

CENTRAL RAILWAY

WORK STUDY REPORT ON “REVIEW OF ENGINEERING (P.WAY) STAFF OF BHUSAWAL DIVISION.”



**WORK STUDY CELL,
CENTRAL RAILWAY,
BHUSAWAL DIVISION.**

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“REVIEW OF ENGINEERING (P.WAY) STAFF OF
BHUSAWAL DIVISION.”

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INDEX

Sr.No.	CONTENTS	Pg.No.
01	Synopsis	04
02	Acknowledgement, Authority and Terms of Reference & Methodology	05
03	Chapter No. 01 Introduction	06
04	Chapter No. 02 Existing Scenario	07
05	Chapter No. 03 Review of the Depots, &Critical Analysis & Recommendation.	25
06	Financial Implications	49

SYNOPSIS

01	Study Number	WSCR/ENGG/BSL/5/19-20.
02	Study Name	Review of Engineering (P.Way) staff of Bhusawal Division.
03	Approved by	AGM (C.R)
04	Department	ENGINEERING
05	Division	BHUSAWAL
06	Date of commencement	03/12/2019
07	Date of completion	28/12/2019
08	Date of Submission	29/01/2020
09	No. of recommendations	01
10	No. of suggestions	Nil
11	Sanctioned Strength	4597
12	No. of men studied	4288
13	No. of vacancies	309
14	No. of posts identified surplus	59
15	Financial Implications	Rs. 1,99,22,340 per annum

ACKNOWLEDGEMENT

The work study team takes this opportunity to express heartily thanks to Mr. Ram Kumar Singh, CDM(T) and all Depot In-charge, whose valuable guidance provided a successful conclusion to this study and whose productive suggestions enhanced the enthusiasm of the team.

The work study team is also grateful to all the staff working at various depots for furnishing necessary information and data required for conducting the study.

AUTHORITY & TERMS OF REFERENCE

With the approval of AGM(C.R), the work study on “Review of Engineering (P.Way) staff of Bhusawal Division.” has been included in the Annual Work Study Program for the year 2019-20 with study no: WSCR/ENGG/BSL/5/19-20..

METHODOLOGY

- 1) Collection of data in detail.
- 2) Field observation and interaction with the staff.
- 3) Discussion with co-coordinating officers/supervisor.
- 4) Change in working pattern if any.
- 5) Working out financial implication involved in saving as a result of surplus employee.

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CHAPTER NO. 01 INTRODUCTION

Indian Railways is the life-line of nation providing transportation facility over the length and breadth of country. Its vision is to provide efficient, affordable, customer-focused, environmentally sustainable integrated transportation solutions and to be the vehicle of inclusive growth, connecting regions, communities, ports and centers of industry, commerce, tourism and pilgrimage across the country.

Civil Engineering infrastructure is the largest static infrastructure of Indian Railways comprising of track, bridges, land, etc. Management of this huge infrastructure has to be done in accordance with the organization's vision. Civil engineering department of Indian Railways manages and maintains all these infrastructures. Further, it has key role in the area of infrastructure development, technological leap in various fields, high speed travel and development of world class stations.

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CHAPTER NO. 02 EXISTING SCENARIO

2.1 Organization set up of the Engineering department: -

In BSL Division, engineering staff works under the supreme control of Sr.DEN (Co.), BSL. He is assisted by Sr.DEN (South), Sr.DEN (North), Sr.DEN(East) and DEN(SW).

Brief Summary of Officers and their Sub-ordinates

According to Geographical conditions there are 03 Sr.DEN and 01 DEN (SW) in Bhusawal Division. These are:

- i) Sr.DEN (South)
- ii) Sr.DEN (North)
- iii) Sr.DEN(East)
- iv) DEN(SW)

- i) Sr.DEN (South)

Under Sr.DEN (South) there are 02 ADEN.

ADEN/MMR and ADEN/CSN.

Under ADEN/MMR there are 03 SSE/P.Way.

These are:

- a) SSE/P.Way/DVL.
- b) SSE/P.Way/NKRD.
- c) SSE/P.Way/MMR.

Under ADEN/CSN there are 03 SSE/P.Way.

These are :

- d) SSE/P.Way/NGN.
- e) SSE/P.Way/CSN(N).
- f) SSE/P.Way/CSN(S).

ii) Sr.DEN (North)

Under Sr.DEN (North) there are 02 ADEN.

ADEN/Line and ADEN/KNW.

Under ADEN/Line there are 04 SSE/P.Way.

These are:

- g) SSE/P.Way/CSN (N).
- h) SSE/P.Way/PC.
- i) SSE/P.Way/ML (BSL)
- j) SSE/P.Way/Yard (BSL)

Under ADEN/KNW there are 03 SSE/P.Way.

These are:

- k) SSE/P.Way/BAU (N).
- l) SSE/P.Way/ BAU (S).
- m) SSE/P.Way/KNW.

iii) Sr.DEN (East)

Under Sr.DEN (East) there are 02 ADENs.

ADEN/(W) and ADEN/BD.

Under ADEN/W there are 03 SSE/P.Way.

These are:

n) SSE/P.Way/BDWD.

o) SSE/P.Way/SEG.

p) SSE/P.Way/AK.

Under ADEN/BD there are 04 SSE/P.Way.

These are:

q) SSE/P.Way/MZR.

r) SSE/P.Way/ BD.

s) SSE/P.Way/DWM.(NG)

t) SSE/P.Way/ANJ.(NG)

iv) DEN(SW)

Under DEN (SW) there is one ADEN/HQ.

Under this ADEN/HQ there all SSE/Works of BSL.

*Ref:indianrailways.gov.in/railwayboard/uploads/codesmanual/IRPWM/PermanentWayManual
following data is collected.

DUTIES OF PERMANENT WAY INSPECTORS/ SECTION ENGINEER (P.WAY)

Duties of Permanent Way Inspectors (in overall charge)

118. General Responsibility - ([Advance Correction Slip No. 132](#)) The Permanent Way Inspector is generally responsible for:

- (1) Maintenance and inspection of track in a satisfactory and safe condition for traffic.
- (2) Efficient execution of all works incidental to track maintenance, including track relaying works.
- (3) Accountal and periodical verification of stores and tools in his charge.
- (4) Maintenance of land boundaries between stations and at unimportant stations as may be specified by the administration.

119. Knowledge of Rules and Regulations- (1) Every Permanent Way Inspector shall have in his possession up-to-date copies of the following codes and manuals with all correction slips up-to-date -

- (i) Indian Railways Permanent Way Manual, Bridge Manual and Works Manual.
 - (ii) Indian Railway General and Subsidiary Rules.
 - (iii) Indian Railway Track Manual,
 - (iv) Indian Railway Code for the Engineering Department.
 - (v) Schedule of Dimensions,
 - (vi) Circulars issued by the higher authorities.
- (2) He shall be well acquainted with the rules, regulations and procedures concerning his work and duties as enjoined in the above codes and manuals. He shall keep himself in touch with the orders and circulars issued by higher authorities from time to time and efficiently act upon them.
- (3) He shall ensure that all staff working under him are well acquainted with the relevant rules and working methods and efficiently perform their duties.

120. Co-ordination with Works, Bridge and Staff of other Departments - The Permanent Way Inspector should keep close co- ordination with the Works, Bridge, Signalling and Electrical Staff, when they are required to work jointly.

