



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला
National Institute of Technology, Rourkela

Minutes for the 21th Building & Works Committee, National Institute of Technology, Rourkela to be held at 09.30 AM on 19.03.2014 (Wednesday) in the Board Room of the Institute.

Members Present:

- | | | | |
|----|--|-----|--|
| 1. | Prof. Sunil Kr. Sarangi, Director
N.I.T., Rourkela. | ... | Chairman, |
| 2. | Sri. Rajesh Singh Solanki
Under Secretary, NITs
MHRD, New Delhi | ... | Representative of Addl. Secy.,
MHRD |
| 3. | Prof. R. K. Rahoo,
Mechanical Engineering
Professor, NIT Rourkela | ... | Member |
| 4. | Prof. S. K. Sahu,
Dean (PD), Civil Engg., NIT., Rourkela. | ... | Member |
| 5. | Shri Ajaya Kr. Nayak, DGM
Civil Engineering, Town Engineering Department,
SAIL, RSP, Rourkela. | ... | Member |
| 6. | Shri Vinod Kr Shrivastava, DGM
Refrigeration & Air Conditioning, RSP.,
SAIL, RSP, Rourkela. | ... | Member |
| 7. | Shri S. K. Upadhyay, Registrar, NIT, Rourkela | ... | Member Secretary |

Invitees Present:

- | | | | |
|-----|--|-----|---------|
| 8. | Sri. D. Tripathy
Executive Engineer, PWD
Uditnagar, Rourkela | ... | Invitee |
| 9. | Prof. S. Mohanty,
PIC ,Electrical Construction, NIT Rourkela | ... | Invitee |
| 10. | Prof. A.K. Panda,
VP, Civil Engg., NIT Rourkela. | ... | Invitee |
| 11. | Prof. A. K. Sahoo
VP, Civil Engineering Dept., NIT Rourkela | ... | Invitee |
| 12. | Prof. Y. K. Sahu,
VP, EE Engg, NIT, Rourkela. | ... | Invitee |
| 13. | Mr. S. P. Mohaptra,
EE (Civil), Estate Office, NIT Rourkela. | ... | Invitee |
| 14. | Prof. K. C. Biswal,
PIC, Civil Maint., NIT., Rourkela | ... | Invitee |

Invitees Absent:

- | | | | |
|-----|--|-----|---------|
| 15. | Prof. Sarat Kr. Das
PIC, Civil Construction, NIT Rourkela | ... | Invitee |
| 16. | Prof. Chitti Babu
PIC ,Electrical Maint., NIT Rourkela. | ... | Invitee |
| 17. | Mr. D. Behera
Engineer, EE, NIT, Rourkela | ... | Invitee |

Leave of absence was approved for all members absent.

A) GENERAL AND PROCEDURAL MATTERS.

BWC:21(2014)-01: Welcome to the members by the Chairman.

BWC:21(2014)-02: Confirmation of the minutes of the 20th Meeting of the BWC held on 13.12.2013.

The minutes of the 20th Meeting were sent to the members vide letter No.NITR/2012/BWC-20/1077, Dt.17.12.2013. No comments were received from the members.

BWC confirmed the minutes of its 20th Meeting held on 13.12.2013.

BWC:21(2014)-03: To report on the action taken on the decisions made in the 20th Meeting of BWC held on 13.12.2013 and to discuss matters arising out of the minutes:

The report on the action taken on the decisions made in the 20th Meeting of the BWC held on 13.12.2013 is presented for BWC's consideration.

BWC noted the above.

[Annexure-A1,Page No. 13-14]

B) REVIEW OF ONGOING PROJECTS:

BWC: 21(2014)-04: Review of ongoing Civil Projects:

A report on the progress of ongoing Civil Projects is enclosed for perusal of the Committee.

All the ongoing civil projects were reviewed.

(1) It was decided that all the works of M/s UPRNN Ltd. would be completed by 31.03.2014 and M/s UPRNN will hand over all the buildings after completing all the formalities.

(2) The work of M/s Shapoorji Pallonjje & Co. Ltd. was reviewed the works.

1. Golden Jubilee Building
2. Mechanical Science Building
3. Lecturer Hall Complex
4. Faculty Residences
5. 1000 seated Hostel

It was observed that the works for the above projects are in progress and all the projects except Golden Jubilee Building will be completed by 31.03.2014.

