



**SPECIAL AUDIT REPORT  
ON THE PROJECT OF  
REPLACEMENT OF OLD AND  
OBSOLETE SIGNAL GEAR  
BY PAKISTAN RAILWAYS  
(Lodhran-Shahdara)**

**AUDIT YEAR 2019-20**

**AUDITOR GENERAL OF PAKISTAN**

## **PREFACE**

The Auditor General of Pakistan conducts audit in terms of Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with Sections 8 and 12 of the Auditor General's (Functions, Powers and Terms and Conditions of Service) Ordinance, 2001. Special audit of project titled Replacement of Old and Obsolete Signal Gear (Lodhran - Shahdara) was carried out accordingly.

The Directorate General of Audit Railways conducted special audit of the project during audit year 2019-20 for the period from July 2009 to June 2019 with a view to report significant findings to the stakeholders. In addition, Audit assessed whether the project management had performed the activities in a planned manner and complied with all applicable laws, rules and regulations during execution of the project. The Special Audit Report indicates specific actions that, if taken, will help the management to realize the objectives of the Project. All observations included in this report have been finalized in the light of departmental replies as well as discussions in the DAC meetings.

This Special Audit Report is submitted to the President of Pakistan in pursuance of Article 171 of the Constitution of the Islamic Republic of Pakistan 1973, for causing it to be laid before both houses of Majlis-e-Shoora (Parliament).

**Islamabad**  
**Dated: 03 NOV 2023**

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**(Muhammad Ajmal Gondal)**  
**Auditor General of Pakistan**

# TABLE OF CONTENTS

	Page No.
ABBREVIATIONS AND ACRONYMS	i
EXECUTIVE SUMMARY	iii
1 INTRODUCTION	1
2 AUDIT OBJECTIVES	2
3 AUDIT SCOPE AND METHODOLOGY	3
4 AUDIT FINDINGS AND RECOMMENDATIONS	4
4.1 Organization and Management	4
4.2 Procurement and Contract Management	6
4.3 Construction and Works	18
4.4 Asset Management	25
4.5 Monitoring and Evaluation	26
4.6 Compliance with PPRA Rules	31
4.7 Overall Assessment	37
5 CONCLUSION	38
ACKNOWLEDGEMENT	39
ANNEXES	40

## Abbreviations and Acronyms

ABS	Automatic Block System
AEN	Assistant Executive Engineer
AGM/I	Additional General Manager/Infrastructure
ASM	Assistant Station Master
ATP	Automatic Train Protection
AVR	Automatic Voltage Regulator
BBG	Badami Bagh
BOQ	Bill of Quantity
CBI	Computer Based Interlocking
CD/ST	Custom Duty/Sales Tax
CDWP	Central Development Working Party
CEN/OL	Chief Engineer/Open Line
CPO	Chief Personal Officer
CRSC	China Railways Signal & Communications Corporation, China
ATP	Automatic Train Protection
CTC	Centralized Traffic Control
DAC	Departmental Accounts Committee
DAO	Divisional Accounts Officer
DG Set	Diesel Generator Set
DOT	Doubling of Track
DS	Divisional Superintendent
ECNEC	Executive Committee of National Economic Council
FA&CAO	Financial Advisor and Chief Accounts Officer
FAT	Factory Acceptance Test
FEC	Foreign Exchange Component
FIR	First Investigation Report
FGIR	Federal Government Inspector of Railways
FOB	Free on Board
GLW	Gilawala
GOP	Government of Pakistan
IDB	Islamic Development Bank
IOW	Inspector of Works
IYD	Inter-yard Drawing
JO	Junior Officer
KSL	Kasso Wal
KVA	Kilovolt-ampere

LC	Letter of Credit
LD	Liquidated Damages
LHC	Lahore Cantt
LKP	Kot Lakhpat
LHR	Lahore
LON-SDR	Lodhran-Shahdhra
L-xings	Level Crossings
MD	Managing Director
MOR	Ministry of Railways
MUL	Multan
MYH	Mian Channu
OPEC	Organization of the Petroleum Exporting Countries
PC-I	Planning Commission Proforma-I
PD	Project Director
PLC	Paper Line Clear
PGB	Piran Gaib
PMDU	Prime Minister Performance Delivery Unit
PPRA	Public Procurement Regularity Authority
PR	Pakistan Railways
PRACS	Pakistan Railway Advisory and Consultancy Services
PRFTC	Pakistan Railway Freight Transportation Co.
PSDP	Public Sector Development Programme
RSP	Re-signalling Project
RZD	Riazabad
SDR	Shahdhra
SES	Sub-Engineer Signal
SHO	Station House Officer
SSH	Sher Shah
TD Office	Train Dispatch Office

## EXECUTIVE SUMMARY

The Directorate General of Audit Railways conducted special audit of the project titled “Replacement of Old and Obsolete Signal Gear (LON-SDR)” from 21.08.2019 to 15.11.2019. The audit was conducted in response to the request of Secretary, Ministry of Railways and a complaint received from PMDU Islamabad regarding reservations in financial matters and on-ground progress of the project. Prime objective of the audit was to examine the financial management, physical progress of the project and to assess the envisaged objectives of the project. Moreover, a review of the procurement process, construction, contract monitoring & implementation, etc. was also made. The audit was conducted as per International Standards for Supreme Audit Institutions.

PC-I of the project was got approved for an estimated cost of Rs 10,720.382 million including FEC of Rs 7,989.969 million (US\$ 130.967 million) in August 2007 with a completion period of 3 years. The provision of signalling system comprised of designing, manufacturing, supplying of material, installation and commissioning of Computer Based Interlocking system. In May 2015, PC-I of the project was firstly revised at an enhanced cost of Rs 17,464.00 million. The 2<sup>nd</sup> revision was made in May 2018 with the cost of Rs 18,346.600 million, and completion period extended up to 30.06.2018. An expenditure of Rs 15,026.074 million was incurred up till 30<sup>th</sup> June, 2019 while the project was in progress. Major deviations in scope, cost, and timelines were observed besides the presence of bottlenecks in financial, procurement, and contract management.

### Key Audit Findings

- i. Non-replacement of incompatible/defective parts/material valuing Rs 43.992 million<sup>1</sup>.
- ii. Non-receipt of material valuing Rs 118.978 million<sup>2</sup>.

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<sup>1</sup>Para 4.2.7

<sup>2</sup>Para 4.2.5

- iii. Non-provision of maintenance spare parts despite payment of Rs 276.04 million<sup>3</sup>.
- iv. Violation of PPRA rules resulting into mis-procurement of Rs 182.979 million<sup>4</sup>.
- v. Loss due to non-imposition LD Charges Rs 573.69 million<sup>5</sup>.
- vi. Award of a contract by alleged forgery Rs 4.445 million<sup>6</sup>.
- vii. Installation of reportedly defective CBI system Rs 430.011 million<sup>7</sup>.
- viii. Loss due to abnormal increase in cost of project Rs 7,626.218 million<sup>8</sup>.
- ix. Infructuous expenditure Rs 11.593 million<sup>9</sup>.
- x. Construction of defective/substandard CBI Station buildings Rs 209.182 million<sup>10</sup>.
- xi. Irregular transfer of funds, excess procurement, interest on loan and other misc. issues Rs 805.363 million<sup>11</sup>.

### **Recommendations**

- i. Alleged forgery in award of contract be enquired and delinquents taken to task.
- ii. Violation of Public Procurement Rules be probed culminating into imposition of punishments as per rules.
- iii. Incompatible/defective material be got replaced or recovery effected from the defaulters immediately.

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<sup>3</sup>Para 4.2.4

<sup>4</sup>Para 4.5.3, 4.6.2, 4.6.3, 4.6.4 & 4.6.5

<sup>5</sup>Para 4.2.3 & 4.3.3

<sup>6</sup>Para 4.2.8

<sup>7</sup>Para 4.5.1

<sup>8</sup>Para 4.2.2

<sup>9</sup>Para 4.3.4

<sup>10</sup>Para 4.2.6, 4.3.1 & 4.6.3

<sup>11</sup>Para 4.1.1, 4.3.5, 4.4.1 & 4.5.2

- iv. Cases of non supply of material and spare parts be expedited. Efficient contract management needs to be ensured for safeguarding of Railways' interest.
- v. Imposition and recovery of LD charges be ensured.
- vi. Project Management Guidelines be observed to avoid cost overrun.
- vii. Matter regarding installation of defective CBI system and construction of substandard CBI buildings be enquired and amount of loss recovered from responsables.
- viii. Enquiries directed by DACs be processed and finalized at the earliest.
- ix. Management and financial controls be strengthened and recurrence of irregularities avoided.