121. Keeping of Materials - The Permanent Way Inspector shall see to the security of rails, chairs, sleepers and other materials in his charge and ensure that unused materials

are stacked properly clear of the line, so as not to interfere with the safe running of trains.

122. Accompanying on Inspections of Higher Officials - (1) When the Permanent Way Inspector accompanies a periodical or special inspection by the higher officials he should have with him the following registers and documents pertaining to his section, other than the codes and manuals mentioned in Para 119 :

- (a) Working Time Table.
- (b) Permanent way diagrams of section and yards.
- (c) Section register.
- (d) Results of track recording / oscillograph runs.
- (e) Creep and gap survey register.
- (f) Curve register.
- (g) Points and crossing register, (h) SEJ / Buffer rail register.
- (j) List of Permanent and Temporary speed restrictions.
- (k) List of works and other details.
- (1) Inspection notes of higher officials with compliance notes.
- (2) The Permanent Way Inspector shall arrange to carry the following measuring devices on these inspections :
- (a) Gauge-cum - level.
- (b) Flangeway gauge.
- (c) Canne-a-boule or wooden mallet.
- (d) Fishing cord.
- (e) Tape.
- (f) Metric scale.
- (g) Tapered gauge.
- (h) Magnifying glass and mirror,
- (j) Versine measuring equipment,
- (k) Inspection hammer.

123. Testing of Running Qualities of Track- ([Advance Correction Slip No. 132](#)) (1) The Permanent way Inspector shall devote sustained attention to Permanent way as regards

safety, smooth running, economy and neatness.

(2) He should travel on the foot plate of the Engine of fast trains at least twice in a month, in the rear brake-van or the last vehicle once in a month and take down notes of bad running kilometrages, and get them rectified.

(3) He should accompany the track recording/ oscillograph car runs over his section, take down the kilometrages which are not running well and take action to rectify the defects.

(4) He should observe the behaviour of track under passing trains to detect inadequate packing during routine inspections.

124. Routine inspection of Track - ([Advance Correction Slip No. 132](#)) (1) Inspection of Gangs-(a) The Permanent Way Inspector should inspect the entire section by push trolley at least once in a fortnight or more often as necessary.

(b) In sections where no separate inspection is being carried out by P.W. I. Grade II /Grade III, the inspection should be carried out by the P. W. I. in-charge every week.

(c) During such inspections the Permanent Way Inspector should -

(i) check the work of gang done earlier and ensure prompt action on items requiring attention;

(ii) arrange to give the programme of work to the gang;

(iii) record details of track maintenance work in gang chart and diaries;

(iv) check the attendance of gang;

(v) instruct men in methods of maintenance.

(d) Once a fortnight, he should examine the small machines including light duty (Chinese type) tampers under his charge and once in a month he should examine the gang tools, particularly gauge-cum-level, and arrange for repair and replacement as necessary.

(e) He should ensure that every man in the gang is aware of safety rules by examining them periodically.

(2) Level Crossing Inspection - (a) He should ensure that all the level crossings are opened out once a year to examine the condition of rails, sleepers and fastenings and defects are rectified. ([Advance Correction Slip No.106](#))

(b) He shall see that the necessary stop boards, whistle boards, and other equipments are provided as laid down.

(c) He shall check the equipment with the Gateman once' in a month.

(d) He shall examine their knowledge of safety rules periodically.

(e) He shall arrange to take the census of all level crossings as per the schedules laid down.

(3) Points and Crossing Inspection - The Permanent Way Inspector in overall charge and his Assistant should carry out the inspection of points and crossings in passenger running lines once in three months by rotation and on other lines once in six months by rotation.

(4) Curve Inspection - The Permanent Way Inspector in overall charge and his Assistant should carry out checks of versions and super-elevation of each curve once in six months by rotation, except for Group A & B routes in B.G. where the check should be conducted once in every four months. They should take action to correct the curves as necessary based on the readings recorded.

(5) Inspection Diagram -The Permanent Way Inspector will maintain an inspection diagram of all the inspections carried out during the month as per the schedules in the pro forma laid down and submit the same to the Divisional Engineer through Assistant Engineer every month bringing out the reasons for shortfall in adhering to schedules of inspections, if any.

The revised schedule of inspection is applicable only when PWI's Section has been provided with concrete sleepers and is under mechanised maintenance:-

(1) Push Trolley Inspection - Once in a month

(2) Foot Plate Inspection - Once in a month

(3) Rear vehicle Inspection - Not required

(4) Curve Inspection - Shall be carried out by PWI (not in overall charge) and CPWI/ PWI (in overall charge) once in six months by rotation including for Group A & B routes.

(5) Points & crossings - As stipulated in Para 124(3).

(6) Foot Inspection - Once in a year may be introduced to start with.

(7) OMS/TRC - PWI (not in overall charge) need accompany only alternate OMS/TRC runs to avoid CPWI/ PWI (in overall charge) & PWI (not in overall charge) both accompanying all the runs.

125. Safety of Track - (1) The Permanent Way Inspector is directly responsible for the safety of the track. He shall be vigilant to locate faults in the Permanent Way and promptly remedy them.

Track defects which are beyond his powers to remedy should be immediately brought to the Assistant Engineer's notice by the Permanent Way Inspector and mention of the same made in the special reports on the condition of Permanent Way on the section. ([Advance Correction Slip No. 99](#))

(2) Independent of detailed periodical inspections, the Permanent Way Inspector, during his routine inspections, should watch for any signs of weakness in bridges and structures affecting track and promptly report any matter demanding the Assistant Engineer's attention.

(3) Trees in proximity to and liable to foul the track during a storm should be felled.

126. Check on Patrolling -([Advance Correction Slip No. 132](#)) He should arrange for patrolling of track as laid down, by deputing suitably selected men from gangs and arrange to supply them with Patrol books and equipment needed. The Permanent Way Inspector in overall charge will check the night patrolman once a month by train, and by trolley during monsoon as per the schedules laid down by the administration.

127. Execution of Works affecting Track- ([Advance Correction Slip No. 132](#)) (1) Before commencing any work the Permanent Way Inspector in overall charge or his Assistant shall ensure that he is in possession of all necessary materials and tools. He shall ensure that Engineering Signals are exhibited at the specified distances according to rules and Flagmen are posted with necessary equipment.

(2) He should programme the works by organising the labour in an efficient manner. He should maintain detailed accounts of materials received and issued to the work. He should exercise frequent checks on quality and quantum of work and submit progress reports on works periodically as may be prescribed.

(3) Quality of welding and avoidable fractures -The direct responsibility for quality of AT welding being done in the section shall rest on the PWI incharge of the section. Responsibility for avoidable fractures taking place in the section shall also rest with the PWI incharge of the section, except in cases where the USFD testing was done and found good upto three months before the fractures.

