

**Government of India
Atomic Energy Regulatory Board**

Niyamak Bhavan,
Anushaktinagar,
Mumbai – 400 094

**APPLICATION FOR LICENSE FOR OPERATION OF
BEACH SAND MINERALS (BSM) FACILITY CARRYING OUT
CHEMICAL PROCESSING (OTHER THAN MONAZITE/THORIUM COMPOUNDS)**
*(Applicable for facilities carrying out physical separation of BSM for purification prior to
chemical processing)*

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- a) This application would be considered by the competent authority for issuance of license, under the Atomic Energy (Radiation Protection) Rules, 2004. (AERPR-2004)
- b) The duly filled-in form should be sent to Head, Industrial Plants Safety Division, (IPSD) AERB, Niyamak Bhavan, Anushaktinagar, Mumbai-400094 with the necessary documents.
- c) Incomplete applications and those without all relevant documents are liable to be rejected.
- d) All the forms pertaining to BSM facilities can be downloaded from the website www.aerb.gov.in
- e) Attach extra sheets wherever required
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**PART A
GENERAL PARTICULARS**

A.1 Name and address (with PIN Code) of the facility:

Telephone No. (LandLine)

Fax No.

Email

A.2 Name and designation of the applicant[#]:

Telephone No. (LandLine)

Fax No.

Email

Mobile No.

A.3 Name of the Head of the Facility[§]:

Telephone No. (LandLine)

Fax No.

Email

Mobile No.

A.4 License Application for

	Ref. No	Date	Validity of existing license (not required if application is for new license)
New License/License Modification/License renewal (strike out whichever are not applicable)			

Applicant is the person in whose name the consent may be issued, under AERPR-2004, and who would have the responsibilities of “**licencsee**” prescribed in AERPR-2004 and should be a full time employee of the institution

§ The head of the institution is the person who would have the responsibilities of “**employer**” prescribed in AERPR-2004

**PART B
PARTICULARS OF THE FACILITY**

B.1 FACILITY DETAILS:

1.1 **Operational status of the facility**
(strike out whichever is not applicable): operating/ yet to start operation

B.2 PROCESS DETAILS

2.1 Physical Separation Process for Purification Prior to Chemical Processing

- 2.1.1 Description of the physical separation process for further purification of BSM prior to chemical processing: **(enclose process flow block diagram with details of generation of tailings with their monazite content (%) and material balance)**
- 2.1.2 Brief Description of the method of disposal of monazite enriched tailings produced/to be produced during physical separation
- 2.1.3 Details of Raw Materials, Products and Tailings

Raw Material Used				Final Product (s)			Monazite enriched Tailings Generated	
Raw Material (Name of BSM)	Source	Quantity handled per year (tons)	Monazite %)	Name of Product(s)	Quantity Produced per year (tons)	Monazite (%)	Quantity (tons)	Monazite (%)

B.3 RADIOLOGICAL SAFETY DETAILS:

3.1 Radiological Safety Officer (**applicable for operating BSM facilities**):

- i) Name _____
- ii) Educational Qualifications _____
- iii) Type of Training (including place and duration) _____
- iv) Experience in BSM facility _____
- v) Reference No. of AERB approval _____
- vi) Validity of AERB approval _____

3.2 Radiation monitoring instruments (**applicable for operating BSM facilities**):

Name of the instrument	Detector type	Quantity	Range	Accuracy	Make

3.3 Workplace monitoring: **(applicable for operating BSM facilities)**

Location	Radiation level (microGray/hour)
Physical Separation Plant (give break up location wise)- if applicable	
Chemical Processing Plant (give break up location wise including effluent pipelines)	

3.4 Radiation worker and Dose details: **(BSM facilities yet to start operation are required to provide the estimated figures & BSM facilities in operation are required to provide actual figures)**

- i) Number of Permanent employees _____
- ii) Number of Contractor's Workers _____
- iii) Average Individual Dose _____
- iv) Maximum Individual Dose _____

B.4 RADIOACTIVE WASTE MANAGEMENT DETAILS:

(BSM facilities yet to start operation are required to provide the estimated figures & BSM facilities already in operation are required to provide actual figures)

4.1 Method of disposal of monazite enriched tailings (tick whichever is applicable)

- i) disposed by backfilling of mined out sites:
- ii) disposed in trenches
- i) sold to other BSM facilities
- ii) Others (please specify) _____

4.1.1 If monazite enriched tailings is disposed/to be disposed by backfilling of mined out sites, provide the following information.

