedule activities

2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

Plastic is obtained from the shredding of plastic drums. It is intended to further process this using a granulator and to pass on the granulate for recycling. It is also intended to recover aluminium hydroxide and ferric hydroxide sludges which are generated at water treatment works. These sludges contain substantial quantities of organics and it is planned to utilise these residual organics from the process. The exact mode of utilisation has not yet been decided upon.

3. Recycling or reclamation of metals and metal compounds.

Some wastes contain economically recoverable quantities of metals. The principal methods of reclamation used are electro-deposition and electro-plating. Further details are available in unit process P in Attachment D.2. The plant procedures concerned with this unit process are available in Attachment E.3.

4. Recycling or reclamation of other inorganic materials.

Some wastes accepted on-site have components which can be recovered or reused. These wastes generally undergo physical chemical treatment to release the recoverable component. Further details are available in unit process T in Attachment D.2. The plant procedures concerned with this unit process are available in Attachment E.3.

8. Oil re-refining or other re-uses of oil.

This activity includes reuses of oil. It should be noted that Shannon Environmental Services are not involved in oil refining. Aqueous oil mixtures are accepted on site and physico-chemical treatment of the oil wastes produces an oil layer which is removed and stored for onwards collection by Atlas Oil for re-use or recovery. Further details are

available in unit process Q and the plant procedures connected with this unit process are available in Attachment E.3.

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.

Almost all wastes which are accepted on-site for export are exported mainly to high temperature incineration facilities or solvent recovery facilities. The wastes are generally stored in drums or bulk tanks prior to export. The wastes are then exported in containers/trailers or bulk tankers. These wastes are all exported in accordance with the Transfrontier Shipment of Wastes Regulations. Further details are available in unit process K, L and O in Attachment D and the plant procedures connected with this unit process are available in Attachment E.3.

Activities recommended for licensing:

Classes 6, 7, 11, 12 and 13 of the Third Schedule.

Classes 2, 3, 4, 8 and 13 of the Fourth Schedule.

(3) Facility Location

A location plan showing the outline of the facility to which the application relates is provided in Appendix 1. The plan also shows the layout of the facility.

The facility is located in the Smithstown Industrial Estate, located near Shannon town centre (see attached location map).

(4) Waste Types and Quantities

The total quantities and types of wastes proposed for acceptance at the facility are shown below.

YEAR	NON-HAZARDOUS WASTE (tpa)	HAZARDOUS WASTE (tpa)	TOTAL QUANTITY OF WASTE (tpa)
1997	3,185	6,215	9,400
1998	8,185	7,085	15,270*
1999	24,733	8,076	32,809*

* Projected total quantity in the licence application.

Shannon Environmental Services expect the ratio of disposal to recovery to be 1:1.

(5) Facility Design

• Development;

The site is comprised of an administration/laboratory building, outdoor waste storage areas, bulk tank storage areas, indoor (small-scale) waste storage areas, process buildings and waste water and sludge treatment facilities. An adjacent area (previously owned by Irish Express Cargo) has been acquired by Shannon Environmental Services (SES) and will contain a new laboratory and additional waste and other material storage and processing areas. This new area is within the red line area defined under Condition 1.2.

• Infrastructure;

The boundary of the facility is delineated by a 3m concrete wall. The gates are intruder alarmed. There are laser alarms at strategic points around the facility.

The existing site is covered with concrete hardstanding. The new site is currently covered with hardcore; Condition 4.7.5 requires that all working areas be durable and impermeable. There is no vehicle weighbridge. An off site weighbridge is used. There is a laboratory for the chemical analysis of waste. Diesel is stored on site for use in boilers, forklifts and other machinery.

Condition 5.2(f) requires that a quarantine area be in place for the storage of unacceptable waste loads arriving at the facility.

(6) Facility Operation/Management
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- **Operation**

SES accepts a wide range of waste types for storage and processing. The waste is subjected to a range of treatment methods. The table below summarises the unit processes at the facility. The letter codes assigned to the unit processes are as per the waste licence application.