The total expenditure under the above project in the financial year 2014-15 is likely to be ` 200.00 crores approximately.

[Annexure-A2, Page No.15-20]

BWC: 21(2014)-05: Review of ongoing Electrical Projects:

A report on the progress of ongoing Electrical Projects is enclosed for perusal of the Committee.

All the ongoing Electrical projects were reviewed.

(1) 33 KV Hot Line

Prof. Y.K. Sahu, VP(Elect.) were advised to contact M/s OPTCL for completion of 33 KV bay at chhend. So that the sub-station will be ready before construction of overhead line by M/s. K.C. Sahu. NBLs tower erection work in progress near sector-16. HT cable laying completed in OPTC: grid and in progress in Airport Road crossing. Stringing of conductor between Chhend to Koelnagar in progress. The construction of M/s OPTCL substation is ok and the work is likely to be completed by 30.04.2014. Dean (PD) was requested to ensure the completion in time.

(2) 33 KV Substation

M/s Blue Star was advised to expedite the work for timely completion. CR Panel drawing approved. Civil work of SS-10 (AC Plant) started for HT cable trench, transformer foundation and oil pit. OH Line work-pole erection work completed. SS- Equipments erection is in progress. HT cabling work completed from SS-1 to MRSS, SS-1 to SS-7 and SS-7 to SS-5. Cabling in progress in SS6 to SS8. Cable trench work is in progress from SS-5 to SS-8 to be expedited. Erection of equipment in WESCO grid is in progress. Erection of equipment in MRSS is almost over. Cable schedule for Control cable for WESCO, MRSS to be finalized. SS-10 VCB panel is to be procured. SS-yard and DB rooms pending work are to be completed. Substation erection work in progress. Transformers to be received after dispatch clearance. Work in progress in MRSS and WESCO. Cable laying in progress. OH line structure in progress. CRP panel yet to be recd.

It was informed that some substations will be charged by March, 2014 and the total work will be completed by 30.04.2014.

[Annexure-A3, Page No.21-29]

C) ADMINISTRATIVE PROPOSAL FOR NEW PROJECTS:

BWC: 21(2014)-06: Review and amendment of Work Order for Architectural Consultancy work on M/s Development Architects Pvt Ltd, Kolkata for Major Projects (Phase III) (Civil, Electrical & HVAC) (Ref BWC item 6 of 20th BWC meeting held on 13th Dec 2013):

The Board vide resolution BOG-38(2014)-05: dt.17.01.2014 approved review and amendment of work order for architectural consultancy work on M/s Development Architects Pvt. Ltd., Kolkata for Major Projects (Phase-III) (Civil, Electrical & HAVAC) (ref. BWC item 6 of 20th BWC meeting held on 13th Dec, 2013) against the recommendation of the F.C. vide resolution no.FC-26(2014)-04, dt.17.01.2014 as given below:

1. M/s DAPL may continue their work only for 500 seated KMS Hall extension where they have already done some work. However, the plans are to be finalized after careful scrutiny at all stages.
2. All other items may be taken out of their scope and the work order amended accordingly. The agreement may be signed accordingly.
3. The selection of Architects for all other buildings will be based on design competition for each building from the list of the Architects who were qualified for the Major Projects Buildings (Phase III) and also Architects who have already served the Institute satisfactorily. M/s DAPL may also be allowed to participate in the design competition for other buildings.

1) **Design Competition for the New Buildings:**

Name of Buildings.

- Renovation of Academic Buildings
- Hostel for Married Students
- Non-teaching staff Accommodation
- Undergraduate Laboratory Complex
- Civil & Architecture Department
- 1600 Capacity Auditorium
- 1500 Seated Hostel
- Student Activity Center Building
- Department of Business Management
- New Guest House

Architects qualified for Major Projects (Phase III)

- M/s Jay Ambe Ground Desigrees Pvt Ltd.
- M/s Arch-en Design.
- ENARCH Consultant Pvt Ltd.
- M/s Suresh Goel & Associates.
- M/s Development Architect Pvt Ltd.
- M.s DDF Consultants Pvt Ltd.
- M/s Mukesh Associates.