- i) Quantity of monazite enriched tailings mixed with silica rich sand in a year to reduce the radiation level to background _____
- ii) Quantity of silica rich sand mixed with monazite enriched tailings in a year _____
- iii) Monazite (%) after mixing _____
- iv) Location of backfilled sites _____

4.1.2 If monazite enriched tailings disposed/ to be disposed in trenches, provide the following information.

- i) Quantity of monazite enriched tailings disposed in a year _____
- ii) Location of backfilled sites _____
- iii) Material used for topping of trenches to reduce the radiation level _____
- iv) Thickness of topping of trenches _____
- v) Location of trenches _____

4.1.3 If monazite enriched tailings disposed/to be disposed by sale, provide the following information.

- i) Quantity of monazite enriched tailings sold/to be sold per year
- ii) Name and address of the buyer of the tailings
- iii) Does the buyer have a valid AERB license _____
If Yes, provide the license number and validity _____

B.5 ENVIRONMENTAL SAFETY DETAILS:

5.1 Background radiation level of the

5.1.1 Mining area (if applicable): _____

5.1.2 Plant premises : _____

5.2 Radiation level at monazite enriched tailings disposal area:

(BSM facilities yet to start operation are required to provide the estimated figures & BSM facilities already in operation are required to provide actual figures)

5.2.1 At backfilled site after mixing with silica rich sand : _____

5.2.2 On top of trenches after topping: _____

5.3 Measures proposed to prevent spread of radioactivity by water/wind to nearby areas during normal operations and emergency conditions.

5.4 Distance of the nearest population centre from the tailings disposal site _____

5.5 Population of the area nearest to tailings disposal site _____

B.6 ENCLOSURES:

- 1) Process flow block diagrams with details of generation of tailings with their monazite content (%) and material balance. (applicable if physical separation of mineral is carried out)
- 2) Process flow block diagrams with details of generation of wastes and material balance.
- 3) Site Plan of the installation showing physical separation plant for further purification of raw material, chemical processing plant, monazite enriched tailings disposal site.
- 4) Design of trenches for disposal of monazite enriched tailings(if applicable)

**PART C
UNDERTAKING**

I/ We hereby certify that

- a) all the statement made above are correct to the best of my knowledge and belief
- b) no activity shall be carried out for purposes other than those specified in this form;
- c) the operation of the facility shall not be commenced without Licence from AERB.
- d) all provisions of the Atomic Energy (Radiation Protection) Rules, 2004 shall be strictly complied with;
- e) the facility shall not be transferred/sold/ rented by me/us to another without the prior permission of the competent authority;
- f) full facilities will be accorded by me/us to any authorised representatives of the competent authority to inspect this installations at any time;
- g) radiation surveillance and medical surveillance of all persons engaged in radiation work as required by the competent authority will be duly carried out at my/our expense;
- h) radioactive tailings will be disposed off in a safe manner as per the regulations and shall not be used for any other purposes.
- i) transport of radioactive materials shall be in accordance with relevant safety regulations.
- j) all recommendations made from time to time by the competent authority in respect of radiation safety measures will be duly implemented;
- k) duly qualified/experienced radiological safety officer(s) will be appointed before the commencement of operation of the facility;
- l) the requirements laid down by competent authority regarding decommissioning and reuse of the site of the decommissioned facility will be strictly complied with.
- m) keep AERB informed about any changes in the information furnished above

In case, it is found, at any stage, that the information provided by me/us is false and/ or not authentic, then I/ we hereby accept that appropriate regulatory actions may be initiated against me/us and our institution, in accordance with the applicable Rules.

Place:

Signature:

Date:

Name of the applicant:

Designation:

Signature:

Name of Head of the Institution:

(Seal of the institution)

Designation: