

**REPORT TO THE  
ENVIRONMENTAL PROTECTION AGENCY**

**ON**

**THE ORAL HEARING AND THE WRITTEN OBJECTION  
TO THE PROPOSED DECISION**

**IN RESPECT OF**

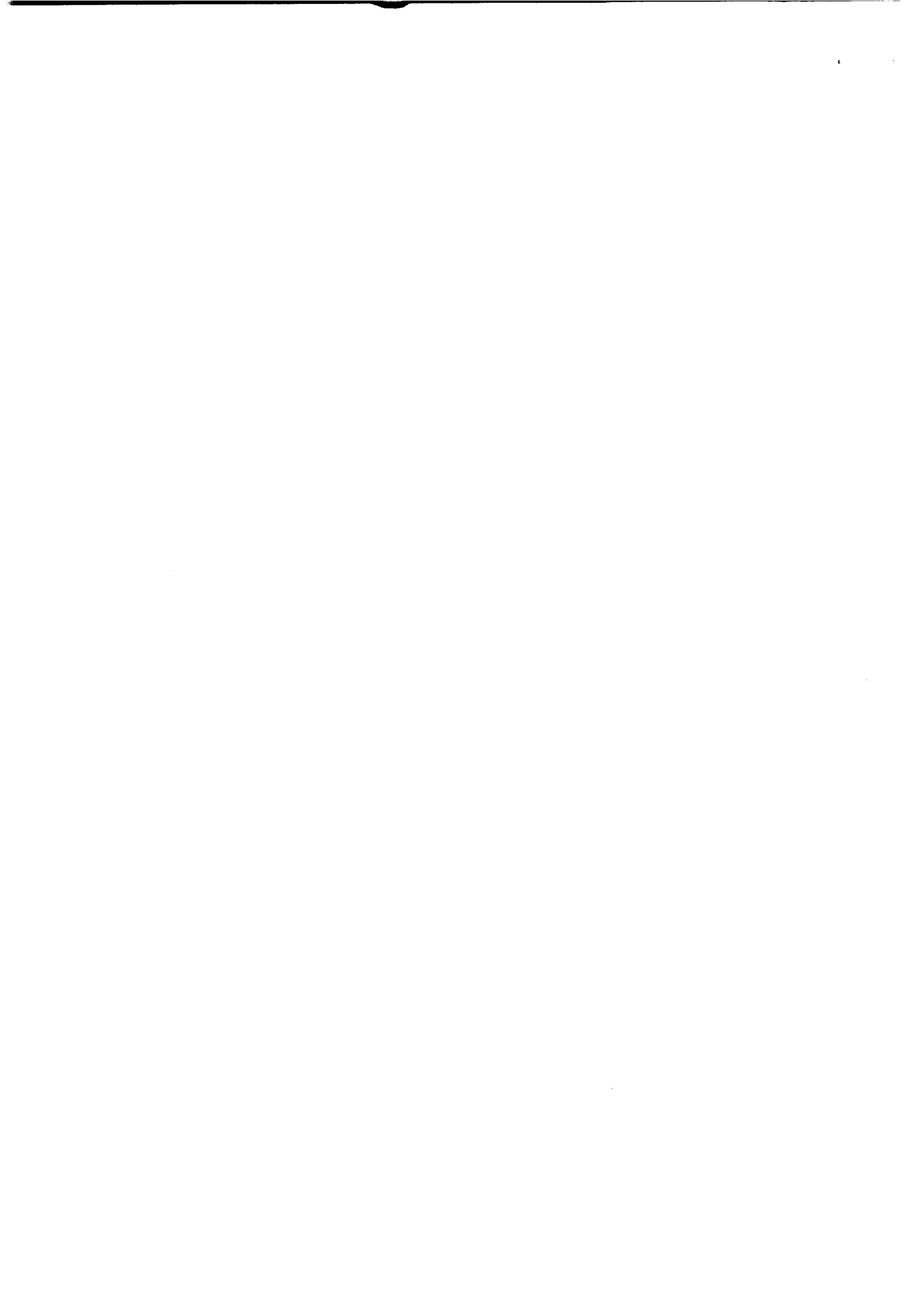
***THE WASTE LICENCE APPLICATION FOR  
SAFEWAY WAREHOUSING LIMITED  
AT CORRIN, FERMOY, COUNTY CORK***

**REG. NO. 50-1**

**Chairman: Mr. Gerard O'Leary**

**Assisted by: Mr. Brian Meaney**

**11 August 2000**



## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS</b> .....	<b>5</b>
<b>GLOSSARY OF TERMS</b> .....	<b>6</b>
<b>SUMMARY</b> .....	<b>7</b>
<b>DETAILS OF THE APPLICATION</b> .....	<b>9</b>
<b>ORDER OF APPEARANCE</b> .....	<b>10</b>
<b>REGISTER OF PAPERS</b> .....	<b>11</b>
<b>PRE-HEARING CORRESPONDENCE</b> .....	<b>14</b>
<b>ORAL HEARING</b> .....	<b>15</b>
<b>OPENING REMARKS BY THE CHAIR</b> .....	<b>15</b>
<b>OPENING STATEMENT FROM SAFEWAY WAREHOUSING LTD.</b> .....	<b>16</b>
<b>OPENING STATEMENT FROM THE OBJECTORS</b> .....	<b>16</b>
<b>PRESENTATIONS OF EVIDENCE</b> .....	<b>17</b>
PRESENTATION OF MR. DAVID MALONE (OBJECTOR).....	17
PRESENTATION OF MR. RORY FINEGAN (OBJECTOR) .....	17
PRESENTATION OF MR. SEAN O’SULLIVAN (OBJECTOR) .....	21
PRESENTATION OF MS. JESSICA OWERS (OBJECTOR) .....	22
PRESENTATION OF MR. PAT THORNHILL (OBJECTOR).....	23
PRESENTATION OF MR. FRANK SHINNICK (OBJECTOR).....	24
PRESENTATION OF MRS. HELEN RIORDAIN (OBJECTOR).....	27
PRESENTATION OF MR. STEPHEN OWEN-HUGHES (APPLICANT) .....	29
PRESENTATION OF DR. DAMIAN TAYLOR (APPLICANT).....	31
PRESENTATION OF DR. PAUL JOHNSTON (OBJECTOR).....	32
PRESENTATION OF DR. GEV EDULJEE (APPLICANT).....	36
PRESENTATION OF MR. MICHAEL BAILEY (APPLICANT).....	39
PRESENTATION OF MR. GERARD MORGAN (APPLICANT).....	40
PRESENTATION OF PROFESSOR JAMES HEFFRON (APPLICANT).....	42
PRESENTATION OF DR. MARTIN HOGAN (APPLICANT).....	44
PRESENTATION OF DR. ED ROYCROFT (APPLICANT).....	46
PRESENTATION OF MR. TIMOTHY COLLINS (APPLICANT) .....	47
LOCATION OF OBJECTORS .....	48
PRESENTATION OF MR. PAT O’FLYNN (APPLICANT).....	48
<b>LEGAL SUBMISSIONS ON BEHALF OF THE OBJECTORS</b> .....	<b>52</b>
<b>LEGAL SUBMISSIONS ON BEHALF OF THE APPLICANT</b> .....	<b>53</b>
<b>CLOSING STATEMENT ON BEHALF ON THE OBJECTORS</b> .....	<b>56</b>
<b>APPLICANT’S RESPONSE TO THE OBJECTORS CLOSING STATEMENT</b> .....	<b>57</b>
<b>WRITTEN OBJECTION</b> .....	<b>57</b>
<b>RECOMMENDATIONS</b> .....	<b>58</b>
GENERAL .....	58
CONSIDERATION OF THE PRESENTATION OF EVIDENCE AND THE WRITTEN OBJECTION.....	58
DETAILED RECOMMENDATIONS .....	59
RECOMMENDATION 1 .....	60
RECOMMENDATION 2 .....	60
RECOMMENDATION 3 .....	61
RECOMMENDATION 4 .....	61
RECOMMENDATION 5 .....	63
RECOMMENDATION 6 .....	64
RECOMMENDATION 7 .....	64

RECOMMENDATION 8 .....	65
RECOMMENDATION 9 .....	65
RECOMMENDATION 10 .....	66
RECOMMENDATION 11 .....	66
RECOMMENDATION 12 .....	67
RECOMMENDATION 13 .....	68
RECOMMENDATION 14 .....	68
RECOMMENDATIONS 15 .....	69

## **ACKNOWLEDGEMENTS**

The Chair would like to acknowledge the support services provided by Ms. Breda Sheehan, Ms. Dolores Buckley, Ms. Yvonne Clooney and Ms. Sonja Smith over the duration of the Oral Hearing in the Grand Hotel, Fermoy.

## GLOSSARY OF TERMS

Act	Waste Management Act, 1996
BFSA	British Fire Services Association
Cl <sub>2</sub>	Chlorine
EC	European Community
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ERP	Emergency Response Procedure
ERT	Emergency Response Team
EWC	European Waste Catalogue
EU	European Union
HCl	Hydrogen Chloride
ISO	International Standards Organisation
MSDS	Material Safety Data Sheet
NO <sub>x</sub>	Oxides of Nitrogen
NUI	National University of Ireland
°C	Degree Centigrade
PAHs	Polycyclic Aromatic Hydrocarbons
Pathway 2(a)	Blending and mixing the contents of drums on-site
Pathway 2(b)	Blending and mixing the contents of large containers on-site
PCB	Polychlorinated Biphenyls
PD	Proposed Decision of the EPA
pH	Hydrogen Ion Concentration
SAC	Special Area Of Conservation
WHO	World Health Organisation
WMA	Waste Management Act, 1996

## SUMMARY

Safeway Warehousing Ltd., Corrin, Fermoy, Co. Cork made an application to the Environmental Protection Agency (EPA) on the 30 June, 1998 for a waste licence for the following classes of activities:

### *Third Schedule of the Waste Management Act, 1996*

Class 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.

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

Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 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.

### *Fourth Schedule of the Waste Management Act, 1996*

Class 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.

A Proposed Decision, which proposed the granting of a waste licence subject to conditions, was issued on the 5<sup>th</sup> April 2000. The proposed decision is included as Appendix A of this report.

The EPA received a valid objection and a request for an Oral Hearing. Councillor Tadhg O'Donovan, Councillor Arthur Dowling, Councillor John Hussey and twenty five others signed the objection, which has been included as Appendix B of this report.

The EPA (Agency) agreed to the request for the Oral Hearing and later on the 30<sup>th</sup> May, 2000 appointed me to conduct the Hearing with the assistance of Mr. Brian Meaney. Mr. Meaney and I were also requested by the Agency to deal with all written objections when drafting the report on the Oral Hearing.

A submission on the objection was received from Safeway Warehousing Ltd. and this is included as Paper No. 1.

The Oral Hearing was held in the Grand Hotel, Fermoy and lasted four days, commencing on Thursday 6<sup>th</sup> July, 2000 and closing on Tuesday 11<sup>th</sup> July, 2000.

This report includes a record of the Oral Hearing and other relevant matters including written submissions, photographs etc. submitted at the Hearing (see register of papers presented at the Oral Hearing).

My recommendation is that a waste licence be granted to Safeway Warehousing Ltd for the following classes of activities:

*Third Schedule of the Waste Management Act, 1996*

Classes 7, 11, 12 and 13

*Fourth Schedule of the Waste Management Act, 1996*

Class 13

I recommend that the waste licence should be subject to conditions, provided for in the Proposed Decision of the 5 April 2000, as amended and added to by the proposed conditions set out in this report. These amended and added to conditions include:

- the requirements for zero-wastewater discharge from the facility,
- the requirement to have financial provisions in place and training on waste acceptance procedures prior to the commencement of the activity,
- the imposition of emission limit values for specified air emissions, and
- a twelve month moratorium to the commencement of Class 11 of the Third Schedule (blending and mixing of waste acids, oils and solvents).



## **DETAILS OF THE APPLICATION**

The application for a waste licence pertained to a hazardous waste storage facility and transfer station, and associated activities including blending, mixing and repackaging of waste for recovery and disposal. The proposed maximum annual quantity of waste is circa 32,000 tonnes. The activities proposed are not existing though a sister company South Coast Transport Ltd. operates a bulk transportation facility from the site. An Environment Impact Statement (EIS) accompanied the application.

The Agency issued a Proposed Decision to grant a waste licence on 5 April, 2000 having considered the application, responses to requests for additional information, the numerous submissions received during the application period and the Inspectors Report to the Board.

## ORDER OF APPEARANCE

<b>Day 1: July 6, 2000</b>	<b>Party</b>
Mr. John Hussey	Objectors
Mr. Eamon Galligan	Applicant
Mr. David Malone	Objectors
Mr. Rory Finnegan	Objectors
Mr. Sean O' Sullivan	Objectors
Ms. Jessica Owers	Objectors
Mr. Pat Thornhill	Objectors

<b>Day 2: July 7, 2000</b>	<b>Party</b>
Mr. Frank Shinnick	Objectors
Mrs. Helen Riordain	Objectors
Mr. Stephen Owen-Hughes	Applicant
Dr. Damian Taylor	Applicant
Dr. Paul Johnston	Objectors
Dr. Gev Eduljee	Applicant

<b>Day 3: July 10, 2000</b>	<b>Party</b>
Mrs. Helen Riordain	Objectors
Dr. Gev Eduljee	Applicant
Mr. Michael Bailey	Applicant
Mr. Gerard Morgan	Applicant
Prof. James Heffron	Applicant
Dr. Martin Hogan	Applicant
Prof. James Heffron	Applicant
Mr. John McCarthy	Applicant (withdrawn)
Dr. Ed Roycroft	Applicant

<b>Day 4: July, 11 2000</b>	<b>Party</b>
Mr. Timothy Collins	Applicant
Mr. Pat O'Flynn	Applicant
Mr. Eamon Galligan	Applicant
Mr. John Hussey	Objectors

## REGISTER OF PAPERS

(see Appendix D)

Paper No.	Presenter	Representing	Document Name
1.	Mr. Gerard O'Leary	Chair	Safeway Warehousing Ltd. correspondence undated – received at EPA 16/6/00.
2.	Mr. Rory Finnegan	Objectors	Brief report concerning a proposed waste storage facility at Corrin, Fermoy, County Cork – a brief report prepared on behalf of Fermoy Environmental Protection Group, 20 April 1998.  <i>With</i>  Communication concerning a proposed waste storage facility at Corrin, Fermoy, County Cork – April 2000, Postscript added May 2000.
3.	Mr. John Hussey	Objectors	List of witnesses for Objectors.
4.	Mr. Eamon Galligan	Applicant	List of witnesses for Applicant.
5.	Mr. Pat Thornhill	Objectors	Two photographs.
6.	Mr. Frank Shinnick	Objectors	Article from <i>Avondhu</i> newspaper entitled "Environmental Group objects to toxic and hazardous waste storage facility" – undated.
7.	Mr. Frank Shinnick	Objectors	South Coast Transport Ltd. correspondence to EPA dated 6/2/98.
7a.	Mr. Frank Shinnick	Objectors	Safeway Warehousing Ltd. correspondence to EPA dated 19/8/98.
8.	Mr. Frank Shinnick	Objectors	Sunday Tribune newspaper advertisement for South Coast Group dated 28/6/98.
9.	Mr. Stephen Owen-Hughes	Applicant	Report – assessment undertaken on Safeway Warehousing Ltd.
10.	Mr. Stephen Owen-Hughes	Applicant	Joint Services Publication 317, Handling of Flammable Liquids (extract), Section 3 – Framework for Response Plan.
11.	Mr. Stephen Owen-Hughes	Applicant	Cork County Council correspondence to South Coast Transport Ltd. dated 7/7/00.

<b>Paper No.</b>	<b>Presenter</b>	<b>Representing</b>	<b>Document Name</b>
12.	Mr. Stephen Owen-Hughes	Applicant	Safeway Warehousing Ltd. – 98/BC/N/1404 – Fire Safety Certificate – conditions (2 no.), (extract from fire safety certificate).
13.	Dr. Damian Taylor	Applicant	Hydrogeology issues – Statement of evidence – Potential effects on the hydrogeological regime.
14.	Dr. Damian Taylor	Applicant	Curriculum Vitae.
15.	Dr. Gev Eduljee	Applicant	Oral Hearing – Statement of Gev Eduljee.
16.	Mr. Eamon Galligan	Applicant	Text of opening statement by Eamon Galligan BL on behalf of Applicant.
17.	Mrs. Helen Riordain	Objectors	Commercial Motor Ireland, no. 17, August 1998 – article entitled <i>Clear and Present Danger</i>
18.	Mrs. Helen Riordain	Objectors	Rathcormac and Bartlemy Newsletter, 2 <sup>nd</sup> August 1998.
19.	Mr. Michael Bailey	Applicant	Envirocon – Appeal of proposed decision on waste licence in respect of Safeway Warehousing Ltd., Fermoy, Co. Cork.  <i>With</i>  Curriculum Vitae of Michael L. Bailey.
20.	Mr. Gerard Morgan	Applicant	Replies to matters of surface water quality raised by Objectors.
20a.	Mr. Gerard Morgan	Applicant	Curriculum Vitae.
21.	Mr. John Hussey	Objectors	Southern Regional Fisheries Board correspondence to EPA dated 21/12/98.
22.	Prof. James Heffron	Applicant	Short Curriculum Vitae of J.J.A. Heffron
23.	Dr. Martin Hogan	Applicant	Statement of evidence, Environmental Protection Agency, Appeal Hearing.
24.	Mr. Gerard O'Leary	Chair	Ordnance survey discovery series no. 81 – residences of Objectors' witnesses.

