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INSIDE

AMENDED MMDR ACT 2015 BRINGS RADICAL CHANGE IN MINERAL ADMINISTRATION SYSTEM: SECRETARY (MINES)

MORE...

BY 2020

Roadmap laid for auctions of expiring leases 6

IBM CONSTITUTES 11-MEMBER PANEL

Revision of Threshold Value of Minerals soon 12

CLEANLINESS DRIVE

Swachhta Pakhwada observed in areas adjoining mines 15



PICTURE OF THE ISSUE



An IBM employee and sports enthusiast taking part in shot put game even as other officials look on at the IBM Sports organised as a prelude to the Inter-Divisional sports, at Police Grounds in Nagpur.

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Contents

STOCKTAKING

Secy (Mines) visits MMPL & Pilot plant 4

MINERAL AUCTIONS

Secy (Mines) reviews DGM Maharashtra, Goa progress 5

CAPACITY BUILDING

CG attends IBM-IIEST Workshop 9

TRANSPARENCY

Vigilance Awareness Week observed 13

FOR BETTER TOMORROW

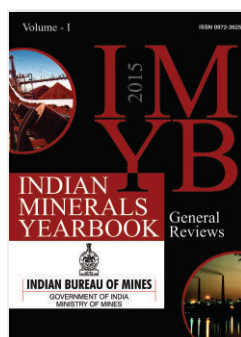
WAPCOS joins IBM in studying sand mining model 14

Technical Updates 16

Dr Babasaheb Ambedkar remembered 20

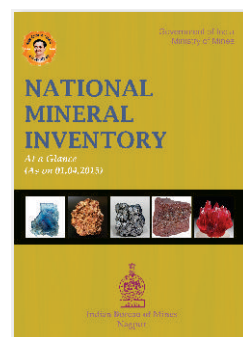
हिन्दी अनुभाग 21

Publication Corner



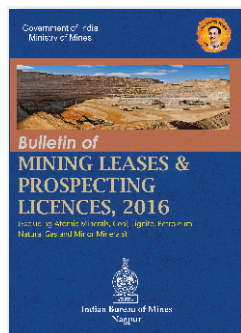
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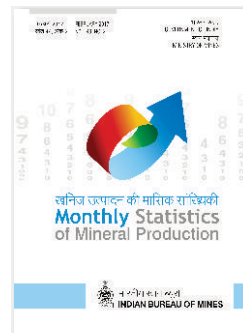
Title:
 NMI At a Glance
 (as on 1.4.2015)

Date of release:
 3/10/2017



Title:
 MLPL-2016

Date of release:
 3/10/2017



Title:
 Monthly Statistics
 of Mineral
 Production
 (February 2017)

Date of release:
 17/11/2017



Shri Ranjan Sahai

The year 2017 brought some of the best accomplishments for IBM. The Bureau scaled new heights on several fronts with the closure of the third quarter of the current FY. With a view to make the auction of mineral blocks more pragmatic, the Mineral Auction Rules have been amended on 30 November, 2017. The changes in the Auction Rules shall make the auction of mineral blocks quicker; lay thrust on zero waste mining and utilisation of low-grade ore; and encourage small bidders, allowing their participation. The amended Rules enhance participation and gives fillip to the auction process in 2018.

IBM has been assisting the Ministry of Mines in laying a roadmap for the auction of mining leases expiring by 2020, submitting the list of leases ready to expire, backed by comments regarding iron ore leases. Our officers are playing the role of interlocutor in the state level committee meetings to help States prepare for the auction process. Secretary (Mines) Shri Arun Kumar too reviewed the progress made in States of Maharashtra and Goa. He also visited the MMPL & Pilot Plant of IBM in Nagpur and attended the Indian Geological Congress and International Conference & Expo on Mining Industry held in Nagpur. I am thankful to Shri Arun Kumar for his valuable inputs provided during his visit and assure the Secretary, IBM shall deliver to his expectations.

As part of the efforts to set up “Centre of Excellence for Skill

Development”, IBM and IEST, Shibpur held a day-long workshop discussing the techniques for: developing a professional and skilled manpower for mining sector; curriculum framework; system of monitoring & evaluation for measuring the success of training. While, the “International Conference and Expo on Mining Industry – Vision 2030 and Beyond” witnessed more than 300 delegates deliberate on pertinent issues and challenges facing the mineral industry. IBM shall look into the key recommendations that came out of the conference.

IBM signed a Change Control Note with Wipro to facilitate the smooth and timely implementation of revolutionary Mining Tenement System (MTS) post inclusion of PMKKKY. Wipro's techno-commercial offer received approval in the Core Committee meeting. The Core Committee also approved the SRS document for Star Rating and Ore Accounting System. Also, ESDS, Hyderabad shall provide the cloud services for MTS.

IBM along with WAPCOS, a PSU under Ministry of Water Resources, River Development and Ganga Rejuvenation has also undertaken the study of existing model of Sand mining in States. IBM and WAPCOS will prepare a draft framework for sand mining policy as a model for replication by states, and submit it to Mines Ministry soon. With the restructuring of IBM in the offing anytime during coming months, functions and role of the Bureau shall be redefined and year 2018 will herald a new beginning for the Bureau.



Ranjan Sahai
Controller General

STOCKTAKING

Secy (Mines) visits MMPL & Pilot plant

Shri Arun Kumar, Secretary (Mines) paid visit to the Modern Mineral Processing Laboratory and Pilot Plant (MMPL), Indian Bureau of Mines at Hingna in Nagpur on 3 October 2017. Shri Ranjan Sahai, Controller General, IBM accompanied Secretary.

Smt Indira Ravindran, Director, MP Division, who welcomed the Secretary gave a presentation to apprise the latter of the objectives, importance and activities of Mineral Processing Division. She also highlighted the achievements carried out in the Plant. She said MP Division and three of its laboratories rendered services to industry, exploration agencies, PSUs, Central and State Governments and academic institutions. IBM's expertise in carrying out studies on wide spectrum of ferrous, non-ferrous, industrial, fertilizer and precious minerals have contributed to value addition in case of low grade ores, dumps/ wastes/ rejects. The process flow sheet for extraction of Platinum Group of Elements (PGE), Rare Earth Elements and technology metals like Mo, Re, Te, Se, Ge, Cd, In, Ga, V, Sc, required for development of new age technology needs to be addressed by focused R&D and requires collaboration with foreign institutes/organisation, she said.

Shri Arun Kumar, along with Shri Ranjan Sahai and Shri Manish Bhimte, Chief Vigilance Officer visited Mineral Characterisation Laboratory, Chemical

Laboratory and Mineral Processing Laboratory and Plant of the MP Division. Smt Indira Ravindran explained the visiting dignitaries about the functioning of the each of the units of the MMPL of IBM.

During the visit, the Secretary opined that iron ore industry faced problems for processing of their dumps, with special reference to Odisha where million tonnes of waste are lying which needs to be processed for value addition. The officers of MP Division should make a visit and take initiative to help the industry. He appreciated the technological work carried out in the Division and service of IBM to mineral industry.

Dr Sandhya M. Lal, CODO and In-charge of the Plant and other senior officers of IBM were present.

“A million tonnes of iron ore dumps are lying in Odisha which needs to be processed for value addition. The officers of MP Division should make a visit and take initiative to help the industry.

MODERNISATION OF MMPL AND PILOT PLANT: JS CHAIRS MEETING

As part of the deliberations pertaining to modernisation and upgradation of Modern Mineral Processing Laboratory (MMPL) through National Mineral Exploration Trust (NMET), Dr N.K. Singh, Joint Secretary, Ministry of Mines visited the MMPL and Pilot Plant of IBM on 4 November, 2017. Dr K. Balasubramanian, Director, Nonferrous Materials Technology Development Centre (NFTDC), Hyderabad and Shri Pradip Singh, Director, NMET Secretariat, DGCO, GSI, New Delhi accompanied the Joint Secretary.

Smt Indira Ravindran, Director, MP Division, IBM gave a presentation on the proposals for modernisation and upgradation of MMPL & Pilot Plant. The facilities available with the Laboratory were apprised to the visiting delegation. Smt (Dr) S.M. Lal, CODO, Dr D.R. Kanungo, SO (OD) and other senior officers of MP Division attended the meeting. Both Smt Indira and Smt S.M. Lal also attended an interactive meeting with Shri Amit Saran, Director, Ministry of Mines on 9 November, 2017 at IBM Headquarters in Nagpur.



Shri Arun Kumar (left), Secretary (Mines) making a point at a review meeting chaired by him during his visit to the MMPL & Pilot Plant of IBM at Hingna in Nagpur. Shri Ranjan Sahai, CG, IBM, Smt Indira Ravindran, Director (OD), MP Division are seen. (right) The Secretary inspecting the work carried out at the Mineral Processing Laboratory and Pilot Plant.



Shri Arun Kumar, Secretary (Mines) chairing a review meeting with the senior officers of DMG, Maharashtra during his visit to the MMPL & Pilot Plant of IBM in Nagpur. Shri Ranjan Sahai, CG, IBM and other senior officials of IBM are seen. (right) The Secretary (Mines) releasing the publication, National Mineral Inventory on the sidelines of his review meeting and visit to the MMPL & Pilot Plant of IBM in Nagpur.

MINERAL AUCTIONS

Secy (Mines) reviews DGM Maharashtra, Goa progress

Secretary (Mines) Shri Arun Kumar, chaired a meeting to review the mines and mineral matters pertaining to Maharashtra State during his visit to the MMPL & Pilot Plant of IBM. Shri Ranjan Sahai, CG, IBM and Shri R.S. Kalamkar, Director, Department of Mines and Geology attended the review meeting along with senior officials of their respective departments.

The meeting discussed various issues of mutual coordination amongst Central and State Government, including status of auctionable mineral blocks. The Secretary advised the officers to lay out an action plan in advance to prepare for the next round of auctions. On the occasion, Shri Arun Kumar released four publications of IBM namely, Indian Minerals Yearbook 2015 Vol I & II, National Mineral Inventory at a Glance as on 1.4.2015 and Bulletin of Mining Leases & Prospecting Licences 2016.

In Goa

The Secretary chaired a similar meeting with the DGM officials of Goa on 10 November, 2017 at the Secretariat, Panjim, Goa. Shri Daulat Hawaldar, Principal Secretary (Mines & Geology), Government of Goa along with other senior officers attended the meeting. Dr Y.G. Kale, RCOM,

IBM, Goa, Suresh Prasad, DCOM and Shri G.S. Kannan, JMG represented IBM in the meeting.

Dr Kale, who welcomed the Secretary made a presentation on the status of Iron ore mining in Goa and issues of concern for the Goan mining sector. The presentation covered the status of mining before suspension of mining operation in September 2012 and post resumption of mining. The State Government officials informed that there were about 188 mining leases which were going to expire by March 2020 and most of the leases were either in the Wildlife Sanctuary, forest area or within Environmentally Sensitive Zone.

On the removal of export duty for export of Iron ore of + 58 per cent Fe content from Goa, the Secretary desired that State Government may make reference to Centre so that the matter could be examined. The Secretary also directed that State of Goa may form District Mineral Foundation (DMF) Committees so that the Fund accrued under DMF can be utilised for the welfare of the mining affected people. He also asked the State Government officials to adopt MSS to keep a check on illegal mining of minor minerals. He emphasised for better coordination between the State and the Centre.