128. Action in case of Emergency - On receipt of intimation of the occurrence of an accident (including breaches) affecting any part of track, restricting free passage of trains, the Permanent Way Inspector should proceed to site by the quickest available means. On the way he should collect information regarding the damage, the men and material requirement at site for restoration and arrange for movement of men and materials and thereafter the restoration. ([Advance Correction Slip No. 132](#))

129. Inspection and maintenance of LWR/CWR Track - The duties and responsibilities of the Permanent Way Inspector in overall charge is clearly laid down in Para 13.1.6 of the L W R Manual. ([Advance Correction Slip No. 132](#))

130. Measurement of Ballast - The Permanent Way Inspector in overall charge will measure the ballast if so directed by the Assistant Engineer and record measurements. He will keep proper records of training out and spreading of ballast in the track. ([Advance Correction Slip No. 132](#))

131. Station Yards - The Permanent Way Inspector shall ensure cleanliness of station yards. Under- growth should be cleared every year, usually in the month of August, before the seed has ripened. At stations where it is proposed to stack engineering or contractor's materials, the stacking area should be carefully selected and clearly demarcated. The materials should be stacked methodically in a tidy manner. ([Advance Correction Slip No. 132](#))

132. Witnessing Payment to Staff -([Advance Correction Slip No. 132](#)) (1) Payment to both Permanent and Temporary staff, working under the Permanent Way Inspector, will be made by the Pay Clerk in the presence of the Permanent Way Inspector. If the Permanent

Way Inspector working in the section is not readily available, the Assistant Engineer may depute another Inspector to witness the payment.

(2) The Permanent Way Inspector is responsible for correct identification of the payee and should satisfy himself that the correct amount is paid.

(3) Payments to Permanent Way gangs should, as far as practicable, be made on the beat of each gang during working hours.

(4) The witnessing official should certify to the payment individually or by group, at the same time specifying, both in words and figures at the foot of the muster-sheet, the total amount paid on each date. If any person out of a gang is not present when, the gang is paid on its beat, "Not Paid" should be written immediately against his name. When subsequently payment is made, the place (km.) where payment is made should be entered. Payment made subsequent to the filling in of the certificate should be separately certified on the pay sheet.

133. Other Establishment Matters - ([Advance Correction Slip No. 132](#)) (1) The Permanent Way Inspector should ensure that all staff, including Casual labour, are sent for medical examination and are fit for the medical standards, as per the relevant instructions in force, before appointment or promotion. He will also ensure that the staff under him are sent for periodical medical examination as laid down in the relevant rules.

(2) He will arrange to maintain the Service Cards/leave account of all the permanent staff working under him. In the case of casual labour he will arrange to issue the necessary Service Card to them and will maintain the L.T.I, register.

(3) He will ensure that the relevant provisions of the Payment of Wages Act, Workmen's Compensation Act, Hours of Employment Regulations etc., as amended from time to time are followed and complied with.

(4) He will arrange to carry out the other Establishment works, such as issue of passes, preparation of pay bills etc., as may be allotted to him by the administration.

(5) He will ensure proper training of the men working under him at the appropriate time.

(6) He will carry out selection of proper Gatemen and Patrolmen from the existing Gangmen and train them in their duties.

(7) He will arrange for the prompt filling up of the vacancies.

134. Correspondence and Records - The Permanent Way Inspector shall keep his correspondence up-to-date and see that the office records, registers and stores ledgers are maintained systematically and posted regularly. ([Advance Correction Slip No. 132](#))

135. Relinquishment of Charge - ([Advance Correction Slip No. 132](#)) (1) On relinquishing charge of a section the Permanent Way Inspector shall prepare, in triplicate, the specified "Transfer-of-charge" statement which will briefly contain the following :

(a) Extent of the section.

(b) Establishment (service and leave records).

(c) Works in progress, relaying, scattered renewals and other works incidental to track maintenance.

(d) Kilometrage of banks, cuttings, curves, bridges and structures requiring special attention.

(e) Kilometrages where trouble may be expected during the monsoon.

(f) Certificate of stores-check and correctness of stock.

(g) General notes.

(2) The Permanent Way Inspectors handing over and taking over charge should together trolly over the whole section, inspect all the works in progress, check staff, all tools, plants and materials.

(3) The relieving Inspector will examine all books pertaining to rules and orders in vogue and all registers pertaining to the section to see that they are kept up-to-date and initial them with date.

(4) The statement referred to in sub-Para (1) should be signed by both the Permanent Way Inspectors and two copies submitted by the relieving Inspector to the Assistant Engineer who will forward one copy to the Divisional Engineer for record.

Errors and discrepancies which are noticed should be recorded in the statement and the Assistant Engineer's special attention invited to them.

Duties of Permanent Way Inspector (not in overall charge)

136. General Responsibilities - ([Advance Correction Slip No. 132](#)) The Permanent Way Inspector is generally responsible for:

(a) Inspection and maintenance of track in his jurisdiction (sub-section) in a safe and satisfactory condition for traffic, including execution of all works incidental to track maintenance.

(b) Efficient execution of Special Works, such as Renewals, Directed Track Maintenance, Curve realignment, and deep Screening, as per approved plans and specifications.

(c) He should work in the Permanent Way Inspector's office and assist the Permanent Way Inspector in overall charge as required.

137. Knowledge of Rules and Regulations- Provision of Para 119 will apply in this case also .

138. Co-ordination with Works, Bridge and Staff of Other Departments - He should keep close co-ordination with the Works, Bridge, Signalling and Electrical staff, when required to work jointly with them.

139. Routine Inspection of Track - ([Advance Correction Slip No. 132](#)) (1) The Permanent Way Inspector should inspect the entire section in his charge by push trolly at least once a week, He should carry out the inspection of gangs as detailed in Para 124(1) (b) & (c). He

will spend as many days in the week as possible with the gangs. He should cover all the gangs within a month. He should train the Permanent Way Mistry, Mates, Keymen, Gangmen and Gatemen in their duties. He should teach them the maintenance practices.

(2) He will carry out inspection of points and crossings on passenger running lines once in three months and other lines once in six months, by rotation along with the Permanent Way Inspector in overall charge. He will arrange for the rectification of defects noticed during the inspection.

(3) He, along with the Permanent Way Inspector in overall charge, will arrange to check the versine and super-elevation of all the curves once in six months by rotation, except for Group A & B routes where the check should be conducted every four months. He should take action to correct the curves based on the readings.

(4) He will arrange to inspect all the Level crossings in his jurisdiction once in a month and check the equipment. He will examine the Gatemen in rules periodically.

139 A. Revised Schedule Of Inspection Of Track- The revised schedule of inspection is applicable only when PWI's Section has been provided with concrete sleepers and is under mechanised maintenance -

(1) Push Trolley Inspection - Once in a fortnight

(2) Foot Plate Inspection - Once in a month

(3) Rear vehicle Inspection - Not required

(4) Curve Inspection - Shall be carried out by PWI (not in overall charge) and CPWI/ PWI (in overall charge) once in six months by rotation including for Group A & B routes.

(5) Points & crossings - As stipulated in Para 139 (2).

(6) Foot Inspection - Once in six months may be introduced to start with.

(7) OMS/TRC - PWI (not in overall charge) need accompany only alternate OMS/TRC runs to avoid CPWI/ PWI (in overall charge) & PWI (not in overall charge) both accompanying all the runs.

140. Annual Maintenance Works - He will carry out maintenance works such as curve realignment, attention to points and crossings, adjustments of creep, etc, as assigned to him by Permanent Way Inspector in overall charge.

141. Check on Patrolling - He will cover his section once in a fortnight by train and check the night patrolling. He will also check the night patrolling by troling in the night as per the schedules laid down. During inspections, he will check the patrol books, the knowledge of rules of Patrolmen, their equipment, etc.

142. Execution of works affecting Track - The provision of Para 127 will apply.

143. Action in case of Emergency -Provision of Para 128 will apply.

144. Maintenance of LWR/CWR Track -Duties and the responsibilities of P. W. I. in-charge of a sub-section with reference to maintenance of L. W. R. are laid down in L. W. R.

Manual. [\(Advance Correction Slip No. 132 \)](#)

145. Witnessing Payments to Staff - When Permanent Way Inspector not in overall charge is deputed to make payments to staff, he will follow the provisions of Para 132 of the Manual.

PART 'C'

Duties of Permanent Way Mistries

146. General Responsibilities - They are normally in-charge of items of works which require a higher level of supervision that can be exercised by Gang Mate. They will carry out the following specific works, or such other works pertaining to track maintenance, as may be allotted to them by the Permanent Way Inspector: [\(Advance Correction Slip No. 118 \)](#)

- (i) Attention to bad spots,
- (ii) Directed track maintenance,
- (iii) Maintenance LWR track, if he has been issued with a competency certificate (responsibilities have been listed out in para 13.1.4 of LWR / CWR Manual),
- (iv) Isolated renewal of sleepers,
- (v) Lubrication of rail joints,
- (vi) Lorrying out of material, if issued with competency certificate. They will be responsible for ensuring safety for the works being supervised by them.

147. Knowledge of Rules and Signals -Every Permanent Way Mistry shall have a correct knowledge of hand and detonating signals and shall be conversant with the following rules :

- (i) Protecting line in an emergency and during work affecting track.
- (ii) Method of fixing and safety range of detonators.
- (iii) Action to be taken when train is noticed to have parted .
- (iv) "Safety first" rules .
- (v) Action to be taken when sabotage is suspected.
- (vi) Patrolling in emergencies .
- (vii) Rules for working of a trolley and lorry if he is authorised to operate the same .

148. Whenever Permanent- Way Mistries are in-charge of gangs /units , they will carry out all the duties and responsibilities assigned to the Mate as laid down in Part 'D' of this Chapter.

PART 'D'

Duties of Mates, Keymen and Gangmen -General

149. Knowledge of Rules and Signals -(1) Every Mate, Keyman and Gangman shall have the correct knowledge of hand and detonating signals and shall be conversant with the following rules :

- (a) Protecting the line in an emergency and during work affecting the track.
 - (b) Method of fixing and safety range of detonators.
 - (c) Action to be taken when a train is noticed to have parted.
 - (d) "Safety first" rules
 - (e) Action to be taken where sabotage is suspected, and patrolling in emergencies.
- (2) Every Mate and Keyman shall see that the signals, supplied to the Gangs are kept in good order and ready for use and that every man in his Gang has a correct knowledge of all the signals.

150. Safety of the line - Every Mate shall see that his length of line is kept safe for the passage of trains. Kilometrages needing urgent attention shall be picked up without waiting for orders from the Permanent Way Inspectors.

151. Equipment at site of work - (1) Every Mate shall ensure that the following tools and equipments are with him at the site of work :

(a) Level-cum-gauge, square, hemp cord, meter stick, keying and/or spiking hammer, fish-bolt spanner, 2 sets of H.S. flags, 12 detonators, marking chalk and Rail thermometer (2 H. S. lamps in the night) [\(Advance Correction Slip No.120 \)](#)

(b) Sufficient number of shovels or phowrahs, beaters, crow bars, ballast forks or rakes, mortar pans or baskets and wooden mallet.

(2) The Mate shall keep in his charge in the tool box other tools and equipment as may be prescribed.

152. Musters and Gang Charts/Diary Books- (1) The muster and Gang chart /diary shall be in the possession of each Mate. The Gang chart should be carefully kept in a container provided for the purpose.

(2) The muster should normally be marked by the Mate, checked and initialed by the Permanent Way Inspectors. [\(Advance Correction Slip No.141 \)](#)

(3) The Mate shall see that the prescribed system of track maintenance is adhered to and the tasks allotted, according to verbal instructions or entries made in his Gang chart / diary, and explained to him, are efficiently carried out. If capable of entering details of work done in his Gang diary, the Mate should do so.

153. Observance of sleeper packing during passage of Train - During the passage of the first and last trains in working hours, the Mate and his men should stand on the cess, each about one rail length apart, and observe the effect on the sleepers. Loose sleepers should then be marked and adequately packed. On double line, the Gangs shall invariably stand on the cess side and not in between the tracks.

154. Precautions when view is obstructed-(1) On double and multiple lines on curves, the view is temporarily obstructed due to a train passing over a track other than that on which the Gang men are working. It is worsened when trains are crossing each other. The noise of a train passing over one track prevents hearing the noise or whistle of another train approaching the work site.

(2) When working at a place from which an approaching train cannot be seen, at least 600 metres away in the case of B G and 400 metres in the case of M G and N G a Gangman with hand signals should be sent out by the Mate :

(a) On double line in the direction of approaching trains,

(b) On a single line in the direction the view is obstructed (in both directions if view is obstructed on both sides).

It will be the duty of such Flagman to warn the Mate by means of signals when a train is approaching. The Mate will be responsible for warning the Gang in good time to enable them to get clear off the track. It may be deemed expedient, as an additional precaution, to issue portable whistle boards of the type indicated in Para 815 (2) to the Mates, who should fix them at least 600 metres on B. G. and 400 metres on M G and N.G, from the work-site, in the direction the view obstructed to less than this distance. In the case of M G high speed routes, the distance may be increased suitably as per the directives of the administration.

155. Tidiness of Section - The Mate shall see that the whole of his Gang length is kept neat and tidy and that all loose materials are collected and brought to stations, gangs quarters or gate lodges.

156. Safe Custody of Tools - The Mate shall be responsible for the safe custody of tools used by him, the Keymen and Gangmen. He should see that Gangmen on work remove their tools clear of the track on the approach of a train. After the day's work the Mate should secure the tools in the toolbox. In no case should Gangmen be permitted to take tools home. Before they break for mid-day meals the Mate should see that the tools are kept away from track.

157. Action when line is unsafe or in the event of Accident - (1) If a Mate or his key man considers that the line is likely to be rendered unsafe, or that any train is likely to be endangered in consequence of any defect in the permanent way or works, or abnormal rain or flood or any other occurrence, he shall take immediate steps to secure the safety of trains by using the prescribed signals to "Proceed with Caution" or to "Stop" as necessity may require, vide Para 806, and shall, as soon as possible, report the circumstances to the nearest Station Master and the Permanent Way Inspector.

(2) In the event of an accident, the Mate, Keymen and Gangmen should lookout for broken fittings of wagons and track components and see that these are not disturbed until they have been seen and recorded by a responsible official.

158. Patrolling during Abnormal Rainfall -During abnormal rainfall, the Mate should organise patrolling on the gang-length, whether or not Patrolmen are on duty. In the event of damage being detected, action should be taken to safeguard traffic by protecting the line in accordance with Para 812.

159. Commencing work Affecting Safety of trains - No work, which may involve danger to trains, should be under taken by the Mate except under the personal supervision of the Permanent Way Inspector, or a competent Railway servant authorised by special instructions, unless it is an emergency where the requirements of safety warrant the commencement of the work. In such cases the Mate shall ensure that Engineering Signals are exhibited at the specified distances according to rules and Flagmen are posted with necessary equipment to man them before commencing the work.

160. Weekly Inspection of Gang Length by Mate - The Mate shall inspect the whole Gang length once a week, on which day he will carry out the keyman's work and duties and the Keyman will remain in-charge of the Gang.

161. Preventing Trespass and Theft of P. way Fittings - Every Mate and his men shall endeavour to prevent trespass in Railway limits by persons or cattle on his length of line and report any attempts at encroachment or unauthorised structures when noticed. He along with Gang, should also attempt to prevent theft of P. way fittings and report any attempt to steal, to his Permanent Way Inspector.

