

National Institute of Technology Rourkela

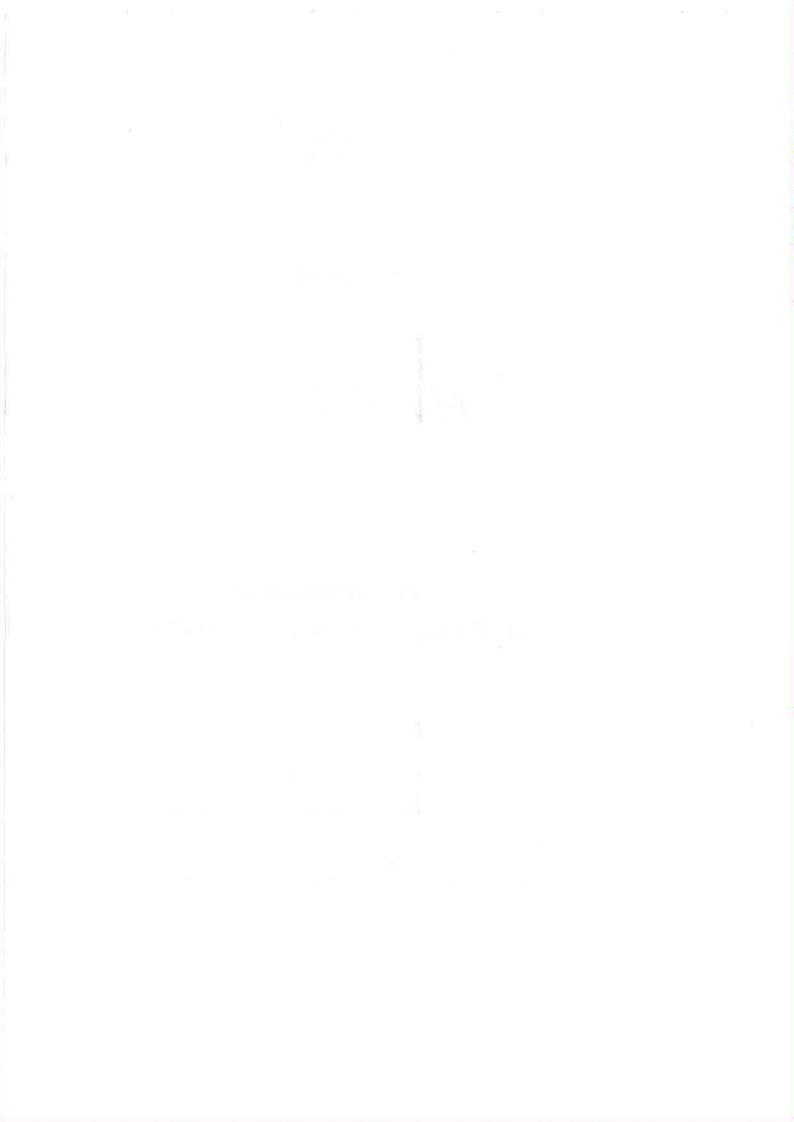
MINUTES

44th Meeting of Building & Works Committee

DATE: 22nd JULY, 2022 (Friday)

TIME : 10:30 A.M.

VENUE: Board Room, NIT, Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला National Institute of Technology, Rourkela

44th Building & Works Committee, National Institute of Technology, Rourkela, held on 22.07.2022 (Friday) at 10.30 AM in the Board Room & MS TEAM (online) of the Institute

Members Present

1. Prof. K. Umamaheshwar Rao

Director & Chairman, BWC NIT. Rourkela

2. Shri M. L. Soni (online through MS TEAM)

Director (NITs),
Department of Higher Education
Ministry of Education (Shiksha Mantralaya),
Government of India,
Shastri Bhawan,
New Delhi - 110015

