ATTACHMENT A: NON-TECHNICAL SUMMARY

WASTE LICENSE APPLICATION 50-2

NON-TECHNICAL SUMMARY

A: INTRODUCTION

This document summarises the information in the above application. The headings used refer to the sections of the license application. Where there is a section missing this is because it is not applicable to the facility.

B.1: OWNERSHIP OF THE FACILITY

AVR-Safeway Ltd, hereby request a review of their Environmental Protection Agency License to operate a Hazardous Waste Transfer Station at Corrin, Fermoy, Co. Cork. AVR-Safeway is the owner and, with South Coast Transport Ltd., a sister company occupies of the site. AVR-Safeway has operated the waste transfer station since 2001, initially under the name Safeway Warehousing Ltd. The company changed its name to AVR-Safeway Ltd. of January 3, 2002, reflecting the joint ownership by AVR of the Netherlands and South Coast Transport Ltd. AVR is a leading Dutch waste management company, owned by the City of Rotterdam. South Coast Transport is a leading player in the Irish road haulage industry specialising in the transport of hazardous materials.

B.2: LOCATION AND PLAN OF THE FACILITY

The AVR-Safeway site is located alongside the N8 road, 2 miles south of Fermoy in the township of Corrin. The location of the facility is outlined in red on Figure A.1.2.1. The plan of the facility is given in Figure A.1.2.2, where existing infrastructure is shown in black and proposed new infrastructure is shown in red.

The facility is owned and operated by AVR-Safeway Ltd. as a hazardous waste transfer station. The proposed additional infrastructure and operations are a logical extension to the existing. The siting of the fuel blending facility elsewhere would unnecessarily duplicate services and infrastructure currently available at the transfer station.

B.3: PLANNING AUTHORITY

A planning application has been made to Cork County Council for the proposed new infrastructure at the facilities.

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B.4: SANITARY AUTHORITY

Application has been made to Cork County Council to connect to the proposed sewer system in Corrin. Discharge limits have been set.

B.7: TYPES AND TONNAGES OF WASTE ACTIVITIES

It is proposed that the facility will be licensed to accept up to 72,000 tonnes of waste per annum. The waste will primarily be hazardous and will come from commercial and industrial sources, primarily the chemical and pharmaceutical industries. Some hazardous construction and demolition waste, primarily asbestos, will also be accepted. The following activities are/will be carried out at the facility:

The current principal class of activity as defined under the Third Schedule of the Waste Management Acts, 1966-2003 is:

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.

This activity is limited to the provision of interim storage of hazardous and non-hazardous waste prior to storage for disposal

Other **current** activities carried out at the transfer station are:

THIRD SCHEDULE: 3. Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcinations), 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.

This activity is limited to the neutralisation of appropriate wash streams.

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

This activity is limited to the mixing an blending of hazardous materials (acids, waste oils, solvents). There shall be no other blending of other waste types.

12. Repackaging prior to submission to any activity referred to in a proceeding paragraph of this schedule.

This activity is limited to the baling of industrial clothing, drum crushing and shredding and the repackaging of small hazardous wastes into UN approved containers.

FOURTH SCHEDULE

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 the waste concerned is produced.

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This activity is limited to the provision of interim storage of hazardous and non-hazardous waste prior to transport for recovery.

The **proposed** principal class of activity as defined under the Fourth Schedule of the Waste Management Acts, 1966-2003 will be:

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 the waste concerned is produced.

Bulk waste will be stored on site while awaiting notification and transport to facilities where it is used as a fuel, recovered for reuse or use as a replacement for virgin material, or is used as a raw material. Waste, in bulk and drums, will be stored on site for blending to make a refuse derived fuel.

Other **proposed** activities as defined under the Fourth Schedule of the Waste Management Acts, 1966-2003 will be:

1. Solvent reclamation and regeneration.

Solvents will be blended on-site to make a refuse derived fuel and solvents will be separated from aqueous mixtures and sent for recovery. Currently this is carried out with dichloromethane with agreement of the agency. The maximum amount of waste used for fuel blending will be about 25,000 tonnes per annum.

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

Industrial wastewater treatment plant sludge will be bulked up for transport to power plants to be used as a refuse derived fuel and plastic drums will be washed and reused or shredded and sent to power stations as refuse derived fuels.

3. Recycling or reclamation of metals and metal compounds.

This activity will be limited to the washing and recycling or crushing for recovery of metal drums.

4. Recycling or reclamation of other inorganic materials.

Aluminium oxide waste will be bulked up and sent for use as a raw material in the cement industry. This process is currently in operation with the approval of the agency.

