GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD

No. 2013/W-1/TP/ME/2

The General Manager,
N.F. Railway,
Maligoan,
Guwahati

The General Manager/Const.,
N.F. Railway,
Maligoan,
Guwahati

The Chief Administrative Officers/Const.,
All Indian Railways.

The Principal Chief Engineers,
All Indian Railways.

Sub: Inspection Note of Shri Subodh Jain, Member Engineering, Railway Board during his visit to Northeast Frontier Railway from 14.05.2013 to 15.05.2013 (No.2013/ME/Insp.Note dated 20.06.2013).

Enclosed please find a copy of Inspection Note of Shri Subodh Jain, Member Engineering, Railway Board on the above subject for information and necessary action. Please send the compliance report on the Inspection Notes to this office through E-Mail as well as hard copy.

DA: As Above

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INSPECTION NOTES OF SHRI SUBODH JAIN, MEMBER ENGINEERING, RAILWAY BOARD DURING HIS VISIT TO NORTHEAST FRONTIER RAILWAY FROM 14.05.2013 - 15.05.2013

Officers attended: GM/NFR, GM/NFR (C), CAO/C-I, CAO/C-II, PCE/NFR and their team of officers.

1.0 Review of Open Line Projects

1.1 PCEs/All IR Despite difficult circumstances, performance of N.F. Railway is better than many Railways. Railway has ventured into new areas e.g. TWR by in situ flash butt welding by mobile plant, moving on the track, in mega block and construction of RUBs at LCs with pre-cast box segments, under mega block. Use of more applications of TMS has also been started. Presentation on in “in-situ flash butt welding” was excellent.

1.2 PCE/NFR Old Assam type quarters are difficult to maintain. These can be replaced with multi-storied buildings. New quarters to be constructed on Public-Private-Partnership (PPP) basis. Goshala area at Maligaon can be a potential site for this purpose.

1.3 PCEs/All IR 52 kg/60 kg junction joints should not be on the main line.

1.4 PCE/NFR Railway is planning to increase speed of Rajdhani and other passenger trains on KIR – GHY section. As the track on this section has been strengthened i.e. PSC sleepers, 52 Kg/60 Kg rails and ballast cushion of 250 to 300 mm, Railway must make use of full potential of the track structure.

1.5 PCE/NFR Rail/weld fractures are well within control. There had been 61 rail/weld fractures as against 67 during previous year. Efforts to control these failures must be continued to minimize the rail/weld fractures.

1.6 PCE/NFR Boundary walls may be constructed to prevent encroachments on GHY-KYQ section and in cities to protect railway land.

1.7 PCEs/All IR With the use of PSC sleepers, type of sleepers and fittings has reduced considerably. The possibility of reduction of stock holder PWIs should be explored. Trucks are now available with almost all the PWIs and it can be possible to stock the P.Way materials for 3/4 PWIs at one place i.e. under one of them. Small quantity of fittings can be kept at LCs also.

1.8 PCEs/All IR Due to change in circumstances, e.g. education, mechanization etc., we need to change our strategy of track maintenance and manning of level crossings. To ensure that our trackmen and Gatemen perform to the optimum level, we need to provide proper shelters with toilets at level crossings so that trackmen/gatemen can take rest in case of late hours working.
NFR has only 02 Concrete Sleeper Plants where production of line sleepers is in progress. These plants are at NJP and Mirza. At JID, the plant is manufacturing special sleepers; but contract for line sleepers has been terminated as the production was stopped by the Contractor sometimes back. NFR should develop and encourage new sleeper plants to come up as difficulties of this region are different. Transportation of sleepers from NJP and Mirza towards LMG and TSK can prove to be a costly affair.

Possibility of procurement of ballast from Bhutan may be explored. A ballast depot was developed at Chaprakata about 20 years back. The possibility of reviving the same depot or at other nearby places may be explored.

NFR is in need of 02 Tampers and 01 UNIMAT machines. Railway Board’s orders are already there for transfer of Tampers from NC Railway and EC Railway. The machines from these Railways should be sent immediately.

Due to shortage of staff, some of the track machines remain idle for quite some time. Possibility of operation of such machines on contract basis should be explored.

Efforts should be made to eliminate the LCs as much as possible without unnecessarily over-burdening the estimates of ongoing gauge conversion projects. Further, manning by contractors men and use of road counselors may also be explored, particularly on the routes having significantly less number of trains.

NFR has done recruitment of Trackmen and Gatemen etc. recently and staff position is quite satisfactory. For creation of posts for new assets, belt-tightening is required and outsourcing may be done on unimportant lines.