25.	Mr. John McCarthy	Applicant	Two items returned to the witness (see page 46 of this report).
26.	Mr. John McCarthy	Applicant	
27.	Dr. Ed Roycroft	Applicant	Curriculum Vitae.
28.	Mr. Timothy Collins	Applicant	Curriculum Vitae.
29.	Mr. Pat O'Flynn	Applicant	Pat O'Flynn, Managing Director of Safeway Warehousing Ltd.
30.	Mr. Pat O'Flynn	Applicant	FÁS certificate of completion of training and assessment tests for specified modules of the Waste Management Training Programme.
31.	Mr. Pat O'Flynn	Applicant	Curriculum Vitae of Noel Gerard Coleman.
32.	Mr. John Hussey	Objectors	Legal submission for the objection.
33.	Mr. John Hussey	Objectors	Safeway Warehousing Limited abridged financial statements for the period ended 31 December 1998.
34.	Mr. Pat O'Flynn	Applicant	Weatherbys Ireland correspondence to whom it may concern dated 6/7/00.
35.	Mr. Eamon Galligan	Applicant	Extract from O'Sullivan & Shepherd, Irish Planning Law and Practice.
36.	Mr. John Hussey	Objectors	Closing statement.

## PRE-HEARING CORRESPONDENCE

The Agency received a letter on the 23<sup>rd</sup> June, 2000 from Councillor John Hussey, one of the signatories to the objection. The letter, dated the 22<sup>nd</sup> June, 2000 enquired whether it was possible to subpoena witnesses to the Oral Hearing. The Agency replied on the 23<sup>rd</sup> June, 2000 advising that the Regulations did not include a power of subpoena of witnesses. A copy of relevant extracts from the Waste Management Act, 1996 and associated Regulations were attached to the reply. In addition, Mr. Hussey was advised that relevant provisions were available to the Chairman of the Hearing to require certain persons to attend the Hearing.

The Agency received a facsimile letter dated the 3<sup>rd</sup> July, 2000 from Cllr. Hussey. The letter was forwarded for my attention. The letter requested the Oral Hearing to arrange for the County Manager of Cork County Council to attend the Oral Hearing with the planning and enforcement file relating to the site at Corrin, Fermoy. I replied to Cllr. Hussey on the 5<sup>th</sup> July by facsimile letter advising him that his request related to planning matters and were not a matter for the Agency and were hence not a matter for the Oral Hearing. I however, stated that if it became necessary during the course of the Hearing to require someone to attend, I would invoke the powers available to me under the Waste Licensing Regulations.

## **Oral Hearing**

### **Opening Remarks by the Chair**

Prior to formally opening the Oral Hearing, I confirmed that both the Objector(s) and the Applicant were present and had been notified of the Hearing. I declared the Hearing open and read my letter of appointment and Mr. Brian Meaney subsequently read his (see Appendix C). I was advised that Mr. Eamon Galligan B.L. (instructed by John O' Malley Solicitors) would be representing Safeway Warehousing Ltd. (the Applicant) and Mr. John Hussey, Solicitor would be representing the Objectors. Both parties undertook to provide a list of witnesses as soon as possible. I then provided a short summary of the application. I stated that Mr. Meaney and I (The Chair) had visited the site on the 19 June, 2000 and had noted the progress of construction. I stated that I presumed that both parties were familiar with the site. I advised the Hearing that the Agency had received a submission on the objection from Mr. Pat O'Flynn, Safeway Warehousing Ltd. and I stated that this submission should be considered at this Hearing (see Paper No. 1). Mr. Hussey stated that he was not aware of this submission and requested a brief adjournment to consider its contents. Prior to granting the request, two individuals interjected, including Mr. Malone who requested clarification from the Chair. I advised the Hearing that I would hear all parties to the objection initially and all others (if they wished) after this. Upon resumption I reminded both parties that this was not a court of law but an Oral Hearing and that all participants should co-operate as much as possible to ensure that the Hearing would be conducted in an informal manner. I stated that no electronic recording or transcript of the proceedings would be taken and that none would be allowed. I stated that limited copying facilities were available but advised that both parties should satisfy themselves that their copy was identical to that submitted to the Chair.

Mr. Hussey enquired as to his recent request for the attendance of the Manager of Cork County Council and the Town Clerk of Fermoy Urban District Council. I stated that my position had not changed. I reiterated that I would request their attendance if during the course of the Hearing I considered it necessary. I confirmed, with the agreement of the parties that the order of appearance at the Hearing would be as follows:

- (a) Mr. Galligan on behalf of Safeway Warehousing Ltd. (Applicant) would provide an opening statement.
- (b) Mr. Hussey on behalf of the Objectors would provide an opening statement.
- (c) The Objectors would present their witnesses followed by questioning by the Applicant.
- (d) The Applicant would provide their witnesses followed by questioning from the Objectors.

- (e) The Objectors would present their legal submissions.
- (f) The Applicant would present their legal submissions.
- (g) Closing statement from both parties.

### **Opening statement from Safeway Warehousing Ltd.**

Mr. Galligan outlined the proposal (see Paper No.16) and stated that the facility would operate in accordance with all EU standards and in strict compliance with the terms and conditions of any license granted by the Agency. In addition he pointed out that the Applicant was committed to the highest standards of environmental protection.

### **Opening statement from the Objectors**

Mr Hussey made a statement on behalf of the Objectors. He stated that he was grateful to the EPA for affording them an opportunity to voice their concerns. However, Mr. Hussey was of the opinion that the Agency had decided on this issue and believed that it would not change that decision. He wished to clarify that the letter of objection was not on behalf Fermoy Environmental Group. The Objectors consisted of three Fermoy UDC Councillors, doctors, teachers, business people and residents who were very concerned about this development.

Mr. Hussey stated that they had three main concerns about the proposed development:

- (a) The total unsuitability of the proposed facility in an agricultural area;
- (b) Its total unsuitability for the storage of toxic and hazardous waste including asbestos; and
- (c) The unfitness of the people proposing to manage it.

*I was advised at this point that Mr. Pat Thornhill was hard of hearing and he requested permission to "plug" into the amplification system. I permitted this when he gave an assurance that he was not endeavouring to record or transmit material from the Hearing.*



## **Presentations of Evidence**

### ***Presentation of Mr. David Malone (Objector)***

Mr. Malone introduced himself as the Environmental Development Officer of the Environmental Action Alliance – Ireland (EAA-I). He stated that he had been asked to examine the application and the Environmental Impact Statement (EIS) submitted by the Applicant. Mr Malone stated that the objective of an EIS is to provide information for both the planning and waste licence application processes. He stated that the Waste Management Act's definition of an EIS refers to a statement prepared in compliance with Article 25 of the EIA Regulations and that certain minimum information must be provided. Mr. Malone stated that his brief was not engineering but legal – that is, he assessed the legal aspects of the EIS. In this respect, Mr. Malone contended that the EPA has no power to grant a waste licence based on an inadequate EIS. In relation to the non-technical summary, Mr Malone stated that it did not satisfy the Directive and that it contained jargon and hence the public were excluded from participation – in contravention of their rights under EU treaties. The non-technical summary did not contain the minimum information required. The summary did not address the description of the project, the alternatives, the significant adverse effects and remedies or the neutralisation plant. The project description did not identify the source of the waste nor where it would be disposed of. In relation to asbestos, he would have expected plans to have been included in the EIS. He was of the opinion that there is nowhere in Europe for the disposal of asbestos and questioned where the Applicant proposed to dispose of asbestos. He stated that in respect of the export of waste other countries should have had an opportunity to comment on the EIS and the possible environmental impact on them, in accordance with Article 7 of the Directive. Mr. Malone stated that he would have expected soil samples to have been taken and boreholes sunk within a 500m radius of the site. He again said there was no consideration of alternative locations. He again restated that his *“brief is not engineering, but compliance with EU laws and regulations”*.

### ***Presentation of Mr. Rory Finegan (Objector)***

Mr. Finegan stated that he has a BSc in Zoology and an MSc in Histology and Histochemistry. Both degrees were obtained from the University of London. Mr. Finegan stated that he is a graduate of the University of Aston, Birmingham and held an associateship to the college of technology. Before retiring seven years ago (though still professionally active), Mr. Finegan stated that he had reached the level of Assistant Professor. Mr. Finegan stated that he has 135 publications and described himself generally as *“a biologist of a general sort”*. He stated that he has expertise in biochemical ratios as indicators of health, ageing and disease. Mr. Finegan stated that he had worked for circa eight years as a wildlife biologist in Canada, which included an involvement in pest control committees. He also stated expertise in biostatistics and biocides from this employment. Mr. Finegan submitted

written evidence (see Paper No. 2) and stated that this written evidence is typical of reports he has prepared in Ireland since 1974.

Mr. Finegan stated that the proposed facility was too close to the centre of Fermoy, to Cork City and to a major highway (N8). He expressed concern in relation to the restrictive topography of the area which he considered would trap air emissions and he expressed concern in relation to drainage from the site which would impact on fresh and marine waters.

Mr. Finegan stated that the EIS was inadequate and failed to recognise the probability of spillage on-site and the impact of a spillage on the aqueous environment. He stated that because of the large transportation element in this proposed facility there was a great likelihood of accidents. Mr. Finegan cautioned that there was a doubling of the accident risk associated with this facility as trucks not only entered the site but also left it.

Mr. Finegan stated that he was not opposed to the development of a transfer station and the service it would provide. However, he stated that the location of this proposed facility was wrong and he advised that the Irish Government should provide monies for such a facility to be established at a more suitable location.

Mr. Finegan stated that there was no risk assessment in the EIS, hence it was an incomplete study. He considered that a list of three species of birds in the biological survey was an "*inconceivably short list*" and that this indicated a further deficiency in the EIS. Mr. Finegan considered that any biological survey should be undertaken over a minimum period of one year in order to allow for the migration of birds and the seasonal development of flora. He stated that the EIS did not meet this most basic requirement. He stated that the proposed facility posed a danger to species in the surrounding woodland.

Mr. Finegan stated that it was his understanding that the planning permission was given by default. He stated that it was difficult to see how a waste licence can control the site in relation to safety. He stated that there was no risk planning in terms of the evacuation of residents and fighting chemical fires to cover the potential effect that the restrictive topography may have either during normal operation or in the event of a disaster. Without such risk planning, the EPA could not have properly judged the application. He stated that had the EPA employed him, he would have rejected the EIS.

Mr. Finegan stated that the EIA contained loose terminology; for example, the word "*herbicides*" should be expanded upon. In this respect he stated that the input to the proposed facility is loosely defined and consequently, the EPA could not determine that there would be "*no other emissions of environmental significance*" as stated in the Inspector's Report. For this reason he contended that the Agency could not reach a decision.

Mr. Finegan stated that he was of the opinion that the monitoring in the proposed decision was too vague. Phrases such as "*no other emission of environmental significance*" needed to be reworded and all emissions specified. Mr. Finegan stated that he could not review the list of waste

proposed to be accepted at the facility as he did not have a key for the list of "European waste codes" listed in attachment D, p.18, of the application. Mr. Finegan considered that the use of EWC codes in controlling the acceptability of waste material was insufficient in a licence. He considered that producers of waste should be asked to identify the constituents of the waste. Mr. Finegan made reference to a facility in Seattle where an incident involving a truck carrying 39lb of waste, which went on fire, caused the evacuation of residents. In this case no risk assessment had been undertaken. He stated that in relation to the proposed facility, the possibility of an accident, a fire, the generation of dioxins, surface and marine water contamination were all risks that had not been examined. He was of the opinion that a serious accident would produce dioxins and these would enter the River Bride and eventually reach Youghal. He stated that the EPA should know what mixture of waste materials is contained in each truck arriving at the facility in order to assess the risks.

Mr. Finegan stated his concerns that clinical waste was to be stored on-site. His claim stemmed from the fact that page 11 of the EIS stated that 20% of waste proposed to enter the site was categorised as toxic and infectious waste. Mr. Galligan for the Applicant interjected and stated that it was not Safeway Warehousing's intention to store infectious healthcare risk waste or sharps waste on-site. Mr. Finegan stated that consequently, the total quantity of waste which may be accepted at the facility should be reduced by 20%.

Mr. Finegan referred to the Special Area of Conservation (SAC) which included the River Blackwater, 1.5 miles from the facility. He stated that in the event of a spillage or emergency at the facility, the wind might blow clouds of gas in that direction.

Mr. Finegan stated that his understanding was that the proposed facility involved mixing, stirring and grinding of waste and this would require specialist expertise and equipment similar to someone going into outer space. The person engaged in such activities should be a chemist, not a biologist, who should have knowledge of chemistry so as to avoid the accidental mixing of incompatible materials. The chemist should have an encyclopaedic knowledge of the harmful effects of mixing such as synergism and the carcinogenesis of materials. The chemist should be aware of the carcinogenicity and the explosive nature of chemicals in the mixing and blending of chemicals.

Mr. Finegan noted that the EIS did not contain a cost benefit analysis for the facility. Fermoy was likely to grow in the coming years, however, this facility may restrict certain developments. The highway adjacent to the site follows the historic route from Cork to Dublin. He expressed concern about the huge trucks each carrying 40-50 tonnes of waste, of which 10% would be hazardous waste. The Holy Well is acknowledged in the EIS as important. Mr. Finegan was of the opinion that the proposed facility should be located adjacent to a remote spur off a railway line. The following factors should preclude the presence of the proposed facility: the proximity of the road and residents to the facility, the topography of the area and the sensitivity of the

surface water. He stated that the hazardous waste component of the proposed activities should be separated and carried out elsewhere.

Mr. Finegan was of the opinion that storing foodstuffs adjacent to hazardous material was not desirable.

Mr. Finegan stated that given that the company had earlier during his evidence given an undertaking that no clinical waste would be accepted at the facility, he was happy that there was no threat to livestock, the water supply and the food chain. However, he remained concerned that there may be other substances injurious to livestock and crops, which would require close and constant monitoring inside and outside the plant.

Mr. Finegan was of the opinion that wheel washings should not be permitted to discharge to the stream. Mr. Finegan considered such an idea to be absurd and considered it to have an air of unreality. He considered it to be a hazardous activity in the extreme and should be disallowed. He stated that there should be a safety corridor associated with the proposed development to provide protection in case of a major incident. Indeed he questioned the power of Cork County Council to give planning permission to a facility which discharges into another county or which allows trucks of waste to arrive from other counties. He assumed that all waste arriving at the facility would originate in County Cork and would leave the country through the Port of Cork.

#### *Response to questions from the Applicant*

Mr. Finegan agreed that much of the material submitted as part of his submission to the Oral Hearing (Paper No. 2) had been previously submitted to the Agency. He stated that the material was divided into two parts. The first report is dated April 1998 and formed part of the original submission prior to the proposed decision and the objection to the proposed decision. The second part of the submission to the Oral Hearing is dated April 2000 and again much of this material formed part of the objection.

Mr. Finegan stated that he had given expert testimony in relation to Askeaton, Merck Sharpe and Dohme, Merrill Dow, Schering Plough, Ballyguyroe and Michell Tanneries. Mr Finegan admitted to not ever holding a Chair at a university but that people referred to him as a professor despite his having obtained the level of assistant professor. He stated that he does not consider it necessary to hold a Chair to be a professor. Mr. Finegan advised that his fellowship of the Institute of Biomedical Science was attained by him having obtained an MSc.

Mr. Finegan stated that he was unhappy with the structural design of the facility. He stated however that he could not raise questions in this respect due to a lack of expertise. He admitted to there being a need for such a facility in Ireland but that the government should select a suitable site. He admitted that finding any suitable site would be difficult. Mr. Finegan stated that he was unfamiliar with EWC codes for waste and that this was a fault of the application document. He admitted that he was not sure if he had read all of

the article 16 responses and he was equally unsure if he was in possession of all of the application documents.

Mr. Finegan stated that the lack of legal interpretation of the word "cell" used in the Inspector's Report indicated a degree of carelessness; in not observing strict interpretation. Upon being questioned upon what qualification he based his judgement of the Inspectors Report, Mr. Finegan stated that in his position as wildlife biologist with an enforcement agency in BC, Canada, he had received prosecution training although he stated that he had never had the opportunity to prosecute anybody.

### ***Presentation of Mr. Sean O'Sullivan (Objector)***

Mr. O'Sullivan stated that he is a veterinary surgeon and has practised his profession for the past 15 years following a short period of postgraduate work in a university faculty. Mr. O'Sullivan stated that he now employs three vets and seven lay staff at a veterinary hospital located 500 metres south of the proposed facility (see location marked on Paper No. 24). He stated that he also runs a small stud farm with eight brood mares and progeny, bred as thoroughbred flat racing animals. Mr. O'Sullivan stated that he has published articles on paraquat and lead poisoning episodes. Mr. O'Sullivan stated that he lives almost full-time at the veterinary hospital during the spring season.

Mr. O'Sullivan stated that his concerns included the poor quality of information in the EIS, the location of the facility in an agricultural environment, the lack of a bond in the event of a disaster on-site, the potential release of dioxins and aluminium into the environment and their effects on livestock, the effect of the activities on the food chain (milk in particular) and road safety.

Mr. O'Sullivan contended that the information submitted initially in the EIS was inadequate. The Applicant had furnished subsequent information but this did not provide an accurate picture of the interaction between the proposed facility and its environment. Mr. O'Sullivan stated that the EIS should provide information for the whole year and in particular the spring and winter months. He contended that mammals were a significant local feature and stated that he has personally seen hares, moles and voles, species which are absent from the EIS but which he contends are visible all year round. In addition, he stated that no reference was made to invertebrates in the EIS. Mr. O'Sullivan stated that Minister Sile de Valera had designated an area, which starts 1.5 miles from the proposed development, as a special area of conservation (SAC). The SAC includes the River Blackwater and Mr. O'Sullivan stated that it was illegal to interfere with it in any way. Mr. O'Sullivan stated that no detailed species interactions were discussed in the EIA and that the half-life of contaminants in the environment and their cumulative properties were not assessed. Mr. O'Sullivan was of the opinion that the additional information supplied by the Applicant did not correct the omissions in the original EIS.

