

**National Institute of Technology
Rourkela**

MINUTES

**28th Meeting of the
Building & Works Committee**



DATE : 12th April, 2017 (Wednesday)

TIME : 9.30 A.M.

VENUE: Board Room, NIT, Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला

National Institute of Technology, Rourkela

Minutes of the 28th Building & Works Committee, National Institute of Technology, Rourkela held at 9.30 AM on 12.04.2017 (Wednesday) in the Board Room of the Institute

Members Present:

1. **Prof. Animesh Biswas**
Director & Chairman, BWC, NIT, Rourkela
2. **Shri Ajaya Kumar Nayak**
DGM , Civil Engineering
Town Engineering Department,
SAIL, RSP, Rourkela.
Qr. No.C-2, Sector-1, Rourkela-769008.
3. **Shri Vinod Kumar Shrivastava**
DGM, Refrigeration & Air Conditioning
SAIL, RSP, Rourkela
Qr. No.B/ 56, Sector-5, Rourkela-769 002
4. **Prof. Banshidhar Majhi**
Professor, Computer Science & Engg.
NIT Rourkela
5. **Prof. Chitta Ranjan Patra**
Dean (PD) & Professor, Civil Engg.
NIT Rourkela
6. **Prof. Saroj Kumar Patel**
Registrar I/C & Secretary I/C, BWC
NIT Rourkela

Member Absent:

1. **Shri Sanjeev Sharma**
Director (NITs)
MHRD, Government of India
Shastri Bhawan, New Delhi-110 001

Invitees Present:

1. **Prof. S. Golpalkrishna**
Electrical Engg. Dept., NIT Rourkela
2. **Prof. S.K. Das**
Civil Engg. Dept., NIT Rourkela
3. **Prof. P. Sarakar**
Civil Engg. Department, NIT Rourkela
4. **Dr. A.K. Panda**
Consultant (Civil), NIT Rourkela
5. **Prof. A.K. Sahoo**
Consultant (Civil), NIT Rourkela
6. **Prof. Y.K. Sahu**
Consultant (Elect), NIT Rourkela
7. **Shri Rajesh Sahoo**
Engineer, Estate Maintenance

Invitee Absent:

1. **Sri. D. Tripathy**
Executive Engineer, PWD, Govt. of Odisha
Uditnagar, Rourkela.
Leave of absence was granted for both member and invitee.

A) GENERAL AND PROCEDURAL MATTERS.

BWC: 28 (2017)-01: Welcome to the members by the Chairman.

The Director and Chairman BWC welcomed all the members to the meeting.

BWC: 28 (2017)-02: Confirmation of the minutes of the 27th Meeting of the BWC held on 11.12.2015.

The minutes of the 27th Meeting were sent to the members. No comments were received from the members.

The BWC confirmed the minutes.

BWC:28 (2017)-03: To report on the action taken on the decisions made in the 27th Meeting of BWC held on 11.12.2015 and to discuss matters arising out of the minutes.

The report on the action taken on the decisions made in the 27th Meeting of the BWC held on 11.12.2015 was presented for BWC's consideration. Some corrections were suggested and the received action taken report is given in the Annexure.

The BWC noted the above.

[Annexure-A1, Page No. 9(a) - 10]

B) REVIEW OF ONGOING PROJECTS:

BWC: 28 (2017)-04: Review of ongoing Civil Projects & Projects in the Pipeline.

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

The BWC noted the above

[Annexure-A2, Page No. 11 - 13]

BWC: 28 (2017)-05: Review of ongoing Electrical Projects & Project in the Pipeline.

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

The BWC noted the above

[Annexure-A3, Page No.14 - 16]

C) APPROVAL FOR PROJECTS: (PART-'A')

BWC: 28 (2017)-06: Proposal for New Projects.

1. Construction of Oxidation Pond, Aerated Lagoon & Ancillary works.

The existing Sewerage system for the campus as well as academic buildings is in very bad shape due to damages caused during extension/ renovation and construction of new structures/ buildings. In the event of contamination, it may attract epidemic diseases. Therefore, it is necessary to take urgent action in this regard.