Unit Process	Description
A Reception of waste in drums and in bulk	Waste is inspected, assigned tracking numbers and analysed as required.
B Laboratory operations	Analysis of waste prior to and upon acceptance at the facility. Checking against description given on consignment note. Determination of suitability for mixing or blending. Determination of reagent requirements where waste is to be chemically reacted.
C Physico-chemical treatment of waste in reactors	Up to 50% of all accepted waste is treated in one of the four reactors (two large and one small in reactor building, one for lab smalls). The progress and completion of reactions is monitored by laboratory analysis.
D Treatment of cyanide waste	Leaching of cyanide from contaminated solid waste. Electrochemical treatment of aqueous cyanide bearing solutions, including those from the leaching process.
E Treatment of photographic waste	Electrochemical deposition of silver and smelting of the deposited metal to produce ingots.
F Biological treatment	Use of surface aerated (1 no.) and biotower reactors (2 no.) for the treatment of (a) liquid biodegradable waste and (b) supernatant from the reactors. All effluent from the bioreactors is discharged under permit to the Shannon Development sewer for subsequent treatment at the Tradaree Point waste water treatment plant.
G Drum handling	The storage of waste in drums.
J Sludge dewatering	Physico-chemical treatment may produce a sludge which is dewatered and pressed in a plate and frame press. The sludge is disposed of to landfill and the supernatant discharged to the bioreactors.
K Storage and transfer station	The storage of waste on site.

Unit Process		Description
		The storage of waste pending treatment on site. The storage of waste on behalf of other waste contractors.
L	Export for incineration, recovery and treatment	The preparation of loads and associated paperwork for export abroad.
N	Repackaging for export	The repackaging of damaged containers or other containers unfit for storage or onward transportation.
O	Bulking and blending solvents	For treatment on site or export.
P	Recycling and reclamation of metal compounds	By electrolysis (e.g. unit process E) and by chemical displacement in solution.
Q	Oil treatment and recovery	Chemical separation of water and waste oil.
R	Off site work	The assessment of and/or removal of waste from client sites.
T	Reclamation of inorganic substances	By chemical displacement in solution.
U	Treatment of laboratory smalls	Laboratory smalls are categorised and processed by any one of a number of processes including those described by other unit processes.
V	Combinations of any of the above unit processes	
W	Glass washing, recycling and export	

- **Waste Acceptance Procedures**

Condition 5.2 stipulates requirements in relation to waste acceptance at the facility.

- **Waste Handling**

Waste arrives in drums, intermediate bulk containers (IBC's), other containers, as lab smalls and in bulk in tankers.

Drummed waste is stored in one of the bunded areas on site. Conditions 4.7.3 and 5.8 require bunded areas to be dedicated to certain classes of waste. Condition 5.2 requires the acceptance of waste to be limited by the capacity of the relevant storage areas.

The compatibility of waste for mixing, blending or reacting is to be tested prior to that mixing taking place (Condition 5.12 of the PD). The compatibility procedures are to be developed such that the consideration is given to the use of calorimetry to

determine whether the mixing of waste is likely to have undesirable thermal effects, i.e. undesirable temperature rises. The issue of gas generation is also to be addressed.

- **Hours of waste acceptance**

Monday to Saturday 08.30 to 18.00 (condition 5.5).

(7) Decommissioning and Aftercare
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There is no anticipated closure of the facility. Condition 8.1 requires that SES submit a proposal for decommissioning and aftercare.

(8) Emissions to Air

Waste reactors and scrubber emissions

The waste being processed in the two main reactors is variable and may be contaminated. Condition 5.12 requires compatibility testing of all proposed waste mixes to be carried out. In addition, analysis of the waste prior to acceptance at the facility (condition 5.2(c)) should detect contaminants, particularly those which may cause reactions to proceed in an unexpected manner. In the event that an unexpected or minor emission does occur, a three stage scrubber is in place comprising sodium hydroxide, water and activated carbon slurry columns.

Analysis of the scrubber emission between September 1998 and October 1999 has shown some high concentrations, particularly in terms of total organic carbon (TOC). However, in terms of mass flow, it remains minor; the largest mass flow measured was 0.66 kgTOC/h in October 1999 (the concentration was 1891 mgTOC/l).

The variability of the waste being processed in the reactors prevents accurate prediction of air emissions being carried out. Monitoring is to be monthly. Emission limits are proposed to be based on general TA Luft values and on values specified in the Batneec Guidance Note for the Chemical Sector, Rev. 1, May 1996.