162. Relief arrangement in Emergencies - The Mate shall arrange immediate relief for Keymen, Gatemen, Patrolmen and Watchmen when, due to sickness, they are unable to perform their duties.

163. Assistance to P. and T. Staff - Where interruption to the telegraph line has occurred through obviously visible causes, the permanent way staff should render all possible assistance. The staff must, for example, remove trees or branches of trees which, after a storm, are seen to foul the wires. Where wires are seen to be broken or entangled, the occurrence should be reported to the nearest Station Master.

164. Assistance in protection of Trains -The Mate and his men should render assistances to Guards and Drivers of the trains for the protection of the trains in the event of an accident between stations, when called upon to do so.

165. Assistance in placing Fog Signals -On requisition from the Station Master, the Mate of a yard gang may depute, if available, two Gangmen for placing of detonators, during time of poor visibility, in the rear of approach signals of the station.

166. Responsibilities of the Mate in L.W.R. Track - The duties and responsibilities of the Mate in LWR sections are detailed in L W R Manual.

Duties of Keyman

167. Selection and training of keyman -The selection of Gangman to perform the duties of a keyman is to be considered as a step in his training as Mate. Keyman trained in laying

and maintenance of LWR/CWR on concrete sleeper and possessing valid competency certificates issued by Zonal/ Divisional Training center should only be posted on LWR/CWR section.

168. (1) Keyman's daily inspection - The keyman shall inspect by foot his entire beat once a day, both the tracks and bridges, and return along the opposite rail to that taken on his outward journey in case of single line. On double line, keyman will carry out one round of inspection in morning hours by going along, up line and then returning along down line or vice-versa. On the days of Gang holidays and rest, he shall perform the usual duties and get one day's rest in the week as per the roster duties in force. On rest days or during absence or leave or sickness, a senior intelligent gangman should be deputed in place of the regular keyman.

(2) Roster duty hours of keyman - The roster duty hours of keyman for winter months should be so adjusted as to ensure one round of track inspection in early morning to enable detection of any rail or weld fractures that might have occurred during the night or early morning. DEN/Sr.DEN of the section shall decide and notify the exact timings and the period of each section.

169. Equipment of keyman - The keyman shall carry with him on his rounds two red flags, and green flag, ten detonators, a flangeway gauge if required, for unmanned level crossings, a keying and spiking hammer, a fish bolt spanner, and two fish bolts, spare fittings and a rail closure of 30mm size. For the work of greasing of elastic rail clips wherever applicable, keyman shall carry a wire brush, emery paper, a duster and grease.[\(Advance Correction Slip No.142 \)](#)

170. Duties of Keyman - (1) While walking over his length, he should look for defects, such as loose fish bolts, SEJ fittings in switches and crossings, fittings on girder bridges and open top culverts, broken or burnt sleepers, broken plates or tie bars, attend to them as necessary. If he finds that fittings are consistently working loose even after repeated attention, he should report the matter to the Mate, PWM and Permanent Way Inspector. If the defects are serious, he should at once inform the Mate of the gang protecting the line in the meantime, if necessary, according to rules.[\(Advance Correction Slip No.123 \)](#)

(2) He shall keep a special watch on the rails and welds marked for observation by the USFD team.

(3) If he should notice any condition of danger, such as broken rail, broken weld or wash away of ballast, theft of fittings in large numbers etc., he shall at once protect the line as per rules, take such action as is possible and report the matter to the Mate, the nearest Station Master and Permanent Way Inspector.

(4) At unmanned level crossings, he shall maintain the flange ways between the check and the running rails clear of obstructions.

(5) In track other than with elastic fastenings, the keyman in addition to his normal round of the whole beat and inspection and tightening of loose fittings, should attend one telegraph post (TP) on one line thoroughly on every day. This thorough attention should consist of tightening of each bolt and fittings in these TPs of the beat during that particular day. Missing keys and other missing fittings will be recouped by him. He shall also ensure correct driving of fittings in this stretch.[\(Advance Correction Slip No.142 \)](#)

(6) (a) Where the beat of Keyman consists of PRC sleepers - The Keyman should ensure that, in addition to his normal duty of inspection and tightening of fittings, he should also carry out in a systematic manner from one end, greasing of the ERC and eyes of inserts at the rate of 20 sleepers per day. Greasing shall be done as per the procedure laid down in Para 1411 (5) (b) of IRPWM. ([Advance Correction Slip No.142](#))

(b) Where the beat of Keyman consists of PRC as well as other types of sleepers, SE (P. way) should make roster of keyman on monthly basis in the proportion of the beat, so that work mentioned in Para 170(5) and 170(6)(a) are completed in respective length. On any particular day however, he will do duties either as per 170(5) or 170(6)(a) only. ([Advance Correction Slip No.142](#))

(7) Keyman with the assistance of one gangman will also carry out rail end examination, lubrication of fish plated joints as per direction of PWI/PWM.

(8) For imposing of caution after stopping the train or otherwise wherever required for safety, Keyman will be provided cyclostyled slips by PWI. Keyman after filling location and speed will hand over the same to Driver or ASM and obtain acknowledgement.

(9) The following are the special duties and responsibilities of the keyman in LWR/CWR territories:-

(i) Periodical (fortnightly) oiling and greasing of SEJ, checking and retightening of fastenings at SEJ and other sleepers, if necessary (Para 6.2.6 of LWR Manual)

(ii) Replacement of missing fastenings not requiring lifting or slewing of track as per Para 6.2.6 (I) of LWR Manual.

(iii) To ensure that all creep anchors where provided butt against the sleepers and in case of large scale displacement of anchors, he shall report the matter to Mate/PWM/PWI (Subsection)/PWI (incharge).

(iv) To watch for sun kinks, loose or missing fastening which may result in buckling or any damage to LWR/ CWR and SEJ. On noticing any buckling or damage to track, he shall take necessary action to protect the track and report the same immediately to PWI (Sub-section)/ PWI (incharge), Station Master. However, he will continue to perform his Keyman's duties of daily inspection.

(v) To keep a sharp look out in cold mornings, especially during winters to detect any fractures which may occur, in case of rail/weld fracture, he shall take prompt action to protect the track and carry out emergency repairs to permit the restoration of traffic promptly and report to PWI (Subsection)/PWI(Incharge)/nearest Station Master (Para 7.2.2 and 7.2.3 LWR Manual).

(10) The Kayman shall promptly report to Mate/ PWI any encroachment or unauthorised structures as and when they take place in the Railway land in his beat.

(11) After completing inspection of the beat, the Keyman should assist the Mate in the day's work being done.

(12) When materials, such as dynamo-belts, engine tools and personal articles of passengers, are found on line, the Keyman should collect them and arrange for handing them over to the nearest Station Master.

(13) The Keyman will remain incharge of the gang in absence of the Mate once a week. On that day, the Mate is required to carry out the work and duties of Keyman.

(14) Whenever directed he will supervise rail dolly working. However, he must have competency certificate for the same.

171. Keyman's book-

(i) Printed keyman's book should be supplied to every keyman.

(ii) The keyman shall maintain the book upto date wherein all special work done, missing fittings and their recoupment with location and date are to be entered.