Architects who worked for the Institute in the past

- M/s Bose Brother Architects, Kolkata
- M/s Inform Architects, Bangalore
- M/s Vastukar, Bhubaneswar
- M/s Space Arch, Bhubaneswar
- M/s Design Techno, Bhubaneswar

The Selection of Architect will be done based on the presentation of their 'design concept' before an expert Committee, following the guide lines of the Government of India.

- a) A token participation fee of Rs 50,000/- will be given to the Participating Architects in the design competition (Subject to participation for a minimum of 4 buildings). No other payment, e.g. reimbursement of travel expenses will be admissible.
- b) The Master Plan will be updated in house using own resources.
- c) Faculty accommodation will be as per the present (Major Project Phase-II) scheme.
- d) The on-going sewerage project, which was suspended with the hope of connecting to Rourkela city's grand sewerage project, will be revived and completed.
- e) In the design completion, selection will be made on the basis of quality cum cost, quality accounting for 80% of the points, from among maximum top three qualified designs. If less than three designs qualify, all qualified designs will be considered on quality cum cost basis.

In line with the Board resolution, the following are proposed:

To group the above mentioned buildings into two categories (i.e Category No.1 & Category No.2 as per priority as given below for which Architects are to be selected:

Category No-1: (To be taken up on top priority because of urgency):

- A)
 - i) KMS Hall Extension (3 Storeyed) (Built up Area = 8, 000 sqm, approximate cost Rs. 25.0 Crores) (Item 1, BWC: 18 (2013)- 06).
 - ii) Installation of 1-MW Solar Power Plant (Approximate cost Rs. 10.0 Crores) (Item 1, BWC: 20 (2013)- 06).
 - i. Clean Room Complex Building (Approximate cost Rs. 10.0 Crores) (Item 2, BWC: 20 (2013)- 06).

- ii. New Guest House (120 seated) (Approximate cost Rs. 18.0 Crores) (Item 5, BWC: 20 (2013)- 06)
- iii. Extension of Main Building (2nd floor above MM Department) (Approximate cost Rs. 3.24 Crores) (Item 6, BWC: 20 (2013)- 06).
- iv. Fresh Air Ventilation System of 3 dining hall (Approximate cost Rs. 1.0 Crore) (Item 12, BWC: 20 (2013)- 06).
- v. Construction of new roads & widening of the existing roads (Approximate cost Rs. 7.0 Crore) (Item 2, BWC: 20 (2013)- 10).
- vi. Married Students Hostel (6 storeyed) (120 Nos) (8400 Sqm, approximate cost Rs. 16.0 Crores) (Item 1, BWC: 18 (2013)- 06).
- vii. Renovation of Existing Academic Buildings (8400 Sqm, approximate cost Rs. 20.0 Crores) (Item 1, BWC: 18 (2013)- 06).

B) Installation of a large Biogas Plant:

It is observed that huge quantity of food waste is being generated in our various hostels. It is necessary to utilize this waste material and convert into useful product. One of the methods is to install a Biogas Plant which is in line with pollution control measures. It will cost approximately Rs. 1.0 Crore. It was decided to invite Expression of Interest through advertisement in News paper and NIT website and get proposals from reputed companies in the line of business.

Category No-2:

- i. Under graduate Laboratory Complex (Built up Area = 12, 000 sqm, approximate cost Rs. 36.0 Crores) (Item 1, BWC: 18 (2013)- 06).
- ii. Civil & Architecture Department (Built up Area = 16, 000 sqm, approximate cost Rs. 60.0 Crores) (Item 1, BWC: 18 (2013)- 06)
- iii. Department of Business Management (Built up Area = 8, 000 sqm, approximate cost Rs. 30.0Crores) (Item 9, BWC: 18 (2013)- 06).
- iv. 1600 Capacity Auditorium (Approximate cost Rs. 50.0 Crores) (Item 1, BWC: 18 (2013)- 06).
- v. 1500 Seated Hostel (Built up Area = 50, 000 sqm, approximate cost Rs. 120.0 Crores) (Item 1, BWC: 18 (2013)- 06).
- vi. Student Activity Center (4 Storeyed) (Built up Area = 10, 000 sqm, approximate cost Rs. 15.0 Crores) (Item 7, BWC: 20 (2013)- 06).
- vii. Faculty accommodation 120 units – 34.35 crores (based on similar work awarded already).