In the event of a fire on-site, Mr. O'Sullivan stated his concerns in regard to the release of dioxins and contended that while there are safe levels for other livestock, there is no safe level of dioxins for horses. Mr. O'Sullivan stated that according to *Weatherbys Ireland 2000 Stallion Statistics Returns*, stallions

based within a 5km radius in the area produce 30% of all foals in Ireland. Mr. O'Sullivan stated that the value of the bloodstock industry was reported by Irish Thoroughbred Marketing at £120 million. Mr. O'Sullivan stated that stud farmers in the area, including himself, had invested highly in the industry.

Mr. O'Sullivan stated that he was concerned with the absence of information in the application on a bond in the event of a disaster occurring on-site, which might impact on his livelihood. Mr. O'Sullivan objected to the fact that in the event of a dioxin release, the owners of animals could sue him and he would not be in a position to counter claim against the Applicant.

Mr. O'Sullivan stated that the storage, mixing and blending of aluminium chloride could yield emissions of hydrogen chloride or aluminium. He stated that hydrogen chloride (HCl) is an irritant and can suppress the immune system. He added that aluminium is destabilised by acid, alkali or sulphur (for example, from exhaust fumes) and could become available for absorption by horses. He quoted work recently produced by Dr. Ursula Fogarty of the Irish Equine Centre, Johnstown, Naas, Co. Kildare. This work suggested that aluminium is destabilised in a hydrogen chloride or sulphur environment and the resultant aluminium product is a major health concern.

Mr. O'Sullivan stated that there was no baseline work undertaken on soils or animal health and that this would be a major impediment in assessing any future damage to the local environment. Mr. O'Sullivan noted that the proposed decision did not include an agreement with the local stud farms. He stated his concern that in the event of ongoing fires at the facility which would release high levels of dioxin, European law might prevent milk from the area being supplied to consumers.

Mr. O'Sullivan was of the opinion that Fermoy Fire brigade does not have the facilities to deal with a major fire at the site and that this was recently stated in a local newspaper.

Mr. O'Sullivan stated that traffic is very heavy and road accidents and injuries in the Corrin area are frequent and common. In the last three years, five people have been killed on the N8 between Rathcormack and Fermoy. There are double white lines on this section of road. He stated that there should be a licence condition relating to accidents at the site gate.

Mr. O'Sullivan was disappointed that he had received no prior notification from the Applicant about the proposed facility.

### ***Presentation of Ms. Jessica Owers (Objector)***

Ms. Owers stated that she lives 300 m from the entrance to the proposed facility and has lived there for the past nine years (see location map Paper No. 24). She stated that she is presently studying for a degree in Environmental Science and Media Studies at Stirling University.

Ms. Owers stated that she was horrified by the proposed facility and objected to it on the grounds of its toxic effects and the inadequacy of the EIS.

Ms. Owers referred to a meeting with Mr. Pat O'Flynn which took place on the 24<sup>th</sup> February 1999. Ms. Owers stated that others in attendance at the meeting were her mother, father and aunt. The subject matter of the meeting formed part of an earlier submission to the Agency dated 12<sup>th</sup> May, 1999. Ms. Owers reiterated the substance of this submission to the Hearing. She stated that Mr. Pat O'Flynn had advised those present that he had been advised by the EPA to refrain from speaking at public meetings. She further stated that Mr. O'Flynn had stated that Cork County Council had funded the EIS as South Coast Transport Ltd. was financially incapable of doing so. Ms. Owers also stated that based on her experience, three species of bird identified in the EIS did not represent the actual position in respect of birds in the area. Mr. Galligan advised that he would be putting forward a witness to refute Ms. Owers' testimony.

#### *Response to questions from the Applicant*

In response to a question from Mr. Galligan, Ms. Owers denied that her father had asked for a job from Mr. O'Flynn at the meeting in question.

#### ***Presentation of Mr. Pat Thornhill (Objector)***

Mr. Thornhill stated that he was a retired photographer and laboratory technician who lives 0.5 mile from the proposed facility (see location marked on Paper No. 24). Mr. Thornhill stated that he qualified in 1956 with a second class honours from the London City and Guilds, Dublin and has been retired for twelve years. He stated that he is a member of the Institute of Chemistry of Ireland. He stated that he understands and fears the chemicals proposed to be stored at the facility. He stated that he has a 200 ft deep well for drinking water purposes and that four of his neighbours also have wells.

Mr. Thornhill stated that his concerns about the proposed facility were grounded on the lack of advance warning of potential contamination of his well. He stated that the PD conditions do not require daily monitoring of groundwater and that the first indication of a problem would only become evident at his post-mortem. Mr. Thornhill advised that he had already made a submission to the Agency about his concerns.

Mr. Thornhill stated that he did not believe that the storage of chemicals could be hazard free though he was anxious to point out that his family was not against proper waste management. However, he was of the opinion that accidents happen; he referred to the Irish pharmaceutical industry and to the Union Carbide plant in Bhopal. Mr. Thornhill stated that the location of the site was inappropriate and was within 200 m of the proposed by-pass.

Mr. Thornhill stated that planning conditions had been ignored. He stated that he had taken many photographs of the site with food containers parked alongside chemical containers. He submitted two photos (see Paper No. 5) of a lorry container which he claimed was parked at a nearby timber factory, which is in close proximity to the site.

### *Response to questions from the Applicant*

In response to questions from Mr. Galligan, Mr. Thornhill stated that he could not recall if a truck was attached to the containers at the time the photographs above were taken. In addition, Mr. Thornhill was unaware if the containers were full or empty or the precise distance of the parking location from the proposed facility.

*Before the resumption of hearing evidence in Day 2 I reminded Mr. Galligan that the Applicant had intimated during Day 1 that he would be refuting the evidence of Ms. Owers. In addition, I stated that the Chair was anxious to question the Applicant inter alia about the proposed management of waste and of the facility. I advised Mr. Galligan that if the Chair was not satisfied that these issues were adequately addressed I reserved my right (under the Regulations) to request the Applicant to furnish such information. I pointed out to Mr. Galligan that I noted his rebuttal during Mr. Finegan's evidence that no infectious waste would be accepted on-site. The Chair however, noted that cytotoxic waste was included in the application. Though I advised that all such wastes were not so classifiable as potentially infectious waste the possibility was that they could. Mr. Galligan noted the comments from the Chair and agreed to examine the issue of cytotoxic waste.*

*I advised Mr. Hussey that in the event of the Applicant refuting Ms. Owers testimony I would not permit any character assassination of the Applicant's witnesses during cross questioning. Mr. Hussey was emphatic that this was not his intention and stated that the subject matter of the Hearing would be adhered to. I advised Mr. Hussey that the written objection made reference to contraventions of the Air Pollution Act, 1987, subsequent Air Quality Standards and the Water Pollution Act, 1977. However, I noted that during Day 1 no specific references to these were made. I enquired as to whether witnesses would be produced to support these assertions. Mr. Hussey advised that the references to these Acts and standards should be construed as the Objectors' opinion that the proposed facility would cause air and water pollution.*

### **Presentation of Mr. Frank Shinnick (Objector)**

Mr. Shinnick stated that he is a farmer and cheese manufacturer at Strawhall, Fermoy, Co. Cork (see location marked on Paper No. 24). He stated that his property is less than half a mile from the site of the proposed facility. Mr. Shinnick stated that he is the Chairman of the Fermoy Environment Group which represents 1,500 objectors to the proposed facility.

Mr. Shinnick stated that he was grateful for the Oral Hearing and the opportunity to acquaint the EPA of his experiences. He stated that there were certain matters for which he would be seeking clarification from the EPA after the Oral Hearing. On the advice of his solicitor, he stated that the Oral Hearing should be recorded and he stated that this had been done at the Bord Pleannala Oral Hearing on Sandoz.



Mr. Shinnick stated that he first heard of the proposed development in the context of grant aid being awarded to the company. He stated that he did not have an opportunity to object to the planning permission. He stated that Mr. Pat O'Flynn had explained the proposed facility to him in terms of batteries and aerosols. Mr. Shinnick however stated that his concerns with the proposed facility have to do with solvents and toxic chemicals. He stated that Messrs. Pat and John O'Flynn assured him that only 45 gallon drums were to be accepted at the facility.

Mr. Shinnick stated that part of the site is on the old Dublin-Cork road and he asked whether the EPA had seen the title deeds. His concerns stemmed from the right of way.

Notwithstanding the fact that the proposed facility is not yet commissioned, Mr. Shinnick alluded to emissions and smells from the site and stated that wind direction and their influence on air emissions were not considered in the EIS. He stated that he wrote to the Director General of the EPA in June 1998 in connection with strong chemical smells from the site that lasted for at least a half hour. He referred to another person's statement to him that he/she had observed chemicals being transferred at the site. Mr. Galligan for the Applicant interjected and stated that fitness to hold a waste licence could not be considered outside of the scope of the Waste Management Act, 1996. The Chair stated that the witness would be heard. Mr. Shinnick stated that the following day his cows had a strong nasal discharge and that his neighbours had similar experiences.

Mr. Shinnick went on to say that he had sought information on the chemicals stored on site under the Freedom of Information Act but had failed to get the desired information and that this had prevented him from preparing a proper submission.

Mr. Galligan interjected and stated that section 40(7) of the Waste Management Act sets the criteria for consideration of the Applicant as a fit and proper person. He read out sections 40(4)(d) and 40(7)(a) of the Act and stated that neither the Applicant nor any person connected with the facility had been convicted of an offence under the Act and that evidence will be given to this effect. He went on to read out sections 40(7)(b) and 40(7)(c) of the Act. In regard to these provisions, Mr. Galligan stated that items other than convictions under the WMA, 1996 or technical issues should not be discussed at the Hearing. He also stated that the laws of libel apply.

The Chair advised Mr. Hussey that it could not be responsible for any action taken outside of the Oral Hearing.

On resumption of the Hearing, Mr. Galligan continued by stating that the EPA is obliged to grant a licence where sections 40(7)(a), (b) and (c) of the Act are satisfied. These sections exclude other convictions from consideration by the EPA.

In response, Mr. Hussey read out section 40(2)(a) of the Act and stated that the EPA has a statutory duty to examine the experiences of near neighbours

to the site. Mr. Galligan stated that, as earlier outlined by the Chair, it was not necessary to recycle submissions previously made.

The Chair advised that some reference to previous submissions was permissible at the Oral Hearing and requested Mr. Hussey to continue questioning his witness.

Mr. Shinnick stated that he was prepared to give evidence under oath. Continuing his evidence, Mr. Shinnick stated that a deformed calf (born with no tail) had had to be put down. He stated that his vet also had concerns about deformed animals and stated that had been no baseline study carried out on animal health.

Mr. Shinnick referred to letters written by South Coast Transport Ltd. (see Paper No. 7), Safeway Warehousing Ltd. (see Paper No. 7a) and other letters written to the EPA. He stated that one letter suggested that it may be that waste would be stored at the site but that the other letter indicated that no waste was being stored on site. In summary, Mr. Shinnick stated that one letter appeared to contradict the other.

Mr. Shinnick submitted a newspaper cutting (see Paper No. 6) in which Mr. Pat O'Flynn is quoted as saying that in applying for a waste licence, the company is only regularising what is already being done at the facility. Mr. Shinnick stated that this quoted statement required clarification. In referring to a newspaper advertisement (see Paper No. 8), Mr. Shinnick expressed the opinion that the advertisement for Safeway Warehousing "*was probably a bit premature*".

On the absence of rainfall data in the EIS, Mr. Shinnick stated that this appeared strange in the context of the large concrete area draining to the Shanowenadrimina Stream and in comparison to the situation whereby farmers in the area are getting money to prevent cattle from urinating in the same stream.

On soil samples, Mr. Shinnick stated that in a previous submission he had stated that soil samples are necessary under the Waste Management Act. He stated that prior to development of the proposed facility, chemicals and tanker washing took place on site which led to spills on the hardcore surface previously on site. Soil samples were an essential component of decommissioning the old site and building the new facility. He stated that in May 1998, topsoil was removed and buried nearby thus removing the opportunity to test the topsoil. He expressed his disappointment that the EPA did not insist on soil samples particularly as this issue had been pointed out to the EPA.

As a food producer and manufacturer, Mr. Shinnick stated that farmers have a liability in ensuring that no chemical contamination reaches their food. Mr. Shinnick stated that he, along with Mr. Sean O'Sullivan and one other, wrote to Dr. Patrick Wall in connection with storing food alongside waste at the facility.

Mr. Shinnick stated that he wrote to Mr. Ned O’Keeffe who he noted had visited the site.

Mr. Shinnick stated that Mr. Pat Santry, veterinary inspector with Cork County Council had visited the site and had recommended that a HAZOP system be put in place. Mr. Shinnick stated that the information in the application suggested that the facility had obtained ISO 9002. He went on to question whether the facility actually has ISO 9002 and if yes, he questioned the need for a HAZOP system.

If a licence is granted, Mr. Shinnick stated that he would request Mr. Bill McCumiskey, Director General, EPA to provide an absolute guarantee that no hazardous waste entered the groundwater in breach of the groundwater directive. He also stated that he wanted an assurance that Mr. Ned O’Keeffe made no approach on behalf of the company to the EPA.

*Response to questions from Applicant*

Mr. Shinnick admitted that he had not told Glanbia (to whom he supplied milk) of the nasal discharges from his cattle at the time. He thought that the EPA and Cork County Council (whom he had informed) were the responsible authorities in relation to health and safety. Mr. Shinnick stated that he had not considered it appropriate to approach Glanbia. He stated that it had not occurred to him to do so.

***Presentation of Mrs. Helen Riordain (Objector)***

Mrs. Riordain stated that she lives less than one mile from the site on the Fermoy side (see location marked on Paper No. 24). She stated that she had not been approached by the Applicant in relation to the proposed facility but had had previous contact with the company in the context of visiting the site to read the water meter.

She stated that her well was polluted and has been for several years. Mrs. Riordain stated that Mr. Sean Moran, a hydrogeologist, had concluded an examination in relation to the pollution in the well. Mr. Galligan interjected and stated that Mrs. Riordain was not in a position to give second hand hydrogeological evidence and that in any event she was not a hydrogeologist and may inadvertently misrepresent the technical data.

Mrs. Riordain stated that she was not contacted during the EIA process. She stated that she raised her concerns in 2 or 3 submissions to the EPA in relation to water, the Ballytrasna aquifer (she stated that Safeway Warehousing/South Coast Transport are on the aquifer) and her well. Mrs. Riordain stated that she was afraid to use her well for drinking water. She stated that last year, Cork County Council sent Mr. Sean Moran to do a report on contamination of the well. In his report, she stated that he could not identify the source of the contaminating chlorine.

Mrs. Riordain stated that in a meeting with Mr. John O’Flynn in his office, which Mr. Pat O’Flynn attended, she was informed that the proposed activities

would include the storage of batteries, tippex, aerosols etc. Mrs. Riordain stated that she has no clear recollection of the mention of chemicals and there was no mention of the quantities of waste to be accepted. Mrs. Riordain stated that Mr. J. O'Flynn handed her a letter addressed to herself and dated 5/3/98. Mr. Galligan stated that the letter was unsigned.

Mrs. Riordain stated that she would have believed the contents of the letter but for her having seen the planning permission for the facility, which allowed the company to accept all but explosive and radioactive waste. From then on, Mrs. Riordain stated that she had had no further contact with Mr. J. O'Flynn and did not take up the invitation in the letter to meet for an explanation of the activities proposed.

In quoting from a statutory response made by the Applicant as part of the waste licence application process, Mrs. Riordain quoted Safeway Warehousing as proposing to recover as opposed to incineration. Mrs. Riordain stated that it appeared to her that the company were going to recover waste at the facility. Mrs. Riordain also mentioned recovery distillation.

Mrs. Riordain also referred to a flyer distributed by the Applicant, which had already been submitted to the EPA. Mrs. Riordain quoted "*this site will not be a processing plant*" and "*no recovery plant*" from the document.

*At this point, Mrs. Riordain's evidence was postponed to allow for the Applicant's UK expert witnesses. These witnesses were endeavouring to catch a flight and were accommodated by Mr. Hussey.*

Upon resumption on day number 3 of the Hearing, Mrs. Riordain stated that she had not been told about asbestos waste. Mrs. Riordain also stated that she had become aware of more dangerous items by reading a magazine article (see Paper No. 17). The article was entitled *Clear and Present Danger* and included comments from Mr. John O'Flynn.

Mr. Hussey made the point that it is a blur as to who is the Applicant, South Coast Transport or Safeway Warehousing. He referred to a letter dated 3 June, 1998 included in the original waste licence application.

Mrs. Riordain stated that she was disturbed and upset to find that what she had been told to be a safe facility was not to be so. She stated that she met Mr. Pat O'Flynn in Cork County Hall and that he said that she was misinformed. Mrs. Riordain stated that she took part in a protest on 17<sup>th</sup> March 1998 comprising of a float in the St Patrick's Day parade. She stated that Mr. Richie O'Flynn approached the float. Mrs. Riordain stated that Mr. Richie O'Flynn stated that he was surprised at her. Mrs. Riordain stated that it became obvious that Mr. Pat O'Flynn became angry with two of the members of the float. Mrs. Riordain stated that Mr. Pat O'Flynn threatened Mr. Joe Kiely, a farmer stating "*we'll get you for this*" and said "*tell that to your buddy on the tractor*" (reference to Mr. F. Shinnick). Mrs. Riordain went on to say that later, the group received a phone call to say that the float had been vandalised. The incident was reported to the Gardai but nothing came of it.