(iii) PWI should make a date wise schedule and enclose with the Keyman's book the Kms/TPs that the Keyman has to attend on each day of the month to complete the task required to be done as per sub Para 6, 7, 9(i) of Para 170 above. PWIs and AENs during their inspections should check to ensure that such Kms have really been thoroughly attended to and initial against the entries.

(iv) Special locations to be watched by the keyman should be entered in the book.

(v) The special fittings like joggled fish plates and other material provided in the section which are vital for safety and for restoration of traffic should also be mentioned in the book.

CHAPTER NO.03

Review of the Depots, Critical Examination and Recommendations

- There are 21 major depots of Engg. (P.Way) in Bhusawal Division.

Sr.No	Depot	Depot In charge
01	DVL	SSE/P.Way/DVL
02	NKRD	SSE/P.Way/NKRD
03	MMR	SSE/P.Way/MMR
04	NGN	SSE/P.Way/NGN
05	CSN /South	SSE/P.Way/CSN/ South
06	CSN / North	SSE/P.Way/CSN/ North
07	PC	SSE/P.Way/PC
08	ML BSL	SSE/P.Way/ML BSL
09	YD BSL	SSE/P.Way/YD BSL
10	BAU/ South	SSE/P.Way/BAU/ South
11	BAU/ North	SSE/P.Way/BAU/ North
12	KNW BG	SSE/P.Way/KNW- BG
13	BDWD	SSE/P.Way/BDWD
14	SEG	SSE/P.Way/SEG
15	AK	SSE/P.Way/AK
16	MZR	SSE/P.Way/MZR
17	BD	SSE/P.Way/BD
18	ANJ	SSE/P.Way/ANJ
19	DWM	SSE/P.Way/DWM
20	STORE BSL	SSE/P.Way/STORE BSL
21	USFD	SSE/P.Way/USFD

3.1 DVL Engg. P.Way Depot:

3.1.1 Scale check of DVL Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE/ P.Way	06	04	02
02	JE/ P.Way	02	02	00
03	Ch. O. S.	01	01	00
04	OS	01	01	00
05	Track Maintainer-I	22	09	13
06	Track Maintainer-II	44	19	25
07	Track Maintainer-III	44	65	+21
08	Track Maintainer-IV	111	94	17
09	Black Smith-I&II	02	01	01
10	Thermit welder	01	01	00
11	Mason Khalasi	01	00	01
12	Watch man	00	01	+01
	Total	235	198	37

3.1.2 Jurisdiction of Depot/ Depot- In charge:

From GO (Km 139/6) to DVL (Km 182/64)

3.1.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL**

3.2 NKRD Engg. P.Way Depot

3.2.1 Scale check of NKRD Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE/ P.Way (Incharge)	01	01	00
02	SSE	08	03	05
03	SSE-USFD	00	03	+03
04	JE	02	02	00
05	OS	00	01	+01
06	Jr Clerk	01	02	+01
07	Mate	06	06	00
08	Keyman	12	10	02
09	Track Maintainer	159	126	33
10	Gate keeper	26	16	10
11	Watch man	02	02	00
12	MCM	01	00	01
13	Black Smith	01	01	00
14	Welder	01	02	+1
	Total	220	175	45

3.2..2 Jurisdiction of Depot/ Depot- Incharge :

DVL Home to 184 /600 to NR Advance Starter 219/500

3.2.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.3 MMR Engg. P.Way Depot

3.3.1 Scale check of MMR Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	10	06	04
02	JE/ P.Way	05	03	02
03	OS	02	02	00
04	Track Maintainer -I	29	08	21
05	Track Maintainer –II	58	32	26
06	Track Maintainer –III	58	90	32
07	Track Maintainer –IV	145	148	+03
08	MCM Arch Welder	01	00	01
09	MCM Thermit Welder	01	00	01
10	Thermit Welder –I	01	00	01
11	Arch welder III	00	01	+1
12	Black Smith II	01	00	01
13	Black Smith III	01	03	+2
14	Mason II	01	00	01
	Total	313	293	20

3.3.2 Jurisdiction of Depot/ Depot- In charge :

IGP – MMR section km 219/500 to 261/00

SUR Line from km 490/200 to km 503/700

AWB Line from km 00 to km 16/0

3.3.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.4 NGN Engg. P.Way Depot

3.4.1 Scale check of NGN Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	07	04	03
02	JE/ P.Way	01	01	00
03	OS	02	01	01
04	Jr.Clerk	00	01	+01
05	Mate	07	07	00
06	Track maintainer-I	17	14	03
07	Track maintainer-II	34	32	02
08	Track maintainer-III	34	50	+16
09	Track maintainer-IV	86	68	18
10	Black Smith (MCM)	01	00	01
11	Black Smith Gr-II	00	01	+01
12	Black Smith Gr-III	01	01	00
13	Mali Khalasi -IV	01	01	00
14	Mason I	01	01	00
15	Thermit Welder-III	02	02	00
	Total	187	177	10

3.4.2 Jurisdiction of Depot/ Depot- Incharge :

MMR – PKE Station km 261/00 to 294/500

3.4.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.5 CSN / South Engg. P.Way Depot

3.5.1 Scale check of CSN / South Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	08	06	02
02	JE/ P.Way	03	02	01
03	OS	02	00	02
04	Jr Clerk	00	02	+02
05	Black Smith I	01	00	01
06	Black Smith III	01	01	00
07	Thermit Welder MCM	01	00	01
08	Mason II	01	01	00
09	Track maintainer I	29	20	09
10	Track maintainer II	59	59	00
09	Track maintainer III	59	61	+02
10	Track maintainer IV	148	106	42
	Total	312	258	54

3.5.2 Jurisdiction of Depot/ Depot- Incharge :

NGN – PKE Section km 294/500 to 326/00

Between CSN- DHI Branch Line (BG) km 328/470 to 384/ 150

3.5.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.6 CSN/ North Engg. P.Way Depot

3.6.1 Scale check of CSN / North Engg. P.Way Depot staff :

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	06	04	02
02	JE/ P.Way	06	01	05 (02 Long Absent)
03	OS	01	00	01
04	Jr. Clerk	01	01	00
05	Track Maintainer I	23	29	+06
06	Track Maintainer II	46	38	08
07	Track Maintainer III	46	30	16
08	Track Maintainer IV	135	94	21
09	Black Smith I	01	00	01
10	Black Smith II	01	01	00
11	Thermit Welder I	01	00	01
12	Stricker III	01	00	01
13	Arch Welder	01	00	01
14	O/ Peon	01	01	00
15	Watchman	01	00	01
	Total	251	199	52

3.6.2 Jurisdiction of Depot/ Depot- Incharge :

CSN – KJ Station km 326/00 to 348/00

KJ-PC Station km 348/00 to 371/00

CSN – DHI section km 327/460 to 328/ 504

3.6.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.7 PC Engg. P.Way Depot

3.7.1 Scale check of PC Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	06	05	01
02	JE/ P.Way	07	01	06
03	OS	01	01	00
04	Jr Clerk	01	01	00
05	Track Maintainer I	25	02	23
06	Track Maintainer II	51	06	45
07	Track Maintainer III	51	59	+08
08	Track Maintainer IV	129	132	+03
09	Welder MCM	01	01	00
10	Black Smith II	02	01	01
11	Mason -III	01	00	01
12	Helper/khalasi	01	00	01
	Total	276	209	67

3.7.2 Jurisdiction of Depot/ Depot- In charge :

PC- MWD Station km 371/0 to 400/420

PC- JMNR N.G 372/3 to 428/0

3.7.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.8 BSL Main Line Engg. P.Way Depot