Earlier, the BWC in its 22nd Meeting held on 06.08.2014, (ref: BWC: 22(2013)-08) approved the proposal for initiating action for Tendering for laying of sewer line network, and Sewerage Treatment Plant for which the Consultant, M/s Environmental Consortium, Kolkata have submitted BOQ, specification and estimate etc. The estimate amounts to about Rs.5.5 crores.

However, subsequently, it has been decided not to go for Sewerage Treatment Plant in view of prohibitive maintenance cost and large men power requirement for operation and maintenance. Instead, as per advice of our Consultant, we may go for Construction of Oxidation pond, aerated lagoon and ancillary works for recycling of treated water for gardening etc. This will cost about Rs.4.5 Crores (as per the estimate given by Consultant).

The BWC will be kept posted on the details of the estimate etc.

The BWC approved the proposal

2. Provision of Central Air Conditioning System for TIR Building.

Earlier, the BWC in its 25th Meeting held on 06.04.2015, (ref: BWC: 25(2015)-08), had advised to open the price bids and to process the file. Accordingly, the price bids have been opened by the Tender Committee.

The Tender Committee recommended to award the subject work to M/s Sterling & Wilson Pvt. Ltd., Kolkata at an amount of Rs.4,31,21,640.72 against the estimate of Rs.4.0 Crores and post commissioning operation & AMC at an amount of Rs.34,79,815.69 i.e. total amounts to Rs.4,66,01,456.41 on L1 basis. But due to paucity of fund, the order could not be placed.

It may be mentioned that presently, the above mentioned building is in operation. Since it is an important building especially where various industries will set up their establishments for research/ development activities in collaboration with NIT faculty members, it is absolutely necessary to provide air conditioning facility in the Auditorium (size 25.2mx19.8mx average height 7.8m, capacity 350 persons) of this building. It is proposed to install independent Air-conditioning system in the auditorium (2x35Tr AC) with Scroll Compressor to be installed in the basement floor and two AHUs. It is estimated to cost **Rs.70.00** Lakhs approximately.

Considering the above, the BWC may consider the proposal for retendering.

The BWC approved the proposal.

3. Central Air Conditioning for Phase II Project (High end).

Presently, low-side air conditioning work of Lecture Hall No: II, Mechanical Science Building & Golden Jubilee building which has been awarded to M/s SPCL is under execution and are expected to be completed shortly except **Golden Jubilee Building**, where the work is not started. The underground chilled water pipelines have already been laid from Main AC Plant to Booster Pump House.

It is proposed to install corresponding part of High-side work consisting of one Centrifugal Chiller, Primary & Secondary Chilled Water Pumps, Cooling Towers & Pumps, Electrical Panel and balance underground chilled water pipelines from Booster Pump House to the above mentioned buildings. The estimated cost will be **Rs.10.0 crores** approximately to be spent over a period of two years. It is proposed to invite open tenders through advertisement in newspapers and NIT website.

In subsequent phase, HVAC work of balance academic buildings i.e. Electrical Science Building, Bio-Technology Building, Lecture Hall Complex No- I, Mining

& Ceramic Engineering Department Building, and Administrative Department Building (Eastern Side) etc. may be taken up.

The item was deferred to next BWC Meeting

4. Construction of NIT Outreach Center Building at Bhubaneswar.

A plot of land, measuring 1.0 acre has been allotted by Govt. of Odisha on 14.05.2014, in Mouza Chandrasekherpur at Bhubaneswar, in a prime location. It is observed that construction work for adjacent plot has been started by other Departments. In case the work is not started soon in our plot, there is every likely hood of cancellation of the lease by the Odisha Government.

Earlier, the BOG had approved construction of the above building for which selection of Architect was done and Work Order was issued to M/s Inform Architect, Bangalore. They have already gone ahead with preparation of detailed drawings, specification, BOQ and estimate etc. These are likely to be finalized soon. As soon as we receive the same, tendering action will be initiated. It is estimated to cost about **Rs.15.0 crores**.

The BWC approved the proposal

5. Power System Augmentation & Power Backup DG Set

This is necessary for uninterrupted power supply to the Academic Buildings. This will cost about **Rs.3.5 crores**.