Mrs. Riordain stated that on occasion she had noted sweet smelling odours which on one occasion caused a sore throat and chest pain. Mrs. Riordain also referred to a fire at the site that she observed on 1/7/99 while driving by the site. Mrs. Riordain stated that Cork County Council advised her that they had investigated the matter and were satisfied that there had been no fire.

#### *Responses to questions from the Applicant*

Mrs. Riordain stated that she had familiarised herself with the application, the PD and the Inspector's Report. Mrs. Riordain stated that she had not understood a lot of the PD. Mrs. Riordain stated that she found it quite frightening in terms of the belief that this could be a safe storage facility. Mrs. Riordain stated that the nature of the facility had been discussed at public meetings.

Mrs. Riordain stated that on the day of the fire on 1/7/99, she had observed Mr. J. O'Flynn coming out to look at the fire and noted that Mr. O'Flynn "was not a bit upset". Mrs. Riordain expressed surprise that a company applying for a licence to store toxic and chemical waste should show so little regard for the environment. Mrs. Riordain admitted that she had not called the fire brigade as Mr. J. O'Flynn had witnessed the fire. She considered the fire none of her business and had gone home. Mrs. Riordain submitted a local newsletter (see Paper No.18) which stated that the facility would not be a processing plant, just a safe storage facility.

#### ***Presentation of Mr. Stephen Owen-Hughes (Applicant)***

Mr. Owen-Hughes stated that he was vice-chairman of the South East District of the British Fire Services Association (BFSA). The BFSA is a charitable organisation. Safeway Warehousing Ltd is a member of the BFSA and hence has access to the expertise within that association. Safeway Warehousing will be using that expertise in reviewing the emergency response procedure previously drafted for the facility. Mr. Owen-Hughes stated that it was important that a company had access to competent advice in this area.

In his written evidence (see Paper No. 9), which formed part of his report on the assessment of fire risk at the proposed facility (the whole report due to be submitted to the client within one month), Mr. Owen-Hughes expressed satisfaction with the elements in place for fire prevention and emergency response. The essential elements identified in his written evidence are the requirements for a spill plan, the provision of spill equipment, the training of an emergency response team (ERT), the segregation of incompatible waste, fire resistant compartments for the storage of waste, risk assessments to be undertaken on each process, on-site safety checks and monitoring to be in place, labelling of products and the availability of Fire Prevention Association (FPA) data sheets and Marine Safety Association (MSA) CD-ROM. Mr. Owen-Hughes identified the need for desktop testing of the emergency response procedure (ERP) followed by a full scale exercise in conjunction with the emergency services. Mr. Owen-Hughes stated that risk assessment is an

integral part of any emergency response plan and that this plan should be dynamic.

Mr. Owen-Hughes stated that many emergency events take place within one hour of work finishing for the day. He stated that Safeway Warehousing propose employing security services to check for leaks and other risks after working hours.

Mr. Owen-Hughes submitted a paper (see Paper No. 10) which sets out the generic framework for an emergency response plan. Mr. Owen-Hughes submitted a statement from the local authority setting out the response times for the local fire brigades; Fermoy, 10 minutes; Mitchelstown, 20 minutes (see Paper No. 11). Mr. Owen-Hughes submitted an extract from the fire safety certificate for Safeway Warehousing Ltd. (see Paper No. 12).

Mr. Owen-Hughes stated that he would generally hope to promote understanding of the key issues by advising members of the BFSA to undergo training where necessary. Mr. Owen-Hughes stated that he is confident in management's ability to understand the process by which he arrived at his conclusions and that they possess the ability to implement his recommendations.

#### *Response to questions from the Objectors*

Mr. Owen-Hughes stated that the transport of any flammable materials can present a high risk but that such risks can be controlled. He stated that there is a fire risk in every process and in every house. The key is in identifying and knowing the risks. Mr. Owen-Hughes did not consider it part of his role to identify whether the emergency equipment currently on-site was in good working order. He considered that all such testing and certification of equipment should be in place prior to commencement of the proposed facility. He stated that Safeway Warehousing was seeking advice on what additional equipment would be required for the operation. He added that the site does not yet have all of the required equipment should operations commence immediately. Mr. Owen-Hughes stated that he carries out risk assessments at petroleum and lubrication oil storage facilities. He stated that he is also familiar with chemical installations (e.g. tanker parks storing flammable liquids) and has attended a number of chemical fires. He agreed that drums may well explode in a fire but he stated that Safeway Warehousing will endeavour to minimise the risk of this happening. Mr. Owen-Hughes suggested that the ERT could be trained by a company called "Emergency Fire Safety" or by the BFSA.

#### *Response to questions from the Chair*

Mr. Owen-Hughes explained that ground monitors were mobile equipment to be used in the event of an emergency to set up a water curtain to contain a fire and free up personnel.

Mr. Owen-Hughes stated that with the requisite training (which would probably take a few weeks), the personnel at the facility would be competent to deal

with an emergency situation as a first response unit (i.e. containment for 10 minutes).

In response to Safeway Warehousing, Mr. Owen-Hughes stated that he was not in a position to assess the capabilities of any of the members of the proposed ERT. However, he reiterated that he was satisfied that Mr. Pat O'Flynn and Mr. Timothy Collins, Site Manager, had an understanding of the issues and the risks. Mr. Owen-Hughes was satisfied in general with their level of technical knowledge in this area.

### ***Presentation of Dr. Damian Taylor (Applicant)***

Dr. Taylor stated that he is an environmental consultant specialising in risk management, hydrogeology and soil regimes. He submitted his curriculum vitae (see Paper No. 14).

Dr. Taylor submitted written evidence on the potential effects of the proposed facility on the hydrogeological regime (see Paper No. 13). He stated that there were no significant effects associated with the proposed development on the hydrogeological regime and that any potential significant effects had been assessed in the EIS. Dr. Taylor stated that in order for groundwater contamination to occur, there must be a pollutant linkage; i.e. a contamination source, a pathway and a receptor. Given the concrete surfacing at the facility, Dr. Taylor was of the opinion that there were "*no plausible pollutant linkages and hence no significant risks*".

Dr. Taylor described the hydrogeology beneath the site as a muddy sand overburden to a depth of 6 to 12 metres beneath which lay Ballytrasna old red sandstone with sandstone lenses. The sinking of three boreholes indicated that the groundwater within the overburden flows towards the Shanowenadrimina Stream, which is topographically and hydrogeologically down gradient. In relation to the detection of Polyaromatic Hydrocarbons (PAHs) in one groundwater sample, Dr. Taylor stated that this result was perhaps the result of groundwater contamination or poor laboratory practice.

Dr. Taylor stated that the aquifer was not regionally important because of the presence of mudstone. Local importance may be attributed to the sandstone parts of the aquifer.

Dr. Taylor stated that Mrs. Riordain's well is upstream and that any attribution of contamination to the site would have to defy gravity. He went on to say that there is no realistic pathway for the site to be the cause of contamination at the River Blackwater special area of conservation. Contamination at either receptor would be "*virtually impossible*". He was confident that the monitoring of boreholes and wells in accordance with the PD would detect any contamination at those locations.

### ***Response to questions from Objectors***

Dr. Taylor stated that he considered the proposed facility presented a low risk in terms of hydrogeology. He described the groundwater monitoring specified

in the PD as onerous. He did not consider cracks observed in the concrete surfacing to present a threat given the thickness of the concrete and the fact that the cracks cover less than 0.1% of the total surface area of concrete.

*Response to questions from the Chair*

Dr. Taylor stated that any recharge of the aquifer beneath the site is now intercepted by the concrete base of the facility and discharged directly to the Shanowenadrimina Stream. He estimated the time of travel to the nearest well at 64 hours, hence any contamination detected in an earlier round of analysis would most likely have disappeared by the time the groundwater was subsequently sampled.

***Presentation of Dr. Paul Johnston (Objector)***

Dr. Johnston stated that he has a BSc in marine and freshwater biology and a PhD in Environmental Toxicology from the University of London. Dr. Johnston's postdoctoral work includes radiation biology and the design of alternative pesticidal formulations. Dr. Johnston joined Greenpeace in 1986 and is based at the University of Exeter where he manages seven people involved in information and analytical work on the environment. He is an Honorary Fellow of the University of Exeter and stated that he is a member of a number of international working groups including the United Nations working group on oil in the marine environment, the London Convention, the Paris Convention, the Barcelona Convention and the North Sea Convention (CONSSO). Dr. Johnston has attended a number of oral hearings and stated that he critiques EIS's all around the world.

At the outset Dr. Johnston was concerned that construction work had already taken place on this site and expressed hope that the monies invested would not influence the determination of the waste licence application before the EPA. In addition, he was concerned as to how this facility fits into the Proposed National Hazardous Waste Management Plan (NHWMP). He expressed the opinion that the development should not pre-empt the publication of the NHWMP and that the EPA should identify appropriate sites as part of the Plan. Dr. Johnston's primary concern was the inappropriateness of the location of the site. The management of 32,000 tonnes of hazardous waste per annum in an agrarian environment, which was not characterised either hydrologically or topographically, was of primary concern to him.

He discussed the skills required by personnel for the proper management of a facility of this type. He considered that the proposed activities needed a mix of skill bases. He understood the objectives of mixing of waste to represent the modification of properties of the waste in a way that was not explained in the application. He was surprised to note in the EIS that only three personnel would initially be required to operate the facility. He stated that in his opinion that six to eight people would be required on site to cover sicknesses, holidays and the EC working time Directive. He considered that analytical chemistry would be involved in the reception side and in the mixing and blending of waste. He was surprised to note that the qualifications of the site



manager were not at BSc or MSc level. He considered that the role of the chemist would be stretched due to a heavy workload and consequently that the acceptance and processing of waste would slow down as would the decision making ability of management. He stated that the role of the chemist should deal specifically with laboratory analysis and that the site manager should concentrate on the acceptance of waste. Dr. Johnston contended that the EIS stated that the chemist would be responsible for the training of personnel on site. Dr. Johnston was surprised that the qualifications of the chemist consisted of a graduate with two years experience. He stated that he would prefer to see a few more years experience specified in the job description for the chemist post. Dr. Johnston was surprised that the duties of the chemist included the crushing of 45 gallon drums and fire fighting. He was surprised that the qualifications of the warehouse manager were at certificate level. Overall he would have expected another tier of management to supervise these three people. He noted that the experience of the Directors consisted of the transportation of chemicals and was of the opinion that there was a big difference between this and the transport and storage of hazardous waste. He noted that Mr. Noel Hayes, whose duties included quality control, had no qualification in the chemical behaviour of hazardous waste.

He stated that neither quality assurance nor quality control were addressed in the application and questioned whether the EPA would require such certification.

He noted that, notwithstanding the relatively small quantities of waste being mixed and blended, the risk associated with the mixing and blending was relatively large and not in proportion to the relatively small quantity of waste involved. The increased risk associated with this facility was not evaluated.

Dr. Johnston outlined shortfalls in the compatibility testing of waste as outlined in the application. He noted that the programme of organic monitoring involved headspace analysis only and that this would miss many semi-volatile components such as PCB's and organo-chlorine pesticides. In addition, physico-chemical parameters such as flash point and pour point (a measurement of viscosity) needed to be included.

Dr. Johnston noted that there were a number of asbestos related diseases including asbestosis and mesothelioma and he referred to a report published by the American Toxic Substances and Disease Registry, Atlanta, which established clear links between asbestos and effects on human health. Mr. Galligan (for the Applicant) interjected and stated that they accepted the potential adverse health effects of asbestos. Dr. Johnston questioned the need for storage of asbestos waste at the transfer station and suggested that such waste should be delivered directly from source to its final destination thus removing the need for double handling and the associated risks. In fact, he considered that the use of a transfer station for all categories of hazardous waste could be questioned for the same reason – i.e. that at every stage of handling hazardous waste, the probability of an accident occurring increases. Waste should be stored at the generators' sites and shipped directly to waste facilities. Though the PD contained many useful controls, there was no mention that the Applicant was responsible for ensuring that the customer

properly presented the asbestos double wrapped. Finally, with regard to asbestos, he was concerned that washings from containers used to hold asbestos could potentially lead to the uncontrolled release of asbestos fibres in the washings.

The potential mobilisation of volatile organic compounds from solvent waste to the atmosphere (even at low temperature) as barrels were breached presented the major threat to air quality. Dr. Johnston stated that records from facilities licensed by the Environment Agency (i.e. England and Wales) demonstrate that there are appreciable volatile organic compounds emissions from solvent handling operations.

A key point of vulnerability is the discharge to the freshwater environment and Dr. Johnston suggested that there should be zero emissions to the aqueous environment. He was surprised that the wastewater from the site did not discharge to the local authority sewerage system, which was the typical practice at such facilities in the UK. Dr. Johnston was surprised that the Applicant had not proposed tankering the wastewater off-site to the local sewage works. In addition he was surprised to note that the PD had permitted the wastewater from the site to discharge to the aqueous environment.

Dr. Johnston was concerned about *condition 7.7.4* of the PD and summarised it as comparable to the expression "*dilution is the solution to water pollution*". His concern stemmed from the impact of, for example, synthetic detergents and persistent materials which, even at low concentrations (diluted by the receiving water), could adversely impact on the receiving environment.

Dr. Johnston was surprised that risk assessment was used in a qualitative manner in the EIS. He intimated that statistical data should have been used, as it is readily available. He questioned the collated statistics for accident risks on the road. He suggested that insurance companies could have been the source of information regarding road accidents. He questioned why there were there no collated statistics for reportable incidents in relation to plant operation, i.e. the probability of serious fire or spillage. This data is available and should have been obtained. The probability of the risk of fire is available and this could have been used to provide an evaluation of fire risk and spillages. He admitted that epidemiological data was not so readily available but such data was available from the US for "*Superfund*" sites. He referred generally to published work which highlighted the increased levels of disease syndromes with increased proximity to hazardous waste sites.

Mr. Galligan requested the witness to explain the relationship between these hazardous waste sites and the Safeway Warehousing facility. Dr. Johnston stated that he was referring to disused landfills, contaminated industrial sites and hazardous waste transfer stations. Dr. Johnston clarified that he was not suggesting that the site in question would give rise to cancers but if emissions were to come from the facility, the associated risks would increase as a result of handling carcinogenic compounds. With regard to the PD, Dr. Johnston suggested that visual and odour inspection of the surface water should be carried out daily. In relation to groundwater, given the fact that the quoted transit time of a pollutant was 64 hours, he suggested that the frequency of

groundwater monitoring should be increased to twice weekly. With regard to surface water analysis, he suggested that as polluting events may be transitory, weekly or bi-weekly monitoring would be required and suggested that the list of parameters be extended to include cadmium, chromium and cyanide. In addition, the analysis of sediments (not included in the PD) should be considered. Contamination detected in sediments is a useful indicator of overall contamination.

Dr. Johnston referred to his experience in carrying out investigations into fires involving stockpiles of plastic in Canada and in the West Country (UK). He stated that while having emergency response plans and teams in place may reduce the risk of fire, it is not possible to eliminate the risk of fire. He stated that the potential for egress of contaminants via smoke and fumes off-site had not been evaluated. Similarly, he was concerned about the possibility of 45 gallon drums being blown off site in the event of a fire (he referred to a fire at BDH, Poole, of which he had seen video footage). Though he admitted to not being an expert in this area, he suggested that the 10-minute response time of the fire brigade should be reconsidered given that any emergency at the site may result in blockages and traffic jams on the N8.

He stated that the potential transfer of emissions from similar sites to the food chain had not been adequately assessed in the application. Dr. Johnston stated that there have been a number of incidents of food contamination as a result of chronic pollution events – not generally as a result of once off events or incidents. He stated that cattle are good at picking up and accumulating contaminants. On the fact that such contaminants are often stored in fatty tissues, he cited the example of emissions from dry cleaners being detected in milk products in an adjacent supermarket.

Dr. Johnston considered the location of the proposed facility, which he considered to be a heavy industrial facility due to its hazard potential, to be unsuitable given that it was not an existing facility. In his opinion, such a facility would be better situated closer to the source of such waste and in a location with an appropriate land use designation and not in the agrarian environment. He also stated that the proposed location away from the sources of waste could adversely affect the economics of haulage.

Dr. Johnston stated that he was surprised that radioactivity monitoring did not form part of the monitoring requirements of the PD. Though he noted that radioactive waste was not proposed to be accepted at the site, he suggested that laboratory solvents such as toluene and wastes from tracer experiments could be contaminated with radioactive materials. He also suggested that microbiological examination of waste such as batteries, which form part of the municipal solid waste fraction, should be undertaken.

#### *Response to questions from the Applicant*

Dr. Johnston agreed that not washing asbestos containers at the facility (an activity which Safeway Warehousing claim is not proposed) would reduce the potential for hazardous discharge. However, he questioned why the PD contained a condition, which referred to the washing of containers (condition

5.19.8 of the PD). He stated that the condition should be modified to prevent the opening of containers at the facility and to ensure that no consolidation of part-loads is carried out. He reiterated the opinion that asbestos waste should not be stored at the transfer station but at a suitable area at the dockside.

Dr. Johnston did not agree with Safeway Warehousing's contention that his objection in principle was to a transfer station. But he considered that in an ideal world there should be minimum handling and processing of hazardous waste. He considered that this issue should be considered strategically in the National Hazardous Waste Management Plan.