3.8.1 Scale check of BSL Main Line Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	09	08	01
02	JE/ P.Way	10	03	07
03	Ch. OS	01	01	00
04	Track Maintainer I	30	01	29
05	Track Maintainer II	52	12	40
06	Track Maintainer III	52	76	+24
07	Track Maintainer IV	123	131	+08
08	Black Smith I	01	01	00
09	Black Smith II	01	00	01
10	Thermit Welder I	01	00	01
11	Thermit Welder II	00	01	+01
12	Thermit Welder III	01	01	00
13	Arch Welder	01	00	01
14	MCM Thermit Welder	01	00	01
15	MCM Arch Welder	00	01	+01
16	Watchman	00	01	+1
	Total	283	237	46

3.8.2 Jurisdiction of Depot/ Depot- Incharge :

MWD to BSL Section km 400/420 to 443/0

Western Side km 301/470 to 405/900

3rd line km 432/00 to 443/00

3.8.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.9 BSL Yard Line Engg. P.Way Depot

3.9.1 Scale check of BSL Yard Line Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	06	04	02
02	JE/ P.Way	05	02	03
03	Track Maintainer I	18	03	15
04	Track Maintainer II	36	23	13
05	Track Maintainer III	61	67	+06
06	Track Maintainer IV	182	154	28
07	MCM / Blacksmith	01	00	01
08	Black Smith III	01	01	00
09	MCM/ Thermit Welder	01	01	00
10	MCM/ Mason	01	01	00
	Total	312	256	56

3.9.2 Jurisdiction of Depot/ Depot- In charge :

BSL – JL km 443/00 to 444/00

BSL- KNW km 446/05 to 451/53

BSL- JM 444/00 to 448 / 61

3.9.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.10 BAU/ SouthEngg. P.Way Depot

3.10.1 Scale check of BAU / South Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	05	05	00
02	JE/ P.Way	03	02	01
03	Track Maintainer I	23	05	18
04	Track Maintainer II	45	21	24
05	Track Maintainer III	45	57	+12
06	Track Maintainer IV	113	92	21
07	Thermit Welder III	01	01	00
08	Black Smith I	01	00	01
09	Black Smith II	01	00	01
10	Black Smith III	01	01	00
11	Watchman	00	02	+02
12	Mason III	01	00	01
13	Mason Khalasi	01	00	01
14	COS	01	01	00
15	Jr Clerk	01	00	01
16	Peon	00	01	+01
	Total	241	187	54

3.10.2 Jurisdiction of Depot/ Depot- Incharge :

DSK to BAU km 451/530 to km 494/ 00 .

3.10.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.11BAU/ NorthEngg. P.Way Depot

3.11.1 Scale check of BAU / North Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	04	04	00
02	JE/ P.Way	04	02	02
03	Track maintainer-I	19	13	06
04	Track maintainer-II	39	29	10
05	Track maintainer-III	39	59	+20
06	Track maintainer-IV	99	61	38
07	OS	01	01	00
08	Trolley man	13	10	03
09	Black Smith I	01	00	01
10	Thermit Welder I	01	01	00
	Total	220	180	40

3.11.2 Jurisdiction of Depot/ Depot- Incharge :

BAU to MWA km 494/ 00 to km 533 /00

3.11.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.12 KNW BG Engg. P.Way Depot

3.12.1 Scale check of KNW BG Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	07	07	00
02	JE/ P.Way	05	02	03
03	Ch. OS	01	01	00
04	Jr .Clerk	01	01	00
05	Track Maintainer I	20	05	15
06	Track Maintainer II	40	31	09
07	Track Maintainer III	40	63	+23
08	Track Maintainer IV	97	63	34
09	Khalasi	01	01	00
10	Black Smith I	01	00	01
11	Black Smith III	01	01	00
12	Thermit Welder III	01	01	00
13	MCM / Welder	01	00	01
	Total	216	176	40

3.12.2 Jurisdiction of Depot/ Depot- Incharge :

SXA- KNW from Km 533/000 to km 569/250

3.12.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.13 BDWD Engg. P.Way Depot

3.13.1 Scale check of BDWD Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	07	06	01
02	JE/ P.Way	02	01	01
03	Ch. OS	01	01	00
04	Jr Clerk	01	01	00
05	Track Maintainer I	23	09	14
06	Track Maintainer II	47	28	19
07	Track Maintainer III	47	62	+15
08	Track Maintainer IV	117	95	22
09	Watchman	03	01	02
10	Black Smith	04	04	00
11	Welder	02	02	00
	Total	254	210	44

3.13.2 Jurisdiction of Depot/ Depot- In charge:

BSL C Cabin to WDD from km 448/610 to 497/00

3.13..3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.14 SEG Engg. P.Way Depot

3.14.1 Scale check of SEG Engg. P.Way Depot staff :

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	04	03	01
02	JE/ P.Way	09	03	06
03	Track Maintainer I	24	04	20
04	Track Maintainer II	55	58	+03
05	Track Maintainer III	55	65	+10
06	Track Maintainer IV	137	99	38
07	MCM/ Blacksmith	01	01	00
08	Black Smith I	01	01	00
09	Black Smith II	01	00	01
10	Thermit Welder	02	01	01
11	Watchman	02	00	02
12	O. Peon	01	00	01
	Total	292	235	57

3.14.2 Jurisdiction of Depot/ Depot- In charge :

Km 497/00 to 547/ 250 and JM- KMN branch & Single Line

3.14.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.15 AK Engg. P.Way Depot

3.15.1 Scale check of AK Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	08	07	01
02	JE/ P.Way	10	04	06
03	O.S	01	01	00
04	Jr Clerk	01	01	00
05	Track Maintainer I	22	10	12
06	Track Maintainer II	45	69	+24
07	Track Maintainer III	45	36	09
08	Track Maintainer IV	111	54	57
09	Blacksmith-I	02	00	02
10	Blacksmith-III	00	01	+01
11	Watchman	02	01	01
12	Thermit Welder I	01	00	01
13	Thermit Welder III	02	01	01
	Total	250	185	65

3.15.2 Jurisdiction of Depot/ Depot- In charge :

SEG – AK km 547/250 to 585/100

3.15.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.16 MZR Engg. P.Way Depot

3.16.1 Scale check of MZR Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	05	06	+01
02	JE/ P.Way	02	02	00
03	Ch. OS	01	01	00
04	OS	01	01	00
05	Track Maintainer I	21	06	15
06	Track Maintainer II	42	19	23
07	Track Maintainer III	42	57	+15
08	Track Maintainer IV	107	98	09
09	Watchman	03	02	01
10	Black Smith I	01	00	01
11	Black Smith III	01	00	01
12	Welder III	01	01	00
13	O.Peon	01	01	00
	Total	228	194	34

3.16.2 Jurisdiction of Depot/ Depot- In charge:

From Km 585/00 to 623/00

3.16.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.17 BD Engg. P.Way Depot

3.17.1 Scale check of BD Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	08	08	00
02	JE/ P.Way	02	02	00
03	Track Maintainer I	31	15	16
04	Track Maintainer II	62	17	45
05	Track Maintainer III	62	102	+40
06	Track Maintainer IV	158	136	22
07	Black Smith II	02	01	01
08	Black Smith III	03	03	00
09	Thermit Welder I	01	01	00
10	Arch Welder III	01	01	00
	Total	330	286	44

3.17.2 Jurisdiction of Depot/ Depot- Incharge :

623/ 00 to 665/00 on Main Line

662A /8 to 672 A/5 BD – AMI Section Single line

662/ 8 to 705/ 530 BD- CNDB Single line

3.17.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.18 ANJ Engg. P.Way Depot

3.18.1 Scale check of ANJ Engg. P.Way Depot staff :

Sr.No	Category	S/S	MOR	VAC.
01	Track Maintainer I	05	01	04
02	Track Maintainer II	10	02	08
03	Track Maintainer III	10	04	06
04	Track Maintainer IV	25	01	24
	Total	50	08	42

3.18.2 Jurisdiction of Depot/ Depot- In charge :

From km 621/ 10 to km 697/ 66 MZR- ELP (NG.) at present line is closed.

