

Report on Workshop on Awareness on Safety & Regulatory Requirements of Beach Sand Minerals Facilities

The Beach Sand Minerals such as ilmenite, rutile, leucoxene, zircon, garnet and sillimanite remain invariably associated with radioactive monazite and preferential separation of these minerals leads to generation of monazite enriched tailings. Unregulated disposal of these tailings may cause undue hazard to the occupational workers and members of the public. In order to familiarize the Beach Sand Minerals (BSM) facilities about the necessity of radiological protection, safe disposal of monazite enriched tailings and regular radiation monitoring and also considering the request from Federation of Indian Placer Mineral Industries, Tamilnadu, a one-day workshop on **'Awareness on Safety & Regulatory Requirements of Beach Sand Minerals Facilities'** was organized by AERB on December 4, 2009 at Niyamak Bhavan, AERB Mumbai. There were about sixty participants from various DAE and non DAE BSM facilities.

Shri K. Ramprasad, Member Secretary, Beach Sand Minerals Safety Committee (BSMSC) welcomed all the dignitaries and participants. Shri V.K.Kansal, Chairman, BSMSC briefed about the important recommendations made during the safety review of the license applications. Shri S. K.Sharma, Chairman AERB delivered the inaugural address and highlighted the necessity for radiological protection in Beach Sand Minerals facilities. This was followed by a key note address by Shri R. Bhattacharya, Director IPSD, AERB wherein a detailed overview of the hazards of processing of monazite as well as other associated beach sand minerals, disposal of monazite enriched tailings and radiological monitoring aspects were presented. Shri S.K.Chande, Vice Chairman AERB also graced the inaugural session.

The workshop had lectures on 'Natural Radioactivity & Fundamentals of Radiation Protection', 'Radiological Hazards, Waste Disposal, Monitoring & Dose Estimation in BSM facilities', 'Safety during Transport of Radioactive Materials' and 'Licensing Procedure and Regulatory Requirements of BSM facilities' by experts from BARC and AERB. The compilation of the lecture material of all these topics along with a copy of the Atomic Energy (Radiation Protection) Rules, 2004 was distributed to all the participants. In addition to these lectures, there were also presentations on the operating experience from the BSM facilities such as M/s BMC Pvt. Ltd, Tamilnadu, IREL, OSCOM, Orissa, M/s KMML, Kerala and IREL, Udyogamandal, Kerala. There was also a talk from the representative of Federation of Indian Placer Mineral Industries, Tamilnadu on the issues related to licensing of BSM facilities under the Atomic Energy (Radiation Protection) Rules, 2004.

The workshop concluded with a feedback session which was moderated by Shri R. Bhattacharya, Director, IPSD. Shri V.K. Kansal, Shri V.D. Puranik, Head, EAD, BARC and Dr. P.M.B. Pillai, Former OIC, HPU, IREL Udyogamandal were other panel members. The doubts/queries on the radiological safety aspects of mineral separation and physical/chemical processing of beach sand minerals were clarified. The participants appreciated the efforts of AERB for organizing this workshop as it was first of its kind wherein both DAE as well as the private parties were participating. AERB was requested for organizing more such workshops in the future also. To this, it was suggested that such workshops may be organized at the facility site, where more employees can participate and the faculties could be drawn from AERB.