3. Shri Sanjay Kumar Pradhan

GM, Tower Engg (Elect) SAIL, RSP, Rourkela

4. Prof. Swadesh Kumar Pratihar

Professor, Ceramic Engineering & Member, BOG NIT, Rourkela

5. Prof. Pradip Sarkar

Professor, Civil Engineering & Dean (PD) NIT, Rourkela

6. Prof. Rohan Dhiman,

Registrar & Member Secretary, BWC, NIT. Rourkela

Invitees Present

7. Prof. S. Karmakar, EE

Associate Dean PD (MEP), NIT Rourkela

8. Prof. R. N. Behera, CE

PIC (Civil Works), NIT Rourkela

9. Prof. M. K. Moharana, ME

PIC (HVAC), NIT Rourkela

10. Mr. Joydip Mondal

Executive Engineer, Estate, NIT Rourkela

11. Mr. Rajesh Kumar Sahoo

Executive Engineer (E), Estate, NIT Rourkela

Members & Invitees Absent

12. Shri Anil Kumar

Director, Finance Ministry of Education (Shiksha Mantralaya), Government of India, Department of Secondary & Higher Education, Shastri Bhawan, New Delhi – 110001

13. Shri Dillip Kumar Sahoo

GM, Projects (Civil) SAIL, RSP, Rourkela

14. Shri B. K. Pati

Executive Engineer PWD, Uditnagar, Rourkela.



Minutes of the 44th Building & Works Committee, National Institute of Technology, Rourkela held on 22.07.2022 (Friday) at 10.30 AM in the Board Room of the Institute/VC.

A) GENERAL AND PROCEDURAL MATTERS.

BWC: 44(2022)-01: Welcome to the members by the Chairman of the BWC.

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

BWC: 44(2022)-02: Confirmation of the minutes of 43rd Meeting of the BWC held on 21.01.2022.

The minutes of the 43rd Meeting were sent to the members and no comments were received from the members.

BWC confirmed the minutes of 43rd BWC meeting.

[Annexure - A1, Page No. 12 - 21]

BWC: 44(2022)-03: To report on the action taken on the decisions made in the 43rd Meeting of BWC held on 21.01.2022 and to discuss matters arising out of the minutes.

The report on the action taken on the decisions made in the 43rd Meeting of the BWC held on 21.01.2022 is presented for BWC's consideration.

Agenda Number	Subject	Action taken	BWC's comment
BWC: 43(2022)-03	Settlement of final dues of M/s SPCPL for Major Project Phase-II	The final bill of M/s SPCPL of around ₹4.3 crore is kept on hold as M/s SPCPL denied to submit "No Dues" and "No Claim" certificates.	BWC noted this information. Further details on this is presented in the agenda no. BWC: 44(2022)-08
		NIT Rourkela reported the resolution of the 43 rd BWC to M/s SPCPL officials at a meeting on April 12, 2022. At that meeting, it was decided that NIT Rourkela would release the expired bank guarantees and around ₹8.97 crore security deposit if reported defects are addressed by M/s SPCPL. The security deposit balance amount of around ₹15.14 crore would be kept on hold as possible LD, to be settled later.	
		crore would be kept on hold as	