3.18.3 Critical Analysis:

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.19 DWM Engg. P.Way Depot

3.19.1 Scale check of DWM Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	Track Maintainer I	07	00	07
02	Track Maintainer II	15	00	15
03	Track Maintainer III	15	06	09
04	Track Maintainer IV	37	00	37
	Total	74	06	68

3.19.2 Jurisdiction of Depot/ Depot- In charge :

From km 621/10 to km 733/37 MZR- YTL (NG) at present line is closed.

3.19.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.20 Store BSL Engg. P.Way Depot

3.20.1 Scale check of Store BSL Engg. P.Way Depot staff:

Sr.No	Category	S/S	MOR	VAC.
01	SSE / P.Way	02	01	01
02	JE/ P.Way	01	01	00
03	OS	01	00	01
04	Jr Clerk	02	02	00
05	Track Mech. I	01	00	01
06	Mate	02	01	01
07	Khalasi	20	15	05
08	Track Maintainer II	01	00	01
09	Track Maintainer III	01	04	+03
10	Track Maintainer IV	04	02	02
	Total	35	26	08

3.20.2 Jurisdiction of Depot/ Depot- In charge :

SSE P. Way (Store)

Activities / Duty list of the Staff of the Depot:

Material loading and unloading, stacking various materials received from suppliers and material distribution from 08.00 am to 17.30 pm.

3.20.3 Critical Analysis :

- Redundant/ Non- Operative posts identified in the Depot - **NIL.**
- Activities Outsourced in the Depot - **NIL.**
- Future planning for any outsourcing - **NIL.**

3.21 USFD Engg. P.Way Depot :

3.21.1 Scale check of USFD Engg. P.Way Depot staff :

Category	MOR	Remarks
SSE	05 At BSL, under DRM(W)	In USFD Organization, there are total 15 PWIs working (14 SSE + 01 JE located at NK, MMR, BSL, AK & KNW section.)
JE	01	Under DRM(W)/ BSL

3.21..2 Jurisdiction of Depot/ Depot- Incharge :

All over BSL Division.

Activities/ Duty list of the staff of the Depot:

1. Ultra Sonic testing of rail by digital double rail tester in the Division.
2. Ultra Sonic testing of welds by digital weld tester in the Division.
3. Ultra Sonic testing of SEJ, Points, crossings and fish plates etc.

3.21.3 Critical Analysis :

➤ Redundant/ Non- Operative posts identified in the Depot - **NIL.**

➤ **Activities Outsourced in the Depot -**

There was rail testing outsourced 5 to 58 km linear kilometers in August 2016, out of that 6018 kms tested up to 03/12/2019.

➤ Future planning for any outsourcing - **NIL.**

3.22 Critical Analysis & Recommendations:

- In year 2019:
 - i) 213 posts of Track maintainer are surrendered against restructuring.
 - ii) 50 posts surrendered for purchase of TM machines.
 - iii) 15 posts of Gateman are surrendered against restructuring.
 - iv) 28 posts are created for 3rd line BSL-JL section.

- The current updated ETKM/Work load of P.way deptt. over BSL division is 3226.86 ETKM. As per Indian Railway Benchmarking Norms **October** 2019, the Man Power Ratio of P.Way staff for the division more than 2250 ETKM current IR average is 1.25 men per ETKM. So considering this as base, divisional staff strength for track maintenance staff may be calculated as $3226.86 \times 1.25 = 4033$. This 4033 staff includes only track maintenance staff excluding supervisors.

- The Current staff position of Track Maintainer (I, II, III & IV) of BSL division is as follows:

SS	MOR	VAC.
4230	3494	736

According to this, $4230 - 4033 = 197$ posts are excess.

- The Branch line section of MZR-ELP & MZR-YTL is closed due to unsafe track and bridge structures. At present these sections are uneconomic and unproductive to the Railway. The staff position of Track maintainer of these sections is as follows:

Depot	SS	MOR	VAC
DWM	74	06	68
ANJ	50	08	42
TOTAL	124	14	110

There are very less/almost nil chances of opening this branch again near future.

There are 110 vacancies of the track maintainer lying unnecessary vacant in the depot. Keeping in mind that the track maintainer staff comes under safety category the work study team suggests to surrender only about 50% of the vacant posts of track maintainer from these depots. These will be as follows:

Depot	DWM			ANJ		
	Category	SS	A = 50% of SS	SS	B = 50% of SS	A+B
	Track Maintainer I	07	03	05	02	05
	Track Maintainer II	15	7	10	05	12
	Track Maintainer III	15	7	10	05	12
	Track Maintainer IV	37	18	25	12	30
	TOTAL	74	35	50	24	59

- It is suggested to surrender $35+24=59$ posts of track maintainer.

CHAPTER NO.06 FINANCIAL IMPLICATION

As per the recommendation of the Work Study report, 59 posts of Track Maintainer are identified as surplus and the money value as a result of surrender of these posts is worked out as under:

Category	Level	Mean Value	DA=17%	Monthly money value	Annual money value	No. of posts	Total Annual saving in Rs.
Track Maintainer-I	L-5	33650	5721	39371	472452	05	2362260
Track Maintainer-II	L-4	29400	4998	34398	412776	12	4953312
Track Maintainer-III	L-2	22950	3902	26852	322224	12	3866688
Track Maintainer-IV	L-1	20750	3528	24278	291336	30	8740080
	TOTAL				59		1,99,22,340

On surrendering of 59 posts of Track Maintainer, the recurring saving will be Rs. 1,99,22,340 per annum.

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29/01/2020

NOTE

Sub:-Work-Study Report (Draft) on “Review of Engineering (P.Way) staff
 of Bhusawal Division.

The above-subjected study proposed / sponsored by AGM (C.R), with approval of Railway Board is included as a programmed study for the year 2019 – 20.

It is recommended to surrender 59 vacant posts of Track Maintainer.

A copy of the work-study report/draft is prepared & sent herewith for remarks / acceptance please.

(V.S.Tayade)
 WSI / BSL.

Sr.DEN (Co.)

ADRM

WSCR/ENGG/BSL/5/19-20.
Review of Engineering (P.Way) staff of Bhusawal Division.

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**WORK STUDY REPORT ON
REVIEW OF ENGINEERING (P.WAY) STAFF
OF BHUSAVAL DIVISION.**

STUDY NO: WSCR/ENGG/BSL/5/19-20.

DEPTT: ENGG. (P.WAY)

2019-20

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**WORK STUDY REPORT ON
REVIEW OF ENGINEERING (WORKS) STAFF
OF BHUSAVAL DIVISION.**

STUDY NO: WSCR/ENGG/BSL/6/19-20.

DEPTT: ENGG. (WORKS)

2019-20

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