Minor emissions

Two other processes, namely silver smelting and the processing of laboratory smalls, generate point emissions to air but these have been stated as being “too small to measure” or used so infrequently as to make the total emission small. Condition 7.5.4 requires an assessment of these emissions to be carried out.

Fugitive and aerosol emissions

A proposal for the reduction of fugitive and aerosol emissions is to be agreed under Condition 7.5.5. The biotowers used in the biological treatment of wastewaters are stated in a submission by Clare County Council to have been a frequent source of odour complaints in the past. Consequently, the biotowers are to be enclosed under Condition 7.5.6. In addition, Condition 6.3 prohibits the creation of an odour nuisance beyond the site boundary.

(9) Emissions to Groundwater

Groundwater contamination has been discovered beneath the facility. Attachment C.6 states that “while there is some evidence of contamination at the upgradient location, MW-3, the most serious evidence of contamination occurs at [the] down gradient position (MW-4), indicating that there is an indirect discharge to groundwater in the main processing area on the site”.

Condition 7.6 prohibits any discharge to groundwater. Condition 9.9 requires that a programme for the remediation of contaminated groundwater and soil beneath the facility be submitted.

(10) Noise Emissions

The operation of plant and vehicles is the main source of noise associated with the facility. However, background noise levels at the perimeter of the facility have been assessed as being often caused by air extraction fans on adjacent buildings, traffic movements around the industrial estate and the passage of jet aircraft. No significant contribution to the overall Smithstown Industrial Estate noise level was attributed to SES.

Conditions 7.4 and 9.1 set out the requirements in relation to noise.

(11) Emissions to Sewer

There is an emission of trade effluent to a Shannon Development industrial wastewater foul sewer. The discharge is composed of trade effluent, laboratory effluent, other discharges of a domestic nature and surface run-off from waste and chemical storage areas (see next paragraph). Consent for this discharge to continue has been granted by Shannon Development.

Surface run-off discharges under the consent of Shannon Development to the storm sewer which discharges to the Shannon Town storm drainage system and ultimately to the Shannon Estuary. Under condition 7.9.1, only uncontaminated surface water

and uncontaminated roof water from buildings may discharge to the storm sewer. This has previously been agreed between the applicant and Shannon Development.

(12) Emissions to Surface Water

There are no direct emissions to surface water.

(13) Other Significant Environmental Impacts of the Development

None.

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

None affecting operation at the facility.

(15) Financial Provision

SES estimate that £101,000 is the maximum contingency cost associated with closure. To maintain this level of cover SES proposes to make such funds available in the form of the company's assets. In the event of closure, this undertaking will ensure that the company's assets are not reduced below a level of £150,000. SES states that all other risks are covered under employers and public liability insurances.

Condition 11 of the PD sets out the requirements for financial provision.

(16) 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 how these issues are dealt with in the proposed decision.

There have been 9 submissions with respect to the facility by:

1. Holmes O'Malley Sexton Solicitors
2. Shannon Town Commissioners
3. Clare County Council

4. Clare County Council
5. Clare County Council
6. Mid-Western Health Board
7. Dúchas The Heritage Service, National Monuments
8. Dúchas The Heritage Service, National Parks and Wildlife
9. Mid-Western Health Board

Summary of submissions/complaints

Submission 1: Holmes O'Malley Sexton Solicitors made a submission dated 16 July 1998.

- a) *Enclosed with the submission was a newspaper cutting on the unexpected release of nitric oxide on 7 July 1998. The submission requested details of the waste licence application.*

Response None required.

Submission 2: Shannon Town Commissioners made a submission dated 17 October 1998.

- a) *Shannon Town Commissioners request that the possibility be investigated of providing an alarm system in Smithstown Industrial Estate to be activated and alert the other occupants of the industrial estate in the event of an unexpected emission.*

Response The applicant does not consider such a measure as being necessary given that the Seveso II directive does not apply to the facility. In any event, condition 10.1 of the PD requires the submission of an emergency response procedure for agreement with the Agency.

Submission 3: Clare County Council made a submission dated 27 November 1998.

- a) *The submission enclosed a copy of a section 55 notice issued by Clare County Council under the Waste Management Act, 1996. The notice was issued in lieu of the existing permit granted by the Council in respect of the facility. The submission stated that the permit issued under the European Communities (Toxic and Dangerous Waste) Regulations, S.I. No. 33 of 1982, would not stand up to legal*

challenge as both the regulations and their parent EU directive on toxic and dangerous waste (78/319/EEC) have been revoked.