## **1. INTRODUCTION**

Railway signaling systems play an important role in smooth, safe, and efficient train operations. These systems are used to protect trains from accidents, enhance transportation efficiency, and increase speed and line capacity. Modern systems such as Electric/Electronic Interlocking, Auto Block System (ABS), Centralized Traffic Control (CTC), Automatic Train Protection (ATP), Cab Signaling, etc. are being extensively used by all modern Railways over the world. In Pakistan Railways, most of the Mechanical Signaling at the stations was provided before independence and block signaling between stations was provided in 1969. Pakistan Railways installed CTC and Auto Block Systems from Karachi to Kotri in 1970 and 1993 respectively. However, the systems had become very old and obsolete. The systems had outlived its useful life and required urgent replacement and was envisaged to be carried out partially through this project.

The PC-I of the project titled “Replacement of Old and Obsolete Signal Gear (LON-SDR)” with an estimated cost of Rs 4,183.846 million was submitted to Planning Commission in April 2006. The CDWP recommended the project for approval by ECNEC subject to the provision of detailed specifications. The Planning Commission allowed Pakistan Railways to float international tenders and resubmit the PC-I after modification based on rates offered in tender. As a result of the international tender, M/s Bombardier Transportation was considered lowest bidder and the modified PC-I with an estimated cost of Rs 10,720.382 million including FEC of Rs 7,989.969 million was approved in August 2007 with completion period of 36 months. Thereafter, two contracts were executed with a consortium, comprising M/s Bombardier Transportation Sweden (BT) & China Railway Signal & Communication Corporation (CRSC), for the provision of a signaling system.

The provision of a signaling system included the design, manufacture, supply, installation, and commissioning of Computer Based Interlocking system at 31 Railway stations (07 Stations for Signal-I & 24 Stations for Signal-II). In May 2015, PC-I of the project was revised (1<sup>st</sup> revision) to Rs 17,464.176 million including FEC Rs 12,067.893 million with completion period of 72 months. The re-revised (2<sup>nd</sup> revised) PC-I with an estimated cost

of Rs 18,346.600 million including FEC Rs 12,936.00 million was approved on 14.05.2018 with completion period of 120 months i.e., 30.06.2018. Both the revisions in PC-I were due to inflation, exchange rate, and the addition of 24-level crossings over the section.

The project was still in progress as per the progress report for June 2019. An expenditure of Rs 15,026.074 million (82%) was incurred against the total project cost of Rs 18,346.600 million. The expenditure included a payment of US\$ 118.185 million (91.26%) to the consortium against the contract value of US\$ 129.500 million. Out of total 31 stations, the CBI system in 20 stations was installed and made operational. The component wise physical progress was as under:

▪ System engineering:	97%
▪ Material:	98%
▪ Building:	97%
▪ Installation:	66%
▪ Testing & Commissioning:	66%

The above position indicated that despite lapse of 10 years; only 20 stations were made operational. This manifested inefficiency on the part of project management. Moreover, the delay in execution of the project not only increased the cost of the project but also jeopardized the safety of travelers.

## **2. AUDIT OBJECTIVES**

The major objectives of the audit were:

- i. To assess whether the objectives of the project were achieved or not.
- ii. To review the transparency of procurement and application of the concept of value for money and compliance of PPRA rules.
- iii. To examine the contract management.
- iv. To examine the payments to contractors on account of works and supplies.
- v. To conduct physical verification of works on a test check basis.

- vi. To examine records relating to receipt and accountal of imported material.
- vii. To review disposal of released/redundant material.
- viii. To assess the overall performance of the installation of the Electronic Interlocking system.

### **3. AUDIT SCOPE AND METHODOLOGY**

#### **3.1 Audit Scope**

The Special audit of the project titled “Replacement of Old and Obsolete Signal Gear (LON-SDR)” was conducted from 21.08.2019 to 15.11.2019. The period covered was from July 2009 to June 2019. The project involved different locations i.e., 31 stations from Lodhran to Shahdara; 50 quarters; 128 level crossings and 31 stations CBI buildings etc. Relevant record of the project was scrutinized in the offices of the Project Director, Railways Headquarters, Lahore as well as the Director Procurement, Islamabad.

#### **3.2 Audit Methodology**

The audit was conducted as per the following methodology:

- i. Interviews with the key personnel for understanding the business process and discussions with project management on significant issues.
- ii. Examination of relevant files/documents, review of financial data and site visits.
- iii. Detailed examination of risk areas identified during planning phase with respect to TORs.

## **4. AUDIT FINDINGS AND RECOMMENDATIONS**

### **4.1 Organization and Management**

The management did not adhere to Planning Commission's Guidelines and World Bank comments on the Project. Significant observations regarding organization and management are as under:

#### **4.1.1 Irregular booking of Deposit Miscellaneous funds as Sundry earning – Rs 660.00 million**

Para 1049 of Pakistan Railways Code for Engineering Department provides that when work is undertaken by the engineering department of a Railway for outside parties including other Railways, governments departments, public bodies and employees of the Railway, it will be done as deposit work and departmental charge will be levied at prescribed percentage. Furthermore, para 1015 of Pakistan Railway Code for Accounts Department, volume-I describes that the primary responsibility for the allocation of the initial documents in support of receipts and payments and other accounting transactions rests with the executive authorities. The account department is responsible for seeing, to the extent it is possible to do so, that the allocation shown on the initial documents is not incorrect.

During special audit of the project "Replacement of Old and Obsolete Signal Gear (LON-SDR)" in 2019-20, it was observed that M/s PRFTC, Lahore made payment of Rs 660.00 million for procurement and installation of CBI system at Yousafwala Railway Station. Railway management irregularly booked the said amount under the head sundry earning instead of transferring to the project for booking under the head Deposit Misc. This resulted in irregular booking of funds amounting to Rs 660.00 million as sundry earning instead of transferring to the project for booking as Deposit Misc. This depicts weak financial controls.

The issue was pointed out to management in November 2019 and it was replied that M/s PRFTC submitted two Cheques in favor of FA&CAO who sent the same to DAO, Lahore. The reply was an admission of audit observation. The matter was also discussed in the DAC meeting held on 13.05.2022 and it was informed that amount in question was under process for adjustment. DAC directed the FA&CAO/PR to adjust the amount in accounts

of Pakistan Railways within seven (07) days and get it verified from Audit. Compliance of DAC directives was awaited till the finalization of the report.

Audit recommends that adjustment of irregular booking of funds as sundry earning be made and amount be transferred to the project.

#### **4.1.2 Lack of due diligence at the planning stage**

Rule 22(2) of Public Procurement Rules 2004 stipulates that a procuring agency shall specify the manner and method of submission and receipt of bids in an unambiguous and clear manner in the bidding documents.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that project management floated an international tender for the design, manufacture, supply, installation, and commissioning of signaling system on Shahdara Bagh to Khanewal Section on turnkey basis. The tender documents were sent to World Bank for review, and comments. On 05 January 2007, World Bank offered the following comments, which were not followed at the planning stage:

- i. Track work be completed before supply/installation of signaling system.
- ii. The provision of cab signaling should be reviewed since this is not essential for a speed of 160 km/h that would be prone to theft and vandalism.
- iii. The use of optical fiber cable may be considered.
- iv. The proposed four maintenance depots are not required. Only one depot with half a dozen trained technicians could maintain the system.
- v. The suppliers of signaling system may not be the same as the suppliers of trolleys.
- vi. The bidding process should commence with a prequalification. please use the Bank’s standard pre-qualification documents.
- vii. The bids shall be invited as one envelop bid.
- viii. Bid documents should give concrete criteria for evaluation.

Comments offered by the World Bank had been proven true and correct as the project had not only undergone time and cost overrun but also

suffered undesirable phenomena like over-invoicing, non-supply of trollies, and delay in civil engineering infrastructure etc., up till now. The Audit is of the view that if the project management had considered the World Bank's comments and incorporated amendments in the bidding document, the maximum fringe benefits could have been achieved, the project might have been completed and cost and time overrun could have been avoided.

The matter was taken up with management in November 2019. It was replied that the points raised by World Bank vide letter dated 05.01.2007 were carefully examined and particularly para-3 thereof was considered at the level of AGM/I. P.D/DOT assured that track work would be completed up to June 2008 which was delayed due to financial constraints and other reasons. There were few Signaling manufacturers all over the world and such pre-qualification was not considered necessary but healthy competition was preferred. The reply was not tenable as the initial/preliminary design was not prepared for Civil Works before floating of international tender. Therefore, the time overrun resulted in a cost overrun.

DAC in its meeting held on 24.09.2021 directed the PO to furnish a revised reply to Audit within seven days as the given reply was completely irrelevant to audit observation. It was further directed to AGM/I to issue an Advisory Note to rectify the issues as the Project was still in progress. Compliance of DAC directives was awaited till the finalization of the report.