The decision of the 26th FC and 28th BOG are given in the Annexure.

For these buildings, the requirements are to be finalized in consultation with concerned departments and this will take some time.

Considering the above, the following was proposed:

viii. Selection of Architects will be done for Category No-1 on top priority. Thereafter, selection of Architect will be done for Category No-2. In view of the starting of the department and BOG resolution no. NITR/RG/BOG-39/2014/185 dt. 18.03.2014, a new building for planning & Architecture Department (Built up Area = 8, 000 sqm, approximate cost Rs. 24.0 Crores) (Item 1, BWC: 18 (2013)- 06) will be added in category-1. The Civil & Architecture building in category-2 will be used for civil & food Processing Engg. Departments.

1. To inform the following Architects who were qualified for Major Projects (Phase III) and also those worked for the Institute in the past for preparation of conceptual plan for each building and participate in the presentation:

- M/s Jay Ambe Ground Desigrees Pvt. Ltd.
 - M/s Arch-en Design.
 - ENARCH Consultant Pvt Ltd.
 - M/s Suresh Goel & Associates.
 - M/s Development Architect Pvt Ltd.
 - M.s DDF Consultants Pvt Ltd.
 - M/s Mukesh Associates.
 - M/s Bose Brother Architects, Kolkata
 - M/s Inform Architects, Bangalore
 - M/s Vastukar, Bhubaneswar
 - M/s Space Arch, Bhubaneswar
 - M/s Design Techno, Bhubaneswar
- } Qualified for Major Project
(Phase III)
- } Architects worked with the
Institute.

2. To constitute a committee, consisting of external experts and internal members for selection of Architects for each building. The following members are suggested:

Prof. (Ms) Sanghamitra Basu of ARP Dept (IIT KGP)
Prof. Jaydeep Barman (IIT KGP)
Prof. from P&A Dept, NIT (Nagpur)
Prof. S. K. Sahu, Dean (PD)
Prof. A.K Nayak, BWC Member
Prof S.C Mohanty, BOG Member
Prof. A.K. Panda, VP (Civil)
Prof. S. K. Das, PIC (Civil)
Prof.S.Mohanty, PIC (ET)
Prof.S.Murugan, PIC (AC)
Prof.Y.K.Sahu, VP (ET)
Prof. A. K. Sahoo, VP (Civil)
Prof. Arup Das (P&A, Dept)
Prof. Binit Kumar (P&A, Dept)

Er.MSP Rao, Sr.Engineer
Er.S. P. Mohapatra (EE)
Er H. Satpathy, Engineer (Civil)
Er D.Behera, Engineer (ET)

- Invitee

The BWC approved the proposal.

[Annexure-A4, Page No.30-32]

BWC: 21(2014)-07: Proposal for Air-conditioning in TIIR Building:

M/s Mukesh Associates, Salem, have been awarded with the Comprehensive Architectural Services (Civil, Electrical & Fire Fighting etc) for construction of TIIR building @ a consultancy fee 1.98% of the total project cost (Copy of Work Order enclosed). However, HVAC work for this building is not included in their scope of work as the same was not envisaged originally. Presently, the construction work for TIIR Building is in advance stage and is planned to be completed in June, 2014 for a portion of the building. It is therefore, necessary that the low-end AC work inside this building should be taken up on priority, so that finishing works can be done thereafter and the building can be completed in time.

In order to explore the possibility of entrusting the low end HVAC work to M/s Mukesh Associates, Salem who are the Consultants for this building, they have been contacted and it is found that they have adequate experience in HVAC works. They have given their consent for taking up this work at a consultancy charge of 1.98 % of the project cost in line with the original rate of consultancy and terms & conditions.

Considering the above, it is proposed to constitute a Committee consisting of the following members to discuss with M/s Mukesh Associates, if necessary and recommend inclusion of the HVAC Low- end work in the scope of work of M/s Mukesh Associates.