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		deployed resources to the site and started work on 26 th April 2022 to address the defects. Accordingly, ₹7.0 crore has been released from the security deposit to M/s SPCPL so far.	9 S.	
BWC: 43 (2022)-04	Laying of new Cl Line from the Campus Pump house to Puspa Pond.	The bidding procedure for this work has been concluded and the associated file is in the fund booking stage. This work is progressing according to the planned schedule.	BWC noted this information	
	2) Budget Provisions for Civil and Electrical maintenance work.	43 rd BWC recommended about ₹12 crores under OH-31 as expenses for routine civil and electrical maintenance work for FY22-23 which was later approved by FC. However, only ₹3.5 crore is allocated under this heading for this fiscal year, which is grossly insufficient for the purpose.	Initiating the discussion, Director stated the institute is experiencing a severe funding problem at the moment, and routine maintenance activities will be hampered unless the institute receives the minimum required funds from the ministry under OH-31. Member of the ministry has assured that the matter will be discussed with the finance wing.	
BWC: 43(2022)-05	Review of ongoing Projects	(1) Per BWC's suggestion, NIT Rourkela is attempting to address the slow progress of HEFA-funded projects through regular meetings with local CPWD offices. Despite all efforts, the progress of the 'Sports Complex and Common Facilities' on the NIT Rourkela campus is very disappointing so far.	Member of the ministry requested to forward all communications that the institute had with CPWD and assured that he will discuss this issue with CPWD headquarters.	
		(2) Disputes associated with the increased cost of the "two number of Lawn Tennis Court and one Basketball Court" project were resolved by joint site measurement and the recommendation submitted for approval by the BWC at its 44 th meeting.	BWC noted this information. Further details on this is presented in the agenda no. BWC: 44(2022)-07	
BWC: 43(2022)-06	Report on the action taken on the decisions made in the previous BWCs	(1) Per BWC's suggestion, all major projects that were previously approved by BWC but not implemented due to lack of funds are placed at the 44 th BWC meeting with revised estimates for consideration under the HEFA Term Loan.	BWC noted this information.	
	e e	(2) Regarding the EWS project of the 1000-bedded girls' hostel, BWC recommended engaging any public sector company established by the central or state government to carry out this project under the provision of	BWC recommended the proposal to execute this project through CPWD for FC/BOG approval, as this was previously approved by FC/BOG. BWC took note of this	





Rule 133(3) of GFR-2017 which was later approved by the FC. However, considering the plan of some HEFA-funded upcoming projects, it is decided to execute this work through CPWD along with other works for better project management.

Accordingly, an MOU has already been signed with CPWD for this project. It is worth mentioning here that the size of the project is reduced from a 1000-bed hostel to a 500-bed hostel to accommodate it within the sanctioned ₹35 crores.

Although CPWD has already begun the work to enable the site, the necessary payment could not be made to them since no money has been received from the ministry under this head so far.

information and approved the modified size of the hostel from 1,000 beds to 500 beds. Regarding the allocation of funds, Member from the Ministry advised the Registrar to send an application with the necessary details at the earliest.

[Annexure-A2, Page No. 22 - 23]

B) REVIEW OF ONGOING PROJECTS:

BWC: 44(2022)-04: Review of ongoing Projects.

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

BWC noted the information.

[Annexure-A3, Page No. 24 - 27]

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

BWC: 44(2022)-05: Proposal for New Projects.

1. Construction of 1.5 MLD sewerage treatment plant:

Over the years, there has been large-scale increase in the population of students, staff and faculty members resulting in large increase in sewerage quantity. Presently, sewerage disposal is being done through individual septic tanks. For hostel as a temporary arrangement, 0.18 MLD sewerage treatment plant has been installed for some hostels only. Therefore, there is urgent necessity of a centralized sewerage treatment plant. CPWD has submitted rough cost estimate of ₹13.21 Cr.

Source of fund - HEFA

BWC recommended to FC for approval.

[Annexure - A4, Page No. 28 - 39]





2. Construction of 1000 Seated Boys Hostel and 500 Seated Girls Hostel:

Over the years, the number of students has increased (Boys and Girls students). The student's strength is likely to increase further. There has been shortage of rooms. As a result, they are undergoing hardships. It is therefore proposed to construct one 1000 seated Boys hostel (G+3) and one 500 seated Girls hostel (G+3). CPWD, Sambalpur has submitted rough cost estimate of ₹77.53 Cr for Boys hostel and ₹38.87 Cr for Girls hostel.

Source of fund - HEFA

BWC recommended to FC for approval.

[Annexure - A5, Page No. 40 - 53]

3. Construction of Faculty Residence (72 nos. flats):

There has been large increase in faculty strength of our institute. It is observed that there is acute shortage of faculty residence in campus and many of the new faculty members are presently accommodated in the student's hostel. The problem will be more severe in the coming years after the next faculty recruitment. It is therefore proposed to construct residential flats (72 nos. 2BHK flats) in six storied building.