Dr. Johnston contended that the quoted 64 hour travel time for contaminants entering the groundwater to reach the nearest well represented an extreme situation and that the monitoring programme for groundwater should be able to detect extreme situations. He stated that a small amount of chlorinated hydrocarbon could contaminate a lot of groundwater.

#### ***Presentation of Dr. Gev Eduljee (Applicant)***

Dr. Eduljee read his written statement (see Paper No. 15) to the Oral Hearing prior to the Hearing being adjourned for the day. He returned on the morning of the next day of the Hearing to answer questions on his presentation and on the waste licence application. Dr. Eduljee stated that he had not been involved in the preparation of the EIS or the various responses to the Agency. He stated that he was requested to audit the facility and that he would not be involved in the day-to-day operation of the proposed facility.

Dr. Eduljee stated the significant potential impacts of the development to be: on soils, groundwaters and surface waters; releases to atmosphere; and releases that may affect the surrounding agricultural and thoroughbred activities.

In relation to groundwater, Dr. Eduljee concluded that the measures incorporated into the facility "*are typical of the features present in other modern waste storage and transfer facilities*". In relation to impacts on surface water quality and any consequent impact on agricultural activities, Dr. Eduljee concluded that in combination with the conditions in the proposed decision, adequate design and management features are to be put in place to ensure that surface waters are adequately protected. In relation to impacts on air quality and public health, Dr. Eduljee considered routine emissions to air to be of very low significance in terms of impacting adversely on air quality. By the same virtue, Dr. Eduljee considered that routine air emissions would not impact adversely on agricultural activities. Dr. Eduljee was of the opinion that the facility's position on the N8 was convenient for ease of access and the bypassing of centres of population. In relation to concerns expressed with regard to potential discharges of aluminium and hydrogen chloride, Dr. Eduljee stated that any HCl releases would be scrubbed out in the water scrubber. He also stated that concerns in relation to aluminium emissions were founded upon a different type of plant bearing no resemblance to the proposed activities. He added that there was no potential for ongoing discharges of

large quantities of aluminium oxide which may lead to adverse effects on grazing animals.

Dr. Eduljee considered the baseline monitoring of air, groundwater and surface water described in the application to be adequate for the purposes of setting a baseline for facility operations.

*Response to questions from the Chair*

Dr. Eduljee stated that when auditing the incoming waste aspect of a facility, he would examine procedures, paperwork, waste acceptance, sampling, analysis, waste rejection, labelling and storage. He would examine environmental protection measures, containment measures at holding areas and off-loading operations. Dr. Eduljee stated that sampling should be carried out prior to the waste arriving at the facility such that the operator may have a reasonable expectation of what is due to arrive. Such sampling and analysis allows for proper contractual and commercial arrangements to be made. Every batch of waste should be sampled – a batch may be more than one tanker load or a large number of drums. He stated that the site operator is ultimately responsible for the waste, hence good practice must ensure that the sample properly represents the waste.

Dr. Eduljee stated that all waste, including waste accepted solely for storage, should be sampled and analysed upon arrival at the facility to verify the analysis carried out previously. It is not necessary to sample each and every drum or tanker arriving at the facility. Each batch should be sampled and management he suggested should use the formula  $\sqrt{n} + 1$  in determining the sample size (where n is the number of drums or other containers). For example, 6 drums from a shipment of 25 drums would be sampled; 11 drums from a shipment of 100 drums would be sampled. These samples would be composited prior to analysis. He added however, that the frequency of sampling of regular shipments of wastes from consistent processes could be reduced.

Dr. Eduljee stated that the flashpoint should be measured for waste intended for storage only. However, other parameters determined by licensing or other constraints should be undertaken. For waste, which was handled or mixed at the facility, appropriate analysis should be undertaken.

Dr. Eduljee stated that organic solvents intended for mixing should be subjected to compatibility tests, namely evolution of heat or gases, acidity (which may result in the generation of NO<sub>x</sub> gases), viscosity and pour point, miscibility and sludge formation. A temperature rise of 15-20°C would not be of concern. A temperature rise of 50-60°C would. He stated that heat generation is unlikely to be observed when mixing two organic solvents.

When neutralising acids or alkalis, the evolution of heat or gases (e.g. NO<sub>x</sub>, Cl<sub>2</sub>, HCl) and the precipitation of solids should be tested for. Heat generation may be controlled and minimised by reducing the rate of addition of one waste to another.

Dr. Eduljee stated that the on-site chemist should control all mixing procedures.

Dr. Eduljee stated that semi-volatile compounds (e.g. polychlorinated biphenyls (PCB's) and persistent organic compounds such as some pesticides are not a feature of compatibility testing. Volatile compounds are more important due to emissions that may arise as a result of their handling. Such emissions may, however, be controlled by, for example, indoor operation of handling processes.

In relation to radioactive traces in such wastes as laboratory smalls, Dr. Eduljee stated that, due to the heterogeneous nature of such waste, site operators do not generally tamper with laboratory smalls waste or handle the contents of such containers. At another site with which he is familiar, Dr. Eduljee stated that a geiger counter was passed over all drums of waste arriving at the facility. He stated that at this other facility, the likelihood of radioactivity being detected was high.

On the *management features* protective of surface waters, Dr. Eduljee stated that good practices such as the inspection of tankers and spill procedures would be put in place. He stated that continuous monitoring of a discharge to surface water was "*regrettably*" not typical of other facilities. Typical practice at such facilities was to take daily grab samples.

In terms of the three management positions proposed by the Applicant in the Article 12 response, namely site manager, chemist and warehouse manager, Dr. Eduljee stated that the job descriptions were appropriate in terms of required functions.

#### *Response to questions from the Applicant*

Dr. Eduljee stated that all management systems should be in place at the facility prior to the operation commencing. However, he expressed the opinion that *condition 2.6* of the PD acted as a catch-all for the other provisions of *condition 2* of the PD and in particular *condition 2.5*. In relation to management, he considered that the proposed management team of site manager, chemist and warehouse manager provided sufficient removal from the commercial management team. He considered that the three positions were adequate in terms of relevant qualifications and experience. He agreed that there should be an element of overlap between these three functions. In respect to emergency responses, he stated that staff at similar facilities train with local fire services. He stated that the facility and the management must be able to cope with emergency events from day one of operation and that all procedures and training should be completed prior to operation commencing.

In terms of workload, Dr. Eduljee expressed the view that one chemist should be sufficient for the management of a projected intake of 5,000 tonnes of hazardous waste in the first year. Additional staff are likely to be required as waste intake increases.

*Response to questions from the Chair*

Dr. Eduljee stated that the management structure is adequate were the plant to take in 10,000 tonnes of waste (as stated in the application) in the first year of operation. He was of the opinion that the workload was dependent on the variety of wastes entering the facility rather than the tonnage of waste.

***Presentation of Mr. Michael Bailey (Applicant)***

Mr. Bailey stated that he is managing director of the air pollution and environmental consultancy company ENVIROCON. Mr. Bailey stated that he has a BSc in geography, an MSc in meteorology and applied climatology and a diploma in environmental engineering. He stated that he has over 23 years experience in air pollution matters and has undertaken some 150 modelling studies.

Mr. Bailey stated that he was involved in preparing material for the Safeway Warehousing EIS and response to EPA statutory notices. Mr. Bailey's evidence addressed matters that had been raised by the Applicant with regard to air quality matters (see Paper No. 19).

Mr. Bailey stated that it was not necessary to collect data on smoke test or wind flow as predicative modelling assumed a worst case scenario, regardless of wind direction. The potential impact of routine emissions was also evaluated and the model showed no significant impact downwind of the site boundary. With regard to the Objectors' view that emissions would breach the Air Pollution Act, 1987, he contended that the technologies employed were BATNEEC, would not breach any air quality standard and would consequently not cause significant air pollution. In addition, he stated that it was unlikely that the proposed facility would cause a nuisance as defined under the Air Pollution Act, 1987.

Mr. Bailey stated that it was not necessary to monitor fugitive emissions until the facility was operational. He noted that initial mixing and blending operations would involve weak aqueous solutions. In relation to condition 7.3.2 of the PD, he stated that the company would require time to determine an appropriate sampling method to evaluate fugitive emissions.

With regard to the requirement for an Air Quality Management Plan he stated that this was not necessary for the Fermoy area due to the good overall air quality. Mr. Bailey noted that the only plan developed to date in Ireland was for the Dublin region and this was prepared primarily to address the impacts of traffic on local air quality.

Mr. Bailey stated that the issue of dioxins was emotive and that in his opinion the likelihood of dioxin formation from the activities was negligible or extremely small. Dioxins are only likely to be formed in the event of a catastrophic event involving the combustion of chlorinated hydrocarbons. The potential sources of dioxins were more likely to be illegal stubble burning in the area, bonfires and the burning of solid fuels for heating.

Mr. Bailey stated that he was satisfied that the quality of the information provided in the application on air matters is adequate for the EPA to assess the impact on the environment. He was of the opinion that the information was detailed and had addressed short term fugitive emissions that may occur. Mr. Bailey stated that, based on his experience over twelve years, a baseline study of air quality in an area such as this was not warranted as levels are likely to be very low.

Mr. Bailey stated that he would describe the local topography as a gentle bowl and not restrictive as described by Mr. Finegan. Mr. Bailey stated that restrictive topography generally requires a steep valley. He stated that the scale of the operation would not cause a microclimate; the only potential effect would be minor wind effects around buildings.

#### *Response to questions from the Objectors*

Mr. Bailey stated that air dispersion modelling and an evaluation of possible emissions had led him to conclude that the proposed facility would not cause significant air pollution. Mr. Bailey quantified the projected emissions from the site as being no more than 5% of existing air quality standards. He also stated that, as a result of the effects of air dispersion, this assessment would not change as waste quantities increase over the three year scaling up of the proposed activities. Mr. Bailey stated that he had not been retained by the Applicant to prepare a monitoring programme for fugitive emissions. Mr. Bailey stated that fugitive emissions could arise from a break in a transfer pipe or the breaking of a drum, however he contended that these would not breach any air quality standard. He stated however that "*containment is the name of the game*". If there was no wind, Mr. Bailey stated that emissions would remain within the confines of the site. Mr. Bailey stated that animal health was dependent on long-term emissions.

When it was put to Mr. Bailey that the activities proposed would pose a threat to the SAC, Mr. Bailey replied that the SAC was in a different catchment and that there are topographical features between the site and the SAC. He stated that the air quality around the SAC was more likely to be affected by slurry spreading and stubble burning. Mr. Bailey stated that the scrubber abatement proposed would ensure that the activities would operate well below the German TA Luft standards.

#### *Response to questions from the Chair*

In reply to a question as to whether the proposed scrubbers should have emission limit values, Mr. Bailey replied in the affirmative. He supported his view by stating that there should be criteria against which to interpret the results of air emissions sampling.

#### ***Presentation of Mr. Gerard Morgan (Applicant)***

Mr. Morgan stated that he is the manager of the Aquatic Services Unit, University College Cork. His curriculum vitae was submitted (see Paper No.



20a). Mr. Morgan was asked by Mr. Pat O'Flynn to assess matters relating to surface waters.

In his written evidence (see Paper no. 20), Mr. Morgan dealt with the two classes of discharge from the proposed facility: water from roofs and hardstand areas; and the washings from the outsides of trucks.

In relation to the former, Mr Morgan predicted that the run-off would be comparable to run-off from hard surface areas associated with heavy goods vehicles and hence the level of contamination would be small. The interceptors he stated would remove any oil and a substantial amount of solids prior to discharge. This, in combination with the proposed chemical monitoring and neutralisation prior to discharge, would provide protection to the aqueous environment. Mr. Morgan stated that the use of interceptors to control run-off to sensitive areas was adequate. He quoted the use of interceptors at Mullaghmore as an example of a run-off discharge from a vehicle parking area to a sensitive area.

Mr. Morgan was of the opinion that the level of monitoring in the PD was adequate. However, he considered that Dr. Johnston's suggestion to carry out annual sediment monitoring upstream and downstream of the discharge point merited consideration. Mr. Morgan was of the opinion that the continuous monitoring proposed in the PD provided strong automated protection to the Shanowenadrimina Stream.

Mr. Morgan stated that in the absence of flow data for the relatively small Shanowenadrimina Stream (data that would normally be gathered over years and decades), an engineer or hydrogeologist was justified in using formulae to calculate the flowrate of the Stream.

Mr. Morgan stated that the information provided in the application was adequate for him to assess the impacts of the proposed facility on surface water.

#### *Response to questions from the Objectors*

Mr. Morgan stated that it would not be feasible to remove the surface water run-off that may be generated from the site. The volumes likely to be generated particularly during storm conditions would militate against it. He stated however that it may be possible to remove truck washings from the site but that this could be a difficult job.

Mr. Morgan commented on a letter written by the Southern Regional Fisheries Board (see Paper No. 21). On the first item (article 12, section A), he stated that the request seemed reasonable. On the second item (section J, monitoring), he stated that his information was that valves would shut automatically in the event of a fire and the generation of firewater. On the third item, Mr. Morgan stated that the frequency of monitoring is set out in the PD.

In order to ensure compliance with *condition 7.7.4* of the PD, Mr. Morgan stated that an automated flow recording station would be required

immediately upstream of the discharge point and that this station should be connected by telemetry to the site. He stated that any of the three key personnel would be qualified to interpret the readings.

On the absence of heavy metals analysis not prescribed in *condition 9.1* and *schedule F.1* of the PD, Mr. Morgan stated that such parameters would be present only at such low levels as to be below the limit of detection. He stated that sediment analysis would be a better method of picking up any low levels of discharge. Mr. Morgan stated that there was a lot of fine sediment downstream of the discharge point which is ideal for accumulating and monitoring contaminants. Mr. Morgan stated that the following parameters should be tested for in the sediment; zinc, copper, lead, nickel, chromium, cadmium and organic compounds namely polyaromatic hydrocarbons, total hydrocarbons, gasoline range organics, diesel range organics and persistent organics, e.g. polychlorinated biphenyls.

#### *Response to questions from the Chair*

Mr. Morgan stated that toxicity testing is not necessary for the monitoring of general surface water run-off. He recommended undertaking annual toxicity testing on the lorry washings, even though he expressed the opinion that this was not actually necessary.

#### *Response to questions from Safeway Warehousing*

Mr. Morgan reiterated his opinion that it would not be feasible to treat general surface water run-off but that it would be feasible to treat lorry washings. He expressed the opinion that lorry washings could be contained without risking flooding of the site.

#### ***Presentation of Professor James Heffron (Applicant)***

Professor Heffron provided a written submission as part of his oral evidence (see Paper No. 22). Professor Heffron stated that he is the Director of the Analytical Biochemistry and Toxicology Laboratory at NUI, Cork. Professor Heffron stated that he holds a BSc and a PhD in Biochemistry and is a fellow of both the Royal Society for Chemistry and the Institute of Chemistry of Ireland. Professor Heffron stated that he was an advisor on the most recent (1999) World Health Organisation (WHO) guidelines on air quality and has 200 papers/chapters in peer reviewed journals.

In summary, Professor Heffron, in his written evidence presented orally to the Hearing stated that there is no basis for the Objectors' statement that emissions from the plant will contravene the Air Pollution Act, 1987 and he stated that dioxins would not be generated by the proposed activities.

Professor Heffron stated that he was satisfied that the level of information provided in the application was adequate to assess air impacts. He added that the quality of information before the EPA for consideration was satisfactory.

Professor Heffron stated that the air dispersion modelling carried out by Mr. Bailey showed that the worst case concentration of chemicals in the ambient air would be within WHO guideline values. He also stated that for practical reasons it would be inappropriate to devise a monitoring programme for fugitive emissions until after the granting of a waste licence.

Professor Heffron stated that the only situation in which dioxins could arise would be in the event of a fire. However, he noted that this was unlikely when one considered that chlorinated solvents were not flammable and that they would be segregated from other chemicals.

Professor Heffron was later recalled by the Applicant (see order of appearance) and presented evidence on the effect of chemicals on animal health. He claimed expert knowledge in this area on the basis that much of the information on human toxicology is derived from animal experiments; hence there is a lot of data from epidemiological studies on laboratory animals. He went on to say that in the event of an emission from the facility, both humans and animals will be exposed to the same concentration of contaminants. Notwithstanding the fact that the WHO guideline values for air quality are aimed at humans, they are derived from animal experiments and are subject to two safety factors of 10 in converting them into values designed to protect human health, one for children and a further one for elderly people. Hence, any proposed guideline value is divided by 10 and by 10 again (total division by 100). Given that ground level concentrations modelled by Mr. Bailey are within guideline values, his conclusion is that the large animals in question (namely horses) will be equally afforded protection. In other words, if the modelled air quality is within WHO guideline values for humans, it will be protective of animal health. Professor Heffron stated that WHO guideline values were the best standards for farm animals.

Professor Heffron stated that he understood the concern of people with regard to dioxins and advised that no operational exposure levels (OELs) exist for dioxin. The only guideline available is a tolerable daily intake (TDI) value of 1 to 4 picogrammes/kg of body weight/day. This value is from an unpublished draft US EPA report on the toxicity of dioxins which is due to be published later in 2000.

Mr. Hussey advised the Oral Hearing that his earlier witness, Mr. Sean O'Sullivan (veterinary surgeon), who had raised concerns about the impact of dioxins on horses was not present to hear Professor Heffron's evidence. Mr. Hussey further stated that the Applicant's witness list supplied to him earlier had advised that Dr. Martin Hogan would provide evidence on animal health. He stated that Mr. O'Sullivan had been present during Dr. Hogan's evidence. However, Mr. Hussey stated that Dr. Hogan had advised the Hearing at that time that he was not an animal health expert.<sup>1</sup>

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<sup>1</sup> I noted that Mr. O'Sullivan returned on the following day and was present for Mr. Pat O'Flynn's evidence. At no stage was the Chair advised that Mr. O'Sullivan wished to add further evidence.

