



INTEL IRELAND LTD.  
Collinstown Industrial Park, Leixlip,  
County Kildare, Ireland.  
Telephone: 01-606 7000.

Licensing Unit  
Office of Licensing and Guidance  
Environmental Protection Agency  
PO Box 3000  
Johnstown Castle Estate  
County Wexford  
Ireland

February 24<sup>th</sup> 2005

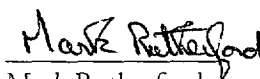
**IPC Licence Register Number 589**  
**Re: Request for a new Integrated Pollution Prevention and Control Licence**

To whom it may concern,

I am writing on behalf of Intel Ireland Ltd to request a new Integrated Pollution Prevention and Control Licence in accordance with the Environmental Protection Agency (Licensing) Regulations 1994 to 2004. The application is being made in consequence of the alterations to the existing activity of Intel Ireland Limited by virtue of the expansion of the activity to include the development of additional manufacturing facilities known as Fab24-2 and Fab24-3. The accompanying document summarises the proposals to be considered for incorporation into a new licence using appropriate licensing mechanisms. Also enclosed is a CD-ROM version of the document which is a true copy of the original application.

We would be grateful if the EPA could confirm their willingness to consider a new Integrated Pollution Prevention and Control Licence and identify any specific requirements that will enable a prompt determination. The required fee of 34,282 euros is enclosed.

Yours sincerely

  
Mark Rutherford  
Environmental Manager  
Direct Line: 01-6068896

CK

Encl:  
Integrated Pollution Prevention and Control Licence Application  
- Volume 1 Main Text  
- Volume 2 Attachments  
- Volume 3 Attachments  
- Volume 4 Tables

Cheque for 34,282 euros made payable to the EPA



# Integrated Pollution Prevention and Control Licensing

## Application Form

<b>EPA Reg. N<sup>o</sup>:</b> <i>(Office use only)</i>	746
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*This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the EPA Acts 1992 and 2003.*

**Environmental Protection Agency**  
P.O. Box 3000, Johnstown Castle Estate, Co. Wexford  
Telephone : 053-60600 Fax : 053-60699

## GLOSSARY

BATNEEC	Best Available Technology Not Exceeding Excessive Cost
AWN	Acid Waste Neutralisation
A01-A138	Air Emission Points Identified in the Intel IPCL Application
AHU	Air Handling Unit
AQS	Air Quality Standard
AFF	An Foras Forbartha
AER	Annual Environmental Report
a	Annum
ASI	Area of Scientific Interest
Ar	Argon
As	Arsenic
AAS	Atomic Absorption Spectroscopy
BCW	Back-up Loop Chilled Water
BAT	Best Available Technology
BOD	Biochemical Oxygen Demand
BS	British Standards
BCDS	Bulk Chemical Delivery System
CO	Carbon Monoxide
CDO	Catalytic Destruction Oxidiser
CMP	Chemical Mechanical Polish
COD	Chemical Oxygen Demand
CCA	Chromated Copper Arsenic
CAP	Community Advisor Panal
CCW	Concentrated Copper waste
CLW	Concentrated Lead Waste
CMW	Concentrated Lead Waste
C4	Controlled Collapse Chip Connect; Wafer Finishing Process
CN	Cyanide
CDS	Cyanide Destruct System
COMAH	Control of major Accidents Hazards
Cond	Conductivity
CPU	Central Processing Unit
Cr	Chromium
CRB	Change Review Board
CRC	Chemical Resistant Coating
CRT	Construction Response Team
CS	Corporate Services
CS Ops	Corporate Services Operations (Site Management Team)
CSS	Contained Storm Sewer
CSW	Corrosive Solvent Waste

