

For official use in AERB

Form issued on :

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Authorisation No. Vide Form II :

FORM I

**Government of India
Atomic Energy Regulatory Board**

APPLICATION FOR AUTHORISATION TO DISPOSE OF RADIOACTIVE WASTES
under G.S.R.125-Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987-Rule 4.

(Please read the Notes given on page 2 of this application)

1. Name & address of the applicant :
(with Tel. Nos. During and after
working hrs. & Telex/FAX No.)
2. Name of the employer :
3. Address of the Waste Management Agency :
4. Authorisation to operate the facility issued by :
(with No. And Date)
5. Name of the Radiological Safety Officer in the Installation :
6. Institution number (if the Installation is covered by any authorised personnel radiation monitoring service) :
7. No. of staff members in the Installation experienced in Handling radioactive waste :
Officers -
Foremen/Supervisors -
Tradesmen -
Attendants -

Notes

- a) This form is meant for all Installations except the ones like hospitals and tracer research laboratories using small amounts of radioisotopes of very short half lives.
- b) This form is meant for assessing the suitability of the Installation for direct disposal of radioactive waste and/or its transfer to another agency
- c) This form is meant for normal waste disposal operations only. Separate application shall be submitted for special waste disposal campaigns.
- d) A copy of the portions of approved safety report and emergency preparedness plan of the Installation relevant to waste disposal shall be enclosed with the application.
- e) Categorisation of solid wastes shall be as follows :

Category	Radiation dose (D) on the Surface of waste package		Remarks
	R/hr	mGy/hr (approx)	
I.	$D \leq 0.2$	$D \leq 2$	Beta-gamma emitters
II.	$0.2 < D \leq 2$	$2 < D \leq 20$	
III.	$2 < D$	$20 < D$	
IV.	Alpha bearing waste		Alpha-emitters dominant Activity expressed in Ci/m^3 or Bq/m^3

- f) Categorisation of liquid wastes shall be as follows :

Category	Activity Level (A) - (Beta-gamma emitters)	
	Ci/m^3	Bq/m^3
I.	$A \leq 10^{-6}$	$A \leq 3.7 \times 10^4$
II.	$10^{-6} < A \leq 10^{-3}$	$3.7 \times 10^4 < A \leq 3.7 \times 10^7$
III.	$10^{-3} < A \leq 10^{-1}$	$3.7 \times 10^7 < A \leq 3.7 \times 10^9$
IV	$10^{-1} < A \leq 10^4$	$3.7 \times 10^9 < A \leq 3.7 \times 10^{14}$
V	$10^4 < A$	$3.7 \times 10^{14} < A$

- g) Categorisation of Gaseous Wastes shall be as follows :

Category	Activity Level (A) - (Beta-gamma emitters)	
	Ci/m^3	Bq/m^3
I.	$A \leq 10^{-10}$	$A \leq 3.7$
II.	$10^{-10} < A \leq 10^{-6}$	$3.7 < A \leq 3.7 \times 10^4$
III.	$10^{-6} < A$	$3.7 \times 10^4 < A$

- g) Conditioning of solid waste for disposal includes processes such as compaction, fixation in solidifying agents, incineration.
- h) Conditioning of liquid waste for disposal includes processes such as pH adjustment, filtration, dilution, decay, chemical/biological/ion exchange treatment, evaporation, reverse osmosis, solidification.
- i) Conditioning of gaseous waste for disposal includes processes such as filtration, adsorption, decay and cryogenic retention.

I(3)

8(A) Particulars of Radioactive Solid Wastes to be Disposed of Annually by the Installation itself				
Category	I	II	III	IV
(a) Physical form/packaging				
(b) Method of conditioning				
(c) Annual Volume (M ³)				
(d) Radionuclides present				
(e) Total annual activity (MBq)				
(f) Mode of disposal				
(g) Location of disposal site				
(h) Remark, if any				

I(4)

8(B) Particulars of Radioactive Solid Wastes to be Transferred Annually to Waste Management Agency				
Category	I	II	III	IV
(a) Physical form/packaging				
(b) Method of conditioning				
(c) Annual Volume (M ³)				
(d) Radionuclides present				
(e) Total annual activity (MBq)				
(f) Mode of Transfer				
(g) Location of transfer point				
(i) Remark, if any				

I(5)

9(A) Particulars of Radioactive Liquid Waste to be Disposed of Annually by the Installation itself					
Category	I	II	III	IV	V
(a) Chemical Characteristic					
(b) Method of conditioning					
(c) Annual Volume (M ³)					
(d) Radionuclides present					
(e) Total annual activity (MBq)					
(f) Mode of disposal					
(g) Location of disposal point					
(h) Remark, if any					

* If alpha emitters are present, mention their concentration under (h)

I(6)

9(B) Particulars of Radioactive Liquid Waste to be Transferred Annually to Waste Management Agency					
Category	I	II	III	IV	V
(a) Chemical characteristics					
(b) Method of conditioning					
(c) Annual Volume (M ³)					
(d) Radionuclides present					
(e) Total annual activity (MBq)					
(f) Mode of transfer					
(g) Location of transfer point					
(h) Remark, if any					

* If alpha emitters are present, mention their concentration under (h)

I(7)

10(A) Particulars of Radioactive Gaseous Waste to be Disposed of by the Installation itself			
Category	I	II	III
(a) Chemical characteristic			
(b) Method of conditioning			
(c) Volume (M ³) Per hour/day/month			
(d) Radionuclides present			
(e) Total annual activity (MBq)			
(f) Height of release (M)			
(g) Location of stack			
(h) Remark, if any			

11. Name the salient safety features provided for the following Radioactive Waste Management Operations			
Category	Solid Waste	Liquid Waste	Gaseous Waste
(a) Collection			
(b) Transfer			
(c) Interim Storage			
(d) Disposal			
(e) Monitoring and Surveillance			
Any other information			

12. Please furnish the following information :

(a)	Site plan drawing up to a radius of 200 metres from installation boundary.
(b)	Nature of occupancies and land /water utilization in the area of site plan under 12(a).
(c)	Brief description of the proposed procedures for observation and surveillance of stabilised disposal site.

13. Any other relevant information and list of enclosures :

- (i)
- (ii)
- (iii)
- (iv)
- (v)

Signature and Seal of the Applicant.

Place :

Date :

I(10)

14. Undertaking

I hereby certify that –

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- (a) all the statements made above are correct to the best of my knowledge and belief.
- (b) the radioactive waste will not be disposed off except as specified under Sr. Nos. 8,9 and 10 of this form.
- (c) Radioactive waste will not be moved from the authorised site without prior approval of the competent authority.
- (d) Full facilities will be accorded by us to any authorised representative of the competent authority to inspect the installation where radioactive waste will be handled
- (e) The radioactive waste will not be sold, rented or transferred to any other institution, without prior approval of the competent authority.
- (f) All stipulations that may be made from time to time by the competent authority, under Radiation Protection Rules, 1971 and Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987 will be duly implemented.

**Signature and Seal of the Head
of the Installation(s)**

Date:

Place :