CPWD, Sambalpur has submitted rough cost estimate of ₹36.2 Cr.

Source of fund - HEFA

BWC recommended to FC for approval.

[Annexure - A6, Page No. 54 - 59]

4. Construction of Civil Engineering Department Building:

Civil department being the largest department in the Institute has 41 sanctioned faculty positions in five specializations and about 750 students comprising of UG, PG and Research courses. The department is scattered at many locations in the academic area and suffering acute shortage of space. There is no scope for the expansion of the department in main building. Therefore, it is proposed to construct a new building for Civil Engineering Department. CPWD, Sambalpur has submitted a rough cost estimate of ₹114.07 Cr in this regard.

Source of fund - HEFA

BWC recommended to FC for approval.

[Annexure - A7, Page No. 60 - 70]

5. Construction of 6 nos. bore-well with necessary pipe line:

Presently, the water demand of the institute campus is about 3.5 MLD. Out of which, 2.5 MLD is supplied by state PHE department (raw water) and remaining 1 MLD is drawn from bore-wells located in different places in

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Institute. Institute is facing serious difficulties when the supply from state PHE department is interrupted. Therefore, it is proposed to construct 6 nos. of bore-well and laying of required pipe line from bore-well to reservoir to reduce the dependency on state PHE department. The cost of this work is estimated to be about 50 lakhs.

BWC recommended this proposal to the FC for approval. As per discussion, it was advised to execute this work through the corresponding department of the state/central government to avoid complications related to statutory approvals.

6. <u>Construction of Geo-technical Engineering Laboratory for Mining Engineering Department:</u>

Odisha mining corporation Ltd. Bhubaneswar has approved ₹30 lakhs under CSR policy for the construction of single story light-roof laboratory building to store rock samples, core logs, over burden materials, conduct experiments etc. Therefore, it is proposed to construct this laboratory building spanning 25m×8m. The cost of this work is estimated to be ₹30 lakhs.

BWC approved the proposal.

[Annexure - A8, Page No. 71 - 75]

7. Various works at Mechanical Science Department:

Mechanical department was shifted to their newly constructed department building. Now estate office has received several requisitions for various work such as cycle stands, area development, minor modification as per their requirement, foundation for various machine, etc. In view of the above, an estimate of ₹37 lakhs is prepared to execute the necessary works.

BWC recommended this proposal to the FC for approval.

[Annexure - A9, Page No. 76 - 83]

8. Construction of RCC Boundary Wall from WTP to Faculty Residence FRB

The state PWD built a bituminous road along the southern boundary of our campus five years ago. The boundary wall of our campus, built of stone masonry, has been damaged in several places between WTP and faculty residence (FRB) due to the increase in road height. The broken boundary wall is constantly affecting the safety and security of our campus. It is therefore proposed that the above mentioned part of the Boundary Wall (approximately 620 m from WTP to FRB) be reconstructed by the RCC Retaining Wall. It is also proposed to build two security watch towers to ensure the safety of the campus as the height of the road has already increased. The estimated cost for above work is about ₹4.72 Cr.

BWC recommended this proposal to the FC for approval.

[Annexure - A10, Page No. 84 - 86]





9. Various works in Hall of Residences

The Chief Warden has proposed some modification to the CVR Hall of Residence in response to the sudden increase in the female student population on campus. Also, some maintenance work (such as inside painting, kitchen and bathroom maintenance, etc.) especially for the first year hostel has become essential. The estimated cost of the above work is about ₹47.28 lakhs.

BWC recommended this proposal to the FC for approval.

[Annexure - A11, Page No. 87 - 89]

10. Annual Maintenance Contract of 33 KV Ring Main System and 33/0.433 KV SS

Annual maintenance contract for 33 KV Ring Main System and 33/0.433 KV substations have been expired on 31st March 2022. In order to perform the periodic, preventive and breakdown maintenances of the HT distribution networks and sub-stations, a new AMC is needed. An estimate for the said work for a period of 3 years has been prepared with an estimated cost of ₹22.42 lakhs (1st year), ₹23.54 lakhs (2nd year) and ₹24.71 lakhs (3rd year).

