SECOND SCHEDULE

[Subregulation 4(2)]

WRITTEN NOTIFICATION FOR NEW OR ALTERED SOURCES OF DISCHARGE OF INDUSTRIAL EFFLUENT OR MIXED EFFLUENT

Please tick (√) in appropriate box

(i) New construction –Paragraph 4(1)*(a)* or (1)(*b*) ☐

(ii) Change of equipment or machinery-Paragraph 4(1)(*c*) ☐

(iii) Upgrading of industrial effluent treatment system- Paragraph 4 (1)(*d*) ☐

A. IDENTIFICATION

1. (i) Name of owner or occupier: ……..……

   (ii) Identification card number: …….

   (iii) Address of owner or occupier: ……
   .

   (iv) Telephone number.:..... Fax number.....

2. (i) Name of company……

   (ii) Company registration number: ……...
   (Please attach certificate of registration of company)

   (iii) Address of company: ……

   (v) Telephone number: …… Fax number: …….

3. (i) Name of premise: ……

   (ii) Address of premise: …….

   (iii) Telephone number: …….Fax number: ……

   (vi) Latitude: …… degree: …….. minutes: …… second: ……

Longtitude: …….. degree: …… minutes: …… second: …..…..…

B. OPERATIONAL INFORMATION

4. Proposed commencement date of construction of premise or upgrading work: ……..

5. Proposed date of occupation/use of premise or the date premise has been occupied/used or completion of upgrading work: …….

6. If the notification is to increase the capacity of industrial effluent treatment system, please state the reason: ……..

7. Schedule of operation

   (i) Number of shifts per day ……..average……maximum

   (ii) Hour of operation…….....average……maximum

   (iii) Number of operating days……..per week……..per month…..……per year.

8. List of raw materials/chemicals *

Item/Name	Unit of quantity	Quantity per month
……	……..	……..
……	..……..	……..

9. List of products *

Item/Name	Unit of quantity	Quantity per month
……..……	……..	……..
…….	….……..	……..

10. Describe in detail all production processes and attach relevant flow diagrams

……

……

*(please use attachment if required)

11. Has cleaner production concept been considered in the proposal? Please give details

……..…

……..…

C. INFORMATION ON WATER SUPPLY AND CONSUMPTION

12.	Water use	Source	Average quantity, m^3 per day
(i)	Potable water	……..	…….
(ii)	Process water	……..	…….
(iii)	Boiler feed water	……..	…….
(iv)	Cooling water	……..	…….
(v)	Others	……..	…….

13. Is the water treated before use? Yes ☐ No ☐

(Please tick (√) in appropriate box)

14. If yes, please describe the method of managing the sludge generated*

……..

*(please use attachment if required)

D. INFORMATION ON INDUSTRIAL EFFLUENT

TREATMENT SYSTEM AND EFFLUENT DISPOSAL

15. Submit the following information*:

(i) Production process flow chart showing points of industrial effluent or mixed effluent generation and flow rate

(ii) (a) Industrial Effluent Characterization Study (IECS) Report based on the Guidelines on Industrial Effluent Characterization Study or information from secondary sources ; and

(b) In the case of notification to upgrade the capacity of treatment system, IECS report should include overall assessment of the causes contributing to the failure of the existing treatment system to comply with the discharge standard.

(iii) Description of the industrial effluent treatment technologies proposed

(iv) Design basis and calculations of proposed industrial effluent treatment system

(vii) Calculation and summary of mass balance and block diagram showing the efficiency of unit operations and unit processes for every treated parameter.

(v) Detailed engineering drawings of treatment system (layout, cross section, plan view and side view) including piping and instrumentation (P&I) diagram and drainage system layout certified by a Professional Engineer preferably in the discipline of Environmental Engineering, Chemical Engineering or Civil Engineering with experience in the treatment of industrial effluents or mixed effluent.

(vi) #Factory layout plan showing final industrial effluent or mixed effluent discharge point marked 'X'

(viii) List of major equipment of industrial effluent treatment system including list of spare parts/stand by equipment such as pump, pH meter *etc*. Document/catalogue of relevant equipment should be submitted

(ix) Proposed measures/plans to ensure continuous compliance including period involving maintenance work taking into consideration the requirements at the design and operational stages

(x) Proposed implementation schedule for the construction of industrial effluent treatment system

(xi) Performance guarantee for the industrial effluent treatment system

(xii) Consultant/contractor's appointment letter from the premises

(All plans shall be in A1 size)

16. Industrial effluent or mixed effluent discharge

(i) Watercourse: ☐

Type of watercourse

River or stream: ☐ Pond: ☐ Lake: ☐

Sea: ☐ Spring: ☐ Well: ☐

Name of the watercourse……..

Specify if other than the above*: …….....

(ii) Sewer:

Name and address of Authority…….

Name and address of the sewage treatment plant……..

(iii) Recycle or reuse: ☐

Percentage of process water recycled……

(iv) Others: ☐ specify: …….

*(please use attachment if required)

17. Mode and characteristic of effluent discharged

(i) Mode of industrias or mixed effluent discharge

(a) Batch discharge ☐

Discharge frequency: ……times per day

…….times per week

…… times per month

Discharge quantity: …… ..m^3 per day

…….m^3 per week

……..m^3 per month

Time of discharge: ……..