Members of Committee:

Prof. S.K. Sahu, Dean (PD)
Prof. S. Mohanty PIC (ET)
Prof .S. Murugan PIC (AC)
Prof. MSP Rao, SE (Mech)
Prof. Y.K.Sahu, VP (ET)
Er. D. Behera, Engineer (ET)
Mr. V.K. Srivastav, DGM (AC), RSP

It was decided to include the whole of the building except workshop, canteen and basement parking space in the low side plumbing.

The BWC approved the proposal.

BWC: 21(2014)-08: Any other item with the permission of the Chair.

1. Funds Requirement for ongoing projects under plan grant.

The status of Plan Fund during the year 2013-14 as on 28.02.2014 is given in the annexure.

The total plan expenditure in the current year will be ` 160.00 Crores approximately and the deficit will be ` - 48.00 Crores approximately. The following is requested.

- 1) The deficit of ` - 48.00 Crores in the current financial year may be compensated by MHRD.
- 2) The total expenditure in the financial year 2014-15 is estimated at ` 200.00 Crores approximately is given below.

Projects executed by M/s Shapoorji Pallonjii & Co Ltd.

(a)

1. Golden Jubilee Building	}	- ` 200.00 Crores
2. Mechanical Science Building		
3. Lecturer Hall Complex		
4. Faculty Residences		
5. Hostel		

(b) The other projects, Scholarship, Equipment purchase etc) - ` 100.00 Crores
Total- ` 300.00 Crores

- 3) Special grant of ` 300.00 Crores may be accorded in the coming financial year, 2014-15.

The BWC recommend the proposal to FC and BOG.

[Annexure-A5, Page No.33-34]

2. Proposal for Provision of Additional Structural supports to Chilled Water Pipes in the AC Plant Building.

M/s Blue Star, Kolkata have been awarded with the work of Central Air Conditioning System in phase II (i.e. Academic Campus) at a value of Rs.1230.56 Lakhs vide Work Order No NITR/PW/WO/CT/270/10-11/313 Dated 03.03.2011 on turnkey basis, and M/s Design Services, Kolkata are the Consultants for the same. The scope of work included design, supply and erection of chilled water pipes, their structural supports, equipments such as chillers, pumps, motors etc. However, the AC plant building has been

constructed through other Agency based on inhouse design, the work of which has been completed prior to laying of chilled water pipes and installation of other equipments inside the building. In order to have least obstruction in movement inside the building, based on the suggestion of the Consultant, M/s Blue Star have provided overhead chilled water pipelines supported by structural hangers form roof beams and slabs of the RCC building. Subsequently, after realizing that the RCC slabs which is only 100mm thick, will not be in a position to carry the load, M/s Blue Star were requested to redesign and provide additional structural supports from the beams in order to relieve load on the RCC slabs. This has been complied with by M/s Blue Star till date.

Now, the hydraulic testing of the pipes is to be carried out in order to commission the system. However, the structural Expert of our Institute is of the opinion that the present structural supporting arrangement as provided by M/s Blue Star will not be adequate to take care of dynamic load and vibration, once water flows in pipe lines and has suggested to provide additional vertical structural supports from the floor in order to relieve the loads on the RCC beams which has not been designed to take care of additional loads as stated above. A scheme has been prepared which is enclosed. This type of arrangement is felt necessary for not taking risk in endangering the structural safety of the building. The scheme is estimated to cost Rs. 8.73 lakhs (Details enclosed).

It was decided to get this work executed through other agency by inviting short notice tender from NIT registered civil contractors of appropriate category having experience in structural fabrication works.

The BWC approved the proposal.

[Annexure-A6, Page No.35-38]

3. Proposal for Execution of Balance Interior Furnishing Works for Library.

The Work Order for the Interior furnishing Work for The Library Building was placed on M/S Anusha Infradec Pvt Ltd vide Order No-NITR/PW/WO/CT/07/12-13/07, Dated 08-05-2012 at a value of Rs. 26,25,164.00.(Copy enclosed).As per the Work Order, the work should have been completed by 07-11-2012.However, due to delay in AC ducting work, and other reasons, time extension has been granted up to 31-03-2013.Notwithstanding the same, the agency has inordinately delayed the work. So far, major works including finishing are still pending for which the Library portion is not being made operational. In spite of repeated requests both verbally and in writing, the agency failed to mobilize required resources and did not respond to NIT requests to resume the works. Hence, termination letter was issued vide Order dated 20-12-2013(copy enclosed).