BWC approved the proposal.

[Annexure - A12, Page No. 90 - 92]

11. Purchase of HT spares for 33 KV SS & RMS

Electrical HT spares availability are alarmingly low to maintain the general power distribution network. Mandatory spares for HT along with some tools need to be purchased. The estimated cost is approximately ₹19 lakhs.

BWC approved the proposal.

[Annexure - A13, Page No. 93 - 95]

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

BWC: 44(2022)-06: Revision of BOQ and estimated amount for approved project.

1. Essential works for Electrical Maintenance:

Many essential works under electrical maintenance were approved in different BWCs but those works were not taken up due to shortage of fund. Since the cost of the material has increased, the above work is reestimated and the details are as follows:

SI. No.	Name of the work	Approved in	Approved Estimate (₹ in Lakhs)	Revised Estimate (₹ in Lakhs)
1.	Installation of addition transformer in SS-8 and SS-2	31 st BWC	61.29	80.20
2.	Construction of 33/0.433 KV	34 th BWC	69.80	78.84



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	Substation for Golden Jubilee Building			
3.	Purchase of Electrical Cables (HT & LT)	39 th BWC	28 & 30	46.83 & 47.91

BWC recommended this proposal to the FC for approval.

2. Construction of Elevated Water Reservoir (800 m³):

Construction of an Elevated water tank of capacity 800 m³ was proposed in 42nd BWC with an estimated cost ₹1.18 Cr (Excluding GST). BWC recommended this proposal to FC and FC approved the same. This estimate was made on the basis of rate of FY 2015-16. Considering abnormal hike in material rates in recent past, we are approaching CPWD Sambalpur for rough cost estimate for mentioned project with current rates. Now, CPWD has submitted a rough cost estimate of ₹3.63 Cr in this regard.

BWC directed this project to be executed through CPWD and recommended it to FC for approval.

[Annexure - A14, Page No. 96 - 101]

3. Extension of Structural Engineering Laboratory:

The department of civil Engineering has submitted a proposal for Extension of structural engineering laboratory to Estate Office and the same was placed in 42nd BWC. BWC approved the same with an estimate cost of ₹19.5 lakhs (Excluding GST). The estimate was made as per the tentative drawing provided by the Civil Engineering Department. Now a detailed drawing was made as per site requirement before tendering. The estimated value as per detailed drawing is ₹29.53 lakhs.

BWC approved the revised estimate of 29.53 lakhs.

[Annexure - A15, Page No. 102 - 108]

- E) APPROVAL OF TENDER FOR AWARD OF WORK [PART 'C']: NIL
- F) DEVIATION, EXTRA ITEMS FOR VARIOUS WORKS & POINTS FOR INFORMATION OF BWC [PART-'D']:-

BWC: 44(2022)-07: Construction of 2 lawn tennis court and one basketball court

NIT Rourkela had sanctioned ₹98,21,700/- to CPWD, Sambalpur for construction of 2 nos of lawn tennis courts and one basketball court vide letter no NITR/RG/2019/L/0402 dated 26.07.2019. The works was completed on 26.07.2021. CPWD, Sambalpur has submitted a revised estimate of ₹1,15,76,575/- for obtaining administrative approval and expenditure sanction as the scope of the work was increased.

BWC recommended to FC for approval.

[Annexure - A16, Page No. 109 - 126]





BWC: 44(2022)-08: Issues regarding Major Project Phase-II

The Golden Jubilee Building could not be occupied for the last 2.5 years (since its virtual completion on October 31, 2019) due to the unavailability of a chiller plant and the Covid-19 pandemic. We have recently discovered a few more defects in the building, in addition to the defects identified during the defect liability period. Many of these defects arise because of some initial planning errors. Therefore, the construction agency M/S SPCPL cannot be held responsible for these problems. The list of additional jobs required to be executed for the GJB to make it operational are as follows:

A. CIVIL WORKS

1	Raising the floor height of the entire seminar block (GJB) to floor level at the entrance with waterproofing rework.
2	Elimination of the false ceiling of the seminar block (GJB) to achieve an adequate clearance height.
3	Replacement of the existing expansion joint system with neoprene seals to prevent rainwater seepage through it.
4	Installation of MS Grills on all window openings (GJB) above the 4th floor.
5	Roof leakage solution with weathering Solar Reflective Index (SRI) Tiles for GJB terrace.