### ***Presentation of Dr. Martin Hogan (Applicant)***

Dr. Martin Hogan stated that he was a qualified medical doctor specialising in occupational medicine. Dr. Hogan submitted his curriculum vitae (see Paper No. 23). Dr. Hogan stated that he was an examiner for the Faculty of Occupational Medicine, Royal College of Physicians of Ireland. He stated that as a consultant occupational physician, he was responsible for the health of approximately 40,000 employees.

Dr. Hogan stated that the issues on which he was to give evidence (see Paper No. 23) were normally within the remit of the Health and Safety Authority (HSA). Dr. Hogan stated that health surveillance of staff members may be required under the chemical agents regulations. However, in the case of this proposed facility, he expressed the opinion that it may not be necessary given the relatively low quantity of chemicals being stored.

Dr. Hogan stated that he had reviewed the EIS, the objection, the Inspectors Report, the proposed decision of the Agency and had undertaken a site visit. He stated that he could not envisage any set of realistic conditions which would expose local residents to anything compared to the level of exposure to which employees might be subjected. Dr. Hogan advised that from an occupational standpoint the proposed facility was safe if operated within the terms of the proposed decision. He stated that he disagreed with Dr. Johnston's earlier remarks on asbestos and contended that there was a strong dose-response curve for asbestos. He stated that he has little concern over the risks presented by exposure to asbestos at the facility as it is not proposed to handle the asbestos. At greater risk are the people putting the asbestos into bags at the point of generation. He stated that tiny exposures [to asbestos] result in tiny risks. Generally speaking, Dr. Hogan stated that under normal working conditions, the risk presented by the proposed facility was essentially zero.

Dr. Hogan stated that he was satisfied that adequate information was available in the application to assess occupational health matters.

Dr. Hogan stated that it was not uncommon for neighbours adjacent to such activities to develop phobias. However he advised that *dose* would determine human health impacts and went on to say that he couldn't envisage a health risk from this facility. Dr. Hogan stated that some of the concerns expressed by the neighbours to the facility may be unfounded due to a lack of technical knowledge of the issues and that it is unfair to compare this facility to older and less regulated facilities where there may have been problems. He referred to one of the first principles of toxicology and epidemiology: "*no dose, no response, no risk*". Dr. Hogan concluded that he could not envisage health risks to humans if the proposed facility is operated as intended.

### ***Response to questions from the Objectors***

Dr. Hogan advised that animal risk was not his area of specialisation. Dr. Hogan stated that the concerns expressed by Mr. O'Sullivan about aluminium chloride and aluminium hydroxide were groundless. He stated that these

chemicals were used as an antiperspirant and an antacid respectively and that a 10% aluminium chloride solution was available without prescription. In any event, Dr. Hogan stated, aluminium chloride was only stored on-site for later use in the water treatment sector. Dr. Hogan stated that any potential emissions of hydrogen chloride would be scrubbed out.

Dr. Hogan stated that smoking should be banned at the site on health grounds and was disappointed to note that the application permitted smoking in the offices. Later, Dr. Hogan agreed with Mr. Galligan that smoking was permitted in pharmaceutical activities in dedicated areas.

Dr. Hogan was of the opinion that the proposed facility was a low to medium risk. However, he did elaborate on this by stating that abnormal operation is the risk and that if people did stupid things consequently the risk would increase. He further contended that any place can be made unsafe.

Dr. Hogan stated that the responsibility for safety on site should rest with the Managing Director or someone appointed by him. He further stated that the qualifications of a safety officer should ideally be someone with a qualification in health and safety such as an NISO certificate or a CIT certificate in safety. The ultimate qualification he contended is a health and safety at work diploma as taught in NUI, Cork. Dr. Hogan noted Mr. Hussey's opinion that no breathing apparatus was present on-site. Dr. Hogan advised that he would hope and assume that breathing apparatus would be present at the facility prior to operation commencing.

#### *Response to questions from the Applicant*

Dr. Hogan described the concerns in relation to dioxin in this application as a "red herring". He stated that chlorinated solvents were not flammable hence they would have to become involved in a fire not of their own making, i.e. something else would have to start a fire. He stated that the possibility of dioxin generation at the facility is remote and, in any event, any such generation would be transient. He again reiterated the first principles of toxicology: no dose, no response, no risk. Dr. Hogan stated that the risk of dioxins from stubble burning was low.

Dr. Hogan was not familiar with training courses run by Pat Sheehan on health and safety (except by reputation), however he reminded the Hearing "that qualifications didn't give security; it is experience that is more important". He added "that knowing what you don't know is as important as knowing what you do know". He agreed with Mr. Galligan that anyone who could understand a material and safety data sheet (MSDS) could be competent to handle such materials.

#### *Response to questions from the Chair*

Notwithstanding the fact that the existing transport business was not the primary subject matter of this application, Dr. Hogan was invited to respond to the concerns of Mrs. Riordan and Mr. Shinnick and others regarding the detection of occasional odours. Dr. Hogan stated that detecting an odour from

such a business was not an indication that it was dangerous. What was relevant was the exposure (dose). He elaborated by stating that smell was a poor measuring tool in that it didn't quantify the exposure. An odour can do no more than indicate that monitoring and measurement may be required.

***Mr. John McCarthy (withdrawn)***

The Chair was advised by the Applicants earlier (see witness list Paper No. 4) that Mr. John McCarthy from Murphy McCarthy Consulting Engineers would be presenting information on the engineering aspects of the catchment. When Mr. McCarthy began his testimony it soon became apparent that the testimony pertained to the planning history of the site. The Chair requested Mr. Galligan to consider withdrawing the witness on the grounds that his evidence was not the subject matter of this Hearing. In addition, the Chair pointed out that an earlier request (i.e. Objectors) for the attendance of the Manager of Cork County Council on the same subject matter was refused. Mr. Hussey agreed. Mr. Galligan withdrew the witness. Papers No. 25 and 26, which had previously been submitted, were returned to the witness.

***Presentation of Dr. Ed Roycroft (Applicant)***

Dr. Roycroft stated that he was shortly to commence employment with Safeway Warehousing Ltd. as a chemist. Dr. Roycroft presented his curriculum vitae (see Paper No. 27).

Dr. Roycroft stated that he had been involved in the preparation of aspects of the waste licence application, namely waste acceptance testing, compatibility testing of waste and the mixing and blending of waste. Dr. Roycroft stated that he had previous experience in the mixing of waste streams from his time at Merck Sharpe and Dohme. This involved pumping process waste streams to a tanker prior to shipment for incineration. Compatibility testing was carried out prior to mixing taking place. Dr. Roycroft stated that he was in a position to train junior staff in particular in the use of gas chromatography/mass spectrometry (GCMS). Dr. Roycroft identified the classification of waste, reading labels and fire fighting as areas where he required further training. The principal sources of information used by Dr. Roycroft in preparing the application were the following documents: OSWER 99938-4-03, 40CFR 264 and 265 and USEPA SW846. These documents specify best practice and analytical methods.

***Response to questions from the Objectors***

Dr. Roycroft specified that his employment with Safeway Warehousing would be full-time and based at Corrin. He envisaged his duties would be mainly on-site. He stated that off-site elements of his employment would include inspecting sites and processes. Dr. Roycroft anticipated this element to take up one day per couple of weeks or month. Dr. Roycroft stated that he would not recommend that a non-chemist carry out compatibility testing. He stated that mixing and blending waste should not present a problem if compatibility

was established. He stated that he would not allow mixing and blending to be carried out by incompetent personnel.

*Response to questions from the Chair*

Dr. Roycroft stated that he had not used the methods specified in the documents referred to above. However, he stated that working to the methods would not present a difficulty given his knowledge of the instrumentation involved.

**Presentation of Mr. Timothy Collins (Applicant)**

Mr. Collins stated that Safeway Warehousing Ltd. employs him as site manager. Mr. Collins presented his curriculum vitae (see Paper No. 28).

Mr. Collins described in detail his work experience to date, particularly in the following areas:

- emergency response team (ERT) leader at previous place of employment;
- real experience of emergencies and false alarms; and
- incident response and fire training.

Mr. Collins stated that he understood and welcomed the suggestions made by Mr. Owen-Hughes in his risk assessment of the facility and stated that he will continue to work with Mr. Owen-Hughes in developing the risk assessment.

Mr. Collins stated that prior to him being technically competent to discharge the emergency response function he would have to undergo further training. Only at that point would Mr. Collins consider himself to be fully competent.

Mr. Collins stated that he had trained in checking fire fighting equipment but would need further training in the use of hydrants and other equipment at the site.

Mr. Collins stated that he had no experience in accepting waste at the facility but had been drafting procedures to replicate what would be done during waste acceptance. Mr. Collins stated that he had been drafting procedures for the functions of site management and maintenance and the pumping out of sumps. In view of his previous experience of ISO 9002 and sampling procedures, Mr. Collins saw no difficulty in being trained for sampling the discharge effluent. Mr. Collins stated that he had no experience of the internal washing of tankers.

Mr. Collins stated that he had extensive experience in dealing with hydraulic oil (from machines) and diesel spills involving the use of spill kits and the removal of spilled material.

Mr. Collins stated that he had not been trained to operate the crane on site but had experience in operating forklifts, overhead gantries and telescopic loaders.

#### *Response to questions from the Objectors*

Mr. Collins stated that to date, in carrying out his staff training function, he had trained all drivers on site with regard to entry and egress procedures from and to the N8. Mr. Collins stated that the emergency response procedures were in draft form and that personnel had to be trained for the unlikely event of a spill. He stated that there were spill kits presently on-site. He also stated that there were smoke alarms in the office buildings and alarms were proposed for the laboratory (presently under construction). He stated that there were no dust alarms as yet. Mr. Collins stated that he had not attended a dedicated course on health and safety (as referred to by Dr. Hogan). Mr. Collins stated that he would operate the crane provided he was trained to do so. Mr. Collins referred the question of whether his job was dependent on the waste licence being granted to Mr. P. O'Flynn.

#### ***Location of Objectors***

The Chair supplied an ordnance survey map of the area and requested the Objectors (i.e. those who presented evidence at the Oral Hearing) to identify the location of their respective dwellings. Both parties agreed to co-operate. Prior to the Chair receiving the map the Applicant agreed the locations. The map was agreed and forms Paper No. 24.

#### ***Presentation of Mr. Pat O'Flynn (Applicant)***

Mr. Pat O'Flynn stated that he is Managing Director of Safeway Warehousing Ltd. (see Paper No. 29). Mr. O'Flynn stated that he had completed eight modules of a FÁS training course on waste management (see Paper No. 30). He stated that there should be no ambiguity as to the fact that the applicant for this waste licence is Safeway Warehousing Ltd.

Mr. O'Flynn stated that he had prepared the job descriptions included in the Article 12 responses (i.e. Site Manager, Chemist and Warehouse Manager). Mr. Tim Collins, Site Manager, was employed because of his experience in the plastics industry, which has rigorous controls in respect of static electricity. Mr. O'Flynn stated that Dr. Ed Roycroft and Mr. Noel Coleman (see Paper No. 31) would be joining the company on 21 August, 2000. He stated that Mr. Coleman has a BSc in chemistry. Mr. Coleman, who the Hearing was advised earlier could not attend for personal reasons, was recruited because of his experience with the labelling and packaging of waste.

Mr. O'Flynn stated that Mr. Collins would manage the Emergency Response Team, however he accepted that Mr. Collins would need further training. Dr. Roycroft would be responsible for waste acceptance however, Mr. O'Flynn envisaged his key responsibility as being in the area of compatibility testing.



Mr. O'Flynn outlined his role in the application. He advised the Hearing that he had visited a number of facilities including Cleanaway, Chemical Recoveries (Avonmouth, UK), P&R Disposal (Widnes, UK), Shanks (Fawley, UK) and Indaver (Belgium). He stated that he intends contracting Chemical Recoveries Ltd. to provide experienced personnel to Safeway Warehousing during the start up period. He stated that he was involved in scaling the project and the type of processes to be employed. Because of the long lead in time for the planning he has become knowledgeable in many aspects such as safety features. In addition, he advised that he had studied many of the licences issued by the EPA, in particular the two applications for hazardous waste transfer stations. He stated that if granted a waste licence that he was keen to involve himself in the development of the environmental management system.

During the course of the Hearing it became apparent to the Chair that there were discrepancies between Drawing No 97037-5 Rev A and other information in the application. To resolve these the Applicant was requested by the Chair to explain the proposed storm water and wastewater treatment system. Mr. O'Flynn described the various processes in Drawing No 97037-5 Rev A and noted that unit B and unit A were incorrectly labelled on the drawing and should be reversed. With regard to truck washing he stated that the detergent used was a silica-based solution which would be neutralised prior to discharge. He advised that it was proposed to adjust the pH of all stormwater.

Mr. O'Flynn refuted the earlier evidence of Ms. Owers and stated that he had set out his account of the meeting with her family in a letter to the EPA dated 19 April, 1999. Mr. O'Flynn claimed that the evidence of Mrs. Riordain in respect of the St. Patrick's Day parade was incorrect. In addition he stated that the matter had been referred to the Gardai. Mr. O'Flynn stated that there had been many insinuations made at the Hearing which he rejected.

In respect of a letter (see Paper No. 7) to the Agency dated 6 February, 1998, Mr. O'Flynn stated that he had been anxious to assess the implications of storing waste at the site in the event of a dockers strike, which at the time was looming. The reply letter from the Agency (18 February, 1998) set out the licensing requirements for the storage of waste. Mr. O'Flynn stated that his company had not stored hazardous waste on site.

Earlier in the Hearing Mr. Shinnick had advised that he had written to the EPA about nasal discharges emanating from some of his animals. Mr. O'Flynn stated that he advised his solicitor (Mr. O'Malley) who in turn had written to Glanbia. Glanbia wrote on the 4 July, 2000 that they had not been advised of any such occurrences. The Chair advised that this was repetition as Mr. Shinnick had already stated that he had not advised Glanbia of the nasal discharges. Mr. Hussey was of the opinion that this correspondence was a private matter between Safeway Warehousing and its solicitor.

In respect of the article from the Avondhu newspaper submitted by Mr. Shinnick (see Paper No. 6), Mr. O'Flynn stated that he was in favour of sustainable development, was familiar with the Government policy document "*Changing Our Ways*" and would need five pages of the Avondhu newspaper

to explain his views. He explained that the quote "*We are after all only regularising what we are already doing here*" reflected his desire to regularise the management of waste consistent with government policy. He denied any suggestion that there were irregular waste activities on-site. With regard to the Sunday Tribune advertisement (see Paper No. 8), he stated that he was anxious to establish the Safeway Warehousing name.

#### *Response to questions from the Objectors*

Mr. O'Flynn stated that Safeway Warehousing Ltd. had a draft emergency plan, however there was currently no ERT. Mr. O'Flynn indicated that there were three key personnel for the proposed facility as outlined in the article 12 response. Mr. Collins' position he stated was dependent on the outcome of the waste licence application.

Mr. O'Flynn again stated that Safeway Warehousing was the applicant for the licence but that South Coast Transport Ltd. owned the site.

In response to questions about the possibility that external truck washings should not be discharged to surface waters, Mr. O'Flynn stated that if the EPA requested it, he would comply with the requirement. However he stated that he did not consider this necessary as the trucking washings were readily neutralised.

With regard to fire matters Mr. O'Flynn accepted Mr. Owen-Hughes' assessment of the site and stated that his recommendations would be implemented. Mr. O'Flynn stated that Mr. Collins, Site Manager, would be responsible for safety matters on-site. In respect of Mr. Thornhill's earlier evidence (photos – Paper No. 5), Mr. O'Flynn had no information on this matter. Mr. O'Flynn was questioned on breaches of Tachograph Regulations which the Chair considered irrelevant and requested the Objectors to proceed to relevant matters.

Mr. Hussey submitted the latest (1998) set of company accounts for Safeway Warehousing Ltd. filed with the Company's Registration Office (see Paper No. 33). Mr. O'Flynn agreed with the company accounts, which indicated the value of the company at £3. Mr. O'Flynn stated that Safeway Warehousing Ltd. intended to consult with their insurance company about cover in the event of accidents on-site which might have a detrimental impact off-site.

Mr. O'Flynn stated that there was a letter in the application from Cork County Council permitting effluent emanating from internal truck washings to be discharged to Fermoy wastewater treatment plant. Mr. O'Flynn stated that toxic chemicals and stormwater will not discharge via this route. He added that hazardous chemicals stored in drums would be stored inside in an area which did not drain off-site.

Mr. O'Flynn stated that Mr. Coleman who would be employed as the Warehouse Manager had qualifications greater than that envisaged in the Article 12 response. He further added that if the workload increased he would recruit more personnel.

*Response to questions from the Applicant*

Mr. O'Flynn was anxious to reassure the EPA that Safeway Warehousing Ltd. could meet its financial commitments. Mr. O'Flynn stated that his family had a stud farm in close proximity to the proposed facility and submitted a letter from Weatherbys (see Paper No. 34) which stated that stud farms were not registered with them, only horses.

