

NCB

BHUBANESWAR



ଜାତୀୟ ସିମେଣ୍ଟ ଏବଂ ଭବନ ସାମଗ୍ରୀ ପରିଷଦ
NATIONAL COUNCIL FOR CEMENT AND BUILDING MATERIALS
(Under the Administrative Control of Ministry of Commerce & Industry, Govt. of India)



National Council for Cement and Building Materials (NCB), set up in 1962 and then known as Cement Research Institute of India (CRI), is the premier research and development institute in India under the administrative control of Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India, devoted to research, technology development and transfer, education and industrial services for cement, building materials and construction industries. Its multi-disciplinary activities are performed in an integrated and co-ordinated manner through its Corporate office at Ballabgarh (near Delhi) and three units located at Hyderabad, Ahmedabad and Bhubaneswar, guided by the six corporate Centres.

The six corporate Centres of the Council and their main areas of activity are:

Centre for Cement Research and Independent Testing (CRT) - Fundamental and Basic Research, Cement and Other Binders, Wastes Utilisation, Refractories & Ceramics, Geology & Raw materials and Testing Services.

Centre for Mining, Environment, Plant Engineering and Operations (CME) - Process Optimisation & Productivity, Energy Management, Project Engineering & System Design, Environmental Sustainability & Climate Change, Advance Fuel Technology and Quality Assurance Group (Electrical & Mechanical).

Centre for Construction Development and Research (CDR) - Structural Optimisation & Design, Structural Assessment & Rehabilitation, Concrete Technology, Construction Technology and Management.

Centre for Quality Management, Standards & Calibration Services (CQC) - Total Quality Management, Calibration Services, Standard Reference Materials, Inter laboratory Services.

Centre for Continuing Education Services (CCE) - Long Term & Short Term Courses, Special Group Training Programmes, Simulator Based Courses, Distance Learning Correspondence Courses, Workers' Development Programmes.

Centre for Industrial Information Services (CIS) - Library, Integrated IT Solutions, Publications & Image Building, Seminars and Conferences, International and National Linkages, and Technical Insight.

OUR VISION

Be a preferred technology partner to cement and construction sectors in the sustainable development of a better infrastructure and housing.

OUR MISSION

Research and Development of innovative technologies, their transfer and implementation in partnership with cement and construction industries.

- To enhance quality, productivity and cost-effectiveness
- To improve the management of materials, energy and environmental resources
- To develop competency and productivity in human resources
- To develop technologies for durable infrastructure and affordable housing