B. MEP WORKS

1	The 'fire/smoke check door' seems to be missing. If so, then a new system must be installed.
2	The corridor ventilation system seems to be missing. If so, then a new system must be installed.
3	The fire pump, sprinkler pump and jockey pump appear to be missing. If so, then a new system must be installed.
4	The staircase and lift lobby pressurization system appear to be missing. If so, then a new system must be installed.

Other buildings executed by M/S SPCPL also require the replacement of the existing expansion joint system with neoprene seals to prevent rainwater seepage.

Additionally, there are roof slab leakage issues at the faculty residence (3BHK and 2BHK) that is already reported and M/S SPCPL is ready to correct this defect using APP sheets. However, to achieve a more durable solution to this problem, it is proposed to have corrugated GI sheds on the roofs of these buildings instead of APP sheets.

To execute the aforementioned work, approximately ₹10.0 Cr is required whose tentative cost estimate is given in the annexure.

Initiating the discussion, Dean (PD) reported that the balanced security deposit of $\ref{17.11}$ crore of this project is available with NIT Rourkela, of which $\ref{15.14}$ crore will be provisioned for potential LD and $\ref{80}$ lakhs of M/s SPCPL should be recovered in view of the CAG observations. Other than this, the final bill of $\ref{4.29}$ crore is pending with NIT Rourkela due to non-submission of "No Claim" "No Dues" certificates.



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As per discussion during the meeting following was advised: (a) no further payment from security deposit has to be made without legal opinion and (b) final bill may be released only after the receipt of the "No Claim" "No Dues" certificates from the agency.

Director presented the serious existing conditions of the buildings constructed under Major Project Phase – I and Phase – II leading to safety as well as habitability issues and appealed to the BWC for a one time grant of ₹35 Crore to resolve all the serious concerns of those newly constructed buildings. BWC recommended this proposal of Director to FC for approval.

[Annexure - A17, Page No. 127 - 132]

BWC: 44(2022)-09: Statutory approval for the buildings under Major Project Phase-II:

It is coming to our knowledge that none of building plan was approved by local body under major project phase-II, during the process of approval of ongoing sports complex through Rourkela Municipal Corporation. Fire-approval was also interlinking with local body approval. This local body approval was normally taken before the construction. Therefore, it is proposed to regularize approval process to use those buildings.

BWC advised Registrar to initiate the process of regularization with the help of concerned Departments of the institute.

BWC: 44(2022)-10: Any other item with the permission of the chair.

(1) Issues regarding Major Project Phase-I: After project completion, 50% of the total security deposit has been returned to M/s UPRNN as per Contract Clause No. 6. The balanced 50% of the security deposit (amounting to ₹6,03,87,045) was supposed to be paid after the successful completion of the defect liability period (DLP). In a joint meeting with M/s UPRNN dated November 19, 2015, it was decided that the estimated cost to address all the reported defects reasonably is ₹2crore, which will be retained by NIT Rourkela and the remaining part of the security deposit will be released. It was also decided that this ₹2 crore will be released after rectification of all defects and completion of other outstanding work.

