



Submission

Submitter:	Mr Vincent Heavey
Organisation Name:	HSE
Submission Title:	HSE Submission Report-EHIS Ref No: 2784 - EPA Reference No: P0571-05
Submission Reference No.:	S010727
Submission Received:	24 November 2022

Application

Applicant:	Merck Millipore Limited
Reg. No.:	P0571-05

See below for Submission details.

Attachments are displayed on the following page(s).



North Lee Environmental Health Service,
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Date: 24/11/2022

Our Reference: 2784

Report To: Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
Johnstown Castle Estate
Co. Wexford

EPA Reference: P0571-05

Type of Consultation: Industrial Emissions Licence

Applicant: Merck Millipore Ltd, Tullagreen, Carrigtwohill, Cork

Nature of activity: The surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year

The following HSE departments were notified of the consultation request for this development on 24th of October 2022.

- Emergency Planning – David O'Sullivan
- Estates – Helen Maher / Stephen Murphy
- Director of National Health Protection – Eamonn O'Moore
- CHO – Michael Fitzgerald

If you have any queries regarding this report the initial point of contact is Ms Kathleen Clifford, Principal Environmental Health Officer who will refer your query to the appropriate person.

Yours sincerely

Kathleen Clifford.

Kathleen Clifford
Principal Environmental Health Officer

The Health Service Executive is continually striving to improve the quality of its service. If you have any feedback on your recent interaction with the Environmental Health Service please contact the Principal Environmental Health Officer on the above phone number

HSE EIS SUBMISSION REPORT
Environmental Health Service Consultation Report

(as a Statutory Consultee (Planning and Development Acts 2000, & Regs made thereunder))

This report only comments on Environmental Health impacts of the license review application. All commitments to future actions, including mitigation and further testing have been taken as read, and all data has been accepted as accurate. No additional investigations/measurements were undertaken in the review of the application.

In respect of this application, the areas reviewed were those of concern to Environmental Health and which are:

- Any potential contamination of surface water and ground water
- Emissions to air including noise and process emissions

Development:

Merck is applying to the Environmental Protection Agency (EPA) for a review of its existing Industrial Emissions (IE) licence (Reg. No. P0571-04) to incorporate the proposed developments. The application considers any changes that have been made on site since the current IE licence (Reg. No. P0571-04) came into force and will incorporate applicable Technical Amendments of the same. The Merck site is approximately 15.65 hectares in area and is located on the R624 south of the N25 and the Cobh Cross Industrial Estate in the townlands of Tullagreen and Carrigtwohill, Co. Cork.

Merck has applied for planning permission to Cork County Council (Planning Ref: 22/5082) for the construction of a new Immersion Cast membrane manufacturing facility to the Cork site. The new production facility (IC4) will comprise of a new building containing manufacturing lines for two distinct manufacturing processes: Durapore and Express.

Noise:

The Merck facility is a 24/7 operation and therefore noise sources associated with the normal operation of the facility generally emit on a continuous basis. There are also items of equipment which are only used in emergency situations and during maintenance and testing (e.g., firewater pumps, alarms). Miscellaneous noise sources such as site traffic and construction works also occur on-site. A number of new noise sources will be associated with the new development. Modelling of the noise sources has been carried out to determine the impact at noise sensitive locations as part of the EIAR which is included in Attachment 6-3-7 of the application.

Residential noise sensitive locations are located to the west at some 40 m distance on the north western boundary of the site and on the opposite side of the N25 at some 150 m distance. Residential and ecological noise sensitive locations are detailed further in Chapter 10 of the Environmental Impact Assessment Report (EIAR) submitted as part of this IE licence review application.

Should permission be granted, it is recommended that a noise monitoring plan for the operational phase of the plant is agreed and implemented to ensure compliance with the proposed operation noise criteria. This is particularly relevant in light of the proposal to run the plant on a 24hour basis 365 days of the year. Remedial action to be taken in the event of noise exceedances occurring shall be outlined.

Air

In terms of air monitoring, Carrigtwohill is within Zone D, as defined in Schedule 19 of the Air Quality Standards Regulations 2011. The baseline air quality of the receiving environment can be

characterised by monitoring was carried at Zone D monitoring locations.

In accordance with the requirements of BAT (Best Available Techniques), Merck

Has detailed preventative measures will be taken against atmospheric pollution to reduce the impact on the environment.

There will be five new main air emission points as follows:

- A1-12 Boiler
- A1-13 Boiler
- A1-11 Thermal Oxidiser
- A1-15 Boiler

Based on the information provided in the Air Dispersion Modelling Report provided in Attachment 7-1-3-3, it is concluded that the operations at the Merck facility will have no significant impact on local air quality.

Emission to water

There are/will be no emissions to ground or groundwater from the Merck facility. Various containment measures (bunding of the tanker bays and tank farms, preventative maintenance, overground piping where possible etc.) are incorporated into the design of the facility to prevent and contain any accidental releases which could potentially impact on soil or groundwater quality. There will be no direct process effluent emissions to surface waters from the installation.

Sewer

Wastewater produced from the activities at the Merck site is discharged from four emission points to the municipal sewer. These emission points are SE1, SE2, SE3, and SE7. Emission point SE1 is process effluent treated in the on-site wastewater treatment plant (WWTP) prior to discharge. Emission points SE2, SE3, and SE7 are licensed discharges from water purification regeneration. An additional water purification regeneration emission point (SE8) is proposed as part of this licence review application. Further details of discharges to sewer are provided in Attachment-7-3-1, Emissions-to-Sewer.