The item was deferred to next BWC Meeting

D) APPROVAL OF BOQ AND ESTIMATE FOR TENDERING NEW PROJECT [PART-'B']

BWC: 28 (2017)-07: PROPOSAL FOR APPROVAL OF BOQ AND ESTIMATE FOR TENDERING NEW PROJECT.

1. RCC Retaining wall & repairing of opening for boundary wall near South Kantajhar Basti.

It is observed that there are damages at several places in NIT periphery boundary wall, resulting in pilferage by local basti people through these openings. For safety and security point of view, the boundary wall needs to be repaired. Damage to the boundary wall has been caused during road construction for South Kantajhar and East Kantajhar villages by PWD. The estimate amounts to **Rs.16.33 Lakhs**.

The BWC approved the proposal

[Annexure-A4, Page No.17]

2. Upgradation & Renovation of RCC Reservoir tanks on the Hill Top

Presently, there are two RCC Reservoir tanks on the Hill top of each of capacity 50,000 gallons from where supply of water is made to the campus. In the meantime, construction of a new 5 MLD Water Treatment Plant has been completed and in operation. The present RCC Reservoir Tanks on the hill top do not have a standby arrangement. These tanks are pretty old and have shown sign of distress in the form of leakage / seepage of water and other issues and it has not been possible to take up rectification and strengthening measures.

In the meantime, the water demand of the campus has increased to a great extent due to construction of additional Hostels, Faculty Residences and academic buildings etc.

Considering the above, it is felt urgently necessary for the upgradation of existing reservoir system with enhanced capacity of one lakh gallons on top priority basis.

Earlier, the BWC in its 24th meeting held on 02.06.2015 (BWC: 24(2015)-06) had accorded administrative approval. Detailed estimate has been prepared and this amounts to **Rs.41.65 Lakhs** (Copy enclosed). It is proposed to initiate action for tendering of this work.

The BWC approved the proposal

[Annexure-A5, Page No.18 - 20]

E) APPROVAL OF TENDER FOR AWARD OF WORK [PART-'C']:

BWC: 28 (2017)-08: REPORT ON AWARD OF WORK TO CONTRACTOR

1. Provision of Metallic False ceiling under Chilled Water Pipelines in Physics & Chemistry in Main Building, Computer Science & PG Building Corridors.

Chilled water and condensate drain pipelines of central air conditioning system have been laid overhead by suspending hangers from the ceiling in corridors in various academic buildings. These pipelines have been insulated and plastered with cement. For aesthetic reason, it is proposed to provide false ceiling work below the chilled water pipelines.

A metallic type false ceiling has been designed in-house with powder coated aluminum sections & light stainless steel tubes and provided successfully in Civil Engg. and Mathematics Departments corridors. Unlike conventional type gypsum board false ceiling, this metallic type false ceiling is water proof and easily removable for maintenance purpose. In view of above, it is proposed to provide similar type metallic type false ceiling in corridors of Physics, Chemistry, Computer Sc. departments & PG Bldg. corridors.

In response to the Tender for the above work, the following four firms have submitted their offers:

- M/s A.K. Mohanty
- M/s Adarsh Enterprise
- M/s Sarat Kumar Sahoo
- M/s Dakeswari Enterprises

The members of the Committee opened the envelopes containing the EMDs and found that they have submitted required amount towards EMD.

Then the price bids of the above mentioned firms were opened. It is observed that Sri A.K. Mohanty have become L₁ at a quoted price of (+) 2.90% above the estimated rates of Rs.14,70,267.25 The Price Bid Comparative Statement is enclosed.

The member of the committee called Sri A.K. Mohanty and requested him to reduce his rates. After prolonged discussion, he agreed to execute the work at 2.50% above the estimate. (Letter enclosed)

The Tender Committee recommended to award the work to Sri A.K. Mohanty at a price of 2.50 % above the estimate (i.e. Rs.14, 64,551.93)

The BWC approved the proposal.