Audit recommends that the matter be enquired for non-preparation of initial design before floating of tender and action be taken against the person(s) held responsible. Besides, the preparation of PC-I, Estimates and Feasibility Study for such a high-risk project should be supervised by a 3<sup>rd</sup> party/consultant to avoid such reoccurrence in the future.

#### **4.2 Procurement and Contract Management**

During the special audit, many control failures regarding procurement and contract management were observed. The project had no procurement plan and defective material was not replaced on certain occasions. The details of irregularities in the procurement and contract management are narrated in the following paragraphs:

#### **4.2.1 Mis-procurement due to lack of transparency in bid evaluation – Rs 10,838.81 million (US\$ 129.496 million)**

Rule 29 of Public Procurement Rules 2004 stipulates that procuring agencies shall formulate an appropriate evaluation criterion listing all the relevant information against which a bid is to be evaluated. Such evaluation criteria shall form an integral part of the bidding documents. Failure to provide for an unambiguous evaluation criterion in the bidding documents shall amount to mis-procurement. Further, Rule 30 also provides that all bids shall be evaluated in accordance with the evaluation criteria and other terms and conditions set forth in the prescribed bidding documents.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the technical evaluation criteria was ambiguous as no weightage was assigned to the criteria in the notified bidding documents whereas technical evaluation weightage was given which resulted in mis-procurement. The above facts indicated a clear violation of the PPRA rules *ibid* which resulted in mis-procurement of Rs 10,838.81 million (US\$ 129.496 million) due to lack of transparency besides, in the prevailing circumstances, chances of extending undue favor to the contractor cannot be ruled out.

The matter was taken up with management in November 2019. It was replied that the matter relates to Director Procurement, Islamabad and a comprehensive reply would be furnished on receipt of same from the Director Procurement however the same was awaited till the finalization of this report.

DAC in its meeting held on 03.12.2021 directed the Railway Management to constitute an inquiry committee comprising FA&CAO/PR and CPO to probe the matter and report within a month to Audit under intimation to DAC. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be inquired to fix responsibility for the non-compliance of PPRA rules besides, effective steps be taken to ensure compliance with the applicable rules in letter & spirit to avoid such recurrence.

#### **4.2.2 Loss due to exorbitant increase in the cost of Project – Rs 7,626.218 million**

Para 4.14 of the Manual of Development Project provides that the cost estimates of a project have to be prepared with a lot of care so that these are not revised again and again and implementation is not delayed due to non-availability of provision of funds and revised sanction of the competent authority. In case a project has been revised for the first time either due to an increase in the total cost by more than 15% or due to a revision in its scope, it would be treated as a new scheme for obtaining the sanction of the competent authority. Any further increase thereafter is not allowed and therefore it is essential that the revised cost estimates are prepared with due care.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that PC-I of the project was submitted to Planning Commission in April 2006 at an estimated cost of Rs 4,183.846 million. The CDWP recommended the project in principle for approval to the ECNEC subject to the provision of detailed specifications, a working model, and firmed cost estimate of the proposed signaling system by PR. In August 2006, specifications were approved by Planning Commission and PR was allowed to float international tenders with the direction to resubmit the PC-I after modifying it based on tendered rate. In response to the International tender M/s Bombardier Transportation offered the lowest bid price and a modified PC-I was approved in August 2007 at Rs 10,720.382 million with an FEC of Rs 7,988.969 million (US\$ 130.967 million) with an implementation period of 36 months. In May 2015 PC-I of the project was revised at an increased cost of Rs 17,464.00 million with the increased scope of work. In May 2018, it was again revised at the enhanced cost of Rs 18,346.600 million, with an addition in the scope of work and implementation period i.e., 120 months (June-2008 to June-2018). The project could not be completed till 31<sup>st</sup> October 2019. It is added here that the root cause for the exorbitant increase in project cost amounting to Rs 7,626.218 million was due to mismanagement as the contract regarding the procurement of the signaling system was made before the completion of the civil works. It is worth mentioning here that the World Bank in 2007 had also suggested the Railway Management that track work be completed before supply/installation



of the signaling system to avoid time overrun. The project mismanagement as phase-wise civil work was not mentioned in PC-I and poor performance/ slow pace of civil work resulted in loss due to an exorbitant increase in cost amounting to Rs 7,626.218 million (66%).

The matter was taken up with management in November 2019 and it was replied that both the revisions of PC-I were approved by the CDWP & ECNEC. It was added that the increase in the cost was due to a force majeure situation. The reply was not tenable as revision after approval of PC-I based on international tender rates was hardly justified.

DAC in its meeting held on 24.09.2021 was informed that the PC-I was revised twice by a competent forum without raising any observation against the rules. DAC, therefore, directed that the PO furnish a revised reply to Audit giving a timeline for completion of the Project. It was further directed to AGM/I to issue an Advisory Note to the Project Director. Compliance of DAC directives was awaited till the finalization of the report.

Audit recommends that the matter be investigated to fix the responsibility against the person(s) found at fault for project mismanagement and resultant loss besides, suitable measures be adopted for strengthening project management to avoid such recurrence.

#### **4.2.3 Loss due to non-imposition of LD charges – Rs 541.94 million**

Article 23.1 of contract agreement # DP/IDB/2009/ Signal-1 stated that in the event of delay in accordance with the Delivery Schedule annexed hereto, the Employer may collect from the Contractor, as liquidated damages, the sum of 0.5% of the FOB price of each consignment so delayed or the sum of 0.5% of the corresponding installation price of the delay in installation/ commissioning for each and every week of such delay except for the first week. The payment of liquidated damages herein shall not exceed 5% of the Contract Amount and shall constitute the Employer's sole and exclusive remedy with regards to damages for delay.

During special audit of the project "Replacement of Old and Obsolete Signal Gear (LON-SDR)" in 2019-20, it was observed that the recommendation of AGM(I) vide para-77/N dated 08.07.2015 of the file was

misquoted by the Director, Procurement, Islamabad as the AGM(I) had neither recommended the extension with a levy nor without levy of liquidated damages. AGM(I) was silent about LD charges, however, Para 86 (a) dated 14.07.2015 of the Noting portion of the correspondence file of Director, Procurement, Islamabad, stipulated that the completion period against both the contract agreements be extended up to 30.06.2016 without levy of liquidated damages as recommended by AGM (I) vide para-77/N of the file which was not correct. Therefore, the Director procurement had misled the Member Finance and Secretary/chairman for their concurrence and approval respectively. Consequently, the Employer, i.e., Director Procurement, Islamabad had given undue favor to the contractor and PR had borne, not only a loss of Rs 541,944,024 (US\$ 6,474,839) on account of non-levy of LD charges but also delay in completion of the project by favoring the consortium. The above state of affairs indicated that misleading facts were reported to the higher authority (**Annex-1**).

The matter was taken up with management in November 2019. It was replied that the matter related to Director Procurement/Islamabad and referred for comprehensive comments. Moreover, this office had already requested to Director Procurement to impose LD charges as per Article 23-I & II of the Contract Agreement vide letter No. Sig-Proj/LON-SDR/38/Pt-IV dated 20.03.2019 (copy attached). The final reply was awaited.

DAC in its meeting held on 03.12.2021 was informed that the delivery period was extended several times with the consent of AGM/Infrastructure, the financial concurrence of Member Finance, and administrative approval of Secretary/Railways. Hence, no fraudulent favor for extension without LD Charges was granted.

DAC directed the Railway Management to constitute an inquiry committee comprising FA&CAO/PR and CPO to probe the matter and report within a month to Audit under intimation to DAC. Compliance of DAC directives was awaited till the finalization of the report.

Audit recommends that the matter be inquired at an appropriate level to fix responsibility against the person (s) held responsible, besides the LD charges should be recovered under intimation to Audit.

#### **4.2.4 Non-supply of spares before commissioning of stations worth Rs 276.04 million**

Article 9 of the Contract No. DP/IDB/2009/SIGNAL-II executed between Ministry of Railways and Consortium i.e., M/s BT/CRSC on December 2009 via Multan Section regarding provision of signaling system on Khanewal to Shahdara Bagh implies that the works shall be completed in all respect within thirty months from the Effective Date i.e., 14.04.2010. Moreover, Clause M “SPARES” of the bidding documents provides a list of capital spare parts, prices & quantities required, for the equipment which will keep the systems in full working order for at least five (05) years and which shall guard against any emergency arising from failure of individual apparatus and will ensure the continued operation of the system. The spares shall be supplied prior to the commissioning of system or part thereof. Furthermore, quantity of spares available shall be based on expected failure rate of various components; quantity of each item shall not be less than 10 % of the total quantity of the same item in use in the system, not less than five units or pieces.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the consortium did not supply the maintenance spares even after the opening of 7 stations of Signal-I and 13 stations of Signal-II along with auto block signaling system in adjacent block sections. It was also observed that Kassowal 1<sup>st</sup> station of Sig-II was commissioned on 30.05.2016 but the consortium could not supply the spare till 20.03.2019. This indicated non-compliance with the contract clause *ibid* which resulted in non-supply of maintenance spares valuing Rs 276.04 million (US\$ 3.298 million @ Rs 83.70) (**Annex-2**).