SEJs without stiffeners should be replaced forthwith as they are leading to failures.

The productivity of EWS at BNGN should be reviewed and improved.

Recently NFR has ventured into the following new areas:

i. Construction of RUBs at level crossings has been started by precast box segments, thereby eliminating the need for temporary arrangements and speed restrictions for long duration.

ii. Trial has been conducted for through weld renewals by in situ Flash Butt Welding. This is a very good attempt which should be carried forward for replacement of old thermit welds. The system will be quite suitable for double line sections where traffic blocks of 04 hours and more can be granted by single line working.
iii. Arrangements for end-loading of rails have been made for 02 rakes - one in Mechanical Workshop/BNGN and the other by the Engineering Deptt, for movement of 10-rail panels from FBWP at NJP. Due to this, Railway would achieve the target of TRR during 2012-13.

iv. Use of TMS has been started in monitoring daily Engineering position and progress of track machines.

1.18 NFR has projected their fund requirement to the Board. The Railway needs additional funds particularly in track renewal, staff quarters and staff amenities plan heads. Efforts need to be made to meet the requirement for this difficult region.

2.0 GM/NFR stressed for the following:-

2.1 GM/NF Railway stressed for additional funds for commissioning of New Mal-Changrabandha and New Coochbehur-Changrabandha sections on which engine rolling has been done. Railway was advised while efforts would be made to provide additional funds, however, Railway should restrict the scope of work to the sanctioned scope and try to open the section with less number of crossing stations, as traffic expected on this line is not much.

2.2 GM/NFR also requested Board to consider doubling of New Bongaigaon-Kamakhya section via Goalpara instead of via Rangiya, as it would be easier because Naranarayan Setu over river Brahmaputra at Jogighopa already has provision of 2 BG tracks.

2.3 GM/NF Railway further requested for sanctioning some works under Ph-16, Ph-64 and Ph-11. Railway was advised to submit fresh proposals which would be examined in the Board.

3.0 Review of Construction Works

Construction Organization is presently executing 34 projects out of which 11 are National Projects. Total estimated cost for all the projects is ₹48000 Cr. Cumulative expenditure as on 31.3.13 is ₹16000 Cr. and balance is ₹32000 Cr. The fund allotment for 2013-14 is only ₹2354 Cr. The target of current financial year is 175.7 Km (New line 11.4Km, GC-154Km, Doubling 10.3 Km).

4.0 Review of Targeted Projects

Rangiya to Murkongselek

Harmuti-Naharlagun.
Gauge conversion from Rangiya to Murkongselek including branch lines (510.33km) (National Project).

The project was sanctioned in the year 2003-04 and the latest sanctioned cost is ₹1590.44 crore. Expenditure to the tune of Rs.1700 cr has already been incurred till Mar’13 but revised estimate has still not been submitted to Railway Board which should be submitted on top priority. All Railways should ensure that as soon as it is contemplated that cost of the project is likely to exceed the sanctioned estimate, the revised estimate should be processed.

Rangiya - Rangapara North - Dekargaon (Tezpur) (145km)

Section has been completed and inspected by CRS in April 2013. But authorization has been withheld due to some balance works which should be completed and section be commissioned by June 2013.

Rangapara North – North Lakhimpur (172km)

Section has been completed and engine rolling done in March, 2013. However, some passenger amenities and S&T works are yet to be completed. The section should be commissioned by Dec’13.

North Lakhimpur – Murkongselek (154km)

Section is targeted for completion by March 2014. However, progress of major bridges is quite slow, as substructure of 52 bridges and superstructure of 24 major bridges out of total 69 has yet been completed. These should be expedited. GM/Con may plan commissioning of the project with a provision of a few crossing stations for now. Further crossing stations can be added in due course in next year due to limited availability of funds this year.

Harmuti – Naharlagun New Line Project (21.758km):

Harmuti-Naharlagun New Line is an important project as it would provide connectivity to the Capital of Arunachal Pradesh, thus making it the third State Capital out of Seven Sisters to be brought on Railway Network. On this project, 20 km track linking and 5 major bridges out of 8 have been completed and work on remaining 3 major bridges is in progress. Acquisition of 1 hectare Reserve Forest Land in a length of about 500 mtr is under process.
All works on this project should be expeditiously completed and the section be commissioned by December, 2013 alongwith Rangapara North-Harmuti
North Lakhimpur Gauge Conversion. If necessary, all works in Rangapara North-Harmuti gauge conversion and Harmuti-Naharlagun New Line should be completed first and capital connectivity be provided on priority.

