Government of India
Ministry of Mines

No. 14/14/2004-Met.IV

New Delhi, the 10.10.05

Subject:- 34th Meeting of the SSAG

The undersigned is directed to forward herewith a copy of the minutes of the 34th SSAG meeting held on 29th August, 05 for information & necessary action.

2. The receipt of this letter may please be confirmed.

(R.K. Khera)
Section Officer

To
i) All the members of SSAG as per list (enclosed)
ii) Special Invitees (only those whose Projects were discussed)
MINUTES OF THE STANDING SCIENTIFIC ADVISORY GROUP (SSAG) MEETING HELD ON 29TH AUGUST 2005 IN THE ALUMINIUM HALL, 1ST FLOOR, MINISTRY OF MINES

The list of participants is placed at Annexure.

2.0 The Chairman welcomed the participants to the SSAG meeting, which was being held after a long interval. In his opening remarks, the Chairman enumerated the terms of reference of SSAG and expressed the hope that institutions and scientists would be proactive and not reactive in regard to researches in S&T. Shri K.P. Lal, Advisor, TPPC initiated the discussions and agenda items were taken up for discussion.

3.0 **Agenda item No.1:** Confirmation of Minutes of the 33rd meeting of SSAG held on 19th December 2003.
As no observation/suggestion/modification to the minutes was received, the minutes were confirmed.

4.0 **Agenda item No.2:** Action taken report of 33rd meeting of SSAG
As per the decision of 33rd SSAG meeting (Agenda item No.6), a Research Advisory and Monitoring Committee (RAMG) was constituted under the Chairmanship of Additional Secretary (Mines). Its first meeting was held on 4.1.2005. Performance audit of four completed reports was taken up. It was noted that all the four projects were completed successfully fulfilling their objectives.

5.0 **Extension of Implementation period for projects:**

**Agenda item 3(A):** “High Resolution Seismic Survey in exploration Mapping of anomalous zones in the mining regime with a view to Analyse their stability”

-NIRM

Director, NIRM explained at length the objective of the project. He mentioned that the delay in implementation of the project was on account of procurement of highly sophisticated equipment for which only single quotation was received. Since the efficacy of the equipment is yet to be proved and there may be problems regarding replacement of components also, he proposed that the item be dropped. After deliberations, the Chairman remarked that in depth thought should have been given to the requirement as well as easy accessibility to technology and equipment at the time of formulation of the project. After discussions, SSAG members agreed that the project be dropped and money in full be refunded by NIRM.
**Agenda item 3B:** "Design, Development and production of Multi-Processor based Continuous deformation monitoring system for the safety of Mines and underground opening". - CMRI, Roorkee

The project was discussed in detail. The SSAG noted that the project has not made any headway since its beginning. The procurement process could not start. CMRI subscribed the delay to the procurement process.

After elaborate discussions, the Committee endorsed the suggestion that extension of project till December 2006 be given subject to condition that CMRI was able to place the orders for the procurement of equipment by December, 2005.

**Agenda item 3C:** "Development of an optical fibre based system for light transmission and illumination selected area - NIRM"

Director, NIRM told the Committee that optical fibre, a major component for development of the system, was not available either from outside or in India. Hence, the delay in execution of the project. However, Director, NIRM informed that now a US firm has agreed to supply the optical fibre to NIRM and if the duration of the project was extended the project work could be taken up and completed early.

The Chairman SSAG agreed to extend the project till November, 2006, without any escalation of cost.

✓ **Agenda item No. 4 A:** "Simulation assisted development of aluminium metal foam through liquid metallurgy route for engineering application" – RRL, Bhopal

RRL Bhopal presented the progress of the project and elaborated on the efforts it had made in making the project cost effective. Director, Jawaharlal Nehru Aluminium Research Design and Development Centre (JNARDDC), Nagpur opined that instead of Ti:H2 (Titanium Hydride) some cheaper substitute be used as foaming agent. RRL Bhopal replied that they are working on gas purging technology Dr. Suri from Bhabha Atomic Research Centre (BARC) suggested instead of importing the Ti:H2, it could be supplied by BARC. Chairman suggested that RRL Bhopal should interact with BARC for their supplies as well as improvement in technology. The RRL Bhopal’s representative elaborated on its efforts made in knowing the utility of their product in defence use (through DRDO) in rural sector and in automotive industry.

The Project monitoring Committee of the project has recommended the revision of cost of project on account of equipment etc. SSAG after discussions approved the revision of cost of the project from Rs. 80 lakh to Rs. 123 lakh. Dr. Malti Goel, Advisor, DST, suggested that the increased cost be distributed in the same proportion as was done in the original cost. The proportionate sharing of different participating agencies (MOM, DST, RRL and DRDO) should remain the same as in earlier project cost. Since member from DRDO was not present in the meeting, it was suggested that the minutes be sent to him and his comments could be obtained later. The implementation time of the project was also extended till December, 2006.

Prof. K.S.S. Murthy apprised the SSAG about the progress of the project, which is nearing completion. He informed that billet making process would start in about a month. He informed that automobile industry has shown keen interest in the project. He also informed that a batch of scientists had already been trained on various machines. The money generated out of such training will be used for maintenance of the facility. Discussions were also held regarding the patenting of the components and processes which have been developed in execution of this facility as well as in other projects.