(b) Continuous discharge ☐

Quantity of continuous effluent discharge

Average quantity/maximum quantity

m^3per hour:……/……. m^3per day……/……..

m^3per month……/…… m^3per year:……../……

(ii) Quality of Effluent Discharge:

	Parameter (in mg/l, unless otherwise specified)	Raw Effluent	Treated Effluent
(1)	Temperature ^oC	……..	……
(2)	pH	……..	……
(3)	BOD_5, 20^oC	……..	……
(4)	COD	……..	……
(5)	Suspended solids	……..	……

(6)	Mercury	……..	……
(7)	Cadmium	……..	……
(8)	Chromium, Hexavalent	……..	……
(9)	Arsenic	……..	……
(10)	Cyanide	……..	……
(11)	Lead	……..	……
(12)	Chromium, Trivalent	……..	……
(13)	Copper	……..	……
(14)	Manganese	……..	……
(15)	Nickel	……..	……
(16)	Tin	……..	……
(17)	Zinc	……..	……
(18)	Boron	……..	……
(19)	Iron	……..	……
(20)	Phenol	……..	……
(21)	Aluminium	……..	……
(22)	Barium	……..	……
(23)	Oil and Grease	……..	……
(24)	Cobalt	……..	……
(25)	Silver	……..	……
(26)	Fluoride as F	……..	……
(27)	Formaldehyde	……..	……
(28)	Molybdenum	……..	……
(29)	Chloride	……..	……
(30)	Chlorine (Free)	……..	……
(31)	Selenium	……..	……
(32)	Sulphide	……..	……
(33)	Sulphate	……..	……
(34)	Colour	……..	……
(35)	Ammoniacal Nitrogen	……..	……
(36)	Nitrate Nitrogen	……..	……

(37) Phosphate (as P) …….. ……

(38) Detergents, Anionic …….. ……

(39) Beryllium …….. ……

(40) Vanadium …….. ……

(41) Polychlorinated Biphenyls …….. ……

(42) Pesticides, fungicides, herbicides, insecticides, rodenticides, fumigants, or any other biocides or any other chlorinated hydrocarbons ……. ……

(43) Any substance that either by itself or in combination or by reaction with other waste or refuse may give rise to any gas, fume or odour or substance which causes or is likely to cause pollution ……... ……

** As per item 15(ii) on IECS information

18. State whether any inflammable solvents, tar or other liquids immiscible with water are used or generated in the production processes……

.....

E. SLUDGE PRODUCTION AND DISPOSAL

19. Sludge generated from the production and industrial effluent treatment unit operations and unit processes:

Types of sludge (chemical/biological),	Source	Average quantity metric tons per day
……	…….	……
……	……	……

20. Describe the proposed method of sludge storage/disposal

……

……

F. PERFORMANCE MONITORING PROGRAMME FOR INDUSTRIAL EFFLUENT TREATMENT SYSTEM

21. Describe using additional attachment detailed proposal on performance monitoring programme for each major unit process and unit operation including information on equipment, competent operator, frequency, location, parameter, normal range of values of operational parameters and implementation method.

G. DECLARATION

I, …….. the owner or occupier, or authorized agent of the owner or occupier hereby declare that all the information given in this application is to the best of my knowledge and belief is true and correct.

Date: ……

Signature of owner
or occupier
or authorized agent***

……

Telephone number: ……..

Full name: …….

Identity card number…….

Fax number: ……..

Designation: ……..

Official Stamp of the Company:

……

***Delete whichever is not applicable

THIRD SCHEDULE

[subregulation 5(3)]

WRITTEN DECLARATION ON DESIGN AND CONSTRUCTION OF INDUSTRIAL EFFLUENT TREATMENT SYSTEM

Name of premise: ....

Address of premise: ....

File number of Department of Environment (if applicable): ....

Telephone number: .... Fax number: ....

We, the undersigned hereby declare that the industrial effluent treatment system has been designed and constructed in strict compliance with the minimum requirements and specifications as specified in the Guidance Document on the Design and Operation of Industrial Effluent Treatment Systems issued by the Department of Environment.

……………………………………...

(Signature of the owner or occupier of premise)

Date: ....

Identity card number: ....

……………………………………………

(Signature of the Engineer responsible for treatment process design)

Date: ....

Identity card number: ……………………………………...

* Discipline: chemical/environmental/ others (please specify) ....
…………………………………………………………………………………………

B.E.M. registration number: ……………………

…………………………………...

(Signature of the Engineer responsible for structural design)

Date: ....

……………………………………………

(Signature of the Engineer responsible for design of mechanical components)

Date: ....,,,

Identity card number:

…….

Discipline: civil.

B.E.M. registration number: …….

Identity card number:

……

Discipline: mechanical

B.E.M. registration number: …….

……..

(Signature of the Engineer responsible for design of electrical and electronic components)

Date: .....

Identity card number: .....

Discipline: electrical

B.E.M. registration number: …….

Note: BEM stands for Board of Engineers, Malaysia

* Delete whichever is not applicable