NCB`s activities aligned with schemes and missions of Govt. of India

Schemes of Govt. of India	NCB`s activities	
	<p>Commitment to become Net Zero by 2070, reduction of CO₂ intensity by 45% by 2030 and reduction of 1 billion tonnes of CO₂ emissions by 2030</p>	<p>NCB's Centre for Cement Research and Independent Testing (CRT) has undertaken extensive research for Clinker Substitution to achieve specific CO₂ emissions to 0.35 tCO₂/t of cement by development of:</p> <ul style="list-style-type: none"> • Portland Composite Cement based on fly ash and Limestone • Portland Limestone Cement • Portland Dolomite Cement • Composite Cement based on fly ash and slag • Multi component blended cement • Geopolymer Cement • Low Carbon Clinker
	<p>Make in India</p>	<p>To promote "Atma Nirbhar Bharat" and "Make in India" programmes by reducing the import of foreign Standard Reference Materials, NCB's Centre for Quality Management, Standards & Calibration Services (CQC) developed 18 Bhartiya Nirdeshak Dravya (BNDs) for cement and cementitious materials.</p> <p>CQC provides Proficiency Testing services as well as Calibration services traceable to National / International Standards in various fields of force, temperature, mass & volume, dimension, pressure and RPM.</p>
	<p>Pradhan Mantri Kaushal Vikas Yojana (PMKVY)</p>	<p>NCB's Centre for Continuing Education (CCE) has been organizing various industry-oriented training programmes for professionals of all levels & students and Seminars / Workshops / Online Training/Webinars for cement, concrete, construction and building material sectors.</p> <p>Beneficiaries: Entire Cement Industry, Integrated Irrigation Project for Climate Resilient Agriculture-Odisha, Power grid corporation Ltd., ISRO, IAF, RBI, BRO, Indian Post, Indian Railways, CPWD, PWD & Water Resources Department of various State Governments, BPCL, HPCL, IOCL, DMRC, NBCC India Ltd., NHPC Ltd., NTPC, GAIL India Ltd. etc.</p>
	<p>PAT Scheme of BEE under National Mission for Enhanced Energy Efficiency (NMEEE)</p>	<p>NCB's Centre for Mining, Environment, Plant Engineering & Operation (CME) has carried out over 200 Energy Audits of cement plants for improving Energy Efficiency under the Perform Achieve & Trade (PAT) scheme of Bureau of Energy Efficiency (BEE), Ministry of Power, Govt. of India.</p> <p>CME is also carrying out research on ways to maximize Waste Heat Recovery and utilize Renewable Energy in cement related operations</p>
	<p>Transition to Circular Economy from Linear Economy</p>	<p>NITI Aayog has taken the lead to expedite the transition of the country from a linear to a circular economy and identified 11 focus areas including Municipal Solid Waste & Liquid Waste, Electronic Waste, Scrap Metal (Ferrous & Non-Ferrous), Solar Panels, Gypsum, Lithium-Ion Batteries, Agriculture Waste, Toxic Hazardous Industrial Waste, Used Oil Waste, Tyre and Rubber Recycling and End-of-life Vehicles (ELVs). Each of the focus areas is assigned to the concerned line Ministry.</p> <p>NCB has done extensive research on Gypsum under the aegis of DPIIT and Construction & Demolition (C&D) waste under the aegis of Ministry of Housing & Urban Affairs (MoHUA) and organized stakeholder consultations, formulated comprehensive action plans and prepared report compiling all the recommendations from various stakeholders for submission to NITI Aayog.</p>
	<p>Swachh Bharat Mission</p>	<p>NCB's Centre for Construction Development & Research (CDR) has done extensive research on utilization of C&D waste as well as other industrial waste such as iron slag, copper slag, bottom ash, ferrochrome slag etc. as an alternative to natural fine and coarse aggregates; utilization of sintered flyash as coarse aggregates in structural light weight concrete and development of Geopolymer Cement and Concrete systems;</p> <p>NCB's CRT & CME are actively working with cement industry for utilization of various wastes as Alternative Fuels and Raw Materials to enhance %TSR from 6% to 25%.</p>
	<p>Smart Cities Mission</p>	<p>NCB's Centre for Construction Development & Research (CDR) has undertaken research projects such as High Strength Concrete & Ultra High Performance Concrete and is providing reliable technical services to ensure durable and sustainable infrastructure by undertaking Third Party Quality Assurance and Audit of Construction Projects such as Convention Centres, Buildings, Bridges, Tunnels, Roads etc.</p> <p>Beneficiaries: Housing & Urban Development Dept., Odisha Bridge Construction Corporation, Odisha Works Dept., NBCC, CPWD, PWD, IDCO Odisha, Telangana, Power Grid Corp. Ltd., ITPO (Pragati Maidan), International Convention Centre Dwarka, Ambedkar Memorial, NTPC, AIIMS, MCD, DDA etc.</p>

NCB Bhubaneswar Unit

NCB Bhubaneswar Unit - comprising of site office cum laboratory was established in 2016 in the State of Odisha and was set up on in a space provided by Odisha Industrial Infrastructure Development Corporation (IDCO) at Mancheswar Industrial Estate as per the MoU signed between NCB and IDCO. Accordingly, NCB has established material testing laboratory in the above space referred as Independent Testing Laboratory (ITL) NCB Bhubaneswar and the same has been accredited by NABL for both Mechanical & Chemical parameters in testing of building materials. Also, BIS certification of ITL under LRS is in final stage.