After elaborate discussions the SSAG in principle approved the extension of the project till January 2007 and desired that additional funds asked for the project may be decided in consultation with representatives from DST & Ministry of Mines and IISc was asked to provide the breakup of additional cost proposed along with its justification. IISc was also asked to explain how the project would be self sustaining when fully implemented.

Agenda item No. 5(a) “Development of Mathematical Model for precipitation of Aluminum Hydrate - JNARDDC

Agenda item No. 5 (b) “Thermo-Electric Modeling of Aluminum Smelting process” – JNARDDC

Nalco did not agree to finance it. Hence, SSAG did not approve it.

Agenda item No. 5 (c) “Preparation and certification of Reference Materials for selected Indian ores and Red Mud - JNARDDC

The projects were discussed and in principle approval was accorded subject to the willingness of NALCO to finance it.

Agenda item No. 5 (d) “Bauxite Technical Data Bank phase-III Western Ghat Deposits – JNARDDC.

JNARDDC presented the project proposal. Shri S. Sengupta, Dy. DG, GSI opined that the earlier project reports have not been submitted and JNARDC have not acknowledged the data received from Geological Survey of India. The Committee accorded ‘in principle’ approval to the project subject to confirmation by GSI that no duplication of work was being done.

Agenda items 5(e) to 5(h):

The Committee deferred further discussion on the agenda items from 5(e) to (h) for the next meeting to be convened soon.

Agenda item No. 6: Project completion Reports – submitted

i) Extraction of Magnesium from Indigenous Raw Materials – NML, Jamshedpur

ii) Improvement of Digestion Efficiency of East coast Bauxite and Enhancement of Alumina Productivity – JNARDDC, Nagpur
iii) Investigations into the noise status of some selected non-coal mining complexes with a view to developing abatement and control measures – CME, ISM, Dhanbad
iv) Treatment of copper bleed solution for extraction of metal and acid by solvent extraction – NML, Jamshedpur
v) Characterization of some kaolin (china Clay) deposits of NE Region, India for generation of grades for speciality application – RRL, Bhopal
vi) De-ironing of east Coast Bauxite- JNARDDC
vii) Extraction, Characterization and Removal/Control of Organic Impurities in Bayer process- JNARDDC

The committee noted the submission of seven completed projects. The projects are under review in the Ministry.

Agenda item No. 7:

(A) Time schedule for holding SSAG meeting. The SSAG meetings are held normally once a year, depending on quantum of projects for consideration. It was unanimously decided that henceforth SSAG meetings should be held twice a year (possibly in months of June and December).

(B) Review of Projects: The SSAG desired that the project monitoring Committee of each project should meet regularly to monitor the projects to avoid time overrun of the projects.

The meeting ended with a vote of thanks to the Chair.
ANNEXURE

List of participants in the 34th Meeting of the SSAG held on 29th August, 2005.

1. Shri A.K.D. JadHAV Secretary (Mines) ...... in the Chair
2. Shri M.N. Prasad, AS (Mines)
3. Shri Deepak Srivastava, Director (Tech.), MOM
4. Shri K.P. Lall, Advisor, TPPC
5. Shri S. Sengupta, DDG, GSI
6. Dr. (Mrs) Malti Goel, Advisor & Scientist ‘G’, DST
7. Shri D.N. Bhargava, Member SSAG
8. Shri B.K.P. Sinha, Member SSAG
9. Prof. R.N. Gupta, Director, NIRM
10. Dr. J. Mukhopadhyaya, Director, JNARDDC
11. Dr. N. Ramakrishna, Director, RRL, Bhopal
12. Shri M. Samajpati, CMD, HCL
13. Shri P. Swarup, Director (Opn.), HCL
14. Shri B.P. Kamat, Vice President Technical, HZL
15. Shri R.K. Gupta, CEO, CDOS, Jaipur
16. Shri Kuldeep Ranka, MD, RIICO, Jaipur
17. Shri D. Ballani, UNIDO, ICAMT
18. Shri S.K. Swami, Addl. Director, Mines & Geology, Rajasthan
19. Prof. KSS Murthy, Deptt. of Mechanical Engineering, IISc, B’lore
20. Prof. Pradip Dutta, Deptt. of Mechanical Engineering, IISc, B’lore
21. Shri A.K. Suri, Assoe. Director, BARC
22. Dr. VVR Prasad, Scientist-in-charge, CMRI, Roorkee
23. Shri O.P. Chugh, Executive Director, HCL, Malanjkhand
24. Shri L.B. Singh, Dy Director, RRL Bhubaneswar
25. Shri R.N. Goel, Scientist V, JNARDDC
26. Shri R.J. Sharma, Scientist III, JNARDDC
27. Shri R.S. Mishra, S.III, JNARDDC
28. Shri A. Agnihotri, S.III, JNARDDC
29. Shri P.G. Bhukle, S.III, JNARDDC
30. Dr. J.K. Mohnot, Scientist, CMRI, Roorkee