The matter was taken up with management in November 2019. It was replied that the Ministry of Railways had already directed the Director Procurement vide letter dated 28.02.2019. The reply given was an admission of audit observation.

DAC in its meeting held on 24.09.2021 was informed that the spares have not properly been supplied by the Consortium due to the non-finalization of the list of spares jointly by PR and Consortium. DAC directed the P.D that

the latest status regarding the supply of spare parts be provided to Audit for verification. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix responsibility for ineffective implementation & monitoring of the contract clauses besides, making hectic efforts for prompt supply of the remaining material by the contractor.

#### **4.2.5 Non-supply of material against Project-I despite payment of Rs 118.978 million**

Article 9 of the Contract No. DP/IDB/2009/SIGNAL-I executed between Ministry of Railways and Consortium i.e., M/s BT/CRSC on December 2009 via Multan Section regarding provision of signaling system on Lodhran to Khanewal implies that the works shall be completed in all respect within thirty months from the Effective Date i.e., 13.04.2010.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed while scrutiny of record that the contractor could not supply/install the BOQ items valuing Rs 118,978,713.00 (US\$ 1,421,490.44 @ Rs 83.70) (**Annex-3**) even though payment had been made and considerable period had elapsed since the effective date of the contract which was a clear violation of the contract agreement and adversely affecting the maintenance work of the commissioned stations.

The matter was taken up with management in November 2019. It was replied that Addendum to the agreement was in process with Director Procurement & Consortium. The position would be intimated on finalization. However, no reply was received till the finalization of the report.

DAC in its meeting held on 03.12.2021 was informed that it was a turnkey project and any difference in the cost of equipment did not warrant any of the parties either Pakistan Railways or Consortium to recover any differential of the amount. The matter was also taken up in the reconciliation process for which the Railway Board’s Tender Committee recommended that reconciliation exercises carried out by the Pakistan Railways and Consortium

independently or jointly from time to time for Signal Project-I, II & III were not in line with clauses of the respective agreements. DAC directed that the matter be examined by a committee comprising Member Finance and Director Procurement (Mr. Rashid Shahzad). It was further directed that Member Finance would brief the DAC after reviewing the matter appropriately. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix responsibility for ineffective implementation & monitoring of the contract clauses besides, making hectic efforts for prompt supply of the remaining material by the contractor.

#### **4.2.6 Loss due to termination of construction contract of Equipment rooms – Rs 56.782 million**

Para-807 of the State General Code stipulates that every public officer should exercise the same vigilance in respect of expenditure incurred from Government revenue as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the contract valuing Rs 25.65 million for the construction of equipment, battery & generator rooms at LKP, LHC, LHR, BBG & SDR stations and rooms at 18 Nos. L-xings was awarded to M/s Khan Engineering in January 2014. A payment of Rs 9.682 million was made to the contractor however the contract was terminated due to slow progress. Subsequently, the contract of leftover work excluding LHR was awarded to M/s Alarab & Co. in December 2017 and completed at a cost of Rs 15.75 million. The initial contract for 05 stations including the LHR station was Rs 25.65 million however funds of Rs 57.00 million were transferred to MD stations for the construction of the equipment room at LHR, in this way the construction work was completed at the cost of Rs 82.432 million (9.682+15.75+57.00) and Railway suffered a loss of Rs 56.782 million due to irrational decision of the management. Moreover, this also indicated defective planning and ineffective project management.

The matter was taken up with management in November 2019. It was replied that the contract was terminated due to a delay in the completion

period and an amount of Rs 4.65 million was recovered from the contractor. It was also added that Rs 57 million was transferred to MD stations as per the requirement of structure. The reply was not tenable as the management did not explain the actual causes of termination of the contract and consequent loss due to an increase in cost.

DAC in its meeting held on 03.12.2021 was informed that Rs 57 million was kept at the disposal of MD stations as decided during a joint inspection of Lahore station with MD stations on 10.11.2016. The construction of TD Office at Lahore station would be executed under the supervision of consultant M/s NESPAK, As TD Office Lahore was not in the scope of work of MD stations Project, that's why the administration decided to transfer an amount of Rs. 57 million at the disposal of MD stations. DAC showed serious concern over the mismanagement, negligence, and poor planning of Project Management and directed the Railway Management to constitute an inquiry committee comprising FA&CAO/PR and CPO to probe the matter fix responsibility, and report within a month to Audit under intimation to DAC. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for the loss and the loss be recovered from the person(s) found at fault.

#### **4.2.7 Non-replacement of rejected Diesel Generator sets – Rs 43.992 million**

Article 22 of Contract Agreement No. DP/IDB/2009/ Signal-1 implies that the defect liability period shall be 24 months from taking over. In the event the commencement of Taking Over is delayed by reasons not attributable to the Contractor by a period of more than six months, then the Defect Liability Period will reduce accordingly. For the avoidance of doubt, the Defect Liability Period shall expire 48 months from the Effective Date, unless there is a delay caused as a direct result of Contractor's default. Moreover, in case of contractor failed to replace the defective material within Defect Liability Period, the Contractor shall be given written notice within 30 days of such occurrence and the goods or part thereof that caused such failure shall be made available to the Contractor.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that in FY 2012-13 Consortium supplied 31 Nos. Diesel Generator Sets of various capacities valuing Rs 43,992,720.00 (US\$ 525,600 @ Rs 83.70) for Signal-I & II which were not according to the approved specification hence rejected. It was also observed that same were not replaced despite a lapse of almost 7 years which was alarming. It is added here that Railway management had paid the customs duties/sales taxes (CD/ST) and insurance against the defective material. The above position indicated non-compliance with the contract clause ibid which resulted in the non-replacement of 31 Nos. defective DG sets valuing Rs 43,992,720 (US\$ 525,600 @ Rs 83.70) (**Annex-4**).

The matter was taken up with management in November 2019 and it was replied that the Consortium agreed to replace all the old DG Sets. The reply given was not acceptable as the defective DG sets were not replaced despite elapsing of 7 years.

DAC in its meeting held on 24.09.2021 was informed that 04 Nos. Diesel Generator Sets of 40 KVA capacity have successfully been replaced at 04 stations and the replacement of remaining DG Sets was in the pipeline and would be replaced shortly after the Factory Acceptance Test (FAT) of 80 KVA which was held up due to covid-19 pandemic. DAC directed the Project Director that the latest status for replacement of rejected DG sets be got verified from the Audit. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that reasons for non-replacement of the DG Sets despite elapsing of 7 years be explained besides, hectic efforts be made for early replacement of the defective DG sets.

#### **4.2.8 Loss due to alteration/overwriting in bid amount of wooden sleepers – Rs 4.445 million**

Rule 31(1) of Public Procurement Rules - 2004 provides that no bidder shall be allowed to alter or modify his bid after the bids have been opened. Moreover, Rule 40 implies that there shall be no negotiations with the bidder having submitted the lowest evaluated bid or with any other bidder.

Contrary to the above, during special audit of the Project, it was observed that the tender advertisement for the supply of 2540 Nos. Chir Wooden Sleepers on single stage single envelop basis was made on 06.10.2015 wherein the following three (3) firms participated: -

Sr. #	Bidder – M/s	Rate/Rs	Remarks
1	M. Yaqoob & Sons	2,700	Unauthorized alteration/tempering in bid as Rs 5,700
2	Ishfaq & Co.	4,800	The bid was revised and accepted as Rs 4,450 after negotiation.
3	Ashraf & Co.	4,950	--

It was observed that the lowest bid of Rs 2,700 each of M. Yaqoob & Son was tempered/alterd as Rs 5,700 which was highly objectionable. Moreover, it is added here that alteration in the bid was supported by a judicial paper dated 2018 which created doubts as the same was not owned by M. Yaqoob & Sons. The above facts indicated non-compliance with PPRA rules *ibid*. Thus, the contract valuing Rs 11.303 million was awarded fraudulently which resulted in the loss of Rs 4.445 million (4,450-2,700x2540) to Pakistan Railways due to acceptance of 2<sup>nd</sup> lowest bid at a negotiated rate of Rs 4,450. Moreover, in the prevailing circumstances, chances of management collusion cannot be ruled out.