Cu	Copper
CUB	Central Utilities Building
CV	Calorific Value
d	Day
dB(A)	A-weighted decibels
dB,L <sub>aeq</sub>	A-weighted equivalent continuous level
DC	Dublin Corporation
DCW	Dilute Copper Waste
DfE	Design for the Environment
DfEHS	Design For Environmental Health & Safety
DGSA	Dangerous Goods Safety Advisor
DLW	Dilute Lead Waste
DMS	Document Management System
DO	Dissolved Oxygen
DoELG	Department of Environment & Local Government
DRO	Diesel Range Organics
EAL	Environmental Assessment Level
EBT	Effluent Balance Tank
EDI	Electro-Deionisation
EEC	European Economic Community
EECA	European Electronic Components Association
EEJ	Tool Set used in C4 area
EEJA	Tool Set used in C4 area
EEP	Ethyl-3-ethoxy propionate
EEP	Ethyl-3-ethoxy propionate
EFCA	European Electronics Components
EFYI	Environmental For Your Information
EG	Emergency Generator
EHS	Environmental, Health & Safety
EHSBI	Environmental, Health & Safety Bulletin Incident
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELV	Emission Limit Value
EMEA	Europe, Middle East & Africa, Regional Grouping Of Intel Facilities
EMEAR	Europe, Middle East & Africa Region
EMI	Environmental Management Incident
EMP	Environmental Management Plan
EMR	Environmental Management Representative
EMS	Environmental Management System
EMT	Environmental Management Team
ENV Ops	Environmental Operations Review (Site Management Team)
EPA	Environmental Protection Agency
EPI	Energy Performance Index



IPPC Application Form

EPP	Emergency Preparedness Plan
EPS	External Product Specification
EQO	Environmental Quality Objective
EQS	Environmental Quality Standard
ERFB	Eastern Regional Fisheries Board
ERT	Emergency Response Team
ERU	Environmental Research Unit
ESA	Environmental Self Assessment
ESB	Electricity Supply Board
ESIA	European Semi-Conductor Industry Association
ESSM	European Systems Support Manufacture
EU	European Union
F	Flouride
F10/F14/F24	Fab 10/Fab 14/Fab 24
FAB	Intel name for a semi-conductor fabrication (manufacture) facility.
FAT	Functional Acceptance Team
FID	Flame Ionisation Detector
FMS	Facilities Maintenance System
FTIR	Fourier Transform Infra Red
FWR	Facilities Work Request
GC	Gas Chromatography
GHG	Green House Gas
GPS	Global Positioning System
GSW	General Solvent Waste
GWGs	Global Warming Gases
GWh	Giga Watt hours
GWP	Global Warming Potential
H2SO4	Sulphuric Acid
ha	Hectare
HAPs	Hazardous Air Pollutants
HCL	Hydrochloric Acid
HDP	High Density Plasma
He	Helium
HEPA	High efficiency particulate arrestment
HF	Hydrofluoric acid
HFW	Hydrofluoric Waste
HMDS	hexamethyldisilazane
HNO <sub>3</sub>	Nitric acid
HPM	Hazardous Process Material
HSA	Health and Safety Authority
HVAC	House Vacuum
HVM	High Volume Manufacturing
I	Impulsive
IAT	Ireland Assembly Test

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IBC	Intermediate Bulk Container
IBEC	Irish Business Employers Confederation
IC	Integrated circuit
ICP	Inductively Coupled Plasma
ICT Ireland	Information and Communication Technology Ireland
ID	Internal diameter
IEMA	Institute of Environmental Management & Assessment
IEN	Improvement Engineering
IES	Irish Environmental Services
IFO	Ireland Fab Operations
IGEE	Index of Gross Eco Efficiency
INEE	Index of Net Eco Efficiency
IPA	Isopropyl alcohol
IPCL	Integrated Pollution Control Licence
IR1-IR6	Intel Ireland Office Building Nomenclature
IRCS	Ireland Corporate Services
ISO	International Standards Organisation
ISO 14001	Accredited Environmental Management System
IWM	Industrial Water Management
IWW	Industrial Waste Water
IX	Ion Exchange
JIA	Japanese Semi-Conductor Industry Association
KCC	Kildare County Council
Kg	Kilogram
KIA	Korean Semi-Conductor Industry Association
km	Kilometre
KOH	Potassium hydroxide
Kreha Unit	Brand Name for a VOC Abatement Treatment Unit
kV	KiloVolt
kW	KiloWatt
kWh/WS	Kilowatt Hours per Wafer Start
l	Litre
lb	Pound
LOD	Limit of Detection
LPG	Liquid Petroleum Gas
LRW	Lead Reclaim Waste
LSS	Life Safety Support
Ltd	Limited
m	Metre
m <sup>2</sup>	Square metre
m <sup>3</sup>	Cubic metre
MAC	Maximum Admissible Concentration
MAH	Make-up Air Handlers