The meeting discussed various issues of mutual coordination amongst Central and State Government, including status of auctionable mineral blocks. The Secretary advised the officers to lay out an action plan in advance to prepare for the next round of auctions.

AT BITS CAMPUS

Adopt sustainable mining practices: Secretary (Mines)

The mining industry should take initiatives for ameliorating environmental repercussions caused due to mining, said Shri Arun Kumar, Secretary (Mines). He was delivering keynote address at the inaugural session of the 71st Annual Technical Meeting (ATM) organised as part of the 55th National Metallurgist Day (NMD) at the Birla Campus of BITS, Goa on 13 November, 2017.

“The World Bank has predicted good year ahead for the metal sector, and therefore, we anticipate good future for the entire resource sector,” he said and touched upon the local issues of Goan mining and urged to initiate proactive role to overcome the difficult times. The resource industries have to be more concerned for social and environmental issues in future, he opined.

The ATM was followed by a panel discussion on 'Iron Ore Mining: Issue and Solution' in which Shri Arun Kumar took part as the chairman. Dr Y.G. Kale, RCOM, IBM, Shri Tuhin Mukherjee (Essel Mining), S/Shri Kishore Kumar, CEO (Vedanta Ltd), Partho Banerjee, Director (Formento Resources),



Shri Arun Kumar (third from right), Secretary (Mines) interacting with the audience at the 71st Annual Technical Meeting (ATM) organised as part of the 55th National Metallurgist Day (NMD) at the Birla Campus of BITS, Goa. Dr Y.G. Kale, RCOM, IBM, Goa and others are seen.

P. Mukherjee, Chairman, Mining Committee, GCCI, Vijay Kumar, Head, Iron Ore Division (Vedanta Ltd) and Dr Pradip, former Head, TRDCC took part in the panel discussion.

Dr Kale also presented a paper, “Challenges before the Iron Ore Mining in India with Special Reference to Goa”, jointly authored with Shri Ranjan Sahai, CG, IBM.

BY 2020

Roadmap laid for auctions of expiring leases

As per the directive of the Ministry and as part of the preparation of a roadmap for auction of mining leases expiring by 2020, the Indian Bureau of Mines (IBM) submitted the list of leases going to expire in 2020 to the Ministry of Mines. The report included status of State level committee meetings and list of all quarries.

This apart, IBM shall prepare comments on the issues pointed out by Secretary, Ministry of Steel regarding the iron ore leases expiring in 2020. Letters were sent to regional offices Ajmer, Bengaluru, Bhubaneswar, Goa and Hyderabad seeking the information as sought by Ministry of Steel. The Bureau would soon submit the

report to the Ministry following compilation of reports received from regional offices and latest status of the State level Committee meetings in the States.

There are 289 mining leases (73 Working and 216 Non-Working) due for expiry in 2020. Exploration proposals for 85 mining leases, which include 67 working and 18 non-working, were received from regional offices and the same was finalised.

Lump & Fines Ratio

As part of Geological study under Rule 46 of MCR 2016 to establish lump and fines ratio in run-of-mine (ROM) of Iron Ore & Chromite

PRICE FIXING

CG chairs meeting on ASP of Bauxite

The average logistic cost calculated at 25% of ASP of Metallurgical Grade Bauxite at mine head

To examine the possibility of devising calculation of Average Sale price (ASP) of Bauxite based on the FoB of Bauxite, Shri Ranjan Sahai, Controller General, IBM chaired a meeting of the officers of IBM, Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARDDC), Nagpur and representatives from mining and aluminium/alumina industries at the IBM Headquarters in Nagpur on 23 October, 2017.

After detailed deliberations and based on available inputs from returns etc, the average logistic cost has been taken as 25 per cent of compilation of Average Sale Price of Metallurgical Grade Bauxite at mine head along with the formula proposed earlier.

There are 289 mining leases (73 Working and 216 Non-Working) due for expiry in 2020.

Mines, the study reports of Iron Ore Mines, in respect of Odisha, Chhattisgarh, Andhra Pradesh, Karnataka, Madhya Pradesh and Goa have been sent to State DGMs for comments and suggestions. The draft report in respect of Chromite mines of Odisha was received from Bhubaneswar regional office.



Shri Arun Kumar (Centre), Secretary (Mines) releasing the proceedings of the 20th Convention of Indian Geological Congress (IGC) held in Nagpur. (From left) Shri R.R. Mishra, CMD, WCL, Prof. O.P. Verma, Dr Gopal Dhawan, CMD, MECL, Shri Kutumba Rao, DG, GSI, Shri Ranjan Sahai, CG, IBM, L.K. Nanda, Director, AMD are seen. (right) Shri Ranjan Sahai, CG, IBM presenting a certificate of appreciation to a young geologist at the concluding ceremony of the IGC held in Nagpur.

IN NAGPUR

Secretary (Mines) attends Indian Geological Congress meet

Shri Arun Kumar, Secretary, Ministry of Mines inaugurated the 20th Biennial Convention of Indian Geological Congress (IGC) held at Chitnavis Centre at Civil Lines in Nagpur. In his inaugural address, he said the country should accelerate the pace of mineral exploration to meet the growing demand. The country was blessed with heavy deposits of minerals. However, exploration as per the desired level was not happening owing to different reasons, he stated.

“We need to identify more mineral deposits to survive in the competitive world

market. The geo-scientists and authorities from the allied sectors will have to deliver more. The private agencies shall also be encouraged in the exploration of minerals. The auctioning of mining blocks introduced by the Central Government paid rich dividends to both the States and the Centre with a whopping revenue collection. Around 1.60 lakh crore revenue is expected through auctioning of identified mineral blocks during the current fiscal”, Shri Kumar informed.

Shri N. Kutumba Rao, Director General, GSI was the guest of honour. Shri

Ranjan Sahai, Controller General, IBM, Dr Gopal Dhawan, CMD of MECL, R.R. Mishra, CMD of WCL, L.K. Nanda, Director, AMD, M.P. Chaudhari, CMD of Moil, Dr. Anupam Agnihotri, Director, JNARDDC and Prof. O.P. Verma, Executive President of IGC were present during the inaugural session.

Valedictory

Shri Ranjan Sahai, CG, IBM graced the valedictory ceremony of the programme as chiefguest.

MTS & MSS PROJECTS

IBM, Wipro signs Change Control Note for MTS

With the addition of Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) into Mining Tenement System (MTS) project, a Change Control Note (CCN) was signed between Wipro and Indian Bureau of Mines (IBM) to facilitate the smooth and timely implementation of MTS. Wipro gave a presentation on CCN wherein major points were agreed upon by Co-ordination Committee, while the techno-commercial offer received in-principle approval in the Core Committee meeting chaired by Secretary (Mines).

A Coordination Committee meeting was held on 11 Dec, 2017 at IBM Headquarters for

approval of Change Control Note submitted by Wipro. The reworked time frame for PMKKKY to go live was also accepted by the Committee.

Cloud Services

The four bids received for procurement of Cloud Services were opened on 13 November 2017. After technical and financial evaluation, ESDS, Hyderabad was found as L1 bidder. Accordingly, an agreement with ESDS was signed on 23 November in Nagpur. Also, a Core Committee meeting held at New Delhi on 26 Oct 2017 approved SRS Document for Star Rating and Ore Accounting System.

MSS

Meanwhile, Mining Surveillance System (MSS), a satellite-based monitoring system which aims to establish a regime responsive mineral administration, generated 287 trigger reports from different states so far of which 48 cases are of unauthorised mining. The work on generating next phase of triggers is taking place at Bhaskaracharya Institute of Space Applications and Geo-informatics (BISAG), Gandhinagar. IBM and BISAG have till now trained 179 officers from different states on application of MSS and inclusion of Minor Minerals for same.

WELFARE

Parliamentary Standing Committee on Labour inspects Codli mines

The Parliamentary Standing Committee on Labour led by Dr Kirit Somaiya visited the Codli Iron ore mines of Vedanta Ltd in South Goa district on 3 November, 2017 and carried out a detailed study of working conditions for the labourers employed in mines. More than 15 honourable members of the Standing Committee visited the mine and interacted with the mine workers and officials of Vedanta Ltd. Dr Y.G. Kale, RCOM and Shri Prem Prakash, DCOM from IBM Goa Regional office accompanied the delegation.

The Chairman and members of the Committee sought to know about the accidents, medical check-ups, and insurance to mine workers, ESIS facilities, PPF etc. from the management of Vedanta Ltd. They also raised queries regarding number of permanent and contract labourers, compensation paid to the victims of accidents, safety devices provided to the workers, occupational health hazards observed by the company,



Shri Kirit Somaiya, chairman, Parliamentary Standing Committee on Labour and other members during a visit to the Codli Iron Ore mines in Goa. Dr Y.G. Kale, RCOM, Goa is seen.

skill development programmes for the employees, environment protection measures undertaken, pensionary benefits, allowances paid to the contractual workers, percentage of women employees and related issues and visited Codli mine site of Vedanta.

Earlier, Kishore Kumar Rajgopal, Chief Executive Officer of Vedanta Ltd welcomed

the Hon'ble chairman and members of the Committee offering bouquet and shawl. He briefed the Committee about the Vedanta Group and its Iron Ore Division followed by salient features of Codli mine. The Committee was also apprised about the safety, health, welfare and CSR activities undertaken in and around Codli Iron Ore mines.

NEW YEAR 2018



Shri Ranjan Sahai, CG, IBM was extended greetings by the employees of the Bureau on the occasion of New Year 2018 on 1 Jan, 2018. The CG also wished the IBM family a prosperous New Year.

IBM assists HZL in stope modification

The Indian Bureau of Mines strives for the Scientific Development of Mines as one of its important Charter of Functions. During an inspection of stopes of Rampura-Agucha lead-zinc mine of Hindustan Zinc Limited of Ajmer Region on 16 Oct, 2017, it was observed that ore was lying outside the applied stope boundary, which needed revision. Accordingly, the matter was discussed with HZL mine officials. It was advised to modify the stope boundary for selected stopes which was accepted. After modification, about 21166 tonnage of ore increased with decrease of 0.17 per cent Total Metal Content, but overall Metal in Concentrate increased by about 860 tonnes valuating at about Rs 15 crores as per current LME price.

7th ASIAN MINING CONGRESS



Shri Ranjan Sahai presenting keynote address on “Amended MMDR Act, MCDR, MCR and Latest Status of Auctioning of Mineral Sites” at the 7th Asian Mining Congress organised by Mining Geological and Metallurgical Institute of India at Kolkata during 8-9 November, 2017. Shri Kutumba Rao, Director General, GSI and others are seen.

CAPACITY BUILDING

CG attends IBM-IEST Workshop

Following signing of an MoU between Indian Bureau of Mines and Indian Institute of Engineering Science and Technology (IIST) Shibpur in June 2017, the senior officers of both the organisation met at a day-long Workshop, “Capacity Building of Stakeholders of Mining Industry”, on the sidelines of 7th Asian Mining Congress organised by Mining Geological and Metallurgical Institute of India at Kolkata during 8-9 November, 2017.