D) DEVIATION, EXTRA ITEMS FOR VARIOUS WORKS & POINTS FOR INFORMATION OF BWC[PART-'D']:

BWC: 28 (2017)-09: Proposal for approval of Deviation and extra items for various works:

1. Status of Major Projects (Phase-II)

Our Institute has undertaken the following major construction works as described below:

- 1000 Seated Hostel
- Lecture Hall Complex- II
- Mechanical Science Building
- Golden Jubilee Building
- Faculty Residence (2BHK-72, 3BHK-48 & 1BHK-150)

The above works have been awarded to M/s Shapoorji Pallonji & Co Pvt. Ltd. vide Work Order dated- 22.02.2013 at value of **Rs.302.82 crores**. Though the initial completion period was 2 years, it was extended upto 31.12.2016. During the course of construction, payment to the contractor could not be made regularly because of paucity of fund, starting from end of the year 2015 onwards. This resulted in slow down of progress of work by the contractor. Considering the above, further time extension has been given upto 08.02.2018, (copy enclosed-**Annexure-A6**) on the request of the contractor. Till date, payment of **Rs.206.35 crores** has been made to the contractor. Further, for want of fund, payment to the contractor of about **Rs.13.0 crores** is pending. At present, the works on Hostel, Lecture Hall Complex II, Mechanical Science Building, Faculty Residence (3BHK) are nearing completion and for other buildings, the progress in general is suffering for paucity of fund. Due to delay in payment, M/s SPCL have given a threatening notice vide their Letter Dated 11.03.2017 (**Annexure-A7**) that if the amount due for payment is not released within next 14 days from the date of issue of their letter, they shall be forced to consider reducing the entire mobilization resources and manpower to a bare minimum.

Unless adequate cash flow is maintained, all the above construction activities may get jeopardized, besides attracting commercial implication and litigation. In the meantime, they have also raised the following claims:

- **Price Variation Adjustment:**

They have submitted a cumulative bill amounting to **Rs.12.84 crores** towards the above vide their letter, dated 01.03.2017 (copy enclosed at **Annexure-A8**).

- **Reimbursement of unutilized overhead cost**

M/s Shapoorji Pallonji & Co Pvt. Ltd. have submitted a claim for reimbursement of **Rs.58.03 crores** an account of underutilization of their mobilized resources and additional interest burden on mobilization advances etc. vide their letter, dated 30.08.2016 (copy enclosed at **Annexure-A9**)

A Committee has been constituted to examine the above two claims.

The BWC noted the above.

[Annexure-A6 to A9, Page No.21 - 27]

2. Construction of Connecting corridor and a canteen Building in between Lecture Hall Complex-I & II.

It is expected that in the areas near Lecture Hall complex –I & II, Mechanical Science Building and Biomedical Department, there will be large congregation of students/faculty members. Considering the safety aspect and ensuring disability friendly buildings, it is felt to construct a connecting corridor with provision of ramp between Lecture Hall complex –I & II and a Canteen Building in between the space of these buildings. The concerned Architect, M/s Arch-en-Design have submitted detail drawings for the same. It will cost about Rs.2.15 Crores (Total built up area 1079 sqm X Plinth Area Rate Rs.20, 000/- per sqm). It is proposed to get the work executed through M/s Shapoorji Pallonji, who are already doing the works for Phase-II projects, vide Work order No-NITR/PW/WO/CT/66/12-13/68 Dated22.02.2013.

The BWC noted the above.

3. Construction of Compressor Laboratory as an Annex to Mechanical Science Building under construction.

It has been felt necessary to construct a Compressor Laboratory adjacent to the Mechanical Science Building under construction. The concerned Architect, M/s Arch-en-Design have submitted detail drawings for the same (copy enclosed). It will be cost about Rs. 2.6 Crores (Total built up area 1300 sqm X Plinth Area Rate Rs. 20,000/- per sqm). Presently the construction is being done through M/s Shapoorji Pallonji, who are already doing the works for Phase-II including Mechanical Science Building vide Work Order No NITR/PW/WO/CT/66/12-13/68 Dated22.02.2013.

The BWC noted the above.