The matter was taken up with management in November 2019 and discussed in the DAC meeting held on 03.12.2021. The DAC was informed that the tender was evaluated by Principle Officer (BPS-20) committee and they did not comment on the correction in the offered rate i.e., Rs 5700. The correction in Offered rate was also attested by the bidder and tender opening committee comprising AO/Project, JO/Confidential, and AEN/RSP. No fraudulent or negligent act was made in awarding the contract. DAC directed to conduct an inquiry comprising FA&CAO/M&S, F.A & CAO/PR, and Director/ I.T to probe the issue and report to Audit under intimation to DAC within 30 days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for the fraudulent award of contract and the loss be recovered from the person(s) found at fault.



#### **4.2.9 Mis-procurement due to an award of contract after expiry of validity period of the bid**

Rule 26(2) of Public Procurement Rules 2004 stipulates that bids shall be valid for the period of time specified in the bidding document.

Contrary to the above, during special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that Director Procurement floated two international tenders for the design, manufacture, supply, installation, and commissioning of the signaling systems on Lodhran to Khanewal via Multan double line section on turnkey basis. The tenders were opened on 22.01.2007 and 10.04.2007 and the validity of the bids was extended time and again. The contracts were awarded after 35 and 32 months respectively which was a clear violation of the PPRA rule. The above state of affairs depicts non-compliance with the rule *ibid* besides, reflected inefficiency on part of the management which resulted in mis-procurement.

The issue was pointed out to management in November 2019 and it was replied that the matter related to Director Procurement/ Islamabad and referred for their comprehensive comments. The final reply would be submitted on receipt from MOR which was not received till the finalization of this report.

DAC in its meeting held on 13.05.2022 was informed that the initial plan and outlay, both the projects were to be financed by OPEC and World bank. However, later on, project was financed by the Islamic Development Bank (IDB). DAC directed the PO to provide revised reply to Audit within fifteen (15) days to justify delay of 32 to 35 months showing date of cancellation of original source of financing and date of finalization of loan agreement with IDB. The DAC also directed to provide the documentary evidence that whether PPRA Rules-2004 were applicable to PR at the time of contract. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that responsibility for non-compliance with the PPRA rule be fixed besides, the same be regularized from the competent authority.

### 4.3 Construction and Works

PC-I should be prepared after a detailed feasibility study to specify the extent and scope of construction work. The project suffered time overrun due to a delay in the completion of civil works. However, Significant observations related to construction / civil works are given below:

#### 4.3.1 Construction of defective/sub-standard buildings – Rs 111.735 million

Clause 32 (ii) of Tender Documents of Civil works provides that adequate representative samples, as directed by the Engineer, shall be taken for testing and preliminary approval not less than twenty (20) days before the intended material is to be used in the work. Further, it is mandatory as per the format of a Contractor Bill that the Civil Engineer has to certify that he has checked at least 10 % of the quality of work before submitting the bill to the Account Office for internal check and payment.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that defective/sub-standard Civil Work of Equipment, Batteries & Generator Rooms and Staff Quarters valuing Rs 111.735 million were carried out over the section. A joint physical verification along with the representative from management, conducted during the period from 04.11.2019 to 09.11.2019 disclosed defective/sub-standard work such as large scale cracks on the inner and outer side of walls, the gap between walls & floors, aprons, shades, uneven plaster on walls & ceiling, works were completed with inadequate mortar ratio, etc. Moreover, evidence in support of the defects pointed out above i.e., print out of the pictures taken during joint physical inspection got signed by IOW & AEN/RSP are attached. The above state of affairs indicated inadequate monitoring and supervision by the management besides, it also reflected that the Engineer did not perform required inspection/verifications before payments against contractor bills, resultantly payment disbursed for the defective/sub-standard works valuing Rs 111.735 million (**Annex-5**).

The matter was taken up with management in November 2019. It was replied that the observation of the audit was based on the overall view of building construction works of the project. Moreover, due tests were got

conducted; and 10% of the inspection of completed works were conducted by the Engineer-In-charge. It was also added that the buildings were in use since construction was completed in 2011-12, and these were in satisfactory condition. The reply was not tenable as the buildings were completed during 2015-2019 besides, the defects pointed out were not minor and these either required reconstruction or major repairs.

DAC in its meeting held on 03.12.2021 was informed that in the absence of pictorial evidence, audit observation may pertain to old work completed during 2014-15. However, the works completed within the stipulated time and defects have also been attended to within the defect liability period by the concerned contractor. DAC directed that a physical inspection be conducted through a team comprising of an Audit Officer (External Audit) and IOW (under CEN/OL) to verify that the facts regarding the construction of defective/sub-standard buildings and report be finalized within 14 days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed for fixing responsibility against the person(s) for the execution of defective/sub-standard works and payment thereof.

#### **4.3.2 Procurement of substandard/undersized wooden sleepers – Rs 40.665 million**

Para 1801 of Pakistan Railway General Code provides that means should be devised to ensure that every Railway servant realizes fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part and also for any loss arising from fraud or negligence on the part of any other Railway servant to the extent it may be shown that he contributed to the loss by his own action or negligence.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that four (4) contracts were executed for procurement of 8340 Nos. Wooden Sleeper 9’x10’x4”/6” for insulation at different Level Crossings on LON-SDR section. A joint

physical verification along with the representative from management on a test check basis was conducted during the period from 04.11.2019 to 09.11.2019 which revealed that the Wooden Sleepers installed in level crossings or lying-in stores were either broken or cracked (Images attached). It was also observed that 90% of the size of the sleepers measured was not as per the contractual specification. This depicted that inspection controls were ineffective and undue favor was extended to contractors/suppliers. Thus, the procurement of the sleepers valuing Rs 40.665 million was defective/substandard. (**Annex-6**)

The matter was taken up with management in November 2019. It was replied that the joint team measured in respect of their width and thickness which were found as per the standard size of sleeper except one laid in track in Sahiwal yard having with 9” instead of 10” and thickness was 5 3/4” instead of 6”. Similarly, only one wooden sleeper 9’x10’’x6” was found broken which was damaged during loading/unloading. The reply was not tenable as 90 % of the sleepers inspected were under size and were broken (pics attached).

DAC in its meeting held on 03.12.2021 was informed that the audit observation was not based on facts and no solid evidence was received from the audit which could establish that substandard and undersized wooden sleepers were procured. DAC directed that a physical inspection be conducted through a team comprising of an Audit Officer (External Audit) and IOW (under CEN/OL) to verify the facts regarding the procurement of substandard/undersize wooden sleepers and the report be finalized within 14 days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix responsibility for acceptance of sub-standard and undersize sleepers and action be taken against the persons held responsible.

#### **4.3.3 Loss due to non-levy of LD charges – Rs 31.757 million**

Para 1801 of Pakistan Railway General Code provides that means should be devised to ensure that every Railway servant realizes fully and clearly that he will be held personally responsible for any loss sustained by

Government through fraud or negligence on his part and also for any loss arising from fraud or negligence on the part of any other Railway servant to the extent it may be shown that he contributed to the loss by his own action or negligence.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, a review of records relating to nine (9) construction contracts and nine (9) supplies contracts executed with different contractors disclosed that the date of completion/supply was extended time and again without the imposition of LD charges. Thus, Pakistan Railways suffered a loss of Rs 31.757 million (**Annex-7**) due to delay in completion of Works and non-imposition of LD charges.

The issue was pointed out to management in November 2019 and it was replied that the main reason for granting an extension was due to the non-release of allocated funds for payment to executing agencies, change of sites by the Divisions, enhancement of scope of work, etc. It was also added that the extensions without LD charges were granted in the best public interest. The reply given was not acceptable as an extension in the execution of Works resulting in a time overrun of the Project which means loss to PR on account of payment to Consortium at a higher exchange rate.

DAC in its meeting held on 13.05.2022 was informed that extension without LD charges was granted to the contractors of civil works due to change in site of works by Divisions and enhancement of work as per site requirement. Delivery period of suppliers was extended without LD charges due to non-availability of funds. DAC directed the Project Director to make case to case reconciliation with Audit within 30 days. DAC further directed the Project Director to make the case of non-levy of LD charges in each case and get the endorsement of Audit through Director Audit Railways. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired in order to fix responsibility for extension without the imposition of LD charges besides, the loss involved be recovered from the person(s) found at fault.

#### **4.3.4 Wasteful expenditure due to duplication of civil work valuing Rs 11.593 million**

Para 1801 of Pakistan Railway General Code provides that means should be devised to ensure that every Railway servant realizes fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part and also for any loss arising from fraud or negligence on the part of any other Railway servant to the extent it may be shown that he contributed to the loss by his own action or negligence.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that M/s RAILCOP was awarded a Contract No. 07 dated 13.02.2013 regarding the construction of CBI equipment rooms at Sahiwal, Yousafwala and Okara City stations at Rs 11.593 million. However, CBI equipment was not installed in those buildings rather it was installed in new station buildings constructed under the Doubling of Track Project and PRFTC. CBI equipment’s rooms constructed under the Signal project at Yousafwala were demolished and the other two were not in use. The above state of affairs indicated duplication of the construction works at stations due to defective planning and faulty coordination within the departments of PR which resulted in wasteful expenditure of Rs 11.593 million (**Annex-8**).