*I confirmed twice with the Objectors and Applicant that they were satisfied that their evidence to the Oral Hearing was complete. I then invited both parties to make legal submissions and closing statements.*

## Legal submissions on behalf of the Objectors

Mr. Hussey made a legal submission on behalf of the Objectors and made reference to provisions of the Waste Management Act (WMA), 1996 and associated Regulations and the European Communities (Environmental Impact Assessment) Regulations, 1989-1996 (see paper no. 32). The contents of his submission included:

- (a) Section 40(1)(a) of the WMA, 1996, where he noted that the Agency may grant a waste licence with or without conditions or may refuse to grant a licence.
- (b) He stated that section 40(2)(a) of the Act requires that the Agency carry out investigations, as it deems necessary. The Agency must also have regard to the provisions of section 40(2)(b)(ii) of the Act. In addition, Mr. Hussey contended that regard must be had to submissions received prior to the Oral Hearing, the letter of objection and submissions received during the Oral Hearing.
- (c) He stated that the Agency shall not grant a licence unless it is satisfied, in accordance with Section 40(4)(b) of the Act, that the activities concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution. It was Mr. Hussey's contention that the proposed activities will cause environmental pollution.
- (d) He noted that environmental pollution is defined in section 5 of the WMA, 1996 means something which would "*create a risk to waters, the atmosphere, land, soil, plants or animals*". He added that the absence of such a risk had not been conclusively assessed or determined and until they have been conclusively assessed and determined, a risk or a potential risk exists. In addition, he contended that dairy farming and the food chain should be included in the assessment of environmental pollution as dairy farming is extensively carried out in the area surrounding the proposed facility.
- (e) In accordance with section 40(7)(c) of the Act, he noted that a fit and proper person should be in a position to meet any financial commitments and liabilities. He contended that the Applicant had not demonstrated this ability. He contended that the Applicant does not satisfy this statutory requirement nor has the Applicant shown that it is in a position to meet any liabilities in connection with the activities proposed to be carried out on site.
- (f) Mr. Hussey contended that the EIS submitted is inadequate under the European Communities (Environmental Impact Assessment) Regulations 1989-1996. Mr. Hussey stated that the data necessary to assess the effect on the environment was not provided. He contended that the EIS failed to provide information on fauna, soil and their interaction with human beings, flora, water, air and climate.

- (g) Under article 12(1)(a) of the Waste Management (Licensing) Regulations, 1997, S.I. No. 133 of 1997, the name and address of the Applicant must be prescribed. Mr. Hussey contended that there are two proposed Applicants, however, only one name, Safeway Warehousing Ltd., appears on the application form. He stated that both Applicants should be named to allow for proper regulation of activities that require a licence under the Act as may be carried out by either of the two companies.
- (h) Under article 12(1)(l) of the same Regulations, he noted that an EIS is required to give details and an assessment of the effects, if any, of existing or proposed emissions on the environment. Mr. Hussey quoted article 12(1)(l) and stated that the term "*environment*" in this context should be construed as including all of the matters previously mentioned.

### **Legal submissions on behalf of the Applicant**

Mr. Galligan made a legal submission on behalf of the Applicant and made reference to the WMA, 1996 and to an extract from O'Sullivan and Shepherd, Irish Planning Law and Practice, Volume 2, (see Paper No. 35). The content of his presentation included the following:

- (a) Mr. Galligan referred to the power of the Agency under section 40(1) of the Act to grant or refuse to grant a waste licence. Mr. Galligan contended that all the information provided to the Agency, including responses by the Applicant to statutory notices issued by the Agency (articles 13, 14 and 16 of the Waste Management (Licensing) Regulations), submissions, the Oral Hearing. He stated that it is clear that the provisions addressed in section 40(2)(b)(ii) of the Act all relate to the environmental impact statement. He acknowledged that there are submissions in relation to horses and these must be taken into account. However, he stated that it was not a precondition that an Applicant has to comply with all the statutory provisions. This is remedied by statutory requests and the public is engaged in this process (see Paper No. 35). Mr. Galligan referred to the sixth recital of the preamble to the EIA Directive 85/337/EEC the second half of which ("*whereas this assessment ...*") sets out the information that should be considered by the EPA. He stated that this objective of the directive is reflected in section 40(2)(b)(ii) of the Act. He stated that it is his submission that when the EPA assesses the application in the context of all of the information furnished, environmental assessment must take account of all of that information and weigh it up on scientific credibility. He stated that in considering the adequacy of the EIS, all of the submitted information from each of the above named sources must be taken into account. He stated that provisions of the Act are designed to ensure that (1) adequate information is provided to the EPA to enable it to make a decision and (2) there should be public participation to enable the public to make submissions on the original and further information provided. He stated that it is not a precondition of the EPA's determination that the application should demonstrate compliance with each and every statute. If a deficiency is identified, he stated that this is remedied by the Applicant's furnishing additional information per the statutory requests from the EPA.

- (b) With regard to section 40(4)(a) of the WMA, 1996, Mr. Galligan stated that the evidence tendered by Mr. Bailey, Mr. Morgan and Professor Heffron concluded that emissions from the proposed facility would not result in the contravention of any relevant standards. He also stated that no evidence had been submitted which seriously challenges the evidence so given.
- (c) In the context of section 40(4)(b) of the Act, Mr. Galligan stated that the EPA must consider what conditions are appropriate to ensure that environmental pollution is not caused.
- (d) In the context of section 5(1) of the Act and the definition of environmental pollution, Mr. Galligan drew attention to the phrase "*to a significant extent*" and to the expert evidence of the Objectors and the evidence of Mr. O'Sullivan which educed as to possible effects on horses, livestock and humans with particular reference to dioxins and aluminium chloride. He stated that Professor Heffron and Dr. Hogan had addressed these matters and gave their expert opinion that there was no significant risk from dioxins or aluminium chloride to human health or the environment from the proposed facility. He stated that Mr. Bailey had given his opinion that there was no significant risk on the basis of the worst case scenario. In the context of section 5(1) of the Act and the definition of environmental pollution, Mr. Galligan stated that it was important that the criterion of "*significant*" be applied.
- (e) In the context of section 40(4)(c) of the Act, Mr. Galligan stated that Mr. Bailey's opinion was that the proposed scrubbers and interceptors represented BATNEEC. Mr. Galligan stated that it was the Applicant's submission that BATNEEC has been applied and no evidence to seriously challenge this contention was put forward by the Objectors.
- (f) With regard to section 40(4)(d) of the Act, Mr. Galligan noted that as the Applicant for the waste licence is a company and not a person, it is curious that the word "*it*" was not used in the context of fit and proper person.
- (g) In the context of section 40(7)(a) of the Act, Mr. Galligan stated that no evidence had been submitted that convictions exist.
- (h) In the context of section 40(7)(b) of the Act, Mr. Galligan stated that there is evidence from Mr. O'Flynn that he has the requisite technical knowledge. He also stated that Mr. Collins was currently employed by the Applicant on the basis of his technical knowledge. Mr. Galligan highlighted that section 40(7)(b) of the Act refers to person or persons employed by him having the requisite technical knowledge or qualifications. In this instance, he stated that Mr. O'Flynn has both the qualifications (waste management course) and the technical knowledge to direct or control the activities. In the context of ensuring that the activities are carried on "*in accordance with the licence*", Mr Galligan stated that Mr. O'Flynn would be assisted in part by Mr. Collins in emergency response duties given Mr. Collins' previous experience as an emergency response team leader and in part with the outside assistance of Mr. Owen-Hughes. In a similar manner, Mr. Galligan referred to the requisite qualifications held by both

Dr. Roycroft and Mr. Coleman. He also referred to Dr. Roycroft's frank admission that he requires training to acquire certain elements of technical knowledge.

- (i) In the context of section 40(7)(c) of the Act, Mr. Galligan highlighted the phrase "... *likely to be in a position to meet any financial commitments or liabilities* ..." and stated that an important word in this section 40(7)(c) is the word "*likely*". He stated that the EPA cannot operate as a court or a commercial enquiry in these matters but it has to make its own assessment based on its experience in these matters. He noted that Mr. O'Flynn had given evidence that the company would be in a position to meet these financial commitments.
- (j) In the context of sections 41(2)(b)(xii) (which refers to sections 53(1)(b)(i) and (ii) and section 40(2)(b)(xiii) of the Act), Mr. Galligan referred to the discretionary power of the EPA to impose such conditions. He stated that the EPA may consider it appropriate to require the Applicant to enter into a policy of insurance but he stated that there must be some proportionality between that insurance and the risks. He stated that the scenarios posed by the Objectors are entirely unlikely. He stated that evidence had been put forward that he would describe as conjectural in relation to possible effects of dioxin and aluminium chloride. He stated that Professor Heffron, Mr. Bailey and Dr. Hogan had in part indicated that the risk is not in any way significant or measureable. Mr. Galligan stated that he realised that people are coming from different philosophical viewpoints but that the EPA must take reasonable cognisance.
- (k) Mr. Galligan noted that there were a number of criticisms to the EIS including omissions regarding horses. He stated that horses had been related to fauna, which he considered referred only to wild animals. However, he stated that the Objectors have brought forward information on horses and the Agency must have regard to this. In responding to the absence of data referred to by the Objectors, Mr. Galligan stated that Professor Heffron had stated that there is no data available on the standards and impacts of dioxins on horses. However, his evidence stated that World Health Organisation guidelines are derived for small animals and that appropriate safety margins are applied for small children and elderly people. Mr. Galligan concluded that this would afford protection for horses.
- (l) Mr. Galligan stated that all the expert witnesses for the Applicant had given their expert opinion that adequate information had been submitted to the Agency.
- (m) On the alleged failure of the EIS to deal with interactions, Mr. Galligan stated that even though interactions did not have a separate heading, interactions were dealt with in the EIS. Mr. Galligan gave the example of traffic and air quality. He stated that clearly traffic relates to material assets, traffic has an effect on air quality and air quality impacts on humans. He stated that there does not appear to be any complex relationships between the various impacts on the environment.

- (n) Mr. Galligan stated that he wished to respond to Mr. Hussey's submission that the company was worth £3 in 1998 and therefore questioned its ability to meet any financial commitments. In response, Mr. Galligan cited the case of ESAT Digifone which had huge liabilities. He stated that this was not the test and stated that the EPA can impose pre-commencement conditions.
- (o) Mr. Galligan stated that article 12 of the 1997 Waste Licensing Regulations required the name of the Applicant be provided. Mr. Galligan stated that the name of the Applicant was clearly stated in the application and that this is the relevant document in this matter. He stated that no evidence was adduced that South Coast Transport Ltd. will be involved in the operation of the facility. He stated that Safeway Warehousing Ltd. alone will be responsible for compliance with the terms and conditions of the licence. He stated that the letter dated the 30 June, 1998 (included in the application) from South Coast Transport to Safeway Warehousing Ltd. clearly indicated that Safeway Warehousing will be responsible for the facility.
- (p) Mr. Galligan stated that a letter in the application indicates that Cork County Council have indicated that they will accept specified waste from the proposed facility. If the EPA is not satisfied, he stated that the EPA can require the Applicant by way of a condition to secure this from Fermoy UDC. He regarded such a condition as a Grampian condition.
- (q) With regard to article 12(1)(l) of the Regulations, Mr. Galligan stated that environmental impacts which must be considered by the EPA are dealt with in the EIS, supplementary information and submissions made by the Objectors (pre-proposed decision and post).

Mr. Galligan stated that his legal submissions constituted his closing statement.

### **Closing statement on behalf on the Objectors**

Mr. Hussey made a closing statement on behalf of the Objectors (see paper no. 36). The submission comprised of twenty four points, the last point of which was subdivided into seven further points. He stated *inter alia* that the site was unsuitable in particular with regard to road safety and the culture of non-compliance by the persons involved in the proposed facility and suggested that the application be refused. He hoped that the EPA would not be influenced by the existing infrastructure in place and would prevent discharges to the Shanowenadrinna Stream. He referred to the Sunday Tribune article (see Paper 8) which he contended amounted to pre-licence boasting. He noted that the consultant who had prepared the EIS did not provide evidence at the Oral Hearing.

Mr. Hussey stated that the EIS fell below the required standard and that the local residents had been duped because of misinformation. On this note he requested that if a waste licence was granted that an Annual Environmental Report should be imposed by way of condition. He stated that this would



avoid scare mongering and would assist in informing people about the activities carried on at the facility.

Finally, he stated that the Objectors were grateful to the EPA for holding an Oral Hearing of the objection. Mr. Hussey concluded by stating that some of the evidence presented at the Oral Hearing had addressed some of the Objectors' concerns. However, others still remained.

### **Applicant's response to the Objectors closing statement**

Mr. Galligan stated that item 24(6) of the Objector's written closing statement, which referred to the evidence of Mr. Gerard Morgan, amounted to a technical submission and was not typical of a closing statement.

*At this point I closed the Hearing.*

### **Written Objection**

As previously mentioned the written objection to the PD is included in Appendix B of this report. The objection is divided into three parts. Part one is subdivided into four further sections which can be broadly grouped into the following headings: the EIS, Waste Management Plan, Management and Structures and Financial Matters. The second part of the objection comments on the Inspectors Report and the PD. The final part of the objection contains the 1998 Report prepared by Mr. Rory Finegan which formed part of his submission to the oral Hearing.

The adequacy of the EIS in general is questioned. In addition, the Objectors claimed that insufficient studies (including sampling) were undertaken during the preparation of the EIS. With respect to the Waste Management Plan the Objectors were of the opinion that emissions would breach the Air Pollution Act, 1987 and discharges to Water would breach the Water Pollution Act, 1977. The Objectors claim that the Applicant has not obtained the requisite permission to dispose of the waste emanating from the facility. Concern was also expressed that specified equipment on-site was not BATNEEC.

The Objectors stated that the management of the facility was inadequate, unsuitable and incapable of presenting data to the EPA. In addition, they considered that self-monitoring was not acceptable and that the monies payable on an annual basis to the EPA were inadequate. Under Financial Matters, the Objectors suggested that a bond should be put in place to protect the town of Fermoy, local farms, stud farms, cheese business, local residences and the nearby veterinary clinic.

The Objectors raised other matters, however these were considered outside the scope of this determination e.g. breaches of the Tachograph Regulations.

## **Recommendations**

### ***General***

I have considered all of the information in the waste licence application, the numerous submissions received on the application, evidence given at the Oral Hearing, the written objection, and I recommend the granting of a waste licence subject to conditions to Safeway Warehousing Ltd. In recommending the granting of a licence, I wish to stress that I have serious misgivings in relation to the start-up of the proposed facility. This is based *inter alia* on my opinion that two (of the three) key personnel who gave evidence at the Oral Hearing, do not possess the “*requisite technical knowledge*” to accept and handle hazardous waste. I wish to add however, that both of these individuals have impressive “*qualifications*” and may, given adequate training undertake this job competently.

To address this and other issues of concern, I recommend the inclusion of additional conditions and the amendment of a number of existing conditions. To accommodate these recommended changes it will be necessary to delete certain conditions and schedules of the PD. To avoid confusion, any reference in this report to a condition number refers to the condition in the PD except where a new condition is proposed. Where a condition of the PD is not mentioned in this report, the recommendation is that that condition should be included, unchanged, in the waste licence for the reasons outlined in the PD. Some of the comments in the written objection such as the reference to the Constitution, the precise wording of the Classes of Activities as specified in the WMA, 1996 and associated Regulations are considered outside the scope of this determination. Finally, where a new condition is to be included in the waste licence, it may be necessary to renumber subsequent conditions.

### ***Consideration of the Presentation of Evidence and the Written Objection***

As outlined above, I am satisfied that, subject to compliance with the conditions of the PD dated 5<sup>th</sup> April, 2000, as amended by the following recommendations, that any emissions from the facility will not contravene any of the requirements of Section 40(4) of the Waste Management Act, 1996. Hence, I recommend that a waste licence, subject to the conditions (as mentioned above) be granted to Safeway Warehousing Ltd. for the following waste activities to be carried out at Corrin, Fermoy, Co. Cork:

#### ***Third Schedule of the Waste Management Act, 1996***

Class 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.

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

Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

*Class 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.*

#### *Fourth Schedule of the Waste Management Act, 1996*

*Class 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.*

#### **Detailed Recommendations**

I note the concerns of Mr. Malone, Mr. Shinnick, Mr. O Sullivan and others in regard to the adequacy of certain aspects of the EIS. Indeed I agree with Mr. Galligan that it would have been helpful if aspects of the EIS had distinct headings. I do not agree with Mr. Malone, however that all member states who may receive exported waste from the facility should have been notified of the EIS. I note that the EIS was prepared in October 1997. I accept that the EIS could be of a higher standard, however, I consider that sufficient information was provided in the statement and subsequent responses to allow an assessment of impacts on the environment. Indeed, I am of the opinion that the statutory requests issued by the Agency assisted in this regard.

I note the concerns of Mr. Finegan and others about the location of the facility and the restrictive topography. I also note the concerns raised by Mr. O'Sullivan and others of the risk of dioxins being produced by the activities and the impact of air emissions in general on the local environment. In addition I note Mr. O'Sullivan's concern with regard the impact of such air emissions on horses. However, I agree with Professor Heffron that emissions from the proposed activity will if operated in accordance with the conditions of this licence, fall well within appropriate World Health Organisation guidelines and will thus, not cause significant air pollution.

I note in the application that volatile organic emissions from tanks and drums used in pathways 2(a) and 2(b) for full-scale throughput were estimated at 109 kg/year and 674 kg/year respectively. This estimate is prior to the emissions being scrubbed. Though I consider these emissions to be relatively minor, I consider it useful to set emission limit values for volatile organic compounds for pathways 2(a) and 2(b). I believe their inclusion will assist interested parties in judging the performance of the facility. I consider that the air emissions monitoring as set out in Schedule F is adequate and will *inter alia* identify the suite of organic compounds discharged and monitor HCl discharges. I therefore recommend that the following schedule be added after Schedule G.2.