Response None required.

- b) *The submission also requests that the following condition be added to all IPC licences when feasible: that certification be provided by the consignor of waste that waste has been disposed of, treated or exported within 180 days of receipt of each consignment.*

Response The requirement to issue certificates or confirmations of delivery, recovery or disposal is governed by the Waste Management (Movement of Hazardous Waste) Regulations, S.I. No. 147 of 1998 and the Waste Management (Transfrontier Shipment of Waste) Regulations, S.I. No. 149 of 1998 will also apply. Other than for the import of waste into Ireland or the transit of waste through Ireland (for which the Agency is the competent authority under the TFS regulations), the local authority is the competent authority for the enforcement of both of these sets of regulations.

Submission 4: Clare County Council made a submission dated 27 January 1999.

- a) *The submission enclosed a copy of the Executive Chemist's observations on the Environmental Impact Statement submitted.*

Response The additional information provided by the applicant in response to the Council's request was used in assessing the Environmental Impact Statement.

Submission 5: Clare County Council made a submission dated 14 April 1999.

- a) *The submission reproduces a number of the conditions imposed on operation at the facility in Clare CC's article 55 notice of 26/11/98.*

Response The issues raised in the submission are itemised in the table below and are numbered as per the submission. All of the items were considered in preparing the PD as outlined below.

Item

1. Condition 2.9

Item

2. Condition 7.2
3. Condition 5.2
4. Condition 5.10
5. Condition 5.2
6. Condition 5.2
7. Conditions 5.6 and 3.11
8. Condition 5.6
9. Condition 5.10 relating to the segregation of waste does not specifically identify polychlorinated biphenyls. In any event, the provisions of the Waste Management (Hazardous Waste) Regulations, S.I. No. 163 of 1998, to do with labelling of PCB storage areas and the provisions of Directive 96/59/EC should be complied with.
10. Condition 4.3
11. Storage of waste at the facility is dealt with in the PD. Transportation of the waste to and from the facility is not controlled by the PD.
12. Condition 5.16
13. Conditions 7.8 and 10.4.
14. Condition 7.8
15. Condition 7.8
16. Condition 6
17. Condition 5.14. Monitoring at this emission point is set out in Schedule F.2.
18. Condition 7.9.1
19. Emission limit values to sewer are specified by Shannon Development. Condition 7 imposes other conditions on sewer discharges.

Item

20. Conditions 3.1, 3.2, 7.8 and 10.6
21. Conditions 7.6 and 4.8
22. Condition 10.2
23. Condition 4.11
24. Condition 5.2. The proposed date of treatment and shipment is not required. Storage for longer than 6 months is prohibited by Condition 5.8. It is not proposed to use approval procedures such as those used for transfrontier shipments of waste.
25. It is not proposed to use such approval procedures.
26. The management of consignment notes is governed by the Waste Management (Movement of Hazardous Waste) Regulations, S.I. No. 147 of 1998.
27. Conditions 3.11 and 5.2
28. Condition 3.11
29. The management of consignment notes is governed by the Waste Management (Movement of Hazardous Waste) Regulations, S.I. No. 147 of 1998. The Waste Management (Transfrontier Shipment of Waste) Regulations, S.I. No. 149 of 1998 will also apply.
30. Condition 3.12. Schedule C requires annual reporting of complaints as part of the AER.
31. Condition 5.10
32. This item concerns the conditions for accepting waste at a Clare County Council landfill site. It is beyond the scope of the PD.
33. This item concerns the conditions for accepting waste at a Clare County Council landfill site. It is beyond the scope of the PD.
34. This item concerns the conditions for accepting waste at a Clare County Council landfill site. It is beyond the scope of the

Item

PD.

35. There is no specific requirement for the testing of filter cake disposed of off-site of the facility.
36. Condition 6.2
37. There is no specific requirement for the testing of filter cake disposed of off-site of the facility.
38. This item concerns the conditions for accepting waste at a Clare County Council landfill site. It is beyond the scope of the PD.
39. Condition 3.11 sets out the requirements for recording movements of waste from the facility.
40. There is no specific requirement for the testing of filter cake disposed of off-site of the facility.