IPPC Application Form

MAPP	Major Accident Prevention Policy
Maximo	A task management system that controls maintenace programmes within CS and EHS
MFG	Manufacturing
mg	Milligram
min	Minute
mm	Millimetre
MMTCE	Million Metric Tones Carbon Equivalent
MOA	Memorandum Of Agreement
MS	Mass Spectrometry
MSDS	Material Safety Data Sheet
MVA	MegaVoltAmp
MW	Monitoring Well
N/A	Not Applicable
N/E	Not Emitted
N <sub>2</sub>	Nitrogen
Na	Sodium
NaOH	Sodium hydroxide
NC	Non Compactable
NCP	Noise Control Programme
NH <sub>4</sub> OH	Ammonium hydroxide
Ni	Nickel
NIOSH	National institute Of Occupational Safety and Health (USA)
Nm <sup>3</sup>	Normal cubic metre
NMP	N-methyl-2-pyrrolidone
NO <sub>2</sub>	Nitrogen dioxide
O <sub>2</sub>	Oxygen
OEM	Original Equipment Manufacturer
Ops	Operations
OPW	Office of Public Works
OSHA	Occupational Safety and Health Administration
P	Phosphorus
P804-P1262	Process 804 - Process 1262; Intel Corp. Production Technology Nomenclature
pa	Per annum
PAS	Percentage Against Schedule
Pb	Lead
PER	Pollution Emission Register
PERL	Pollution Emission Register List
PFC	Per Fluorocarbons
PFD	Process Flow Diagram
PGMEA	Propylene Glycol Mono Methyl Ether Acetate
PLC	Programmable Logic Controller

POC	Point Of Connection
POCP	Photochemical Ozone Creating Potential
POR	Plan Of Record
POTW	Public Office of Treatment Works
POU	Point Of Use
ppb	Parts per billion
PPE	Personal Protective Equipment
ppm	Parts per million
PRO	Petrol Range Organics
PSB	Process Support Building
PSSS	Process Specific Support Systems; process where gas & chemical support systems are provided for process equipment.
PTD	Portland Technology Development
R	Risk Phrase
RCTO	Rotary Concentrator Thermal oxidiser
RIW	Reuse Industrial Water
RMP	Residual Management Plan
RO	Reverse Osmosis
RODI	Reverse Osmosis De-Ionized
ROI	Return On Investment
s	Second
S.I.	Statutory Instrument
SAC	Special Area Of Conservation
SCW	Slurry Copper Waste
SDS	Sub Atmospheric Distribution System
SECC	Single Edge Contact Cartridge
SIA	Semi- Conductors Association of America
SIT	System Improvement team
SL1/SL2	Safety Level 1/Safety Level 2
Sn	Tin
SO <sub>4</sub>	Sulphate
SOP	Standard Operating Procedures
SORT	Electrical Testing Facility
SS	Storm Sewer
SSP	Supplier Service Program
SVOC	Semi-Volatile Organic Carbon
SW	Surface Water Discharge
t	Tonne
T	Tonal
TA	Total Acids
TBC	To Be Confirmed
TCDD	Tetrachlorodibenzo Dioxin
TDS	Total dissolved solids
TEDS	Training and Employee Development System

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## INTRODUCTION

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A valid application must contain the information prescribed in the Environmental Protection Agency (Licensing) Regulations, 1994 to 2004. **The applicant is strongly advised to read the *Application Guidance Notes for Integrated Pollution Prevention and Control Licensing*, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications (available from the EPA). Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. *page 5(i) of 45*, etc. **The basic information should for the most part be supplied in the spaces given in application form** and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to .....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the "Access to Information on the Environment" Regulations of 1993) should be stated in the Application Form, where relevant.

**CHECK LIST FOR ARTICLE 10 COMPLIANCE**

Article 10 of the Environmental Protection Agency (Licensing) Regulations, 1994 to 2004 sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in Article 10. In order to ensure a legally valid application in respect of Article 10 requirements please complete the following check-list.