The matter was taken up with management in November 2019 and it was replied that due to the extension of a yard at Yousafwala in 2015, the newly constructed CBI building was demolished. The CBI buildings constructed at other places by RSP were intact and being used for other required purposes. This shows that the management agreed with the Audit viewpoint.

DAC in its meeting held on 03.12.2021 was informed that the construction of CBI station buildings was included in the scope of work of the Re-Signaling Project and it was a part of PC-I. These buildings were constructed as per the plan provided by Consortium and completed at Sahiwal, Yousafwala, and Okara stations on 17.04.2017 before the project of MD stations. The new buildings of those stations were constructed by MD stations

which were completed on 28.04.2019 & 20.01.2020 respectively resultantly it was inevitable to install the CBI equipment in those buildings to avoid inconvenient operational hazards. It was directed by DAC to conduct an inquiry comprising AGM/I and CEN/S&C (Mr. Fareed Ahmad) to probe the issue and report to Audit under intimation to DAC within a month. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix responsibility for duplication of work and appropriate action be taken against the person(s) held responsible.

#### **4.3.5 Loss due to delay in finalization of design/drawings – Rs 4.057 million**

Para 1801 of Pakistan Railway General Code provides that means should be devised to ensure that every Railway servant realizes fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part and also for any loss arising from fraud or negligence on the part of any other Railway servant to the extent it may be shown that he contributed to the loss by his own action or negligence.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that two contracts regarding the construction of a maintenance center & officer residence at Lahore and Multan were awarded to two different contractors at Rs 16.948 million in January 2013. Subsequently, these contracts were terminated due to the non-finalization of the design/drawings in one year. Consequently, re-tendering was done which resulted in extra avoidable expenditure amounting to Rs 4.057 million (**Annex-9**). The above facts indicated defective planning as works were awarded before finalization of design/drawings which resulted in loss due to incurrence of extra avoidable expenditure amounting to Rs 4.057 million on re-tendering.

The issue was pointed out to management in November 2019. Management replied that the works could not be started due to the non-finalization of design/drawings by a Consortium i.e., M/s BT/CRSC. The reply given was an admission of the audit observation. The matter was also

discussed in the DAC meeting held on 13.05.2022 and it was informed that as per agreement design/drawings was to be provided by the CRSC which was delayed due to rush of work on both ends. Payment for design/drawings was not made to M/S CRSC. DAC directed the CEO/ Sr. General Manager to hold an inquiry and fix responsibility into the matter within one month with following TORs:

- i. Whether drawing designs existed at the time of awarding contracts by CRSC?
- ii. Who is responsible for tendering without approved drawing/design and delay in finalization?
- iii. Who approved enhancement in the scope of work?

Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for the loss and the amount involved be recovered from the person(s) found at fault

#### **4.3.6 Non-finalization of Yard Lay-out of Khanewal Railway Junction/Station**

As per Clause 7.4 of technical specifications for replacement of signaling system, Pakistan Railways was responsible to rehabilitate the track by providing sleepers ballast, etc. as per standard to make it suitable for circuiting.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the yard layout of Khanewal Railway Junction/station was not finalized since May 2010 which was the bottleneck for the installation of CBI system. Due to multiple administrative reasons, this significant junction/ station had neither been CBI operational nor Inter Yard Drawing (IYD) finalized up till the date of audit i.e., November 2019 even though CBI Service Buildings had been constructed but lying vacant. This indicated mismanagement as the layout design of the yard and station could not be finalized despite lapse of ten (10) years.



Consequently, only three lines out of twenty-three lines were being utilized which caused unnecessary detention of trains.

The matter was taken up with management in November 2019. It was replied that installation work of the CBI Signaling system started in 2013. Khanewal Yard could not be made operational due to the non-finalization of the engineering scale plan. The reply was an admission of the audit observation.

DAC in its meeting held on 24.09.2021 was informed that the finalization of the yard layout at Khanewal was not delayed on the part of the project as the scale plan was revised from time to time by the concerned Division due to operational reasons. DAC directed the PO to submit a revised reply along with documentary evidence to Audit for verification in light of the observations raised by Audit. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be investigated to fix the responsibility for the non-finalization of Yard Lay-out of Khanewal Railway Junction/Station and action be taken against the person(s) found at fault.

#### **4.4 Asset Management**

Asset management of a project should be done effectively and efficiently to protect sophisticated machinery from any damage/loss or misuse.

##### **4.4.1 Loss due to burning of Automatic Voltage Regulator at Kassowal Railway Station – Rs 0.690 million**

Para 1801 of Pakistan Railway General Code provides that every Railway servant realizes fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that AVR installed at Kassowal Railway Station was burnt on 09.05.2018 due to connecting the residential quarter of ASM with AVR supply. Resultantly, the project sustained a loss of Rs 690,300 due to the burning of AVR. The report of

SES/MYH and SES/KSL was attached. But no action was taken by the Project Management.

The issue was pointed out to management in November 2019 and it was replied that AVR was installed in the equipment room and locked by the signal staff. Supply of electricity to the residential quarter of ASM through AVR was not possible. DS Multan had been approached to enquire and find out the actual cause of burning of AVR at Kassowal Station. However, the burnt AVR had since been replaced at the site for safe and smooth train operation. The present status of inquiry was awaited.

DAC in its meeting held on 13.05.2022 directed the CEO/ Sr. GM to inquire the matter to ascertain whether the above report was authentic or not, within 30 days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix responsibility for the misuse of AVR as well as loss of AVR due to burning and action be taken against the persons held responsible.

#### **4.5 Monitoring and Evaluation**

As per Guidelines, project management was required to prepare annual performance reports of the project. Furthermore, all operations were required to be monitored and evaluated properly and timely to ascertain weaknesses which ultimately could result in wastage of resources. Following are the paras that indicate irregularities in this regard:

##### **4.5.1 Defective installation of CBI system at signal-1 project – Rs 430.011 million**

Article 20.3 of the contract agreement provides that if the taking-over tests show the Works not to be in accordance with the Contract, the Contractor shall, within a reasonable timeframe, remedy the deficiencies and the taking-over tests shall be repeated. Furthermore, Article 21.1 of the contract agreement provides that taking-over of the works takes place when the taking-over tests have been completed or are regarded under Article 20.2 as having been completed. Moreover, Article 22.1 of the contract agreement implies that the Defect Liability Period shall be 24 months from Taking Over. In the event the commencement of Taking Over is delayed by reasons not attributable to

the Contractor by a period of more than six months, then the Defect Liability Period will reduce accordingly. For the avoidance of doubt, the Defect Liability Period shall expire after 48 months from the Effective Date, unless there is a delay caused as a direct result of the Contractor's default.

During special audit of the project "Replacement of Old and Obsolete Signal Gear (LON-SDR)" in 2019-20, it was observed that there were 7 stations under the signal-1 project which were inaugurated/made operational from 29.11.2014 to 31.07.2016. PD, Signal-1 made a payment of Rs 430,011,466.00 (US\$ 5,137,532.45 @ Rs 87.30 to Consortium for Installation, Testing, and Commissioning of 7 stations. However, the Executive Engineer Signal (LON-SDR-1) Multan vide office letter No. 78/SYS/SO/MUL dated 22.10.2016, 09.09.2016, 20.02.2015, and 04.12.2018 informed list of 109 pending issues in Signal-1 (LON-RZD) on part of the Consortium since installation/ commissioning. The Audit observed that the management failed to take up these issues with Consortium which resulted in unnecessary detention of trains as train operation was being carried out manually. Thus, the installation of CBI system valuing Rs 796.317 million was defective. This reflected inadequate monitoring and implementation of contract clauses. **(Annex-10)**.

The matter was taken up with management in November 2019. It was replied that these issues were taken up with the Consortium. Certain deficiencies had been got removed and the remaining were being attended by the Consortium. The reply being generic and without documentary evidence was not acceptable besides it was admitted by the management that certain issues were still unresolved.

DAC in its meeting held on 24.09.2021 was informed that all pre-requisites were observed like testing of stations, safety certificates were also issued by the concerned officers. There was no issue at the station regarding the safety of Signaling system. However certain failures arose which were attended to in time as a routine matter. DAC directed the PO to furnish a revised reply justifying the factual position to Audit and get it verified within seven days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for not taking up/resolving the pending issues and resultant loss on account of detention of trains be recovered from the person(s) found at fault.