## Recommendation 1

### G.3 Air

**Emission Point Reference No:** WSCF1 in Bund D

**Name of Emission Point:** Wet Scrubber Carbon Filter

**Table G.3.1:** Combined Emission Limit Values

Parameter	g/hr
Volatile Organic Compounds	10

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I note the concerns from Mr. Shinnick and others in regard to the monitoring of fugitive emissions. In particular I note the concern on the part of the Objectors in regard to the six months lead in time in the PD for proposals for the monitoring of such emissions. Though I agree with Mr. Bailey that it is not necessary to monitor fugitive emissions until the proposed activities are commenced, I do not agree with him that six months is required to determine the appropriate sampling methods to be used. Simple techniques do exist to measure fugitive emissions which can be modified over time (consistent with *condition 9.7*) to monitor such emissions. I therefore recommend amendment of *condition 7.3.2* as follows:

### Recommendation 2

*7.3.2 The licensee shall prepare a programme, to the satisfaction of the Agency, for the monitoring of fugitive emissions to air. This programme shall be submitted to the Agency for agreement and the approved programme shall be implemented, prior to the acceptance of waste.*

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I agree with Dr. Hogan that the likelihood of dioxin generation is remote and indeed in any event likely to be transient. However, I consider that particular attention should be paid to accidents and emergencies or other incidents, which may occur at the facility. I empathise with Mr. Shinnick and others who were concerned as to the potential effect of such incidents on the environment, on neighbours and on adjoining land-uses. In this regard I consider that the Applicant has been progressive by joining the British Fire Safety Services Association and having an independent evaluation undertaken of the proposed facility. While acknowledging this progressive action, the issue is of immense importance and undeniably dynamic in nature.

I therefore recommend that all risk assessments already undertaken (for example on fire) should be integrated within an overall risk assessment framework such as HAZOP. I therefore recommend that the following *condition* be included.

### **Recommendation 3**

*10.2. Prior to the acceptance of waste at the facility, an independent third party, to be agreed in advance with the Agency, shall carry out a HAZOP assessment of the facility, or part thereof. The HAZOP assessment shall pay particular regard to any accidents, emergencies or other incidences which might occur at the facility and their effect on the environment, on the neighbours of the facility and on adjoining land-uses. The assessment shall include recommendations which shall form part of this licence.*

Risk  
Ass

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Mr. Shinnick, Mr. O'Sullivan and others were concerned about the absence of financial measures to compensate those who may be affected by a catastrophe at the site. In addition, Mr. Hussey questioned the ability of the Applicant to meet any such liabilities that may arise. I note Mr. O'Flynn's reassurance that Safeway Warehousing Ltd. could meet its financial commitments. I note that *condition 11.2* of the PD addresses the issue of Environmental Liabilities. I note that an Environmental Liabilities Risk Assessment (11.2.1) is required within six months of the date of grant of the licence and a proposal for Financial Provision (11.2.2) within nine months of the date of grant of the licence. Though I agree with the spirit behind these two conditions I recommend that no waste be accepted on site until adequate financial provisions, acceptable to the Agency, are in place. I consider that the HAZOP study recommended above could run in tandem and is indeed complimentary to the Environmental Liabilities Risk Assessment. I therefore recommend amending *condition 11.2.1 and 11.2.2* as follows:

### **Recommendation 4**

#### *11.2. Environmental Liabilities*

*11.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which shall address liabilities arising from the carrying on of the activities to which this licence relates or in consequence of ceasing to carry on those activities. A report on this assessment shall be agreed by the Agency prior to the acceptance of waste at the facility.*

*11.2.2 Prior to the acceptance of waste at the facility the licensee shall make a Proposal for Financial Provisions to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates or in consequence of ceasing to carry on those activities. Such*

*provision shall be maintained unless otherwise agreed in writing by the Agency. No waste shall be accepted at the facility until the agreed proposal for financial provisions is in place.*

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In his opening statement, Mr. Hussey alluded to the Objectors' concerns as to the unfitness of the people proposing to manage the facility. I note that the Applicant has not been convicted of an offence under the Waste Management Act, 1996. I consider it noteworthy that the Managing Director of Safeway Warehousing Ltd., Mr. Pat O'Flynn, has completed eight modules of FÁS Waste Management Training Programme. In addition, I note his desire to involve himself in the development of the Environmental Management System for the facility. I am thus satisfied as to his credentials and I consider him a fit and proper person in accordance with section 40(7)(b) of the Act.

My concerns however rest with the next tier of management, i.e. the Site Manager, the Chemist and the Warehouse Manager. These individuals will be responsible *inter alia* for the acceptance of waste and its management. I consider that the qualifications for these posts as set out in the application are inadequate. However, I consider that this deficiency was addressed in *condition 2.9* of the PD whereby *the licensee shall employ....suitably qualified and experienced personnel.*

At the outset, I wish to state that I consider that Mr. Collins (Site Manager), Dr. Roycroft (intended Chemist) and Mr. Coleman (intended Warehouse Manager) possess impressive qualifications and industrial experience. However, I contend that the responsibilities associated with their job descriptions require them to undergo specialised training in order for them to manage large quantities of diverse hazardous wastes. These three individuals may, given adequate training, perform their assigned tasks in a satisfactory manner.

On a related matter, I am concerned at the volume of work which may be placed upon these three individuals during the start up of the facility. A substantial aspect of this work will involve setting up procedures to accept and manage hazardous waste. Having reviewed the Article 12 Response on *Technical Competence and Site Management* I note the opinion of Dr. Johnston that double the staff compliment would be required. Indeed I note in the EIS (section 3.2.1. *Waste Acceptance*) that it is intended that one staff member will visit each site to "*carry out an audit to identify, confirm and catalogue the raw materials used and the types of waste produced by the customer*". Furthermore the Applicant states (in the EIS) that they intend to audit waste producers "*annually*". Dr. Eduljee stated during cross-questioning that the critical point in terms of work load was not the volume of waste but the diversity of wastes, i.e. the more diverse the waste streams the greater the volume of work. I note Mr. O'Flynn's commitment to recruit more personnel if the work load increases and that it was his intention to involve experienced personnel from Chemical Recoveries Ltd. during the start up period. Having formed the opinion that specialised training is required for the three key personnel I am also conscious that the start up of the facility will

require *inter alia* the drafting of many procedures. The latter task cannot be adequately undertaken until the key personnel are trained in hazardous waste management. There is a danger that external procedures will be imported, which may or may not be suitable for the facility. In addition, I do not consider it appropriate that the facility at Corrin, Fermoy be used as the *initial* training ground for the key personnel.

To address the training deficiency, the volume of work involved during start up and to provide adequate staff to match the volume and diversity of waste, I recommend that:

- No waste be accepted on-site until the Agency is satisfied that critical procedures for the safe operation of the facility are prepared and that the key personnel are trained in such procedures; and
- The mixing and blending of waste should not be commenced for a further twelve month period after the initial acceptance of waste at the facility.

I recommend that *condition 2.5* of the PD be amended as follows:

### **Recommendation 5**

#### *2.5. Awareness and Training*

*2.5.1 Notwithstanding condition 2.1 of this licence, the licensee shall, prior to the acceptance of waste, submit to the Agency for its agreement Awareness and Training Procedures for identifying training needs and for providing appropriate training for all personnel whose work is related to the licensed facility. Written records of training shall be maintained.*

*Condition 5.2* of the PD included a detailed list of requirements with regard to waste acceptance. It is recommended that a training element be added to *condition 5.2.(b)* as follows.

- (b) *an effective procedure for dealing with the waste is in place and satisfactory staff training in the implementation of that procedure has been undertaken;*

A new condition is also recommended and should be inserted after *condition 5.9 (i.e. 5.10)*. This will require the existing *condition 5.10* etc. to be renumbered.

*5.10. No mixing and blending of waste oils, waste acids or waste solvents shall commence for a period of twelve months after the initial acceptance of waste at the facility.*

*(Not to be used with agreement of Agency)*

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I note Mr. Finegan's concern with regard to the storage of toxic and infectious waste at the proposed facility. I note that Mr. Galligan interjected during Mr.

Finegan's evidence and stated that it was not the Applicant's intention to do so. I reminded Mr. Galligan subsequently that cytotoxic waste may include potentially infectious waste. I note that Mr. Galligan advised the Chair of his intention to address this issue. I consider the confusion surrounding toxic and infectious waste arises from the UN classification of Hazardous Materials. The UN Class 6 includes *Toxic and Infectious Substances Both Liquid and Solid*. However, despite requesting clarification on cytotoxic waste on the opening of day number 2 of the Oral Hearing I note that no witness was produced to address this issue. I hence recommend that potentially infectious healthcare risk waste be added to the list of materials in *condition 5.1* which shall not be accepted at the facility. The amended condition would read as follows:

### **Recommendation 6**

*5.1. Only those waste types ticked in Tables E.1.2 and E.1.3 of the application, shall be accepted at the facility. Unsegregated household, municipal, commercial or industrial waste, potentially infectious healthcare risk waste, sewage waste including sewage sludge, or explosive waste shall not be accepted at the facility.*

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Mr. Malone, Dr. Johnston and others expressed concern with regard to asbestos waste. I consider that the management of asbestos waste is adequately addressed in *condition 5.19* of the PD. However, to avoid any confusion, I recommend that *condition 5.19.6* be amended to prevent the unwrapping of such waste.

### **Recommendation 7**

*5.19.6 No unwrapped asbestos waste shall be accepted or stored at the facility. Care shall be taken in handling the waste that no damage is caused to any plastic bags or wrapping as may permit the escape of fibres and dust. Any damage shall be recorded as an incident. In addition, no unwrapping of asbestos waste shall be carried out.*

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I note the concerns of Dr. Johnston, Mr. Shinnick and others about the discharge of treated external truck washings to the Shanowenadrimina Stream. I note that the Applicant does not propose to discharge internal truck washings through the surface water system. Equally potentially contaminated wastewater, which may be generated in the operational areas where waste is stored and handled, will be contained by the facility infrastructure. I consider it unnecessary to engineer a system whereby the wastewater from external truck washings should be neutralised and then discharged to the Shanowenadrimina Stream. I note that the Applicant estimates that 200 litres/lorry of truck washings will be generated and a maximum daily generation rate of 1.6 m<sup>3</sup>/day is predicted. Indeed I consider that water



management, as a whole should be addressed including for example the consideration of re-use of wash water and storm water.

I recommend that truck washings should not be discharged off-site. In effect this prevents all wastewater emissions being discharged to the Shanowenadrimina Stream leaving only a storm water and roof water discharge. Mr. O'Flynn advised the Hearing that all surface water collected at the facility, in addition to external trucks washing would be neutralised. I do not consider it appropriate to neutralise such surface water, although I accept that it may be necessary to neutralise truck washings before removal to an off-site treatment facility. I consider it important that control measures be put in place to detect incidents of surface water contamination. This I suggest is addressed in part by *condition 9.2* of the PD which makes provision for warning and action levels for pH, TOC and conductivity.

In conclusion, for the purposes of controlling emissions from the facility and providing for the protection of the aqueous environment I recommend that *condition 7.7* be amended to read as follows and two new conditions (7.8 and 7.9) be included:

#### **Recommendation 8**

- 7.7 *There shall be no emissions to surface water except for uncontaminated surface water.*
- 7.8 *Prior to the acceptance of waste on-site the licensee shall submit to the Agency for agreement revised proposals for the management of external truck washings.*
- 7.9 *Notwithstanding condition 7.8 the licensee shall, within 12 months from the date of grant of this licence, submit a report for the agreement of the Agency identifying options for and examining the feasibility of reusing storm water and external truck washings which may be collected at the facility.*

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The requirement for zero wastewater discharge from the facility obviates the need for part of some associated schedules. It is recommended that:

#### **Recommendation 9**

*Schedule G.1 and Table F.2.2 of Schedule F* be deleted.

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I note the concerns in the written objection and elsewhere to the use of outside contractors or other bodies for the removal, recovery and disposal of waste and waste water generated at the facility. In particular I note the concerns expressed by the Objectors to the use of the waste water treatment plant operated by Fermoy UDC. I do not agree that there is a need for agreements and/or contracts to be established prior to the granting of a waste

licence. I note that *condition 5.22* of the PD requires that the use of recovery or disposal contractors be agreed with the Agency. However, I consider that the use of authorised haulage contractors should also be subject to agreement with the Agency. I consider *condition 7.8* of the PD (i.e. that a waste water treatment plant owned by a sanitary authority must be used to treat *inter alia* scrubber washings) to be restrictive. I therefore recommend that all waste water not permitted to be discharged to surface water should be brought within the scope of *condition 5.22*. Hence, I recommend that *condition 7.8* be deleted and that *condition 5.22* be amended as follows:

### **Recommendation 10**

*5.22. Waste and waste water sent off-site for recovery or disposal shall only be conveyed to an appropriate recovery or disposal facility or waste water treatment plant agreed in advance with the Agency. All waste and waste water removed off-site for recovery or disposal shall only be conveyed by an authorised contractor, as agreed in advance with the Agency, and shall be transported from the facility in a manner which will not adversely affect the environment.*

*Condition 7.8* to be deleted

Reference in the interpretation to Fermoy UDC as the sanitary authority to be deleted.

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Dr. Johnston, Mr. Shinnick, Mr. Finegan and others made reference to monitoring of the Shanowenadrimina Stream. I agree with Dr. Johnston and Mr. Morgan that sediment analysis would compliment the suite of chemical analysis provided for in *Schedule F.1* of the PD. In particular, because of the expected low levels of contaminants in the surface water I consider it an ideal method of monitoring the cumulative effect of low level discharges. I recommend the inclusion of a new condition *9.10* (this will require subsequent renumbering) as follows:

### **Recommendation 11**

*9.10 An annual sediment assessment of the Shanowenadrimina Stream shall be undertaken. The method employed for this assessment and the location of sampling points shall be submitted for the agreement of the Agency at least one month prior to the study being undertaken. The assessment shall, as a minimum include the parameters listed in Table F.1.3.*

Schedule F.1

Table F.1.3 Sediment Analysis - Parameters:

Cadmium
Chromium (Total)
Copper
Cyanide (Total)
Hydrocarbons (solvent extractable)
Iron
Lead
Other List I/II Substances
Manganese
Zinc
Nickel

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I note the concerns of the Objectors with regard to the Emergency Response Procedure (ERP) and the belief that BATNEEC was not employed with regard to fire fighting equipment. I note that Mr. Collins stated that draft ERPs have been developed. In addition, I note his previous expertise as an emergency response team leader. I am satisfied that *conditions 10.1 and 10.6* address the issues with regard to the ERP and fire fighting equipment, however I recommend that the six month lead in time be deleted. I recommend the following amendments be made to *conditions 10.1 and 10.6*:

**Recommendation 12**

*10.1. Prior to the acceptance of waste on-site, the licensee shall submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situation which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment.*

Condition 10.1.1 and 10.1.2 remain unchanged.

*10.6. Prior to the acceptance of waste on-site, the licensee shall review the requirements at the facility for fire fighting and fire water retention facilities and submit a report, including recommendations on the findings to the Agency for its agreement. The Chief Fire Officer of Cork County Council shall be consulted by the licensee during this assessment.*

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I note the views of Mr. Thornhill, Mrs. Riordain, Mr. Malone and others about the impact of this facility on groundwater and in particular the Ballytrasna

aquifer. I agree with Dr. Taylor that the concrete hardstanding areas afford a significant layer of protection. I note that during cross questioning that Dr. Taylor advised that the estimated time of travel to groundwater was circa 64 hours. He added that during an inspection of the site he observed that approximately 0.1% of the concrete area was cracked. However, he added that because of the surface gradient in the drainage areas, the "*likelihood of an significant chemical penetration is very low*". The bunding requirements are set out in *condition 4.14* of the PD. However, I recommend that the weekly checking of bunds as set out in *condition 4.14.6* be extended to include all concrete hardstanding areas. This condition requires the inspection of the hardstanding areas and requires the taking of corrective action in the event of a defect being observed in accordance with *conditions 3.1* and *10.9* of the PD. The amended condition as recommended now reads as follows:

### **Recommendation 13**

*4.14.6 All bunds and hardstanding areas shall be visually checked weekly for structural soundness and cracking/damage. Any defect shall be treated as an incident. A record shall be kept of each check.*

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I note the alleged lack of prior notification, misinformation and general emotion expressed by witnesses for the Objectors during the Hearing. I note that the Applicant complied with the statutory public notices during the application process. In addition, I note the letters of support and objection to the proposed facility prior to the PD. I consider that the spirit underpinning *condition 2.7* of the PD will in general provide for adequate communications for members of the public. However, I consider that the Applicant requires a structured approach to dealing with neighbours and should thus engage the services of an independent professional to prepare the communications programme. Hence, I propose an amendment to *condition 2.7* as follows:

### **Recommendation 14**

#### *2.7. Communications*

*2.7.1 Within three months from the date of grant of this licence, the licensee shall submit for agreement to the Agency, a Communications Programme prepared by an independent third party (acceptable to the Agency) to ensure inter alia that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.*

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I note the concerns that the financial contribution of £15,645 to the EPA is inadequate. I consider that the computation of this figure is correct, however, it will need to be adjusted to reflect the recommended conditions. To provide for adequate financing for monitoring by the Agency and financial provisions, I

recommend that the monetary sum in *condition 11.1.1* be adjusted by the addition of £900 (i.e. 2 day @ £450/day).

### **Recommendations 15**

*10.6. The licensee shall pay to the Agency an annual contribution of £16,545 or such sum as the Agency from time to time determines, towards the cost of monitoring.....*

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Finally, Schedule D (Recording and Reporting to the Agency) of the PD will require modification depending on the acceptance of some/all of these recommendations, as follows:

- Deletion of row “Monitoring of surface water discharge”; and
- Addition of row “Sediment analysis of Shanowenadrimina Stream”. Frequency: annually. Report submission date: One month after the end of the year being reported on.