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

Waste oils will be blended with other wastes to make a refuse derived fuel.

11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.

Waste from any of the above processes will, where possible be recovered/reused or blended to make a refuse derived fuel.

12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.

Waste will be exchanged with other waste management entities where appropriate, to enable it to be recovered/reused or blended to make a refuse derived fuel.

B.8: SERVESO II REGULATIONS

The quantities of hazardous materials stored on site are carefully monitored and the status of the site under the Serveso II (Control of Major Accidents Involving Dangerous Substances) Regulations (S.I. No. 476 of 2000) is continually under review with the Health and Safety Authority. The current amounts of waste stored on site have never approached the limits for either tier of Serveso II. The impact of the proposed fuel blending facility has been analysed and the increase in the amount of Serveso II material stored on site will only increase 25 %. Thus the site does not fall within the scope of either tier of Serveso II.

C: MANAGEMENT OF THE FACILITY

AVR-Safeway Ltd. employs a skilled and experienced team of waste management professionals to manage all aspects of the transfer station activities. Eight members of staff are trained as Dangerous Goods Safety Officers, 5 are chemists, and one has completed the full FAS/EPA waste management course.

The site is registered by the NSAI under ISO 14001, the environmental management standard, and the Environmental Management System is in accord with this standard.

The permitted hours of operation of the facility will be from 24 hours a day 7 days a week.

D: INFRASTRUCTURE AND OPERATION OF THE FACILITY

D.1: INFRASTRUCTURE

- **D.1.1: EXISTING INFRASTRUCTURE** This consists primarily of:
- Security arrangements, fences and gates
- Concrete hard standing covering the whole working area of the site
- Buildings and plant for the operation f the facility
- Bunds for storing all bulk materials
- Warehouse for the storage of packed waste
- Store age boxes
- A wash bay for tanks, trucks and drums
- Equipment for carrying out bulking and separation activities, drum crushing and shredding.
- Office and other facilities for personnel
- Acid, diesel, wastewater and firewater storage tanks.
- Grit traps and oil interceptors for the protection of surface waters
- Sewage system of septic tanks and soak away

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D.1.2: PROPOSED ADDITIONAL INFRASTRUCTURE

The following new infrastructure is proposed for the facility:

- 1. A fuel blending facility consisting of six tanks of a total capacity of 400 m^3 for the mixing of waste streams to produce a waste derived fuel for use in the cement and power generation industries.
- 2. An extension of the warehouse to allow for the relocation of the existing Store 2 and its conversion into a waste receiving area. A baler will also be installed.
- 3. The relocation of three existing and the installation of two new bunded storage boxes for the segregation of wastes.
- 4. Application is also made for future connection to the sewer.

DESCRIPTION OF WASTE TRANSFER ACTIVITIES D.2: 1: **CURRENT ACTIVITIES**

Current activities relate to the collection, acceptance and temporary storage of waste until it is exported to recovery or facilities in Ireland or abroad. The waste consists mainly of solvents and other chemicals, asbestos, oils, acids, batteries, and fluorescent tubes. No potentially infectious, explosive or radioactive wastes are accepted.

Julk The waste is stored, blended or separated and/or bulked up for shipment to the appropriate facility, where the waste is:

- Recovered for reuse
- Converted into other useful products •
- •
- •
- Converted into other userul products Converted into energy Disposed of to landfill Disposed of by incineration, with or without energy recovery •
- Disposed of by other appropriate means • ofcopy
- Stored in secure vaults.

PROPOSED ACTIVITIES 2:

The principle proposed activity is the operation of a fuel blending facility on a larger scale than existing. Before any blending takes place samples of the wastes will be subjected to characterisation and also compatibility with the equipment and the other components. Waste in both tankers and drums will be pumped into one of three storage tanks depending on its calorific value. There will be two smaller tanks to receive special waste, which can only be blended in small quantities. Batch blends of the waste from the storage tanks will be made in a larger blending tank according to a predetermined formula. The resulting blends (of 18 - 24 KJ/kg calorific value will be loaded into tankers for export to power stations or cement works for use as a waste derived fuel.

E: **EMISSIONS**

E.1: Emissions To Air: Primary sources of emissions will be from the acid storage, and separation and blending activities on site. Emissions are minimised by the use of pollution abatement devices at each emission point. These are:

AGS-1: A water scrubber installed on the vent from the acid storage tanks and the drum washer extraction system.