The facility's wastewater is derived from process effluent from site membrane manufacturing processes (IC1, Aircast, SMF and IC2 with some minor volumes from Chromatography Media manufacturing). Wastewater from these processes is treated in the sites wastewater treatment plant prior to discharge via licensed emission point SE1 to the Municipal sewer network. The treated effluent discharges via SE-1 to Carrigtwohill municipal wastewater treatment plant operated by Irish Water under Wastewater Discharge Authorisation D0044-01.

Waste

Wastes arises at the Merck facility from process, packaging and other typical sources. The facility produces waste on an on-going basis throughout the year. Both non-hazardous and hazardous wastes are produced at the site. Solid and liquid waste (hazardous and non-hazardous) is disposed of or recycled by licensed waste contractors as agreed with the Agency.

Alternatives

The location of the new manufacturing facility was chosen to utilise the already existing resources and infrastructure available at the existing facility. As part of the design process, all process and

abatement technologies underwent an in-depth environmental assessment from concept design through to implementation for optimum selection and environmental performance.

Climate/Energy use

Electricity and natural gas are used to provide the energy required to run the processes at the facility. Diesel fuel oil is stored on site for use as a back-up fuel source i.e., to power emergency generators etc. The site has an ISO50001 certified ENEMS in place which incorporates commitment, leadership, and accountability of the management, including senior management. Energy efficiency is continually improved, and potential environmental impact reduced through the implementation of an EMS and the setting of Objectives and Targets each year. Under ISO50001, energy audits are carried out annually by external auditors. Energy Audits are conducted in accordance with EPA "Guidance Note on Energy Efficiency Auditing" and ISO50001 requirements. The facility's electricity requirements are provided solely through the national grid. The site currently operates three natural gas boilers (A1-1 [4.4MW] and A1-5 [4.1MW & A1-10 [7.1 MW]) to meet the heating/steam requirements of the site.

Consideration should be given going forward to renewable energy sources. Renewable energy is energy produced from sources like the sun and wind that are naturally replenished and do not run out. Renewable energy can be used for electricity generation, space and water heating and cooling, and transportation.

Conclusion:

It is recommended that a formal complaints procedure should be outlined to resolve any possible issues or community concern in relation to traffic, dust, water, noise, odour or nuisance complaints. This should be agreed and approved prior to the commencement.

The facility has demonstrated compliance with their licensing conditions and the Environmental Health Service considers compliance with these licensing conditions provides adequate protection of Public Health.



Eve Smith
Environmental Health Officer



Vincent Heavey
Environmental Health Officer

HSE South Emergency Management Consultation Report

Report to	Kathleen Clifford, PEHO, North Lee	Date	25 th Oct., 2022
Type of consultation: EIS <input type="checkbox"/> Scoping <input type="checkbox"/> Screening <input type="checkbox"/> EIAR <input type="checkbox"/> EPA X Other (please specify): Industrial Emissions Licence Application			
Authority	Cork County Council		
Reference No.	EHIS Ref No. 2784 EPA Reference Number; P0571-05		
EM Reference Number	EMENV 144		
Applicant	Merck Millipore Ltd., Tullagreen, Carrigtwohill, Cork		
Proposal	The surface treatment of substances, objects or products using organic solvents, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year.		

HSE South Emergency Management Observations:

Please be advised that the HSE South Emergency Management function does not have any specific observations to make with respect to this application. However, please note the following recommendations within the context of site operations:

1. Should an incident occur at the site and the site operator requires the assistance of the emergency services, the incident information should be provided in the 'ETHANE' format (please see attached).
2. Emergency Services access to the site should be clearly identified. This should be undertaken via appropriate high visibility signage, i.e.; a green sign with a yellow border and white lettering citing the abbreviation RVP
3. The site should have a mechanism in place to account for personnel during an evacuation in order to provide the responding emergency services with an estimate of the number of people accounted and unaccounted for.
4. The site should identify any critical / vulnerable facilities within the geographical catchment area, such as hospitals, schools, nursing homes, etc, that could be directly or indirectly affected by an incident at the site.
5. Where the 'off-site' impacts of an incident at the site affects a vulnerable cohort / population such as children within crèches, schools; patients / clients / residents within nursing homes, etc; the emergency services will require assistance from the site operator in determining the impact on the local community.
6. The site operator is encouraged to develop a business continuity plan that includes a plan for severe weather. For more advice on this, please see the Department of Business, Enterprise and Innovation, *Business Continuity Planning in Severe Weather*.
<https://dbei.gov.ie/en/Publications/Publication-files/Business-Continuity-Planning-in-Severe-Weather-Check-List-for-Businesses.pdf>

All correspondence or any queries with regard to this report should be forwarded to Ms. Maryanne Horgan, Emergency Management Office, HSE South, Eye, Ear and Throat Hospital, Western Road, Cork, T12 WP62 or maryanne.horgan@hse.ie



Dial 999 / 112 – Request the service you require: An Garda Síochána, Ambulance Service and / or Fire and Rescue Service

WHEN YOU ARE CONNECTED TO THE REQUISITE SERVICE(S)

GIVE THE FOLLOWING INFORMATION

This is: _____ Eircode _____
(Name, Telephone Number and Eircode Address of site)

An incident has occurred at this site - standby for ETHANE message

E	
	Exact location of the incident
T	
	Type of incident, e.g.; fire, explosion, gas leak, etc
H	
	Hazards – current and potential
A	
	Access and Egress – what is the safest approach route for responding emergency services and where is your emergency services meeting point (RVP)
N	
	Number of casualties and their condition – specify adult / children if known
E	
	The emergency services present and required

**R.V.P.
No.1**

N.B. If you require another emergency service stay on the line and repeat the steps again