Shri Ranjan Sahai, Controller General, IBM delivered a keynote address on the inaugural day of the Workshop. IBM and IEST have agreed

for institutional/ organisational collaboration for setting up of “Centre of Excellence for Skill Development” at Kolkata. The Workshop discussed the techniques for developing a professional and efficient skilled manpower; curriculum framework; system of monitoring & evaluation for measuring the success of training and Induction-material for new entrants of IBM.

The workshop deliberated on new initiatives in mining and mineral sector like SDF, MSS and MTS, propagation of best practices in Mineral technologies and mineral beneficiation process, training

strategy and thrust areas of training for State Government and Industry, Implementation of Rule 64 of MCDR, 2017, Monitoring and Evaluation of Training, SDF Monitoring and the Measurable Modalities to have Environmental and Social Indicators in mining affected areas, etc.

The participants included delegates from IEST Shibpur, ISM Dhanbad, IIT Kharagpur, GSI, IBM and representatives from DGMs of Meghalaya, Odisha, Jharkhand, West Bengal, Nalco, HCL, Sail, Tata Steel, Aditya Birla, Dalmia Cements, Star Cement and Rungta Mines.



Shri Ranjan Sahai, Controller General, IBM addressing the workshop, “Capacity Building of Stakeholders of Mining Industry” organised by Indian Bureau of Mines in association with IEST (Shibpur) in Kolkata. Senior officials of IBM and academicians from IEST are seen. (right) The participants engrossed in a session.



Shri Arun Kumar, Secretary (Mines) lighting the lamp to inaugurate the "International Conference and Expo on Mining Industry: Vision 2030 and Beyond" organised at Hotel Radisson Blu in Nagpur. S/Shri Ranjan Sahai, CG, IBM, M.P. Chaudhari, Chairman-cum-MD, MOIL, L.K. Nanda, Director, AMD and others look on.

MEGA CONFERENCE

'AMENDED MMDR ACT 2015 BRINGS RADICAL CHANGE IN MINERAL ADMINISTRATION SYSTEM'

Shri Arun Kumar inaugurates International Conference and Expo on Mining Industry – Vision 2030 and Beyond in Nagpur

A three-day "International Conference and Expo on Mining Industry: Vision 2030 and Beyond" was organised under the aegis of Mining Engineers' Association of India, Nagpur Chapter at Hotel Radisson Blu in Nagpur during 6-8 December, 2017. Shri Arun Kumar, Secretary (Mines), Government of India, accompanied by Shri Ranjan Sahai, Controller General, Indian Bureau of Mines (IBM) inaugurated the conference & Expo.

In his address, the Secretary said the Mines and Minerals (Development & Regulation) Amendment Act 2015 brought a radical change in the mineral administration system in the country. The system of allotment of mines was replaced with competitive bidding and auction of mines.

The new system brought transparency in allocation of mining leases and speeded up the process. The Auction Rules was more pragmatic for reduction of wastage in mining and encourage participation of bidders, he said and opined that Mining shall have more social

acceptability when sanitation and drinking water projects start to roll out under District Mineral Fund, which had accrued ₹13000 crore so far.

The auction of mines completed so far could fetch the State Governments revenue of up to ₹1.2 lakh crore during the lease period. The mining and exploration companies should invest more in exploration projects in Greenfield areas. Citing HCL and HZL initiatives in exploration, he said a rate of 10-20 per cent growth rate was achievable with the exploration in Greenfield projects. The mining industry should come out stronger with fair practices; balancing environmental and social commitments, he said.

He informed the Government was working on carrying out aero-magnetic survey of about 3 lakh sq kms potential mineral-bearing geological area using best technologies available under the National Mineral Exploration Trust (NMET). The NMET rules provides for Private Exploration Agencies to collaborate with Government agencies.

Shri Ranjan Sahai, who is also the Chief Patron of the Organising Committee of the Conference said the IBM was working on virtual interface for all its services – mine planning, inspection, detection of illegal mining etc. The concept of regulatory authority would be redefined using technology.

Shri D.K. Sahni, Chairman, MEAI, Nagpur Chapter said the Indian Mining Industry should stand the global competition in terms of quality and cost and come out with innovative ways of environment-friendly mining.

On the occasion, the dignitaries released the proceedings of the three-day seminar. Shri M.P. Chaudhari, Chairman-cum-Managing Director of MOIL Ltd was the guest of honour. S/Shri Arun Kumar Kothari, President, Mining Engineers' Association of India, Gopal Dhawan, former MD, MECL, L.K. Nanda, Director, Atomic Minerals Directorate, S.K. Adhikari, Chief Mining Geologist, IBM and Organising Secretary of the Conference were present.

Valedictory

The conference concluded with a valedictory ceremony organised on 8 Dec 2017. Dr S.R. Wate, Chairman, Expert Appraisal Committee, Ministry of Environment & Forest and former Director, CSIR-NEERI was the chief guest, while Shri Sahai, CG, IBM presided.

On the occasion, Controller General, IBM said the Mining Industry was being seen as a growth stimulator recently. In next 4-5 years, mining will emerge more progressive and contribute to the development and growth of the country. The Star Rating initiative emerged effective and useful in creating sensitivity to society and environment amongst the miners. It is a kind of self appraisal and gave satisfaction for mining companies. On deficient fertilizer minerals, he said the Bureau gave thrust on exploration of Potash in Rajasthan and beneficiation to lower the burden of Import bill for government.

In his address, Dr Wate said Sustainability of Mining was based on three parameters – economics of mining, environment and social aspect and proper governance. The use of high-end technology such as remote sensing, drones can rightly tackle the environmental issues related to exploration and the overburden in mines. “The goal of extracting minerals for development with lesser impact of mining on the environment can be achieved with combination of technologies. It will make mining sustainable and socially acceptable and ensure high order of mines and



A section of participants at the valedictory function of the three-day conference.

mineral resources,” he added and said the industries and sectors branded as polluting agency needed to come clean.

Shri R.S. Kalamkar, Director, Directorate of Geology and Mining, Maharashtra stressed on the inter-generational equity of the mineral resources and called upon mineral industry to focus on the subject.

Shri S.M. Bothra, convener, MEAI Nagpur Chapter welcomed the guests. Shri D.K. Sahni, Chairman, MEAI Nagpur Chapter, Prof. B.B. Dhar, Chairman of Recommendation Committee of the Conference, Shri H.R. Kalihari, Vice-chairman of Nagpur Chapter of MEAI gave vote of thanks. The conference witnessed more than 300 stakeholders from the mines and mineral industry, including representatives from various government departments, universities from India and Australia deliberate on pertinent issues, challenges facing the industry. It also laid out a vision for future of the mining in India.

RECOMMENDATIONS

a) Use of Drones in the overall sense and study of environmental and management issues namely:

- Mapping of well spread mineral wealth in the areas far flung in hilly and below thick forest areas.

- Surveillance of vegetation, water, air, soil etc. needs all modern scientific approaches.

b) Exploration of hidden and deep-seated mineral wealth needs modern scientific geophysical approaches.

c) It is high time to have separate laws and regulations for the conservation of sand mining in India.

d) Value added mining technology and growth generation needs to be adopted and encouraged.

e) Well proven modern management tools have to be given preference in our mining practices.

f) The process of Consent to Operate (CTO) through the State Pollution Control Board seems to be big bottleneck for starting a fresh mines after due clearances, including EC, have been obtained by auction holder party.

It is high time the Government of India considers to include Aluminium as a strategic Mineral because of its use in defence purpose and in building infrastructure, and consequently to decrease the dependence on imports



Shri Arun Kumar along with visiting dignitaries visits the Expo organised as part of the three-day International Conference. (right) Shri Ranjan Sahai (third from right), CG, IBM with Dr. Wate, former Director, NEERI, Shri R.S. Kalamkar, Director, DGM, Maharashtra, Shri S.M. Bothra and Shri D.K. Sahni of MEAI Nagpur Chapter and others at the valedictory of the three-day conference.



(Clockwise) Shri Ranjan Sahai, CG, IBM inaugurating the Workshop on Threshold Value of Minerals organised at the GMDC auditorium in Ahmedabad. Shri Arunkumar Solanki, MD, GMDC, Shri S.K. Adhikari, CMG, IBM and others look on. Shri Sahai (Centre) at the workshop organised at IBM HQ in Nagpur. S/Shri S.K. Adhikari, S.N. Meshram, ADG, GSI, Nagpur, K. Thomas, DDG (S), IBM and Shri Arun Prasad, RCOM, IBM are seen. A section of participants at the workshop held in Nagpur.

IBM CONSTITUTES 11-MEMBER PANEL

Revision of Threshold Value of Minerals soon

The Indian Bureau of Mines (IBM) has constituted a Committee of 11 members to deliberate on various issues raised by the stakeholders and to submit a final report along with the revised Threshold Value for important minerals. The Committee would finalise Threshold values for Iron Ore, Limestone, Manganese Ore, Bauxite, Chromite, Fluorite, Magnesite, Wollastonite, Graphite, Apatite and Rock Phosphate in near future.

In continuation of its series of workshops on “Threshold Value of Minerals” to gather stakeholders' view on the revision of values, the Indian Bureau of Mines organised the fourth and fifth workshops in Ahmedabad, Gujarat and Nagpur.

Ahmedabad

Shri Arunkumar Solanki, Managing Director, Gujarat Mineral Development Corporation (GMDC) was the chief guest, while Shri Ranjan Sahai, Controller

General, IBM presided over the workshop organised for the Northern States at GMDC Auditorium, Khanij Bhavan, Ahmedabad on 7 October, 2017. Shri S. K. Adhikari, Chief Mining Geologist, Dr P.K. Jain, Chief Mineral Economist and Shri K.S. Yadav, RCOM, IBM, Gandhinagar, Shri Parag Tadlimbekar, Sg.MG, IBM, Nagpur interacted with participants, GMDC officials during technical sessions. The deliberations covered Iron Ore, Manganese Ore, Limestone, Bauxite, Apatite, Rock Phosphate, Fluorite and Wollastonite minerals.

IBM HQ

IBM Headquarters, Nagpur hosted the fifth workshop for Maharashtra, MP and Chhattisgarh States on 30 Oct, 2017. Shri Ranjan Sahai, CG, IBM was the chief guest, while Shri S.N. Meshram, Additional Director General, GSI, Nagpur was the guest of honour. Shri K. Thomas, Deputy Director General (Statistics), MMS Division was invited as guest. Shri S.K. Adhikari, Chief Mining Geologist presided over the

In continuation of its series of workshops on “Threshold Value of Minerals” to gather stakeholders' view on the revision of values, the Indian Bureau of Mines organised the fourth and fifth workshops in Ahmedabad, Gujarat and Nagpur.

inaugural event and presented a technical paper on the occasion. About 17 papers on threshold value of minerals like Limestone, Iron Ore, Bauxite and Manganese Ore were presented during the workshop.

PROMOTING TRANSPARENCY

Vigilance Awareness Week observed

As per the guidelines of Central Vigilance Commission, the Indian Bureau of Mines observed the Vigilance Awareness Week 2017 in all its offices and laboratories during 30 Oct 2017 – 4 November, 2017 to promote transparency and probity in governance. It marked conducting of various programmes such as essay, debate, quiz, poster and speech competitions. Besides employees of the Bureau, students from schools and colleges were also involved in different competitions.

Headquarters

The IBM HQ in Nagpur hosted the main event. Shri Ranjan Sahai, Controller General administered the Integrity Pledge to the officers and employees of the Bureau in Hindi and English on the inaugural day of the Vigilance Awareness Week. The oath taking was followed by reading of messages of

Hon'ble President of India, Vice-President of India and Chief Vigilance Commissioner.

A special programme was jointly organised by IBM and Mineral Exploration Corporation Limited (MECL), Nagpur for the first time to mark the concluding day function at IBM HQ. Dr Gopal Dhawan, CMD, MECL was the chief guest. Shri Sahai presided over the function. In his address, CG, IBM stressed the need for systemic improvements and adoption of technology for bringing transparency. He also highlighted the recent developments in implementation of Mining Surveillance System and Mining Tenement System (MTS) for curbing illegal mining using advance technology and digital initiative.

On the occasion, Vigilance Bulletin of IBM and Chetna Pravah of MECL were released. Shri Manish Bhimte, CVO, senior officers of IBM and MECL were present. Shri M.U. Siddiqui, DME conducted the event. Shri D.K. Swami, SAO, IBM gave vote of thanks.

Chennai

The Chennai Regional office also observed the Vigilance Awareness week during the period and conducted various competitions such as Slogan and Essay writing, Debate Competition etc. The prizes were distributed to the winners on the Valedictory day. Shri Jayakrishna Babu, RCOM, IBM Chennai, Shri S.S. Kujur, DCOM and Smt V. Gowri, Assistant Administrative Officer were present.

Goa

The Goa office also conducted various programmes and competitions on the central theme, "My Vision – Corruption free India" for the employees and school/college students. Dr Y.G. Kale, RCOM lighted the lamp and administered the Integrity Pledge in bilingual to inaugurate the Awareness Week. Poster & Slogan, Essay, Elocution contests were organised.



(Clockwise) Shri Ranjan Sahai, CG, IBM administering the oath to inaugurate the Vigilance Awareness Week at IBM HQ in Nagpur. Capt. S.S. Chaudhary, HOO, Shri K.Thomas, DDG (S), Smt. Indira Ravindran, Director, MP Division are seen. Shri Ranjan Sahai speaking at the concluding day programme of the Vigilance Awareness Week organised at the IBM HQ. Shri Manish Bhimte, Chief Vigilance Officer, Dr Gopal Dhawan, CMD, MECL are seen. Dr Y.G. Kale inaugurating Vigilance Awareness Week organised at IBM Goa office. The officers and staff of the IBM Gandhinagar Regional office taking oath to mark the Vigilance Awareness Week

CMG nominated member of TCC

For a better coordination of the National Mineral Exploration Trust (NMET) activities, the Technical Committee under the Trust has been reconstituted as Technical-cum-Cost Committee (TCC) with expanded scope of work including scrutiny and finalisation of cost estimate of project proposals. Shri S.K. Adhikari, Chief Mining Geologist, IBM has been nominated as the member of TCC.

The TCC has been requested to immediately resume the work of project evaluation. A formal OM in this regard will be issued soon. The Ministry of Mines has desired that IBM should give status as provided in the Rule 7(8) of NMET Rules 2015 for keeping the updated records of money transferred to bank account of the trust along with database of royalty payment. The implementation of MTS would digitise such records and such reports will be automatically generated. However, till the implementation of MTS, the updated record has to be worked manually and updated status provided to NMET Secretariat.

SDF Star Rating

The SDF Star Rating of Mines, a programme to rate the mines is receiving good response. Till December, 2017, 1025 mines have filled the online templates of Star Rating on the web portal. Out of the total, 443 mines are self assessed for 4 & 5 star rating, while IBM has validated 325 mines.

IBM-NRSC project

As part of the IBM-NRSC Remote Sensing Project, the tendering process for the procurement of hardware for the Remote Sensing Laboratories coming up at IBM's Nagpur and Hyderabad office has been initiated. The process of procurement of ArGIS and ERDAS Imagine with bundle of Photogrammetry software will be done through GeM portal.

Rule 45 Registration

The registration under Rule 45 of MCDR 1988 (including 31 minor minerals) has seen progress. Till end of the last quarter of 2017, a total of 11,582 registrations were completed. It includes 3389 end users, 5605 traders, 1687 stockiest and 901 exporters.

RASHTRIYA EKTA DIWAS



IBM celebrated Rashtriya Ekta Diwas (National Unity Day) to commemorate the birth anniversary of Sardar Vallabhbhai Patel at the Headquarters in Nagpur on 31st October, 2017. Shri Ranjan Sahai (inset), CG, IBM administered the Rashtriya Ekta Diwas pledge to the officers and staff in Hindi and English. All regional and zonal offices also observed the Ekta Diwas.

FOR BETTER TOMORROW

WAPCOS joins IBM in studying sand mining model

In continuation with the study of existing model of sand mining in States and as per the Ministry directive, a team from Indian Bureau of Mines (IBM) and WAPCOS (consultant for M/o Mines and a Govt. of India Undertaking under Ministry of Water Resources, River Development and Ganga Rejuvenation) would visit identified states. This would enable the committee to study the existing system of sand mining in the states and prepare a draft framework for sand mining policy as a model for replication by states.

Accordingly, Shri Abhay Agrawal, RCOM & TS, IBM and representative of WAPCOS initiated visits to Maharashtra, Chhattisgarh, Andhra Pradesh, Madhya Pradesh, Telangana, Karnataka & Tamil Nadu. While Shri Pushendra Gaur & a representative of WAPCOS would visit Uttarakhand, Punjab,

Haryana, Rajasthan, Uttar Pradesh, Assam and Gujarat. A detailed report of the study would be submitted to the Ministry of Mines.

Study of Mineral Administration

As detailed study of Mineral Administration System of 12 mineral-rich states for major and minor minerals is underway. IBM has so far completed and finalised study of six states i.e. Rajasthan, Maharashtra, Tamil Nadu, Jharkhand, Madhya Pradesh and Gujarat.

The nodal officers identified for other mineral-rich states from respective regional offices of IBM, for collection of requisite information and study of prevailing system have also completed their study. The report is being finalised by the committee.

CLEANLINESS DRIVE

Swachhta Pakhwada observed in areas adjoining mines

The Indian Bureau of Mines (IBM) organised Swachhta Pakhwada in the mining areas and adjoining villages from 16 December 2017 to 31 December, 2017. The Pakhwada was observed following an appeal by Hon'ble Minister of Rural Development and Panchayati Raj and Mines, Shri Narendra Singh Tomar and Secretary (Mines) Shri Arun Kumar for the observance of Swachhta Pakhwada in areas or villages adjoining mines.

Accordingly, IBM in partnership with the state governments successfully conducted the Swachhta Pakhwada which aimed at comprehensive effort towards making mining and surrounding areas cleaner and healthier. The programme included launching of pilot schemes of zero waste mining, dissemination of Swachhta message through banners, posters etc, Swachhta ranking of mines, providing hygiene kits for mine workers and massive tree plantation and Shramdan. The surrounding villages were sensitised on benefits of Open Defecation Free environment and importance of toilets in houses.

Goa

In Goa, all 44 mines took active part in the Pakhwada. Bicholim Iron Ore mines of Sesa Resources Ltd hosted the inaugural programme on 16 December, 2017. Shri Prasanna Acharya, Director, DMG, Goa, Dr

Y.G. Kale, RCOM, IBM, Goa, Shri Suresh Prasad, DCOM & Nodal Officer for the Pakhwada, Shri Satish Gaokar, Chairperson of Bicholim Municipal Council, Shri Glenn Kalvampara, Secretary General, Goa Mineral Ore Exporters Association, Shri Parag Ragenkar, Programme Coordinator, Mineral Foundation of Goa, Shri Vijay Kumar, Head, Iron Ore Division of Vedanta Ltd and senior officers of IBM and Sesa Resources Ltd and representatives of other mining companies were present.

During the two-week programme, ten wheeled dust bins sponsored by Vedanta Ltd were handed to the Bicholim Municipal Council (BMC). The Mineral Foundation of Goa, a non-profit body created and funded by the mining leaseholders of Goa undertook the work of construction of toilets for the villagers in and around mining towns. In a symbolic gesture, one toilet was dedicated to the villagers of Mayem in Bicholim taluk.

In addition, the Goa Regional office conducted two workshops, one in Velgum-Surla Mines in North Goa district and second at Codli Mines of Vedanta Ltd in South Goa district. During these workshops, environment-friendly technologies for waste disposal were displayed and Road Sweeping Machine was handed to the Codli Mines to clean dusty public roads (generated on account of iron ore transportation) in South Goa.

The programme included launching of pilot schemes of zero waste mining, dissemination of Swachhta message through banners, posters etc.

Nagpur

The Nagpur Regional office of IBM in association with the Directorate of Geology and Mining, Government of Maharashtra organised a day-long workshop as part of the Swachhta Pakhwada on the premises of the Directorate in Nagpur on 20 December, 2017. Shri Arun Prasad, RCOM, Nagpur Regional office, IBM was the chief guest, while, Shri R.S. Kalamkar, Director, DGM, Maharashtra presided over the programme.

In his address, Shri R.S. Kalamkar explained the objective of the workshop. The workshop aims to create awareness among the representatives of mining industry about cleanliness in mines and their surroundings and caring for miner's health. Shri Arun Prasad, addressing the participants stressed on the role of mining industry in maintaining cleanliness in and around the mine area and briefed the steps to be taken. On the occasion, the dignitaries planted a sapling to mark the inauguration of workshop.



The officials of Indian Bureau of Mines and Vedanta Ltd presenting dustbins to the officials of Bicholim Municipal Corporation (BMC) outside the BMC office in Goa. Dr Y.G. Kale, RCOM, IBM and others are seen. (right) The participants at the Workshop organised as part of the Swachhta Pakhwada at the DGM office in Nagpur.

Bench scale beneficiation of low grade PGM

A Platinum group minerals sample (G2-stage) from T2 sector, Tasampalayam block in Sittampundi Anorthite complex in Tamil Nadu for GSI, Chennai was received at the Modern Mineral Processing Laboratory and Pilot Plant, Indian Bureau of Mines, Nagpur for conducting bench scale beneficiation studies. The objective of the study was to assess the possibility of enriching platinum group mineral present in the sample and to evolve a suitable process flow sheet for recovery of PGM concentrate and chromite.

The composite original sample assayed 18.01% Al₂O₃, 22.10% SiO₂, 20.98% Fe₂O₃, 3.89% CaO, 11.10% MgO, 22.02 Cr₂O₃, 1.124% Na₂O, 0.032% K₂O, 0.323% TiO₂, 0.144% V₂O₅, 0.102% MnO₂, 0.021% Co₃O₄, 0.132% NiO, 0.031% SO₃, 0.005% P₂O₅, and 0.45% LOI. The sample assayed 195 ppb Ru, 91 ppb Rh, 1020 ppb Pd, 99 ppb Ir, and 1142 ppb Pt.

Mineralogical studies reveal that the sample mainly consists of 45-50% amphibole (both lino & ortho varieties), 30-35% chromite, 10-15% mica (biotite), 1-2% Ilmenite, 2-3% pyroxene, ~2% chlorite, ~2% rutile, <1% quartz and platinum group minerals, feldspar, pyrite, magnetite and chalcopyrite in traces. Ore microscopic studies of the PGE bearing pyroxenite in



The objective of the study was to assess the possibility of enriching platinum group mineral present in the sample and evolve a suitable process flow sheet

Sittampundi layered mafic ultramafic complex of Tamil Nadu indicated that the following assemblage in Karungalpatti-Chettiyampalayam- Tasampalayam blocks in Sittampundi complex:

Oxide phases: Chrome-Spinel, Magnesio-Chromite and ilmenite with subordinate

magnetite, rutile and titanite.

Sulphide phases: Braggite (Pt, Pd, Ni)S, Laurite (RuS), Millerite (NiS), Pentlandite (NiFeCo)S, Prousite (Ag₃AsS₃), Vallerite (CuFeNi)S and cobaltiferous pyrite.

Arsenide phases: Sperrylite (PtAs₂) grains as inclusions in chrome-spinel.

Antimony phase: Stibiopalladinite (PdCu)5Sb₂ as inclusions in chrome-spinel.

Native metals: Rare speck of gold in pyroxenite.

Rougher Sulphide Flotation of the -325# non-magnetic concentrate yielded a sulphide float concentrate assaying 733 ppb Ru, with 37.3% Ru recovery, 315 ppb Rh with 35% Rh recovery, 5826 ppb Pd with 47.6% Pd recovery, 327 ppb Ir with 37.4% Ir recovery, 4514 ppb Pt with 37.9% Pt recovery. Mozley concentration of rougher sulphide float yielded a heaviest concentrate assaying 839 ppb Ru, with 34% Ru recovery, 350 ppb Rh with 30.9% Rh recovery, 6601 ppb Pd with 42.9% Pd recovery, 369 ppb Ir with 33.6% Ir recovery, 5230 ppb Pt with 34.9% Pt recovery. (Wt% yield: 6.6%).

The present preliminary studies indicate that the sample is amenable to beneficiation to produce a platinum group minerals.

Beneficiation study on Base Metal Mineralisation

A base metal mineralisation sample from Biskhan Block, Betul belt, Betul district, M.P. (G-2 Stage investigation) was received from Geological Survey of India, M.P. at the Modern Mineral Processing Laboratory and Pilot Plant, Indian Bureau of Mines, Nagpur. The objective of this investigation was to study the amenability of the sample to beneficiation and produce a concentrate suitable for end industrial use.

The as received sample assayed 52 ppm Cu, 1.12% Zn, 64.02% SiO₂, 10.57% Al₂O₃, 4.72% Fe(T), 1.70% CaO, 0.79% MgO, 2.92% S. Mineralogical studies on the show that the sample consist major amounts of quartz and mica (muscovite, biotite) with minor amounts of feldspar (microcline, plagioclase) and garnet. Amphibole, chlorite, pyroxene

and tourmaline are the other transparent minerals noticed in very minor amount. Sphalerite, pyrite, pyrrhotite, galena, goethite/limonite chalcopyrite, arsenopyrite, ilmenite and magnetite are the opaque minerals noticed in very minor to traces.

The beneficiation route adopted comprised of, grinding the as received sample to all minus 210 microns (70 mesh), rougher flotation of the ground material, followed by three cleanings of the rougher float to yield a zinc concentrate assaying 57.08% Zn, 2.99% SiO₂, 0.34% Cu, 10.90% Fe(T), 32.71% S with 90.7% Zinc recovery (Weight% yield being 1.72). This zinc concentrate may find use for metallurgical applications.

Beneficiation study on Mn sample of MOIL

A manganese ore sample from Balaghat Mines of MOIL, was received at Modern Mineral Processing Laboratory & Pilot Plant, Indian Bureau of Mines, Nagpur for carrying out bench scale beneficiation studies on the as received sample using Humphreys spiral concentrator with an objective for recovery of sand and manganese ore fines separately.

The as received sample was in the form of sand and fines with carrying a few coarser size lumps and assayed 22.19% Mn, 49.32% SiO₂, 4.93% Fe, 4.46% Al₂O₃, 0.16% TiO₂, 0.86% CaO, 0.31% MgO and, 1.52% BaO.

Braunite is the main manganese mineral in the sample with subordinate amount of

contd.

concl'd.

pyrolusite. Hollandite, hausmanite, psilomelane, cryptomelane, jacobsonite and rhodonite are the other manganese minerals noticed in minor to very minor amounts. Quartz is the main transparent gangue mineral with subordinate amounts of feldspar (orthoclase, plagioclase and microcline). Minor to very minor amounts of pyroxene (diopside), mica (muscovite, biotite), amphibole (hornblende, tremolite), garnet and goethite were also observed. And traces of chlorite, epidote, and tourmaline and pyrite are also noticed.

The final composite concentrates produced by Desliming followed by gravity separation using Humphreys spiral concentrator followed by MGS on slimes could yield.

(i) A composite Mn concentrate (Spiral Conc + MGS Conc) assaying 40.82% Mn and 16.39% SiO₂ with a Mn and SiO₂ distribution of 49.6% and 9.2 % respectively (wt. % yield 27.6).

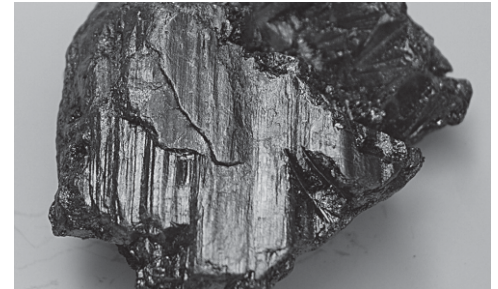
(ii) A composite sand conc (Spiral Midd+ Spiral Tails) assaying 15.46% Mn and 63.0% SiO₂ with a Mn and SiO₂ distribution of 46.1% and 84.5% respectively (wt% yield 66.7).



Beneficiation of low grade Graphite sample for Madagascar

A Graphite sample was received from Republic of Madagascar, Africa through Intermin, Chennai at RMPL, IBM, Bengaluru to carry out bench scale beneficiation studies. The objective of the investigation was to up-grade the sample to obtain a high grade concentrate (assaying over 95% fixed carbon) with maximum possible recovery. The as received sample assayed 8.07% F.C., 12.45% Volatile matter + Moisture, 79.48% ash, 33.47% SiO₂, 0.30% CaO, 0.10% MgO, 17.73% Fe₂O₃, 24.57% Al₂O₃, 1.41% TiO₂, 0.05% Na₂O, 0.05% K₂O, and 0.24% S(Py).

Mineralogical analysis of the as received sample consists of 20-25% of quartz, 15-20% of goethite, 8-13% of graphite, 10-15% of mica, ~10% of gibbsite, ~10% of clay, 5-7% of feldspar, 3-5% of amphibole, 1-2% of tourmaline, 1-2% of hematite and less than 1% of pyrite. The beneficiation process adopted was stage grinding of as received sample to all passing -10 mesh size (d80 400 μm size). Rod mill grinding of -10 mesh size sample to (d80 295 μm size), followed by rougher flotation. The rougher float thus obtained was subjected to screening over 100 mesh size. The +100 mesh size fraction (d80 450 μm size), was subjected to rod mill grinding to (d80 292 μm size) followed by three stage cleaner flotation, the third cleaner concentrate thus obtained was screened over 72 and 150 mesh size to obtain +72 mesh size Concentrate I assaying 95.0% F.C. with 35.7% F.C. recovery (Wt.% yield: 3.5), +150 mesh size



Concentrate IIa assaying 88.37% F.C. with 10.5% F.C. recovery (Wt.% yield: 1.1). The -150 mesh size fraction yielded Concentrate-IIIa assaying 73.59% F.C. with 4.1% F.C. recovery (Wt.% yield: 0.6). The -100 mesh fraction was subjected to two stage cleaner flotation, the 2nd cleaner float (d80 115 μm size), was reground in ball mill (d80 110 μm size), was again subjected to cleaner flotation, the cleaner float (d80 122 μm size) was reground in ball mill to (d80 90 μm size), and again subjected to two stage cleaner flotation, and the float thus obtained was screened over 150 mesh size to yield +150 mesh size Concentrate-IIb assaying 85.11% F.C. with 8.0% F.C. recovery (Wt.% yield: 0.9). Thus the Concentrate-II obtained by combining IIa and IIb assayed 86.94% F.C. with 18.5% F.C. recovery (Wt.% yield: 2.0). The -150 mesh size fraction Concentrate-IIIb assayed 74.94% F.C. with 23% F.C. recovery (Wt.% yield: 2.9). Thus, the Concentrate-III obtained by combining IIIa and IIIb assayed 74.73% F.C. with 27.1% F.C. recovery (Wt.% yield: 3.5). The combined tails reject assayed 0.63% F.C. with 5.8% F.C. distribution (Wt.% yield: 87.1).

Beneficiation of Copper Ore sample at MMPL

A Copper ore sample from South of Gangutana, Mahendragarh District, Haryana received from GSI as a part of G-2 exploration at RMPL, IBM, Ajmer. The objective of the investigation was to evolve a process flow sheet for producing a copper concentrate assaying more than 18% Cu with maximum possible recovery.

The as received sample assayed 0.34%

Cu; 41.38% SiO₂, 11.31% Al₂O₃, 0.19% S (T), 5.51% Fe (T), 16.87% CaO; 4.30% MgO; 0.46% Na₂O, 3.17% K₂O; 0.06% TiO₂, 13.45% LOI with 49.09% Acid Insoluble. Chalcopyrite, Bornite and Covellite and Chalcocite are the copper bearing minerals present in traces in the sample. Carbonate (Dolomite and calcite) and mica (Muscovite and Biotite) are major gangue minerals.

By employing froth flotation technique the sample assaying 0.34% Cu has been successfully upgraded to 19.39% Cu with recovery of 84.2% (Wt % yield 1.5) which is suitable for use in copper smelter. Efforts also made for collecting calcite Conc. 43.59% CaO with recovery of 70.9% (wt % yield 27.6) as a by-product.

Takaniki Patrika – Vishay Suchi, IBM Library’s new initiative

Library also provides newspaper clipping service, “Khanij Samachar” to keep officials updated on news regarding mines and mineral sector.

Following successful introduction of “Khanij Samachar”, an online newspaper clipping service for news related to mines and mineral sector, the Central Library, IBM, Nagpur has embarked on another innovative idea for creating awareness on various Journals.

The current awareness service is being rendered in IBM Library as half-yearly information in print form. Beginning August, 2017, the service is made available online as a monthly service, titled, “Takaniki Patrika – Vishay Suchi”. The scanned copies of important journal's content pages are scanned and uploaded on IBM's website under Services>Central Library and also sent through email to divisional and regional heads. The service aims to keep the officials in loop of the information in the journals. The library also provides a newspaper clipping service called “Khanij Samachar” to keep IBM officials updated on news reports regarding mines and mineral sector.

PERSONNEL NEWS

Appointments

Shri Shailendra Kumar as Regional Controller of Mines w.e.f.16.10.2017

Promotions

Shri S. Tiu as Chief Controller of Mines w.e.f. 16.11.2017

Shri PN. Sharma as Controller of Mines w.e.f. 29.11.2017

Shri Pankaj Kulshrestha as Controller of Mines w.e.f. 1.12.2017

TRAINING



Shri Anupam Nandi, RCOM, IBM, Ranchi delivering a lecture on MCDR, 1988 and Mining Plan to the newly recruited District Mining Officers during the training session conducted at Shri Krishna Institute of Public Administration, Ranchi on 19 Dec, 2017. The training was organised by Department of Industries, Mines and Geology, Jharkhand.

MMPL holds training for GSI recruits

A team of 12 Geologists and Sr. Geologists from Geological Survey of India Training Institute visited the Modern Mineral Processing Laboratory (MMPL) and Pilot Plant on 12 October, 2017 for hands on training as part of their refresher course on tin and tungsten minerals.

Dr (Smt) Sandhya Lal, Chief Ore Dressing Officer addressed the trainees and delivered a talk about activities/work carried out at MMPL and Pilot Plant. The trainees were shown the chemical, mineralogical and ore dressing laboratories and appraised about

the various beneficiation techniques and the application/utilisation of various instrumental techniques in chemical and mineral characterisation. The trainee geologists appreciated the work being carried out at the MMPL and opined that they were highly benefited.

Meanwhile, the Training Centre of IBM completed 12 training programmes for the industry and the department during the year ended 2017. A total of 362 personnel from IBM (318), Industry (42) and DGMs (02) were imparted training during the year.

Shri M.U. Siddiqui as Mineral Economist w.e.f. 8.12.2017

Shri S.K. Shami as Mineral Economist w.e.f. 8.12.2017

Shri J.G. Padole as Deputy Mineral Economist w.e.f. 8.12.2017

Shri Anirban Paul as Deputy Mineral Economist w.e.f. 9.12.2017

Shri P. Ashwani Kumar as Assistant Mining Engineer w.e.f. 1.11.2017

Shri Ashish Mishra as Sr. ACOM w.e.f. 27.12.2017

Transfers

Shri P. Nagarajan, Administrative Officer from New Delhi to RMPL, Ajmer

Retirements

Shri S.M. Narnaware as Assistant Mining Engineer w.e.f. 31.10.2017

Shri Ivan Khess as Controller of Mines w.e.f. 30.11.2017

Shri S.R. Chourasia as Private Secretary w.e.f. 30.11.2017

Publications on exploration, statistical analysis & many more

Even as the work on National Mineral Inventory for all minerals started on a war-footing, the IBM started preparing for a handbook on the science of mineral exploration. A book titled, "Elements of Mineral Exploration" was pursued for release in order to familiarise all persons engaged in mineral exploration. The IBM had gained valuable experience in the field of mineral exploration which was the major activity of the department up to mid-sixties. The publication covered the essence of this experience and was the only multi-disciplinary publication of its kind suited to Indian conditions.

Also, adding a new dimension to organisation of databank, Bureau undertook statistical analysis of information on mining leases. The beginning was made during Oct-Dec, 1980 with the State of Andhra Pradesh

and a publication named, "Mining Lease Statistics: Andhra Pradesh 1980" was published in Dec 1980. It provided district-wise and mineral-wise position of the leases in force and active leases. The publication was designed to meet the needs of planners and policy makers giving the leases by frequency groups, expiry of leases by minerals, mineral-wise data on un-worked mining leases and net additions of mining leases. Bentonite: A Market Survey was also released during the period. IBM helped identification of 450 tonnes of additional asbestos reserves valued at Rs 30 lakh and 5000 tonnes of barytes valued at Rs 15 lakhs in Andhra Pradesh. An IBM investigation also led to recovery of scheelite and additional gold from Arseno-pyrite which was separated from scheelite through floatation at Hutti Gold Mines Limited.

Russian Translation

Another major work was the translation of the Proceedings of the International Symposium on Problems of Engineering Geology in Hydraulic Installations held in Moscow during 12-19 September, 1979 from Russian language to English language. The Proceedings in Russian language was presented to the Director-General, GSI at the symposium. The exercise was completed under the guidance and supervision of Shri P.M. Rao, Senior Editor. It contained 34 papers fundamental to engineering geological problems, study of case histories, seismotectonics, methodology of engineering geological investigations and environmental problems. The translated work was presented to the DG, GSI, who termed it a valued publication to all officers of GSI.

SUPERANNUATION



As per the tradition, Controller General Shri Ranjan Sahai and Shri K. Thomas, Deputy Director General (Statistics) accompanied by respective Divisional heads felicitated the officers and employees who superannuated during the quarter ended Dec 2017. Shri Ivan Khess, Controller of Mines, Shri S.R. Chaurasia, PA to CG, Shri P.V. Thomas, PA to HOO, Shri S.M. Narnaware, Asstt. Mining Engineer, Shri K.N. Meshram, Superintendent, MTS Cell, Shri Pulsapure, Office Superintendent and Shri G.N. Mankar, MTS, GM Cell were given a warm send off with Shawl, Sripthal and a plaque.



Shri Ranjan Sahai, CG, IBM garlanding the portrait of Dr Babasaheb Ambedkar on the occasion of Dr Ambedkar's 61st Death Anniversary at IBM HQ in Nagpur. (right) Dr P.K. Jain, Chief Mineral Economist, IBM, Shri S.K. Adhikari, Chief Mining Geologist, Shri P.N. Sharma, Controller of Mines and others paid rich tributes.

Dr Babasaheb Ambedkar remembered

The Indian Bureau of Mines (IBM) under the aegis of Dr Babasaheb Ambedkar Smruti Samiti observed the 61st Death Anniversary of Dr Babasaheb Ambedkar at the Headquarters in Nagpur on 6 December, 2017. Shri Ranjan Sahai, Controller General, IBM presided.

In his address, Shri Sahai said Dr Ambedkar was a visionary who foresaw the issues that could confront the nation and incorporated necessary safeguards through various provisions in the Constitution of India. His contribution in framing of the Constitution is

extraordinary and reflects his vision and intellect. Dr Ambedkar stressed on the importance of education for holistic development of the society, the CG said and added that education is the foundation on which a strong and healthy India could be built.

S/Shri P.N. Sharma, Controller of Mines, S.K. Adhikari, Chief Mining Geologist, Dr P.K. Jain, Chief Mineral Economist, Shri D.W. Beck, President of Samiti & Sg. ME, Shri M.M. Soman, Mineral Economist and Nilesh Nasre, Secretary General, IBMEA spoke on the occasion. Shri A.A. Gawai, STA (Pub) conducted the programme.



Shri Ranjan Sahai (left), CG, IBM along with officials of IBM taking an oath at the IBM Sports conducted by the IBM Recreation Club at the Police grounds in Nagpur.

IBM SPORTS

Officials slog it out on Grounds

As part of the Annual Sports meet of Indian Bureau of Mines, athletes and various sports enthusiasts of the Bureau gathered at the Police Grounds in Nagpur to participate in the sports event hosted by the Department on 30 November, 2017.

Shri Ranjan Sahai, Controller General, IBM flagged off the sports meet. In his address, the CG stressed on the

importance of organising such events and extended best wishes to the officers and employees taking part in different events. The officials took a pledge on the occasion. The Recreation Club of IBM coordinated for the smooth conduct of the sports meet. Dr P.K. Jain, CME, ME Division and other senior officers of IBM, Shri Anil Khapre, General Secretary of the Club were present.

FOREIGN DEPUTATION

CCOM In-charge attends FEM-2017

Shri Singa Tiu, Chief Controller of Mines In-charge, IBM visited Finland to attend the 11th Fennoscandian Exploration and Mining (FEM) -2017, a global seminar held once in 2 years at Levi, Lapland (within Arctic Circle). The First word in the name of the summit represents the Geological aspect of some part of arctic zone extending over to Lapland (Northern Finland), Sweden, Norway & Russia just like Indian Geological traps/formation. The area is known to boasts potential precious and rare earth minerals.

Shri Tiu attended a technical discussion with the Director General, Geological Survey of Finland (GTK) at Levi on the sidelines of the summit on 1 November, 2017. Shri Nitnavare, Deputy Director General of GSI, Gandhinagar, Gujarat was part of the Indian delegation.

Enroute to attend the summit, Shri Tiu also visited GTK Rock Museum and Laboratory at Helsinki, the capital of Finland on 30 Oct, 2017. The oldest rock (Gneiss) formation reported in Finland is 3500 million years old.

Meanwhile, Shri Pushpendra Gaur, Deputy Controller of Mines visited Geneva to attend the Inter Governmental Forum on Mining Minerals, Metals & Sustainable Development AGM held between 16 October 2017 and 20 October 2017 at Geneva.



Shri S.Tiu (right), Chief Controller of Mines In-charge with Shri Nitnavare, DDG, GSI, Gandhinagar and an official of the Geological Survey of Finland during the 11th Fennoscandian Exploration and Mining (FEM) -2017 held at Levi, Lapland.



1. भारतीय खान ब्यूरो मुख्यालय में आयोजित सतर्कता सप्ताह के अवसर पर सत्यनिष्ठा की शपथ ग्रहण करते अधिकारी/कर्मचारी. 2. रायपुर क्षेत्रीय कार्यालय में सतर्कता जागरूकता की शपथ ग्रहण करते हुए अधिकारी एवं कर्मचारी. 3. रांची क्षेत्रीय कार्यालय में सतर्कता जागरूकता सप्ताह के अवसर पर सतर्कता जागरूकता की शपथ लेते अधिकारी/कर्मचारी. 4. क्षेत्रीय कार्यालय गांधीनगर में सतर्कता जागरूकता सप्ताह के अवसर पर आयोजित पत्र वाचन प्रतियोगिता के विजेता को पुरस्कृत करते अधिकारी. मंच पर उपस्थित क्षेत्रीय खान नियंत्रक श्री के.एस.यादव व अन्य

सतर्कता जागरूकता का सफल आयोजन

भारतीय खान ब्यूरो मुख्यालय सहित अन्य क्षेत्रीय एवं उप-क्षेत्रीय कार्यालयों में सतर्कता जागरूकता सप्ताह उत्साहपूर्वक मनाया गया. जिसके तहत विभिन्न प्रतियोगिताओं का आयोजन किया गया. कार्यालय के कर्मचारियों/अधिकारियों के अलावा स्कूली बच्चे भी इन प्रतियोगिताओं का हिस्सा बने.

भारतीय खान ब्यूरो, मुख्यालय: सतर्कता जागरूकता सप्ताह के अवसर पर मुख्यालय में विभिन्न कार्यक्रमों का आयोजन किया गया. सतर्कता सप्ताह के आरंभ में महानियंत्रक श्री रंजन सहाय द्वारा उपस्थित अधिकारियों एवं कर्मचारियों को सत्यनिष्ठा की शपथ दिलाई गई. सतर्कता सप्ताह का समापन समारोह एमईसीएल तथा भारतीय खान ब्यूरो के संयुक्त तत्वावधान में आयोजित किया गया था जिसमें भारतीय खान ब्यूरो की ओर से 'विजिलेंस बुलेटिन' तथा एमईसीएल द्वारा 'चेतना प्रवाह' का विमोचन किया गया. कार्यक्रम में दोनों कार्यालय के कर्मचारियों ने बढ़चढ़कर हिस्सा लिया.

देहरादून क्षेत्रीय कार्यालय: प्रतिवर्षानुसार इस वर्ष भी देहरादून क्षेत्रीय कार्यालय में 30 अक्टूबर 2017 से 03 नवंबर 2017 के दौरान सतर्कता जागरूकता सप्ताह मनाया गया.

जागरूकता सप्ताह का उद्घाटन करते हुए सहायक खनन भूवैज्ञानिक श्री शैलेन्द्र सकलानी ने अपने उद्बोधन में कहा कि हमें अपने कर्तव्यों का निर्वहन निष्ठा एवं बिना भय तथा पक्षपात के करना चाहिए. पश्चात श्री सकलानी ने सभी कर्मचारियों/अधिकारियों से शपथ ग्रहण कराई.

सप्ताह के दौरान पोस्टर ड्राइंग, निबंध, भाषण एवं स्लोगन प्रतियोगिता का आयोजन किया गया. जिसमें सभी ने उत्साहपूर्वक भाग लिया. समापन समारोह में श्री सकलानी ने प्रतियोगिता में भाग लेने वाले सभी का अभिनंदन किया तथा प्रतियोगिता के विजेताओं को पुरस्कृत किया.

सतर्कता जागरूकता सप्ताह का समापन अधीक्षक श्री अनिल चंदेल के धन्यवाद ज्ञापन से हुआ.

रांची क्षेत्रीय कार्यालय : रांची क्षेत्रीय कार्यालय में 30 अक्टूबर 2017 से 4 नवंबर 2017 के दौरान सतर्कता जागरूकता सप्ताह मनाया गया. 30 अक्टूबर 2017 को क्षेत्रीय खान नियंत्रक श्री अनुपम नंदी द्वारा सभी अधिकारियों/कर्मचारियों को सतर्कता जागरूकता की शपथ दिलाई गई.

अध्यक्षीय संबोधन में क्षेत्रीय खान नियंत्रक श्री अनुपम नंदी ने सर्वप्रथम महामहिम राष्ट्रपति, उपराष्ट्रपति तथा केंद्रीय सतर्कता आयुक्त द्वारा दिया गया संदेश पढ़कर सुनाया. उन्होंने आगे कहा कि सरकारी कर्मचारियों को किसी भी भ्रष्टाचार को बढ़ावा नहीं देना चाहिए तथा निष्ठा एवं ईमानदारी से काम करना चाहिए. सप्ताह के दौरान राष्ट्रीय एकता दिवस पर शपथ एवं निबंध प्रतियोगिता, वाद-विवाद प्रतियोगिता, जागरूकता सप्ताह पर क्षेत्रीय खान नियंत्रक द्वारा विचार गोष्ठी आदि का आयोजन किया गया.

समापन समारोह का आयोजन 5 नवंबर को किया गया. इस अवसर पर वरिष्ठ सहायक खान नियंत्रक श्री बी.पी. केरकेट्टा ने यह सप्ताह मनाने के पीछे सरकार की मंशा पर चर्चा की तथा सामान्य जीवन में शिष्टाचार व कर्तव्यों का पालन करने पर बल दिया. इस अवसर पर अन्य कार्मिकों ने भी विचार व्यक्त किए. कार्यक्रम में सप्ताह के दौरान आयोजित प्रतियोगिताओं के विजेताओं को पुरस्कृत किया गया.

कार्यक्रम का संचालन श्री रंजीत कुमार साहू तथा धन्यवाद ज्ञापन सहायक खनन भूवैज्ञानिक श्री सागर बोदरा ने किया.

अजमेर दौरा



भारतीय खान ब्यूरो के महानियंत्रक श्री रंजन सहाय ने अजमेर के क्षेत्रीय कार्यालय में समीक्षा बैठक ली तथा आस-पास स्थित खदानों का दौरा किया एवं वहां वृक्षारोपण किया. इस दौरान उन्होंने खनिज प्रसंस्करण प्रभाग का भी निरीक्षण किया.

विभागीय राजभाषा कार्यान्वयन समिति की बैठक संपन्न

विभागीय राजभाषा कार्यान्वयन समिति की 104वीं बैठक महानियंत्रक श्री रंजन सहाय की अध्यक्षता में 20 दिसंबर 2017 को संपन्न हुई. बैठक में पिछली बैठक के कार्यवृत्त पर की गई अनुवर्ती कार्रवाई की पुष्टि की गई. पश्चात जुलाई – सितंबर 2017 की तिमाही रिपोर्ट की समीक्षा, सभी प्रभाग/अनुभाग को कार्यालय सहायिका उपलब्ध कराया जाना, हिंदी पारंगत एवं हिंदी टंकण प्रशिक्षण कक्षा का आयोजन, धारा 3(3) का उल्लंघन, रिक्त हिंदी पदों को भरा जाना, अखिल भारतीय राजभाषा तकनीकी सेमिनार का आयोजन, राजभाषा नियम 10(4) के तहत अधीनस्थ

बैठक में पिछली बैठक के कार्यवृत्त पर की गई अनुवर्ती कार्रवाई की पुष्टि की गई. पश्चात जुलाई – सितंबर 2017 की तिमाही रिपोर्ट की समीक्षा की गई.

कार्यालयों को अधिसूचित करना एवं हिंदी कवि गोष्ठी का आयोजन किया जाना आदि विषयों पर विस्तृत चर्चा की गई. आखिर में राजभाषा अधिकारी डॉ.पी.के.जैन के धन्यवाद ज्ञापन के पश्चात बैठक का समापन हुआ.



भारतीय खान ब्यूरो मुख्यालय में आयोजित विभागीय राजभाषा कार्यान्वयन समिति की बैठक की अध्यक्षता करते हुए महानियंत्रक श्री रंजन सहाय, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी डॉ. पी.के. जैन तथा अन्य अधिकारी.

उदयपुर में मनाया गया 'स्वच्छता माह'

मुख्यालय से प्राप्त निर्देशानुसार भारतीय खान ब्यूरो के उदयपुर क्षेत्रीय कार्यालय में अक्टूबर 2017 को स्वच्छता माह का आयोजन किया गया.

खान नियंत्रक श्री टी.के.रथ के दिशा-निर्देश में मरम्मत कार्य, कर्मचारियों व जनसामान्य में जागरूकता फैलाने का कार्य किया गया. जिसके तहत स्वच्छता कार्यशाला का आयोजन किया गया. जिसमें सभी अधिकारियों/कर्मचारियों ने भाग लिया. अपने उद्बोधन में श्री रथ ने सफाई का महत्व बताया.

इस दौरान सभी अधिकारियों/कर्मचारियों ने कार्यालय परिसर की साफ-सफाई की. कार्यालय में 'स्वच्छता माह' के अवसर पर 'जीवन में स्वच्छता का महत्व' विषय पर निबंध प्रतियोगिता का आयोजन किया गया. जिसमें कुल 15 अधिकारियों/कर्मचारियों ने भाग लिया.

स्वच्छता का संदेश जन-सामान्य तक पहुंचाने के लिए विभागीय कालोनी की सफाई की गई. जिसमें सभी ने श्रमदान दिया तथा बच्चों ने भी उत्साहपूर्वक भाग लिया. माह के आखिर में श्री टी.के.रथ द्वारा निबंध प्रतियोगिता के विजेताओं को पुरस्कार वितरित किए गए.

स्वच्छता का संदेश जन-सामान्य तक पहुंचाने के लिए विभागीय कालोनी की सफाई की गई. जिसमें सभी ने श्रमदान दिया तथा बच्चों ने भी उत्साहपूर्वक भाग लिया. माह के आखिर में श्री टी. के.रथ द्वारा निबंध प्रतियोगिता के विजेताओं को पुरस्कार वितरित किए गए.

गोवा राजभाषा तकनीकी सेमिनार का आयोजन

नगर राजभाषा कार्यान्वयन समिति, मडगाव तथा भारतीय खान ब्यूरो के क्षेत्रीय कार्यालय के संयुक्त तत्वावधान में 26 नवंबर 2017 को राजभाषा तकनीकी सेमिनार का आयोजन किया गया। सेमिनार के मुख्य अतिथि के तौर पर कोंकण रेलवे, मडगांव के सहायक यातायात प्रबंधक श्री राजेश होम्बल उपस्थित थे।

सेमिनार में अन्य विषयों के अलावा हिंदी की तिमाही, छमाही तथा वार्षिक रिपोर्ट ऑनलाइन भरने हेतु कार्यालय का पंजीकरण करने संबंधी प्रायोगिक जानकारी प्रतिभागियों को प्रदान की गई। जिसमें क्षेत्रीय खान नियंत्रक तथा नराकास (गोवा), मडगांव के अध्यक्ष डॉ. वाई. जी. काले, उप खान नियंत्रक व हिंदी संपर्क अधिकारी तथा नराकास के सदस्य सचिव श्री प्रेम प्रकाश ने सेमिनार में अपने विचार रखे। राजभाषा विभाग, कार्यान्वयन कार्यालय (पश्चिम क्षेत्र) की उप निदेशक डॉ. सुनीता यादव द्वारा प्रस्तुत व्याख्यान भी सराहा गया। आशुलिपिक श्री भरत कुमार शर्मा ने सेमिनार के सफलतार्थ कार्य किया।



गोवा में आयोजित सेमिनार में उद्बोधन करती राजभाषा विभाग, कार्यान्वयन कार्यालय (पश्चिम क्षेत्र) की उप निदेशक डॉ. सुनीता यादव तथा मंच पर उपस्थित नराकास, मडगांव के अध्यक्ष तथा क्षेत्रीय खान नियंत्रक डॉ. वाई. जी. काले, एवं नराकास के सदस्य सचिव श्री प्रेम प्रकाश।

तीन दिवसीय प्रशिक्षण कार्यक्रम का लाभ उठाया

माइन्स प्लानिंग, डिजाइनिंग एंड फिजीबिलिटी आफ माइन्स बाय यूजिंग साफ्टवेअर्स विषय पर तीन दिवसीय प्रशिक्षण कार्यक्रम का आयोजन उदयपुर क्षेत्रीय कार्यालय द्वारा 13 से 15 अक्टूबर 2017 के दौरान किया गया। जिसका कुल 19 प्रतिभागियों ने लाभ उठाया।

प्रशिक्षण कार्यक्रम का उद्घाटन खान नियंत्रक (उ) श्री टी.के.रथ, हि.जि.लि. के महाप्रबंधक (गवेषण) श्री जी. करुणाकरण तथा उप खान नियंत्रक एवं कोर्स डायरेक्टर के. के.टारडिया ने दीप प्रज्वलन कर किया। तत्पश्चात श्री जी. करुणाकरण ने 'Geostatic use of Krigging methods for resources estimation and its impact on Mine planning' विषय पर पहला सत्र लिया।

'Mine planning from mineral conservation point of view' विषय पर दूसरा सत्र क्षेत्रीय खनिज भूविज्ञानी श्री एम.के.सोमानी द्वारा लिया गया। उन्होंने अपने वक्तव्य में खनिज संरक्षण का महत्व समझाया। हि.जि.लि. के श्री जगदीश प्रसाद ने तीसरा सत्र लिया। उन्होंने खनन के आर्थिक पहलु के बारे में जानकारी दी।

चौथा सत्र 'Mine planning and Designing using Surface, Mineshed & Whittle (Geovia) softwares' विषय पर हुआ। जिसमें कोलकाता के ई.डी. एस. टेकनालाजी प्रा. लि. के श्री अरुणव बनर्जी व दिल्ली से आए श्री नितीन जैन ने शिरकत की। उन्होंने साफ्टवेयर के Mine planning and Designing में महत्व तथा उपयोग के बारे में बताया।

प्रशिक्षण कार्यक्रम का उद्घाटन खान नियंत्रक (उ) श्री टी.के.रथ, हि.जि.लि. के महाप्रबंधक (गवेषण) तथा उप खान नियंत्रक एवं कोर्स डायरेक्टर के.के.टारडिया ने दीप प्रज्वलन कर किया। तत्पश्चात श्री जी. करुणाकरण ने 'Geostatic use of Krigging methods for resources estimation and its impact on Mine planning' विषय पर पहला सत्र लिया।

दूसरे दिन का पहले सत्र कॉलेज आफ टेकनालाजी एंड इंजिनियरिंग, उदयपुर के प्रो. श्री अनुपम भटनागर द्वारा लिया गया। जबकि दूसरा सत्र श्री जयमूर्ति संदीप द्वारा लिया गया।

अगला सत्र समूह चर्चा का रहा जिसमें श्री टी.के.रथ, श्री एम.के.सोमानी ने प्रश्नों के उत्तर देकर मार्गदर्शन किया। प्रतिभागियों ने भूमिगत खनन, खनन कार्य में साफ्टवेयर का उपयोग, स्टार रेटिंग आदि विषय पर प्रश्न पूछे।

समापन समारोह में वरिष्ठ खनन भूविज्ञानी श्री केवल कृष्ण, वरिष्ठ खनन भूविज्ञानी श्री एस.दास, उप खान नियंत्रक श्री प्रेम प्रकाश ने प्रशिक्षण के बारे में अपने विचार व्यक्त किए।

आखिर में कोर्स कार्डीनेटर श्री मनीष गुप्ता ने सभी का धन्यवाद ज्ञापित किया। तीसरे दिन हि.जि.लि. की सिंदेशर खान का फिल्ड विजिट किया गया तथा तीन दिवसीय प्रशिक्षण कार्यक्रम का समापन हुआ।

पृष्ठ 21 से

गांधीनगर क्षेत्रीय कार्यालय: भारतीय खान ब्यूरो के गांधीनगर कार्यालय में 30 अक्टूबर से 4 नवंबर के दौरान सर्तकता जागरूकता सप्ताह का आयोजन किया गया। जिसके तहत सरदार बल्लभ भाई पटेल राजकीय उच्च माध्यमिक विद्यालय के स्कूली बच्चों के लिए पत्र वाचन प्रतियोगिता का आयोजन किया गया। जिसमें बच्चों ने उत्साहपूर्वक भाग लिया। प्रतियोगिता के विजेताओं को क्षेत्रीय खान नियंत्रक श्री के.एस.यादव के हस्ते पुरस्कृत किया गया। इस अवसर पर कार्यालय के अधिकारियों/कर्मचारियों ने सर्तकता जागरूकता की शपथ ली।

रायपुर क्षेत्रीय कार्यालय: केंद्रीय सर्तकता आयोग, नई दिल्ली द्वारा जारी निर्देशानुसार सभी सरकारी कार्यालयों में सर्तकता जागरूकता सप्ताह मनाया गया। 30 अक्टूबर से 4 नवंबर 2017 के दौरान रायपुर क्षेत्रीय कार्यालय में सर्तकता जागरूकता सप्ताह मनाया गया। रायपुर कार्यालय के परिसर में इस संबंधी बैनर एवं पोस्टर प्रदर्शित किए गए। उद्घाटन भाषण में क्षेत्रीय खान नियंत्रक श्री बी.एल.गुर्जर ने सभी क्षेत्रों में ईमानदारी एवं पारदर्शिता लाने की अपील की। उन्होंने आगे कहा कि हमें भ्रष्टाचार मुक्त भारत बनाने के लिए अग्रसर होना चाहिए। सर्तकता के प्रति जागरूकता लाने के उद्देश्य से भाषण प्रतियोगिता, निबंध प्रतियोगिता, स्लोगन प्रतियोगिता आदि का आयोजन किया गया जिसमें सभी ने बढ़-चढ़कर हिस्सा लिया। समापन समारोह में क्षेत्रीय खान नियंत्रक ने प्रतियोगिता के विजेताओं को पुरस्कृत किया।



1. भारतीय खान ब्यूरो मुख्यालय में आयोजित हिंदी कार्यशाला में मार्गदर्शन करते हुए मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी डॉ. पी.के. जैन. 2. मुख्यालय में एम.टी.एस. के लिए आयोजित हिंदी कार्यशाला में उपस्थित प्रतिभागी. 3. गोवा में संपन्न एक दिवसीय राजभाषा हिंदी कार्यशाला का दीप प्रज्वलन कर उद्घाटन करते क्षेत्रीय खान नियंत्रक डॉ. वाई.जी. काले, तथा गोवा विश्व विद्यालय के श्री आदित्य सिनाय भांगी.



ब्यूरो में हिंदी कार्यशालाओं का आयोजन

मुख्यालय: भारतीय खान ब्यूरो (मुख्यालय) में 12 दिसंबर को एम.टी.एस. कर्मचारियों के लिए एक दिवसीय हिंदी कार्यशाला का आयोजन किया गया जिसमें 27 कर्मचारियों ने भाग लिया। कार्यशाला में भारतीय खान ब्यूरो कार्यालय के व्याख्याताओं ने अगल-अलग विषयों पर अपने व्याख्यान दिए। मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी डा.पी.के.जैन ने राजभाषा नीति, उप-निदेशक (राजभाषा) श्री प्रमोद सांगोले ने हिंदी तिमाही रिपोर्ट व हिंदी-अंग्रेजी वाक्य संरचना तथा हिंदी अनुवादक श्री असीम कुमार ने टिप्पण / आलेखन विषयों पर व्याख्यान दिया।

देहरादून क्षेत्रीय कार्यालय: देहरादून क्षेत्रीय कार्यालय में 19 दिसंबर 2017 को एक दिवसीय हिंदी कार्यशाला का आयोजन किया गया। प्रथम सत्र का शुभारंभ सहायक खनन भूवैज्ञानिक एवं हिंदी संपर्क अधिकारी श्री शैलेंद्र सकलानी ने किया। मुख्य अतिथि के तौर पर भारतीय सर्वेक्षण विभाग के वरिष्ठ हिंदी अनुवादक श्री के.एस.नेगी उपस्थित थे। आशुलिपिक ग्रेड-1 श्री नंदनसिंह ने पुष्पगुच्छ देकर श्री नेगी का स्वागत किया। पश्चात श्री नेगी ने राजभाषा नीति एवं सरकारी कार्यालयों में हिंदी का स्वरूप पर व्याख्यान प्रस्तुत किया। मुख्य अतिथि ने कर्मचारियों को राजभाषा अधिनियम, उप नियम के बारे में विस्तृत जानकारी दी। उन्होंने बताया कि राजभाषा हिंदी के उत्तरोत्तर प्रगति हेतु राजभाषा विभाग, गृह

मंत्रालय के वार्षिक कार्यक्रमानुसार ऐसी कार्यशालाओं का आयोजन किया जाता है। श्री नेगी ने इस तरह की कार्यशालाओं का लाभ उठाने की अपील की।

कार्यशाला के द्वितीय सत्र में यूनिकोड से संबंधित व्याख्यान हेतु भारतीय सर्वेक्षण विभाग के श्री अनुज कुमार को आमंत्रित किया गया। सर्वप्रथम अधीक्षक श्री मुरलीधर तिवारी ने मुख्य अतिथियों का स्वागत किया। कार्यक्रम की अध्यक्षता करते हुए श्री शैलेंद्र सकलानी ने अपने संबोधन में अतिथियों का परिचय दिया। पश्चात श्री अनुज कुमार ने कम्प्यूटर पर यूनिकोड इंस्टाल करने तथा उसे उपयोग में कैसे लाया जाए इसकी जानकारी दी।

कार्यशाला में सर्वश्री अधीक्षक अनिल कुमार चंदेल, अधीक्षक नरेंद्र मलिक, कनिष्ठ सांख्यिकी अधिकारी नरेंद्र मलिक, उच्च श्रेणी लिपिक संजय गुप्ता ने भाग लिया। कार्यशाला के सफलतार्थ श्री सकलानी ने सभी को धन्यवाद ज्ञापित किया।

गोवा क्षेत्रीय कार्यालय: गोवा क्षेत्रीय कार्यालय में 29 दिसंबर 2017 को एक पूर्ण दिवसीय राजभाषा हिंदी कार्यशाला का आयोजन किया गया। इस कार्यशाला में कुल सात पाठ आयोजित किए गए। कार्यशाला का उद्घाटन क्षेत्रीय खान नियंत्रक डा. वाय.जी.काले के हस्ते दीप प्रज्वलित कर किया गया।

अपने अध्यक्षीय संबोधन में डॉ. काले ने राजभाषा हिंदी

में उत्कृष्ट क्रियान्वयन तथा हिन्दी में श्रेष्ठ कार्य निष्पादन के लिए गृह मंत्रालय राजभाषा विभाग द्वारा लगातार तीसरी बार प्रथम क्षेत्रीय राजभाषा पुरस्कार गोवा कार्यालय को प्राप्त होने में हिंदी कार्यशालाओं के आयोजन के महत्व को रेखांकित किया तथा सभी को बधाई दी।

कार्यशाला में संकाय के रूप में उपस्थित गोवा विश्व विद्यालय के रिसर्च फेलो (हिंदी) श्री आदित्य सिनाय भांगी ने हिंदी वर्तनी के बारे में जानकारी दी। उन्होंने कहा कि शुद्ध वर्तनी समझना और लिखना शुद्ध शब्द लिखने का आधार है।

हिंदी शब्दों पर रिसर्च कर रहे श्री आदित्य ने स्लाइड के माध्यम से लगभग एक हजार ऐसे हिंदी शब्दों की सूची प्रस्तुत की, जिन में तनिक असावधानी से शब्द के शुद्ध रूप के स्थान पर अशुद्ध शब्द लिख जाने की अधिक संभावना होती है। प्रशासनिक पत्राचार विषय पर कार्यालय अधीक्षक श्री एम० एन० प्रसन्न द्वारा व्यावहारिक जानकारी दी गई। खनन प्रक्रिया को निरस्त व निलंबित करने संबंधी मसौदा विषय पर सारगर्भित व्याख्यान उप खान नियंत्रक श्री सुरेश प्रसाद द्वारा दिया गया। जबकि हिंदी अनुवादक श्री आर. सी. महतो ने राजभाषा हिंदी संबंधी संवैधानिक प्रावधानों पर प्रकाश डाला। समापन कार्यक्रम में कार्यशाला की संक्षिप्त रिपोर्ट की प्रस्तुति की गई।