However, M/s UPRNN has so far only attempted a cosmetic repair of these defects without resolving the root cause of these problems. As a result, all of the above issues have resurfaced immediately after addressing them. The matter regarding the Electrical Science Building was first discussed at BWC: 29(2017)-08-1 dated November 8, 2017, and BWC decided to engage CPWD for the safety assessment in this building with remedial measures. This matter regarding the three buildings (i.e., Biomedical, ESB, and FR) was discussed again at BWC: 33(2019)-06-3 dated April 30, 2019, as CPWD did not respond to NIT Rourkela's request. The matter regarding the release of the security deposit was also discussed in BWC: 30 (2018)-09-5 on March 28, 2018, and it was decided not to release the balance of the security deposit. Instead, a letter was sent to M/s UPRNN asking them to address the issues, otherwise, the work will be done by NIT Rourkela at the risk and cost of M/s UPRNN. However, M/s UPRNN did not respond to this particular letter but continued to send letters for the release of the balanced



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security deposit. The matter was further discussed at BWC: 33(2019)-07-3 on April 30, 2019, and at BWC: 43(2022)-06-5 and BWC: 43(2022)-06-5 on 30 April 2019, but without any conclusive decision.

M/s UPRNN attended a meeting with NIT Rourkela on July 12, 2022, to discuss this matter and assured that they will address the issues, however, only after returning the security deposit together with the associated bank interest. During the discussion, M/s UPRNN informed that ₹ 2 crores will not be sufficient to attend to all these defects comprehensively, therefore they will attend to as many defects as possible considering a budget of ₹2 crores. They have also said that they are not the only ones responsible for many of the defects and that, in fact, most of the defects have arisen from poor planning and design that was beyond their control.

NIT Rourkela's experience so far with M/s UPRNN is such that whenever defects are reported during the DLP, they have taken some temporary steps primarily with the aim of recovering the security deposit. They did not respond to NIT Rourkela's request to address issues post-DLP for a long time. Instead, they have sent a legal notice for the recovery of the Security Deposit dated 01.09.2020. In such a situation, it would be wise not to rely on M/s UPRNN for a long-term solution to the above problems. However, the existing conditions of these buildings pose serious threats to safety and habitability that require immediate attention to restore these structures to their useful life.

In reference to the discussion, it was decided to not make any further payment from security deposit without legal opinion.

Director presented the serious existing conditions of the buildings constructed under Major Project Phase – I and Phase – II leading to safety as well as habitability issues and appealed to the BWC for a one time grant of ₹35 Crore to resolve all the serious concerns of those newly constructed buildings. BWC recommended this proposal of Director to FC for approval.

[Annexure - A18, Page No. 133 - 136]

(2) Construction of Vertical Extension of additional 02 Floors on existing S+3 Academic Building at Bhubaneswar: Although the Academic Building at Bhubaneswar was originally planned and designed as S+5 storeyed building, due to the non-availability of adequate fund it was decided to construct the first S+3 storeys only. However, the amount tendered for this project for the S+3 storeyed building is found to be approximately ₹12 Cr. against the sanctioned amount of ₹20 cr. Therefore, it is now proposed to construct the entire S+5 storeys of the building at one time. Accordingly, CPWD Bhubaneswar have submited a Preliminary Estimate of about ₹7.90 Crore for the construction of vertical extension of additional 02 floors.

BWC recommended the proposal of the construction of vertical extension of additional 02 floors with an estimated cost of ₹7.89 Crore to FC for approval.

[Annexure - A19, Page No. 137 - 148]



(3) Revision of BOQ for Supply, Installation, Testing and Commissioning (SITC) of DG sets: 31st BWC (2018) approved the rough cost estimate for Supply, Installation, Testing and Commissioning (SITC) of 3×750 kVA DG sets with an estimated cost of ₹3.03 Cr. including GST. The above work could not be executed due to fund crunch. Now final estimation has been prepared with SITC of 4×600kVA DG sets for Golden Jubilee Building, Mechanical Science Building, Lecture Hall Complex – II and all the boys hostels with two years warranty and 3 years AMC. The total cost of the project is now ₹2.49 Cr.

BWC approved the revision of BOQ.

[Annexure - A20, Page No. 149 - 152]

The meeting ended with thanks to the Chair.

(Prof. R. Dhiman)

Registrar & Member Secretary Building & Works Committee

(Prof. K. Umamaheshwar Rao)
Director & Chairman

Building & Works Committee