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WSCF-1: A water scrubber/carbon absorber system located in Bund D to collect the vented gases from the separation and bulking up activities located there.

WSCF-2: (Proposed) A similar device as WSCF-1 to be located in the new Bund R and collecting the vented gases from the fuel blending facility.

Each device is regularly monitored for its effectiveness and the overall amount of emissions is recorded. No emission has exceeded EPA guidelines.

An additional source of air emissions is fugitive emissions from small leaks etc. Fugitive emissions are monitored each day using a mobile photo-ionisation detector. Lines will be blown dry using nitrogen before any hose connections are broken after loading or unloading wastes from tankers. This procedure works well and no fugitive emissions will result. Spill absorbent pads will be used to collect any residual drips. Careful planning will minimise the number of connections to be made.

E.2: Emissions To Surface Waters: Rainwater runoff is the only emission to surface waters and is collected through the existing grit traps and Class 1 oil interceptors. The outflow to surface waters is continuously monitored and if the trigger levels are exceeded a valve is automatically shut to stop discharge. The surface water is then collected in a retention tank for disposal by appropriate means.

E.3: Emissions To Sewers: Currently there is no connection to the sewer. In is proposed to discharge process water and domestic effluent via the sewer to the Fermoy wastewater treatment plant in due course. Discharge limits will be agreed with the sanitary authority and the Ageney at that time.

E.4. Emissions To Ground Water: There are and will be no emissions to groundwater.

E.5: Noise: No fixed equipment will emit noise at greater than 55 decibels. The primary sources of noise are vehicle movements, including truck reversing sirens, and the mobile crane. Careful planning of operations and attention to noise issues by, for example turning of truck engines when not in use, will minimise noise emissions. However any noise generated on site is inaudible against the noise of the traffic on the adjacent N8 Dublin- Cork road.

E.6 Environmental Nuisances: Dust is minimised by keeping all areas clean. Additional care is taken in the handling of asbestos to prevent the emission of asbestos fibres, and routine monitoring has shown that these are effective. No asbestos fibres have been detected in 4 years of monitoring.

Fire prevention methods are incorporated into the engineering of the plant and equipment. In addition sufficient firewater is stored on site. In an emergency a diesel powered fire pump will be used to provide pressure to 2 fixed hydrants. There is also an on-site fire engine and foam generator as well as extinguishers and other equipment to fight smaller fires. The site has a well-equipped and trained emergency response team.



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Litter is collected as it is noticed and a daily litter inspection is carried out. The site speed limit is 10 mph (16 kph). Sufficient parking places will be provided for workers at the site. It is estimated that the increase in the amount of waste accepted on site will increase the HGV traffic by less than 1 movement an hour, during the working day. The site is located next to the busy N8 Cork Dublin road and thus the additional vehicle movements necessitated by the intensification of activities at the site will not cause a traffic nuisance.

A licensed pest control company is employed to control any vermin. Birds will not cause a nuisance at the site and road cleaning will be unnecessary as the site is completely paved.

F: CONTROL AND MONITORING

1: CONTROL

The following devices will be used to control emissions:

Air Emissions:

The three air emissions points will be fitted with water scrubbers. Those points with an emission of higher levels of VOCs (volatile organic compounds) (WSCF-1 and WSCF-2) will have a carbon filter in series to absorb any residual organic materials.

Surface Water Emissions:

Rainwater runoff is the only emission to surface waters and will be collected through grit traps and Class 1 oil interceptors. The outflow to surface waters is continuously monitored and if trigger levels are exceeded a valve is automatically shut to stop discharge and switch the water to a retention tank for appropriate disposal.

2: MONITORING [<]

All emissions points are monitored for pollutants, either continuously, for discharge to surface waters and for fugitive emissions, or on a schedule, air, groundwater, and noise. In addition monitoring of the Shanowennadrimina stream was carried out at points above and below the discharge point from the facility. The local ecology and the ecology of the stream were monitored annually to determine whether the facility is having an adverse impact. All data collected over the four years of operation indicate that the AVR-Safeway transfer station is having at no adverse effect on the environment.

In the future the monitoring may be reduced, but more accurately targeted to more accurately target the components that could be emitted from the transfer station and the routes they could take.

G: RESOURCES AND ENERGY

Very few raw materials are used at the facility, mainly consisting of packaging, cleaning and maintenance materials. Water is used at the facility for vehicle, tank and drum cleaning and domestic uses. The energy requirements of the facility are diesel for the crane and company vehicles used both on and off site and electricity of lighting, pumps, heating and cooling. Plans are in place to minimise and reduce raw material, resource and energy usage as a function of tonnage through the site.