GM/C/NFR 4.3 **Dudhnoi – Mehandipathar New line**

Dudhnoi – Mendipathar new line project was reviewed. COM present in the meeting informed that no substantial goods traffic is contemplated on commissioning of this line at present. Running of one pair of passenger train is expected as projected while planning the project. This line can be given low priority keeping in view the fund constraint as suggested by Railways.

GM/C/NFR 4.4 **Ambari Falakata – New Maynaguri (36.52 KM) – (Doubling)**

First block section from Ambari Falakata – Belakoba (10.3 Km) has been targeted during 2013-14. 7 Km formation is ready and the work on the remaining portion is in progress. Sub-structure of 1 No. major bridge (4 x 18.3m) has been completed and the fabrication for the super-structure (composite steel girder) has been started.

5.0 **Review of Important Projects.**

5.1 **Lumding-Silchar Project**

5.1.1 Project is of paramount importance. Efforts should be made to adhere to the target dates given to Board.

5.1.2 It was informed that against a BG grant of ₹375.0 crores for the year 2013-14 the requirement of funds is about ₹645.0 crores i.e an additional requirement of ₹270.0 crores. ED/Works pointed out that the Railway had projected a requirement of Rs.465 crores for this project in the revised meeting held on 31.02.2013. Efforts are being made to arrange more funds for this project.

5.1.3 It was informed that a diversion is proposed commencing from Migrendisa to Ditokcherra station. The alignment of the proposed BG route should be marked on a google earth map for better appreciation. The MG track between Mahur and Ditokcherra is proposed to be retained as heritage track, this could be pursued further.

5.1.4 GM/Construction indicated that a lot of difficulties are being faced in doing flash butt welding of joints on hill section. However, as the repercussions of a weld failure in hill section could be very serious, we should avoid AT welding to the extent possible.

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5.1.5 Ballast:

i. It was informed that ballast for the project is being procured from the locally available river boulders with relaxation in the abrasion and impact resistance values. In order to limit the procurement of this ballast, a proposal for providing 150mm ballast cushion at a maximum permissible speed of 80 kmph may be sent to Board for approval.

ii. Depot for stacking ballast from Pakur should be established at Patharkhola station and all out efforts should be made for procurement of ballast at Patharkhola by running BCN rakes from Pakur to Patharkhola.

5.1.6 Tunnels

It was explained that there are 17 tunnels on the route out of which 12 nos. have been completed. Tunnel No.7 (1687m) and Tunnel No.10 (3235m) are the critical tunnels. These need to be closely monitored so as to complete the project within target.

5.2 Jiribam-Tupul-Imphal New Line

5.2.1 GM/Const. explained that alignment between Jiribam and Tupul has been changed to provide connectivity to Imphal. While the earlier alignment was mostly grazing the hill slopes as also generally parallel to Barak river, the present one is mostly perpendicular to the contours thereby having higher over-burden of about 500 metre and above in long tunnels. The present alignment is expected to be more stable and sustainable. Further, ruling gradient of 1 in 80 (compensated) and maximum curvature of 2.75 degree has been kept in the new alignment, making the speed potential of the project as 100 kmph.

5.2.2 Works in Jiribam-Tupul were stated to be progressing well. Railway was advised to concentrate on Jiribam-Tupul in view of the fund constraints and not to enter into any contractual liabilities in Tupul-Imphal section in this financial year.

5.2.3 High banks specially in gorges should be avoided as these could be prove to washouts. In such valuable locations, viaducts may be more suitable. Site specific decision may be taken based on techno-economic feasibility study.

5.2.4 GM/NF Rly /Con mentioned that we are reaching a level of progress of about 1 km/month in tunnels and hence the project can be completed, in next 3 years if adequate funding is ensured.

5.3 Rail-cum-Road Bridge over river Brahmaputra near Bogibeel with link
Chawlkhowa - Moranhat South Bank (44 Km) completed.

North & South guide bund completed. 14 Km of rail link on North bank and 8 km on south bank has been completed.

Out of total 42 wells, 36 nos. have been completed and out of 42, 28 abutment/ piers have been completed. The target of completion of entire sub-structure is March, 14. This should be ensured.

