Waste to Wealth
Interactive Meet on Productive Utilisation of Red Mud (Bauxite Residue)

in search of
Greener Red Mud

26th July 2019
Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), Nagpur, an autonomous body under Ministry of Mines, Government of India is a "Centre of Excellence" set up in 1989 to provide major R & D support system for the emerging modern Indian aluminium industry and it recognized as a Scientific & Industrial Research organization by the Department of Scientific & Industrial Research, Ministry of S&T, Govt. of India. It is the only institute of its kind in India pursuing the cause of R&D from bauxite to finished product under one roof for the growth of Indian aluminium industry.

Ministry of Mines in association with JNARDDC is organising one day Red Mud Network Meet on 26th July, 2019 to interact on productive utilization of red mud for meaningful outcome which can take R & D activities of JNARDDC to next higher level. We invite the stakeholders to attend the meet, put forth your valuable ideas as well as your research and other needs. JNARDDC can play a vital role in sustainable growth of aluminium industry with emphasis on:

- Raw material conservation
- Energy reduction
- Waste minimization programs
- Value added products from waste
- Zero waste processes
- Analytical support
- Collaborative research

Depending up on bauxite 1-2 tons of red mud is generated per ton of alumina produced.

3 billion tonnes stored globally

140-150 Mt of bauxite residue produced annually

India contributes about 6% of total world’s production

India generates approx. 9 Mt of red mud annually

Contains high-value elements: Rare Earths / Ga / Sc / Al₂O₃
Red Mud is a solid waste produced in the process of Alumina production from bauxite following the Bayer process. It is a mixture of compounds originally present in the parent mineral, bauxite, and of compounds formed or introduced during the Bayer cycle. Red Mud is a very fine material in terms of particle size distribution. Typical values would account for 90% volume below 150 µm.

Its high pH - More than 11
Alkali seepage into underground water
Safety storage problem
Alkaline airborne dust emissions
Vast area of land required for disposal
Minor and trace amounts of heavy metals seepage into ground water
Karl Joseph Bayer
German Patent (1892):
“The red, iron-containing residue that occurs after digestion settles well and, with sufficient practice, can be filtered and washed. For its high iron and low alumina content it can be processed in an appropriate manner or smelted together with other iron ores for iron.”

10:00 - 10:30
Inauguration

10:30 - 10:45
Overview on Current Status of Red Mud in India

10:45 – 11:00
Tea and Networking

11:00 - 11:30
Industry presentation & Suggestions

11:30 - 11:45
Environment and Safety

11:45 - 12:00
Extraction of Residual Minerals from Red Mud

12:00 - 13:00
User Industry Perspective

13:00 – 13:45
Open House Session

13:45 – 14:45
Lunch and Networking

14:45 – 16:45
Way Forward

26th July 2019

Le Meridien, New Delhi