

The Jawaharlal Nehru Aluminium Research Development and Design Centre, (JNARDDC), Nagpur

JNARDDC is a "Centre of Excellence" set up in 1989 as a joint venture of Ministry of Mines, Govt. of India and UNDP with a view to provide major R&D support for the emerging modern aluminium industry in India. Besides being an Autonomous Body of Ministry of Mines, it is registered under Societies Registration Act, 1860 & Bombay Public Trust Act, 1950.

The objective of the Centre is to assimilate the technology available in the country and abroad for the production of alumina & aluminum including aluminium alloys as well as develop technical know-how for the basic engineering process and downstream areas and to provide training to the personnel employed in the Indian aluminium industries.

The centre also provides technological support for setting up Alumina refinery in the country. In the process the Centre caters R&D needs of both Primary and Secondary Producers.

The Staff position of JNARDDC is as under :-

Designation	Sanctioned	Existing
Scientists	27	21
Scientists / Technical Staff	20	16
Administrative Staff	12	9
Supporting Staff	4	4
Total	63	50

The Budgetary position of JNARDDC is as follows :-

Budget (Plan & Non plan)

Particulars	(Rs. in Crores)				
	RE 2008-09	Actual 2008-09	BE 2009-10	RE 2009-10	BE *2010-11
Recurring Expenditure	170	170	250	250	315*
Non-Recurring Expenditure	130*54.8	130*54.8	*23	*23	*27
Total	354.8	354.8	273	273	342

* Proposed/ Provided to JNARDDC under the plan head for different projects

Major activities

The Centre has 12 (twelve) ongoing projects of various external parties / industry from NALCO-Bhubaneswar, CNF Casting-Faridabad, Manishri Refractories & Ceramics Pvt. Ltd. (MRCPL)-Cuttack, DRDO/DMRL-Hyderabad etc.

JNARDDC successfully completed the project awarded by Hindustan Dorr Oliver, Mumbai and Outotech, Australia w.r.t settling test for the ANRAK alumina plant likely to come up in Andhra Pradesh. The Centre carried out characterization of bauxite and technological evaluation of the same from Philippines in an assignment awarded by Asia Pacific Holding Company, Hong Kong and testing work was carried out for Petroleum Coke Industries Co, Ahmadi, Kuwait. Projects are also under negotiation with international companies such as RUSAL-VAMI Russia, CISRO-Australia etc.

The Scientists of the Centre presented/published 14 technical papers in international & national seminars/journals in 2008-09. JNARDDC is also providing Training on "Aluminium Technology" for NALCO Operators.

Science & Technology Projects

The Centre has undertaken the following Science & Technology Projects approved by the SSAG, Ministry of Mines.

- 1) Bauxite Technical Data Bank Phase-III, Western Ghat Deposits.
- 2) Preparation & Certification of Aluminium Alloy Reference Materials .
- 3) Simulation and Computer aided die design for complex profiles of Aluminium Extrudes.

- 4) Development of Friction Stir Welding Technique for Aluminium-Steel Joint.
- 5) Management of Bauxite Residue / red mud (AP-7, Bench scale studies for Development of Glass Ceramics).
- 6) Management of Bauxite Residue / red mud (AP-7, Development of light weight aggregates- Foam Products).

Visit of Foreign Delegates

In Nov' 2009 two senior officials of the Bahrain Economic Development Board (EDB), an Autonomous Government agency visited JNARDDC for using the consultancy services of the Centre in assisting them to establish an Aluminium Centre of Excellence in their country. They also expressed their interest for creating a long term customer relationship with JNARDDC.

Asia Pacific Partnership on Clean Development and Climate (AP-7)

JNARDDC, being the nodal agency from India has undertaken the Project for management of bauxite residue (red mud) in the seven nations Asia Pacific Partnership on Clean Development and Climate (AP-7). It involves the countries of USA, Australia, China, Japan, India, Canada and Korea.

In this regard, JNARDDC alongwith CISRO (Commonwealth Scientific and Industrial Research Organization of Australia) jointly organized a technical workshop on management of bauxite residue on 2nd & 3rd December, 2009 at Nagpur. The meeting reviewed the progress of the projects and was attended by several foreign delegates from Australia. The workshop was inaugurated by Ms. Sue Kruse , Chairperson of APP Task force, Australian Government Department of Resources, Energy & Tourism. The participants included Mr. Michael Ison from the Australian Aluminium Council, Mr. Christian Wagner of the International Aluminium Institute (IAI), Scientists and senior officials of CSIRO, Australia, Alcoa World Alumina, NALCO-Bhubaneswar, Manishri Refractories & Ceramics (P) Ltd, Cuttack and JNARDDC Scientists.

Finances

An internal revenue of Rs.175.01 lakhs was generated in 2008-09 which is the highest internal revenue generated by the Centre in the last 15 years.