For expansion of NCB Bhubaneswar Unit, the encouraging support and guidance received from Sh Suresh Chandra Mahapatra, IAS, Chief Secretary, Govt. of Odisha, Sh Hemant Sharma, Principal Secretary, Industries Department & Chairman IDCO, Govt. of Odisha and Dr. Krishan Kumar, IAS, Former Principal Secretary (Works Department), Govt. of Odisha (Presently, Joint Secretary, Department of Commerce, Govt. of India) in the process of land allocation by IDCO Odisha is monumental.

Earlier, NCB provided Thirty Party Quality Assurance services to Odisha State Disaster Management Authority (OSDMA) during the years 2001-2010.

The main activities undertaken at NCB Bhubaneswar Unit are:

- Third Party Quality Assurance (TPQA)
- Concrete Technology and Concrete Mix Design
- Structural Assessment and Rehabilitation
- Independent Testing Laboratory (ITL)
- Interaction with Cement Industry
- Research on Waste Utilization
- Skill Development
- Interaction with Academia



Meeting with
Sh Suresh Chandra Mahapatra, IAS,
Chief Secretary, Govt. of Odisha



Meeting with Sh Hemant Sharma,
Principal Secretary, Industries Dept.
& Chairman IDCO, Govt. of Odisha



Meeting with Dr Krishan Kumar,
Joint Secretary,
Ministry of Commerce & Industry,
Govt. of India

Third Party Quality Assurance (TPQA)

To enhance the quality, productivity and cost effectiveness of construction projects, NCB Bhubaneswar unit can provide Third Party Quality Assurance services for Buildings, Roads, Bridges, Tunnels, & other utility projects.

NCB Bhubaneswar provided TPQA services to IDCO for construction of various multi-storied structures for educational institutions, skill development centre, hostel blocks, old age homes, sports complex, stadium, swimming pools, bituminous pavement, rigid pavement, and staff quarters in different districts of Odisha to assure that the quality of the work being carried out at site is as per the project specifications, CPWD specifications and IS standards. NCB Bhubaneswar has successfully completed about 150 TPQA projects in IDCO during the years 2016-21. NCB has entered a MoU during August 2022 with NBCC, Odisha for providing TPQA Services to the projects undertaken by NBCC in Odisha for a period of 5 years.



Shakti Bhawan, Bhubaneswar



IDCO Tower, Jharsuguda

Third Party Quality Assurance (TPQA)



Checking of Steel Reinforcement



Slump test at Site



Inspection of Road Work

Services Provided to Housing & Urban Development Department, Odisha

NCB Bhubaneswar was awarded pilot project as the State Level Third Party Quality Assurance Team by Housing and Urban Development (H&UD) Department, Odisha.

Under this pilot project, monitoring various works like Concrete Paver Block Road works, CC Pavements, RCC Drains etc. taken up by 114 ULBs across the State of Odisha.

- Site inspection and imparting awareness reg. latest revision and use of relevant IS standards for Municipal Works related to concrete pavement roads and concrete paver block roads
- Testing facility for concrete paver blocks
- Slump test at site for road projects
- Testing of hardened concrete



Meeting with Dr B K Das, Chief Engineer & Additional Secretary, H&UD Department, Odisha



Site Inspection in various ULBs in Odisha



Witness of Quality Tests on Building Materials by various ULB Representatives at ITL NCB Bhubaneswar:



Building Material Samples submitted by representatives of ULBs at ITL NCB Bhubaneswar:

Concrete Technology & Concrete Mix Design

- Evaluation of Concrete Making Materials such as OPC, PPC, PSC, Fly ash, Slag, Silica-fume, Super-plasticizers, accelerators, etc.
- Evaluation of Aggregate: Physical and Chemical evaluation, Petrography and Soundness, Alkali – Aggregate reactivity.
- Concrete mix design of standard concrete, special concrete such as Plastic Concrete, Pervious concrete, etc

Structural Assessment and Rehabilitation

- In-situ quality assessment, durability investigation, assessment & recommendation and supervision of repair, rehabilitation and retrofitting.
- Assessment of structural adequacy, load carrying capacity and load testing of structural elements in buildings and structures.
- Distress Investigation & in situ quality assurance
- Study on field and laboratory investigation of concrete.
- Assessment of fire damaged Reinforced Concrete Structures.