#### **4.5.2 Heavy financial burden of interest on loan due to non-completion of project within given time lines – Rs 140.616 million per annum**

Clause B of the Installment Sales Agreement between GOP and Islamic Development Bank stipulates that the bank has agreed to purchase the Equipment for an amount not exceeding US\$ 140 million and to sell the same to the Agent on an installment sales basis, that the Sales Price be paid to the Bank in 15 years after a gestation period of 3 years at a fixed mark up of 15 years US\$ swap rate plus 1.2%.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that a gestation period of 3 years had elapsed and repayment of loan to IDB at US\$ swap rates plus 1.2% had started but the project had not been completed till date. Had the project been completed within time lines, this financial burden of interest on Rs 140.616 million could have been bearable. But as the project had not been completed and the contractor had been allowed extension without LD charges, it became a source of loss to PR. Thus, Railway could have to bear a heavy financial burden of interest of Rs 260.4 million per annum (US\$140 million x 1.2%= US\$ 1.680 @ Rs 83.70) on loan due to non-completion of project within given time lines, which could also increase with every passing day.

The matter was taken up with management in November 2019 and it was replied that IDB loan had been closed since 15.05.2015 and the mode of financing had been changed as PSDP and EAD would consider returning the loan at a fixed markup of 15 years, US\$ swap rate plus 1.2% as set out in Para -13 of the installment sale agreement instead of increasing with every passing day as explained above. The project was delayed due to administrative reasons, serious cash flow problems during 2009-10, 2010-11 & 2011-12, an increase in scope of work, and time consumed in the opening of fresh L.C. The reply was not tenable because a gestation period of 3 years had lapsed and repayment of loan had been started but the project had not been completed.

Responsibility needed be fixed and closed monitoring be done for its early completion.

DAC in its meeting held on 24.09.2021 was informed that the project was delayed due to administrative reasons such as serious cash flow problems, change of financing mode from IDB to PSDP, revision in PC-I, non-finalization of design work by Consortium, non-completion of track work by DOT, track rehabilitation 87-KM and non-availability of locomotives for installation of ATP/Cab Signaling, due to which project activities were delayed. DAC directed the PD that a revised reply duly supported by documentary evidence be furnished to Audit within seven days. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for inordinate delay in completion of the project.

#### **4.5.3 Irregular award of contract without obtaining performance security from Contractors/Suppliers – Rs 60.509 million**

Clause 21 of Instruction to Tenderers, Clause 2.4 of Conditions of Contract, and Clause 4 of Contract Data of Bidding Documents provide that the Contractor shall furnish to the Employer within 14 days after receipt of Letter of Acceptance a Performance Security equal to 10 % of the tendered cost with validity of six months from the proposed date of completion in the form of Bank Draft or Bank Guarantee. Failure to comply with the requirements shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that performance security of Rs 60.509 million was not furnished by 24 contractors of civil works and 10 suppliers of P-Way materials which were mandatory as per bidding documents. The purpose of obtaining performance security was to ensure the completion of works within the timelines as per agreement. In case, any contractor failed to execute/complete the work, management might forfeit and en-cash the performance security as a remedy for losses. The management neither obtained the performance security nor annulled the contract and forfeited the tender security. Resultantly, two contracts for construction of

equipment rooms valuing Rs 55.94 million were terminated due to the poor performance of M/s Khan Engineers and management had nothing in hand as a remedy for losses. The leftover works were retendered and the completion was delayed by 4 years. This resulted in an irregular award of contracts and a violation of PPRA Rules. (**Annex-11**).

The issue was pointed out to management in November 2019 and it was replied that as per Para 1124 of Railways Engineering code “the performance security might be a percentage deduction, ordinarily 10% from the periodic payment to be made on account of work done or supply made. And rule 39 of PPRA Rules, 2004 stipulated that where needed and clearly expressed in the bidding documents, the procuring agency should require the successful bidder to furnish a performance guarantee which would not exceed 10% of the contract amount. As such all the contracts pointed out by audit were awarded to the executing firms as per provision in the bidding document and a deduction of 10% amount of the on account (Running bill) was made as to performance security. The executive had taken action as per Codal provision and Pakistan Railways had not sustained any loss on this account. The reply was not tenable as it was a clear violation of the contract clause as well as Rule 39 of PPRA Rules-2004.

DAC in its meeting held on 13.05.2022 directed the CEO/Sr. G.M to issue instructions ensuring 100% compliance of tender conditions regarding Performance Security and inquire the matter to fix responsibility for not obtaining performance security. The Project Director was directed to provide record regarding forfeiture of performance security/retention money and blacklisting of contractors who failed to complete the work to Audit for verification. It was decided that in such like matters, the contractors defaulting on the provisions of contracts with Pakistan Railways may be blacklisted at the level of Pakistan Railways as well as through PPRA.

Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired to fix the responsibility for not obtaining performance security from contractors/suppliers and consequent loss, if any, be recovered from the person(s) held responsible.

#### **4.6 Non compliance with PPRA Rules**

As per project management guidelines, compliance with relevant rules was mandatory. However, non-compliance was observed as discussed in the following paragraph.

##### **4.6.1 Loss due to detention of trains – Rs 168.769 million**

Clause (H) of GM letter “economy of fuel” stipulates that due to not lowering of warmer or poor visibility of Signals, Mail & Express trains running through on main lines sustain loss of 17 liters fuel amounting to Rs 1,770/- (17× Rs 98.20/Ltr), on deceleration and then maintaining up the sectional speed and 22 liters of fuel amounting to Rs 2,160/- (22× Rs 98.20/Ltr) in case of one minute stoppage out of scheduled running. If the Mail & Express trains are made to run through loop lines instead of the main lines, an immediate loss of 18 liters of fuel amounting to Rs 1,768 (18× Rs 98.20/Ltr) occurs. These losses have to be minimized.

Contrary to the above, during special audit of Project of “Replacement of Old and Obsolete Signal Gear (LON-SDR)”, while reviewing the signal failure register and record of control office of Multan and Lahore office, it was observed that various trains were detained during 2017, 2018 and up to September 2019 due to CBI failure. The train operation was carried out on PLC which resulted into loss of Rs 168.769 million on account of extra consumption of fuel as per above quoted letter. Audit is of the view that when the last station of Lodhran-Khanewal section had been completed and inaugurated on 31.07.2016, then the above detention of trains was unjustified (**Annex-12**).

The matter was taken up with management in November 2019. It was replied that to carryout CBI work at any station implementation of temporary working instructions was pre-requisite with the approval of FGIR. Issuance of PLC/Piloting on account of CBI had already been allowed. Passing through trains via loop line depended upon operating staff due to any operational reason other than signal. Hence the anticipated loss was not justified and was not required to be calculated being a safety related matter. The reply was not tenable because due to CBI failure the train operation was

carried out on PLC which resulted into loss of Rs 168.769 million on account of extra consumption of fuel.

DAC in its meeting held on 24.09.2021 was informed that the detention of trains, as pointed out by Audit, included the overall detention of Multan Division and there were two unopened stations in Multan Division i.e., Khanewal and Sahiwal on account of CBI for which PLC was enforced causing detention of trains. DAC considered the reply satisfactory and settled the Para subject to verification by Audit. However, during verification Audit observed that the neither the train detention had been stopped nor the CBI system made operational.

Audit recommends that the matter be probed for fixing responsibility against the person(s) found at fault and loss involved be recovered from the person(s) held responsible

#### **4.6.2 Mis-procurement by awarding contracts after negotiation with contractors – Rs 78.702 million**

Rule-40 of Public Procurement Rules 2004 states that there shall be no negotiations with the bidder having submitted the lowest evaluated bid or with any other bidder and Rule 31(1) states that no bidder shall be allowed to alter or modify his bid after the bids have been opened so as to gain an unfair and undue advantage over the others. Further Public Procurement Regulatory Authority in its letter dated 27<sup>th</sup> December 2018 clarified that negotiations with any bidder whether he is the lowest or otherwise for price matching or the reduction in prices are prohibited.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the management of the project published an invitation of tender in April 2016 for the manufacturing & supply of Crossing and Switches of 90-R rails with fittings at an estimated cost of Rs 44.15 million. Only one bidder i.e., Consortium of AL-Tech Engineers & Manufactures, Lahore and PRACS quoted their rates as Rs 51.48 million. Due to higher rates, negotiation was made with the bidder, and the contract was awarded at a negotiated reduced cost of Rs 46.020 million which was still Rs 2.00 million higher than the estimated cost.



Management of the project also awarded another contract for "Providing 3" thick surface treatment to roads at Level crossings on LON-KWL section at a negotiated cost of Rs 21.379 million. Further, a bid of M/s Ishfaq Ahmed & Co for the supply of Chirr Wooden Sleepers was also reduced through negotiation due to higher rates from Rs 12.192 million to Rs 11.303 million. Management of the project made negotiations with the bidders in violation of the aforementioned rules. Rather the management should have opted for re-bidding due to higher rates but they negotiated with the bidders. This resulted in mis-procurement due to the award of contracts valuing Rs 78.702 million through negotiations. This also indicated that the procurement was not done in a transparent manner (**Annex-13**).