Thereafter, Joint measurements of the works already executed by M/s Anusha Infradec have been taken and the final bill is under preparation. However, an amount of Rs. 5, 55,166.00 have been paid to them towards Running Bill.

In the meanwhile, BOQ and estimate for the balance interior furnishing works, taking into consideration present site requirements of the Library have been submitted by the consulting Architect, M/s Space Arch, Bhubaneswar. These are placed in the file. The estimate amounts to Rs. 23.17 Lakhs based on the agreed rates of M/s Anusha Infradec (Details enclosed).

It was decided to invite tenders from NIT Registered Civil Contractors of category 'B' and 'A' having experience in similar works.

Since there is no response from M/s Anusha Infradec, the contract has been terminated and The BWC decided to retender the above work.

[Annexure-A7, Page No.39-55]

3. Proposal for cancelation of Order on M/s Bharti refrigeration Works, New Delhi for supply & Installation of Kitchen Equipments for GD Birla-Vishveshwarya Hall & D Ambani- M Swaminathan Hall of Residence.

The tender has been finalized for the above job and LOI placed on M/s Bharti Refrigeration Works, New Delhi (L1 Tenderer), for a value of Rs. 134,01,010.00. However, the Work Order has not been issued on them. In the mean time, on receipt of complaint from L₂ Tenderer (i.e. M/s Kumar Equipment (India), New Delhi), the matter was referred to the Director, SVNIT, Surat for clarification. In response to that, a reply has been received vide latter Dated 28.02.2014 which is enclosed. The letter speaks of poor quality of equipments supplied and also poor post supply maintenance.

Considering the above it was decided not to process the Work Order on M/s Bharti Refrigeration Works and also disqualify both L₁ & L₂ Tenderers (i.e. M/s Bharti Refrigeration Works & M/s Kumar Equipment) for future tendering.

The BWC approved the proposal.

[Annexure-A8, Page No.56-58]

4. Proposal for Cancellation of Order on M/s Bharti refrigeration Works, New Delhi,for Supply & Installation of Kitchen Equipments for Vikram Sarabhai Hall & C.V. Raman Hall of Residence.

The tender has been finalized for the above job and LOI placed on M/s Bharti Refrigeration Works, New Delhi (L1 Tenderer), for a value of Rs. 126,10,542.00. However, the Work Order has not been issued on them. In the mean time, on receipt of complaint from L₂ Tenderer (i.e. M/s Kumar Equipment (India), New Delhi), the matter was referred to the Director, SVNIT, Surat for clarification. In

response to that, a reply has been received vide letter Dated 28.02.2014 which is enclosed. The letter speaks of poor quality of equipments supplied and also poor post supply maintenance.

Considering the above it was decided not to process the Work Order on M/s Bharti Refrigeration Works and also disqualify both L₁ & L₂ Tenderers (i.e. M/s Bharti Refrigeration Works & M/s Kumar Equipment) for future tendering.

The BWC approved the proposal.

[Annexure-A9, Page No.59-61]

5. Proposal for dismantling of Cycle Shed of Mining Department and Common Boundary Wall between Mining & Ceramic Department.

It is observed that the Cycle Shed in front of the Mining Department is quite old and has developed cracks and other damages. From safety point of view, it is proposed to dismantle the same including the common boundary wall and develop into open parking space for two wheelers under the shade of existing trees. A sketch showing the cycle shed and the common boundary wall is enclosed.

The BWC approved the proposal.

[Annexure-A10, Page No.62-63]

6. Extension of dining hall of the Guest House.

It was decided that the Extension of dining hall of the Guest House and relocation of air conditioning units of the Guest House in the South Block will be done through an architect. After discussion, it was finalized that M/s Mukesh Associates will be awarded the above work since they will be working for A/c work in the TIIR building.

7. Construction of the Market Complex.

Dean (PD) was advised to submit the comprehensive proposal for Market Complex along with the renovation of the Community hall of the Institute in the next BWC Meeting.

(S. K. Upadhyay)
Registrar & Secretary
Building & Works Committee

(S. K. Sarangi)
Director & Chairman
Building & Works Committee