Independent Testing Laboratory (ITL)

The ISO 17025:2017 NABL accredited Independent Testing Laboratory (ITL) of NCB Bhubaneswar can undertake testing of all the raw materials, in-process materials, cement and fresh & hardened concrete samples.

ITL executes its activities in the areas of building materials testing from Industry sponsored projects. The Chemical Laboratory has been established to provide technical support to cement industries in Odisha and its neighboring states i.e. West Bengal, Jharkhand, Bihar, Chhattisgarh and States of North-East India.



Chemical Testing Laboratory of Cement and Cementitious Materials

The chemical testing laboratory of ITL undertakes testing for hydraulic cement (OPC, PPC, PSC, Composite Cement), cementitious materials (Fly ash, Slag), construction water, etc.



View of Chemical Testing Laboratory at ITL NCB Bhubaneswar

The lab got NABL accreditation in March 2021.

Mechanical Testing Laboratory of Building Materials

Mechanical Testing Laboratory undertakes testing for hydraulic cement, hardened concrete, building bricks (burnt clay & lime pulverized fuel ash), coarse aggregate, fine aggregate, soil, bituminous mix, tiles, granite, kota stone, marble, paver blocks, AAC blocks, etc. The lab got NABL Accreditation in September 2020.

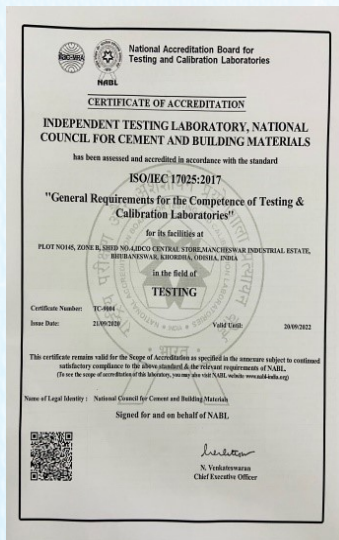


View of Aggregate Testing Laboratory

View of Concrete Testing Laboratory

Testing services extended to customers including Odisha Industrial Infrastructure Development Corporation (IDCO), NBCC, RITES, H&UD Dept., OBCC, CPWD, NTPC, and Cement Manufacturing plants in Odisha and neighbouring states.

Mechanical & Chemical Laboratory Accreditation



SCOPE OF ACCREDITATION				
<p>Laboratory Name : INDEPENDENT TESTING LABORATORY, NATIONAL COUNCIL FOR CEMENT AND BUILDING MATERIALS, PLOT NO.14, ZONE B, SHED NO.14/02, CENTRAL STORE, MANCHESWAR INDUSTRIAL ESTATE, BHUBANESWAR, KHORDHA, ODISHA, INDIA ISO/IEC 17025:2017</p> <p>Accreditation Standard: TC-0004 Validity: 21/09/2020 to 20/09/2022</p> <p>Page No: 1 of 3 Last Amended on: 14/04/2021</p>				
S.No.	Slit/Group	Materials or Products tested	Component parameter or characteristic tested	Test Method Specification against which tests are performed and/or the Indian Standard Specification
1	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Chloride	IS:4026
2	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Setting Time	IS:4026
3	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Fineness	IS:4026
4	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Initial and Final Consistency	IS:4026
5	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Loss on Ignition	IS:4026
6	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Soundness	IS:4026
7	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026
8	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water Requirement Ratio	IS:4026
9	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Flow	IS:4026
10	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Autogenous Shrinkage	IS:4026
11	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water of Hydration	IS:4026
12	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Substrate Alkalinity	IS:4026
13	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026
14	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026
15	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026
16	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026
17	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026
18	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Water-soluble Sulfate	IS:4026