4. Installation of 500 kWp Grid Connected Roof Top Solar Project.

One work order has been placed by Solar Energy Corporation of India (SECI) on successful bidder for "Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance of Roof Top Solar PV System" for 500 kWp capacity on subsidy plan on RESCO mode. NIT, Rourkela has to enter into a Power Purchase Agreement for 25 Years with Tariff plan of **Rs.5.39** per kWh with M/s Jackson, New Delhi.

The BWC approved the proposal.

5. Installation of 1000kWp Grid Connected Solar Power Plant

It is proposed to install 1000 kWp Grid Connected Solar Power Plant on ground to cater to 2.5 MW maximum demand power requirement of the institute from own Green energy generation. Space on the west end of Campus is earmarked for the installation of Solar Plant with a provision for expansion to 2000 kWp capacity later.

It can be installed by owning the plant at an estimated cost of Rs.8.00 crores or on entering into a Power purchase agreement for 25 years with outside agency on Build Own and Operate Scheme.

The item was deferred to the next BWC meeting.

6. Deviation & Extra Items for extension & Renovation of KMS Hall of Residence.

The deviation & extra item statements are given in the Annexure. The work order for the above work was awarded to M/s Dakeswari Enterprises at value of Rs.383.33 Lakhs.

During the course of execution, it is decided to provide some additional items which were not envisaged in the original scope of work. Hence these have become extra items. The total deviation amounts to Rs.13.05 Lakhs (3.41%).

The BWC noted the above.

[Annexure-A10, Page No 28 - 60]

7. Extra Items for Construction of Major Project Phase (II)

The extra items statements are given in the Annexure. The work order for the above work was awarded to M/s Shapoorji Pallonji Co (P) Ltd. at value of Rs.302.82 crores.

A. Civil

During the course of execution, it is decided to provide some additional items such as metal roof sheeting, gate valves, tees, cement punning etc. which were not envisaged in the original scope of work. Hence these have become extra items. The estimated cost of the same comes to Rs.43.07 Lakhs.

[Annexure-A11, Page No.61 - 63]

B. Electrical

During the course of execution, it is decided to provide some additional items such as breaker, LT panels and meter board panels etc. which were not envisaged in the original scope of work. Hence these have become extra items. The estimated cost amounts Rs.98.4 Lakhs. However, these are mostly substitute items and total financial implication will be nil.

The BWC noted the noted.

[Annexure-A12, Page No.64 - 66]

BWC: 28 (2017)-10: Any other item with the permission of the chair:

1. Construction of integrated Indoor Stadium with provision of a Student Activity Centre (SAC) and Open Air Theater(OAT).

Presently, the student strength has gone up considerably and will further increase in the coming years. Therefore, it is urgently necessary and is a basic necessity to construct an Indoor Stadium with provision of Student Activity Centre and OAT to be located on the south side of Visvesvarya Hall, the location of which will be close to most of the existing Hostels. This will be an integrated complex, containing Open air theatre of 2500 capacity, provision of sports activities such as Badminton, squash, Table Tennis etc. and Yoga center & Natural therapy classes. There is a large scale demand from the student's community in this regard. This will cost about Rs.15.0 Crores.

Earlier, the BWC in its 20th Meeting (BWC: 20(2013)-06) held on 13.12.2013, had approved the proposal of the construction of the above.

Now, it is proposed to invite Expression of Interest from reputed Architects through advertisement in News Papers and NIT website.

The BWC approved the proposal.

2) Installation of a Statue in front of main building.

At the entrance of the main academic building there is a wooden statue which has been completely damaged due to termite infection. To improve the ambience of the academic area, we need to install a statue that can last for a long period. It is proposed to engage a sculptor of natural repute (not less than a Padma awardee) to design and install a stone structure that would be a signature structure for the Institute. The estimated cost would be around Rs.20 lakh. It is proposed to utilize the SRICCE fund for the same project.

The BWC approved the proposal.

The ended with thanks to the Chair.



(Prof. Saroj Kumar Patel)
Registrar I/C and Secretary I/C
BWC, NIT Rourkela



(Prof. Animesh Biswas)
Director & Chairman,
BWC, NIT Rourkela