**Article 10(2)(a)** give the name, address and telephone number of the applicant and, if different, any address to which correspondence relating to the application should be sent and, if the applicant is a body corporate, the address of its registered or principal office,

LOCATION	
CHECKED	Applicant <input checked="" type="checkbox"/> Official <input type="checkbox"/>

(b) give -

- (i) in the case of an established activity, the number of employees and other persons working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or
- (ii) in any other case, the gross capital cost of the activity to which the application relates,

LOCATION	
CHECKED	Applicant <input checked="" type="checkbox"/> Official <input type="checkbox"/>

(c) give the name of the planning authority in whose functional area the activity is or will be carried on,

LOCATION	
CHECKED	Applicant <input checked="" type="checkbox"/> Official <input type="checkbox"/>

(d) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	
CHECKED	Applicant <input checked="" type="checkbox"/> Official <input type="checkbox"/>

- (e) give the location or postal address (including where appropriate, the name of the relevant townland or townlands) and the National Grid reference of the premises to which the activity relates,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (f) specify the relevant class or classes in the First Schedule to the Act to which the activity relates,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (g) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (h) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (i) indicate how the requirements of section 83(5)(a)(i) to (v) and (vii) to (x) of the Act shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3) of the Act and the reasons for the selection of the arrangements proposed,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (j) give particulars of the source, nature, composition, temperature, volume, level, rate, method of treatment and location of emissions, and the period or periods during which the emissions are made or are to be made,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (k) describe the arrangements for the prevention or minimisation of waste and, where waste is produced, the on and of site

*IPPC Application Form*

arrangements for the recovery or disposal of solid and liquid wastes,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (l) specify, by reference to the relevant European Waste Catalogue codes as prescribed by Commission Decision 2000/532/EC of 03 May 2000, the quantity and nature of the waste or wastes produced or to be produced by the activity,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (m) provide:
- (i) details, and an assessment, of the impacts of any existing or proposed emissions on the environment, including on an environmental medium other than that or those into which the emissions are or are to be made, and
- (ii) details of the proposed measures to prevent or eliminate, or where that is not practicable, to limit, reduce or abate emissions,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (n) identify monitoring and sampling points and outline proposals for monitoring emissions and the environmental consequences of any such emissions,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (o) describe the condition of the site of the installation,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (p) describe in outline the main alternatives, if any, to the proposals contained in the application which were studied by the applicant,

<b>LOCATION</b>		
<b>CHECKED</b>	<b>Applicant</b> <input checked="" type="checkbox"/>	<b>Official</b> <input type="checkbox"/>

- (q) specify the measures to be taken to comply with an environmental quality standard where such a standard requires stricter conditions

to be attached to a licence than would otherwise be determined by reference to best available techniques,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (r) describe the measures to be taken for minimising pollution over long distances or in the territory of other states,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (s) describe the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (t) describe the measures to be taken on and following the permanent cessation of the activity or part of the activity to avoid any risk of environmental pollution and to return the site of the activity to a satisfactory state,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (u) describe, in the case of an activity which gives, or could give rise, to an emission containing a hazardous substance which is discharged to an aquifer and is specified in the Annex to Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, the arrangements necessary to comply with said Council Directive,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (v) include any other information required under Article 6(1) of Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (w) include a non-technical summary of information provided in relation to the matters specified in paragraphs (f) to (v) above,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (x) state whether the activity consists of, comprises, or is for the purposes an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 apply,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

Article 10(3) Without prejudice to Article 12(1), an application for a licence shall be accompanied by -

- (a) a copy of the relevant page of the newspaper in which the notice in accordance with article 6 has been published,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (b) a copy of the text of the site notice erected or fixed on the land or structure in accordance with article 7,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (c) a copy of the notice given to the planning authority under section 85(1)(a) of the Act,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (d) a copy of such plans, including a site plan and location map, and such other particulars, reports and supporting documentation as are necessary to identify and describe -

- (i) the activity

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (ii) the position of the site notice in accordance with article 7,

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

- (iii) the point or points from which emissions are made or are to be made, and



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LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(iv) monitoring and sampling points, and

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

(e) a fee specified in accordance with section 94 of the Act.

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

Article 10(4)(a) A signed original and 5 copies of the application and the accompanying documents and particulars as required under sub-articles (1) and (2)(a) to (d) shall be submitted to the headquarters of the Agency.

LOCATION		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>

[In cases where an E.I.S. is required to be submitted to the Agency, in support of the application, 15 copies are to accompany the application.]

Article 10(4)(b) Notwithstanding the requirements of paragraph (a) all or part of the 5 copies of the said application and accompanying documents and particulars may be submitted to the Agency in a computer or other non-legible format where such format has been specified by the Agency.

CD version PROVIDED Y/N		
CHECKED	Applicant <input checked="" type="checkbox"/>	Official <input type="checkbox"/>