H: WASTE ACCEPTANCE AND HANDLING

Detailed procedures have been drawn up for the acceptance and handling of the various wastes. Waste is only accepted on site if an outlet has been identified. Especial care is taken with the handling of asbestos. Waste is stored on site for a maximum of six months unless special dispensation is sought from the agency.

Waste is stored in two locations. Bulk waste is stored in bunds in park 2 in the lower section of the yard. Packed waste is only stored in the warehouse (Stores 1 and 2) or the segregation stores (Stores 3,4 and 5) located in Park 1 in the upper yard. All waste is stored in bunds.

Samples of wastes for blending will be subjected to characterisation and compatibility testing before being introduced into the blending facility. Waste in both tankers and drums will be pumped into one of three storage tanks depending on its calorific value. There will be two smaller tanks to receive special waste, which can only be blended in small quantities. Batch blends of the waste from the storage tanks will be made in a larger blending tank according to a predetermined formula. The resulting blend will be loaded into tankers for export.

The principal wastes arising from the activities of the transfer station are washing from tanks, trucks and drums. Internal washings are sent for incineration as hazardous waste. External washings and rinses are transported by tanker to the Fermoy WWTP. Other wastes are sent for disposal at approved sites.

A procedure by which new processes can be introduced to the Transfer station with the approval of the agency is proposed.

I: EXISTING ENVIRONMENT

Detailed monitoring of the environment around the facility is carried out in accordance with the conditions License 50-1. A detailed analysis of the results for the period 2001 - 2004 shows that there have been no observable adverse effects on the environment and ecology due to the activities on the waste transfer station.

Air monitoring consists of quarterly analyses of samples obtained from AGS-1, and WSCF-1, daily monitoring for fugitive emissions using a portable photo-ionisation detector and quarterly analyses for asbestos fibres.

The Shanowennadrimina stream is analysed quarterly for gross parameters and annually for others. Water and sediment samples are taken both above and below the surface water discharge point from the facility. No quantitative differences were detectable between samples obtained on the same day. The stream ecology was also monitored. A slight diminution in quality was observable in 2001 - 2003, but there is no indication that the differences are due to the effect of the transfer station. Differing agricultural activities on the stream banks are thought to be the cause. In 2004 no upstream sample could be obtained due to the very high levels of suspended solids in the water due to the nearby work on the Fermoy-Rathcormac bypass, which has also caused a significant change in the stream water and sediment parameters.

Groundwater was monitored from three boreholes on site and 9 off site locations, both up and down gradient. There are large variations in water quality between samples and locations, but the scatter is random and no effect of the transfer station can be detected. A more focussed monitoring programme is proposed for the future

Noise monitoring has shown a steady increase in noise in the vicinity of the site during the period 2001 - 2004. However this directly correlates with the increase in traffic measured by the NRA at the North Rathcormac station on the N8. In fact traffic travelling on the N8 is the dominant contributor to noise in the Corrin area.

J: ACCIDENT PREVENTION AND EMERGENCY RESPONSE

Accident prevention is a major feature of the design and operating strategy of the facility. During the period since waste was first accepted on site in February 2001 there have been no significant accidents or incidents. Accident prevention has been foremost in the design of the proposed fuel blending facility.

AVR-Safeway has detailed and tested procedures for dealing with spillages, fires and other potential emergencies. Personnel have taken part in off-site emergencies, whether simulated for training or for real. Site emergency response equipment includes a fixed fire water system, a fire engine, a foam generator, fire extinguishers, spill containment and clean-up kits and full personnel protection including selfcontained breathing apparatus. Staff training on this equipment is conducted on a regular basis.

K: DECOMMISSIONING, REMEDIATION, AND AFTERCARE

Fully funded decommission and aftercare plans are in place in the unlikely event of the facility being closed. Funding for this is in the form of a bond calculated annually with the approval of the agency. If the proposed fuel blending facility is shut down for more than six months it will be decontaminated and cleaned, even thousg the rest of the transfer station remains in operation.

The decommission plan includes proposals to remove all wastes and other hazardous materials, to clean and decontaminate all plant, equipment and structures, and to render the site free of contamination. The putative demolition of the infrastructure will depend on subsequent uses of the site. After decommissioning a full investigation for any residual pollution will be made and a validation report prepared. If any pollution is found it will be cleaned up in agreement with the agency.

Aftercare of the facility will consist of continued monitoring by a third party of ground and surface waters for possible pollution.