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S.No.	Slit/Group	Materials or Products tested	Component parameter or characteristic tested	Test Method Specification against which tests are performed and/or the Indian Standard Specification
19	CEMENTAL, BUILDING MATERIALS	Building Stone (Type I, Unpolished/Polished)	Efflorescence	IS:10874(B)
20	CEMENTAL, BUILDING MATERIALS	Building Stone (Type I, Unpolished/Polished)	Water Absorption	IS:10874(B)
21	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	Maximum Particle Size	IS:2826 Part II
22	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
23	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
24	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
25	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
26	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
27	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
28	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
29	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
30	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
31	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
32	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
33	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
34	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
35	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
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37	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
38	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
39	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
40	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
41	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
42	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
43	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
44	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
45	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
46	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
47	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
48	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
49	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II
50	CEMENTAL, BUILDING MATERIALS	Coarse Aggregate	IS:2826 Part II	IS:2826 Part II

SCOPE OF ACCREDITATION				
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S.No.	Slit/Group	Materials or Products tested	Component parameter or characteristic tested	Test Method Specification against which tests are performed and/or the Indian Standard Specification
39	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
40	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
41	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
42	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
43	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
44	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
45	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
46	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
47	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
48	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
49	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
50	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
51	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
52	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
53	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
54	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
55	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
56	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
57	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
58	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
59	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
60	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
61	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
62	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
63	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
64	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
65	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
66	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
67	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
68	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
69	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II
70	CEMENTAL, BUILDING MATERIALS	Hydraulic Cement	Heat of Hydration	IS:4026 Part II

Interaction with Cement Industry

NCB Bhubaneswar Unit regularly holds interactive meeting with senior officials of cement plants. An interactive meeting was held on 23rd October 2021 and was attended by participants from 6 major cement companies of Odisha, eminent experts of academia and NCB officials. All the participants shared their valuable views on challenges faced by Cement manufacturing Industries in Odisha region.



Cement Plants in Odisha State				
S.No	Name of Company	Location	Cement Capacity (MTPA)	Status of operation
Integrated Cement Plant				
1.	Dalmia Cement (Bharat) Ltd	Rajgangpur, Sundergarh	6.25	Running
2.	ACC Ltd. (Adani Group)	Bargarh	2.50	Running
3.	Toshali Cement	Koraput	0.25	Running
Grinding Units				
4.	Chettinad Cements	Kalinga Nagar, Jajpur	2.00	Under Construction
5.	Dalmia Cement (Bharat) Ltd	Jagatpur, Kapilash	4.20	Running
6.	J K Lakshmi Cement Ltd	Mundali, Cuttack	0.80	Running
7.	JSW Cements	Kalinga Nagar, Jajpur	1.20	Running
8.	My Home Industries Pvt. Ltd	Byree, Jajpur	3.00	Under Construction
9.	NU Vista Ltd	Kalingangar, Jajpur	2.00	Running
10.	Ramco Cements	Hardaspur, Jajpur	0.90	Running
11.	Sagar Cement Ltd	Duburi, Jajpur	1.50	Running
12.	Shiva Cements (JSW)	Sundergarh	1.36	Under Construction
13.	Shree Cement Ltd	Mundali, Cuttack	3.00	Running
14.	Toshali Cement	Choudwar, Cuttack	0.40	Running
15.	UltraTech Cement Ltd	Jharsuguda	1.40	Running
16.	UltraTech Cement Ltd	Khuntini, Cuttack	3.00	Under Construction

Skill Development

Skill Development Activities in Association with CCE Hyderabad

NCB Bhubaneswar in association with Centre for Continuing Education (CCE) at NCB Hyderabad has organized various training courses to meet the needs of professionals from OIIPCRA, Power Grid Corporation of India Limited (PGCIL), cement, concrete & construction industry.

NCB Hyderabad Unit has well established training facility for both onsite and online training.