The contract for super structure has been awarded to HCC-VNR (JV). The firm has already established fabrication and assembly yard for girder fabrication. Railway should put in place an elaborate quality Assurance mechanism to ensure proper quality control at all stages of construction i.e. raw material, welding process, fabrication, assembly, erection etc. ₹340 crores budget grant has been given in this year, additional ₹360 crores has been demanded by Railways.

NF Railway should advise IRICEN when fabrication starts and all IRSE probationers should be sent to this site for training.

New Maynaguri - Jogighopa Project (New Line)

The allotment of ₹140 Cr will be utilized for clearing the pending liabilities. GM/N.F.Railway is stressing the need for completion of section Gauripur to Abhayapuri (Approx. 46 Km). Land acquisition from Gauripur to Bilasipara has been mostly completed. The section from New Mal to Changrabandha (62.5 Km) where engine rolling has been done on 07.02.12 is awaiting commissioning. There is acute shortage of fund, hence the section need not be commissioned at present. Since, the section from Gauripur to Abhayapuri is required for operational point of view, fund requirement for entire project needs to be reviewed.

Kumarghat - Agartala

The project work to be slowed down due to paucity of fund during the current financial year.

Fund Allocation:

The budget grant for this year is ₹2354 crores. NFR/Construction presented two scenarios –

i. If additional funds to the tune of ₹4630 Crs during the current financial year 2013-14 are provided then all the projects can go on at full speed and can be completed as per target.

Additional fund required during 2013-14 for targeted project in 2013-14 =
₹659.65 Crs.
Additional fund required during 2013-14 for smooth progress of targeted projects in 2014-15 = ₹2344.41 Crs.
Additional fund required during 2013-14 for projects targeted beyond 2014-15 = ₹1625.14 Crs.
Total additional fund required in 2013-14 will be ₹4629.20 Crs.

ii. However, if bare minimum additional funds to the tune of ₹660 Crs are provided during the current financial year 2013-14 then the targeted projects of 2013-14 can be completed and all other projects can be progressed with slow speed there by delaying the target dates.

However, in the current scenario the possibility of additional fund is almost nil. The project may therefore be prioritized and budget grant should be utilized judiciously. Two projects, i.e. Lumding-Silchar and Bogibeel is on the priority list and efforts will be made to arrange some additional funds for these projects.

GM/C/NFR 6.1 To Control the expenditure the following should be closely monitored:-

i. No booking of material is to be done in the projects which are not targeted/or on priority list.

ii. Scope of work should be limited to the sanctioned scope of work. Any additional facility which may be required in future should not be loaded to the projects. Instead, such works may be proposed separately to avoid time and cost overrun.

iii. 70% of the land acquisition is to be completed before starting the construction works in new project.

iv. S&T procurement such as cable etc. should not be procured in advance in the projects which are not targeted/or on priority list.

Adv/IR 7.0 Award

In appreciation of the good work being done by the Railway despite difficult working condition, Group Cash Awards ₹ 1 lakh each are given to Open Line and Construction Organization of NF Railway.

8.0 GM/Con NFR requested Board's assistance on following issues

Adv/W a. 8 Nos. Detailed Estimates are pending with Railway Board which may be expedited.

Adv/W b. There is an urgent need to enhance powers of GM/Con and CAO/Cs for timely delivery of crucial National Projects.

AM/Staff c. Retired M&C experts/officials are required to be re-engaged for Bogibeel Bridge at Dibrugarh. While retired non-gazetted staff are being engaged with
the approval of GM/Con for re-engaging retired gazetted officials, approval of Railway Board is required. The proposal sent by Railway vide their letter No.E/283/Con/Gaz/Re-employment dated 13.03.2013 should be examined on priority.

AM/Staff

d. GM/Con needs to be empowered to sanction air journey for officials below JAG on duty which may be required for urgent movement of some officials for timely execution of National Projects.

9.0 Officers and Staff posted on difficult projects represented that the proposal for incentives is lying with Railway Board for about two years. The issue needs to be expedited.

SUBODH JAIN
MEMBER ENGINEERING

No. 2013/ME/INS. NOTE

Dt 20.06.2013


2) PCEs and CAO/Cs, All Indian Railways.

3) EDCE (P), EDCE (B&S)-I, EDCE (B&S)-II, EDCE (G), EDTK (M), EDTK (M/C), EDTK (P), ED (L&A)-I, ED (L&A)-II, ED (L&A)-III, ED (Works), ED(PM), ED (WP), OSD/ME.

4) **Copy to:** - PS/MR, EDPG/MR, PS/MSR (M), PS/MSR (B), CRB, FC, MT, MM, MS, ML, Secretary, Railway Board.