- b) *The submission states that practical steps taken by the company to prevent pollution and reduce nuisance are frequently inadequate. The submission mentions two 1998 prosecutions taken against the company. The submission states that odour emissions have been frequent cause for complaint, including during weekends.*

Response The PD sets conditions designed to prevent pollution and nuisance being generated at the facility.

Submission 6: The Mid-Western Health Board made a submission dated 16 April 1999.

- a) *The submission states that the means of disposal of filter cake should be detailed more adequately in the waste licence application.*

Response SES stated in correspondence dated 20/7/99 that “the only landfill site which is currently in use is Clare County Council’s landfill in Doora”. Conditions for the disposal of this waste are set out in the section 55 notice issued by Clare County Council dated 26/11/98. Condition 5.19 states that the final destination of waste removed from the facility must be agreed with the Agency.

- b) *The submission states that documentation should be provided about the proposed activity for the recovery of iron and aluminium sulphate from waterworks sludge.*

Response Further information on this proposed process was provided in correspondence dated 20/7/99 and 29/10/99. A short description is given on page 5 of this report.

- c) *The submission states that the matter of groundwater contamination has not been adequately addressed.*

Response Condition 9.1 and Schedule F.3 of the PD set out groundwater monitoring requirements. Condition 9.8 of the PD requires that a programme for the remediation of groundwater be agreed with the Agency.

Submission 7: Dúchas The Heritage Service, National Monuments made a submission dated 30 June 1999.

- a) *It is requested in the submission that all topsoil stripping associated with the development be monitored by an approved archaeologist. The archaeologist should be empowered to stop further work in the event of any archaeological material being found.*

Response The new section of the site was in use by a transport company prior to its being acquired by SES. At present it is surfaced with hardcore. Given that the site has already been disturbed in achieving its current level of development, it is not considered necessary that an archaeologist be appointed to oversee further development.

Submission 8: Dúchas The Heritage Service, National Parks and Wildlife made a submission dated 27 July 1999.

- a) *It is stated that the River Shannon and River Fergus Estuary is a Special Protection Area which has been designated for the protection of wild birds and their habitats. Given that the proposed development is close to the Estuary, it is requested in the submission that Article 4(4) of EU Directive 79/409/EEC on the conservation of wild birds be taken into account as a condition of the licence.*

Response The Article states that in the protection areas referred to in the Directive, "Member States shall take appropriate steps to avoid

pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.”

SES discharge effluent to a Shannon Development sewer which subsequently discharges to the Tradaree Point waste water treatment plant which is the subject of waste licence application 37-1. The treatment plant discharges to the Shannon Estuary. Condition 7.12 of the PD requires that a review of available methods for the toxicity testing of the trade effluent discharged by SES be carried out and an effluent toxicity testing programme devised.

Submission 9: The Mid-Western Health Board made a second submission dated 31 January 2000.

- a) *The submission states that the groundwater quality report is not satisfactory. It goes on to suggest that biannual monitoring should be carried out on the groundwater.*

Response Condition 9.1 and Schedule F.3 require quarterly monitoring of groundwater.

Complaints

There have been no complaints to the EPA with respect to the facility other than that in regard to the unexpected release of gas from the waste processing reactors on 7 July 1998.

Signed _____

Brian Meaney

Dated

**APPENDIX 1
LOCATION PLAN**

APPENDIX 2

LIST OF PERSONS MAKING SUBMISSIONS

James I. Sexton
Holmes O'Malley Sexton Solicitors
PO Box 146
5 Pery Square
Limerick

Dr. Kevin Kelleher
Director of Public Health
Mid-Western Health Board
Central Offices
31/33 Catherine Street
Limerick

Tomás MacCormaic
Cléireach an Bhaile
Shannon Town Commissioners
Shannon Town Centre
Shannon
County Clare

Damien Byrne
Dúchas The Heritage Service
National Monuments
51 St. Stephen's Green
Dublin 2

Madeleine MacCarthy
Staff Officer, Environment Section
Clare County Council
New Road
Ennis
County Clare

Patrick White
Dúchas The Heritage Service
National Parks and Wildlife
7 Ely Place
Dublin 2

Madeleine MacCarthy
A/Senior Staff Officer, Environment Section
Clare County Council
New Road
Ennis
County Clare