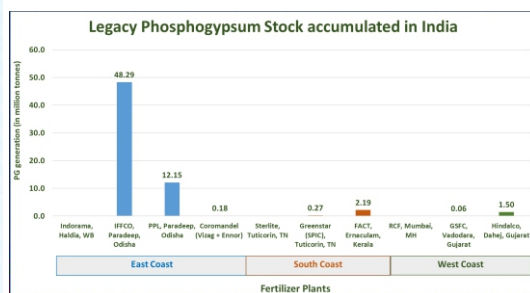
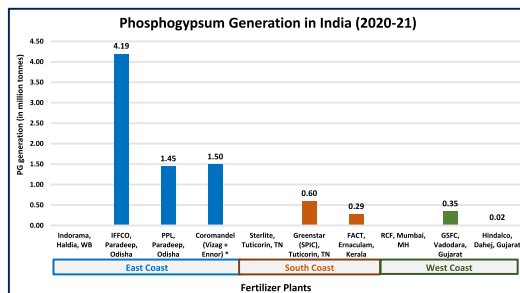
Training & Skill Development

NCB organising different types of skill development & Training Courses in cement, concrete and construction sector; to gain effectiveness through a systematic training intervention for development of appropriate knowledge, skill and enhance professional creativity

- Short-term courses for cement, concrete and construction Technology
- Special Group Training Programme
- Certificate course in Cement Manufacturing Tech.
- Customized Special Training Courses
- Contact Training Courses
- Worker Development Courses

Research on Waste Utilization

Odisha is having huge stocks of industrial waste like phosphogypsum generated from phosphoric acid plants (approx. 60 million tonnes of legacy waste and 6 million tonnes annual generation), Red mud generated from aluminium industry (about 6.8 million tonnes annually), Fly ash generated from thermal power plants (28.18 million tonnes annually of which 4 million tonnes remains unutilized), which points towards the scope of Circular Economy.



NCB has undertaken extensive research on utilization of industrial waste. Some of the recent ongoing projects of NCB for enhancing waste utilization in cement & concrete industry are:

- Technical feasibility of using FGD gypsum in cement manufacturing
- Investigations on Utilization of Phosphogypsum in Cement Manufacturing
- Investigations on Utilization of Coarse Flyash (200-250 m²/kg) in Cement
- Development of new clinker system using industrial by products and low limestone content
- Utilization of lime sludge generated from paper industry in the manufacture of Cement
- Enhancement of plastic waste utilization as Alternative Fuel in Indian Cement Industry and its impact assessment

NCB has undertaken extensive research for Clinker Substitution to minimize the Carbon Foot-print of Cement Industry

- Low Carbon Clinker
- Portland Composite Cement based on fly ash and limestone
- Portland Limestone Cement
- Composite Cement based on fly ash and slag
- Portland Dolomite Cement
- Multi component blended cement
- Geopolymer Cement

Interaction with Academia

NCB has signed MoUs with premier education institutes like IIT Bhubaneswar, KIIT University, Ravenshaw University, Sambalpur University and NIT Rourkela in the state of Odisha, for involvement of PhD research scholars in industry oriented research projects at NCB, to provide a platform for academia- industry - research institute interaction, for giving site working exposure for benefit of students, resource sharing between organizations and for jointly organizing seminar & conferences.

NCB in association with KIIT, Bhubaneswar jointly organized seminar on “Waste Utilization in Cement and Concrete Industry” on 21st March 2022 at KIIT Bhubaneswar. The seminar was attended by representatives of various Cement Industries, Officials from State Govt., Central Govt. and Academia.



MoU with Sambalpur University, Sambalpur



MoU with Ravenshaw University, Cuttack



MoU with KIIT University, Bhubaneswar



Meeting with Sh Manoj Naik, Chairman of ITER Sikhya and Anusandhan



Meeting with officials of CV Raman Global University

Visits of Senior Officials to NCB Bhubaneswar



Visit of Sh. Bijoy Chandra Tripathy, CGM (P&C), IDCO to NCB Bhubaneswar



Visit of Sh. Kushdhar Mahanta, CGM (MSME) to NCB Bhubaneswar



Meeting with Sh. Manoranjan Mishra, Special Secretary, Works Department, Govt. of Odisha



Visit of Dr. S S Gupta, SDO, DPIIT, Govt. of India to NCB Bhubaneswar



Visit of Professors of IIT-Bhubaneswar & KIIT (DU) to NCB Bhubaneswar



MoU/Consortium



MoU between NCB & NBCC for TPQA services in Odisha



Consortium between NCB & KIIT DU



FOR FURTHER DETAILS, PLEASE CONTACT

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