The issue was pointed out to management in November 2019 and it was replied that the contracts highlighted by Audit were granted before PPRA's letter dated 27.12.2018 and none of the contractors was allowed to alter or modify bid after its opening as pointed out by audit. The works were advertised as per prescribed rules for having competitive bidding and were evaluated with reference to rates of different Railway manufacturing units as well as market rates for the works in question. The lowest bidder in both of the cases voluntarily reduced their offered rates for advertised works. This resulted in a reduction in the overall cost of the work. The reply was not tenable as modification/alteration of bid after opening is prohibited vide Rule-31(1) of PPRA Rules 2004. Further, negotiation with any bidder whether he was the lowest or otherwise for price matching or the reduction in prices was prohibited. Further, PPRA clarifies vide the letter mentioned above the same PPRA Rule-40 which was effective since 2004.

DAC in its meeting held on 13.05.2022 directed the PO to furnish revised reply to Audit keeping in view latest PPRA Rules regarding negotiations. The Para be presented before PAC if reply was not found satisfactory by Audit and DAC. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed for fixing responsibility for mis-procurement due to negotiations and action be taken against the persons held responsible.

### **4.6.3 Splitting up of procurement of sleepers valuing Rs 40.665 million**

Para 950 of Pakistan Government Railway Code for the Engineering Department provides that when two or more works are so connected, either by their situation or by the purpose or purposes which they are designed to serve, the construction of one necessarily involves that of the other or others, the works should be considered as one scheme and the aggregate estimated cost of the work so connected should determine the authority competent to sanction expenditure on the scheme.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that management procured 8340 Nos. Chirr Wooden Sleeper 9”x10”x4”/6” for insulation at level crossings on LON-SDR section by splitting this quantity into four contracts valuing Rs 40.665 million. The first contract was made in November 2014 for supply of 2000 Nos. Wooden Sleepers @ Rs 3,895/each. The rates for subsequent contracts during 2015-17 were increased up to Rs 5,980 i.e., by Rs 2,085 (54 %) which caused loss of Rs 8.181 million to Pakistan Railways. Audit is of the view, had the management assessed total requirement of Wooden Sleepers over the section and procured through single tender/contract, this loss could have been avoided, rather more economical rates might have been obtained. The procurement of Wooden Sleeper through four contracts resulted in loss of Rs 8.181 million due to violation of rule ibid which reflected poor procurement planning on the part of project management (**Annex-14**).

The issue was pointed out to management in November 2019 and also discussed in the DAC meeting held on 13.05.2022 and DAC directed the PO to provide revised reply showing specifications of wooden sleepers procured through four contracts. The DAC recommended the para for settlement subject to verification by Audit that difference in rates in subsequent contracts was due to different specification of wooden sleepers in these contracts. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be enquired at an appropriate level to fix responsibility for the loss and action be taken against the persons held responsible besides the amount of loss being recovered from the defaulters.

#### **4.6.4 Misprocurement due to repeat orders beyond 15% – Rs 2.108 million**

Clause 42 (C) (IV) of Public Procurement Rules, 2004 provides that repeat orders should not exceed fifteen percent of the original procurement.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, it was observed that the 23 % value of construction of the maintenance center & officer residence at Multan was enhanced over and above the accepted rates/bid and final payment to the contractor was made. This work was awarded to M/s Memar-e-Jahan on 01.04.2014 @ the cost of Rs 9.12 million and the same was completed on 15.10.2015. The payment made to the contractor was Rs 11.223 million which was 23% higher than the original contract value. Subsequently, on 07.01.2015 additional/remaining work of the same maintenance center was awarded to the same contractor at the cost of Rs 1.943 million. The remaining work was commenced after one year from the date of award and three months from the date of completion of the original work. In this way, the total value of work was enhanced to Rs 4.052 million which was 44% more than the accepted rates/bid. The above facts indicated mis-procurement due to non-adherence with PPRA Rule *ibid* besides showed the lack of planning and negligence of management in the preparation of estimates without inspection of the site and poor supervision during execution which resulted in a violation of PPRA-2004, and an increase in the cost of work.

The issue was pointed out to management in November 2019 and it was replied that the original work valuing Rs 9.12 million was subsequently enhanced to Rs 10.83 million through Addendum Slip dated 08.2014. However, a payment of Rs 11.223 million was made to the contractor which was within 15% of the face value of the contract. The remarks offered were not acceptable as the enhancement in contract by Rs 2.108 million was beyond the permissible limit of 15% i.e., 23%.

DAC in its meeting held on 13.05.2022 expressed displeasure to Project Management for such irregularity and directed to reconcile/ verify the facts and figures with Audit. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter be probed to fix responsibility for non-compliance with PPRA Rule and action be taken against the persons held responsible.

#### **4.6.5 Mis-procurement due to ambiguous bidding process – Rs 995,000**

Rule-29 of Public Procurement Rules 2004 states that procuring agencies shall formulate an appropriate evaluation criterion listing all the relevant information against which a bid is to be evaluated. Such evaluation criteria shall form an integral part of the bidding documents. Failure to provide an unambiguous evaluation criterion in the bidding documents shall amount to mis-procurement.

During special audit of the project “Replacement of Old and Obsolete Signal Gear (LON-SDR)” in 2019-20, while reviewing the record relating to the contract regarding the supply of construction material awarded to M/s Peak Constructions, the following discrepancies were observed: -

- i. management executed the contract despite the fact that a request from the firm for supply of bidding documents was not found placed in the relevant case;
- ii. Pages of the tender document submitted by the firm were neither signed nor stamped, like bidding documents of other participating firms; and
- iii. the signature on the bid was ambiguous;
- iv. there was a discrepancy in signature in the Schedule of rates, Bill of Quantities, and contract agreement.

The above facts indicated a poor bidding process which resulted in mis-procurement of consumable and perishable items worth Rs 995,000.

The issue was pointed out to management in November 2019 and it was replied that M/s Peak Construction Company had invariably submitted their request for supply of tender documents but the same was misplaced. However, the Contractor had been asked to furnish a copy of the request to complete the record. It was also added that all the pages of tender documents were already bearing the signatures and were stamped and there was no

discrepancy in the signature. The reply was not tenable as the bidding process was not transparent.

DAC in its meeting held on 13.05.2022 directed the PO to provide record in support of reply and forfeiture of security money to Audit for verification. The DAC recommended the para for settlement subject to verification by Audit that no payment has been made to contractor. Compliance of DAC directives was awaited till finalization of the report.

Audit recommends that the matter may be inquired at an appropriate level to fix responsibility for mis-procurement and action be taken against the persons held responsible.

#### **4.7 Overall Assessment**

The Project of “Replacement of Old & Obsolete Signal Gear (LON-SDR)” as per 2<sup>nd</sup> revised PC-I was approved for Rs 18.346 billion including FEC Rs 12.936 billion to install CBI system at 31 stations (07 Stations for Signal-I & 24 Stations for Signal-II) at Lodhran-Multan-Khanewal-Shahdara Bagh Section (433KM). However, only 20 stations were completed till finalization of this report.

The initial timeline for completion of the project was 36 months (3 years) which was extended to 120 months (10 years). The work at 11 stations were not completed despite lapse of given timelines and work was still in progress. This depicts that the management not only failed to adhere to the given timelines but also could not achieve the envisaged benefits from the project due to poor planning and supervision. Besides, many irregularities in procurement, financial management and contract management were also committed which resulted in excess expenditure and irregular payments. There was a cost and time overrun of more than Rs 7,626.219 million and 18 months till completion of report respectively from original to re-revised PC-I.

In nutshell, the management remained inefficient in planning, organizing and executing the project activities which delayed the installation of CBI system at different stations. Thus, rendering the viability of the CBI system ineffective.

## **5. CONCLUSION**

The project was started without proper feasibility and planning. Computer based interlocking system was totally a new concept for Pakistan Railways which need some third-party consultancy and proper feasibility before execution of project.

The management failed to observe rules/regulations in all major areas like procurement, operation monitoring and evaluation. Specific issues regarding proper planning, affective execution and monitoring, efficiency of personnel, observance of financial propriety, and assets management were not addressed by the project management. Audit was of a considered opinion that envisaged objectives of the project were not achieved.

### **5.1 Key recommendations for future**

- Implementation of project management guidelines to ensure that time and cost overrun are avoided.
- Feasibility study before execution of such projects with regional and international comparisons should be conducted.
- Projects should be initiated on transfer of technology basis to realize the benefits of knowledge development and cost saving instead of turnkey basis.
- The Project should start after proper planning keeping in view the ground realities and unnecessary works should be avoided. It is necessary to prepare the initial / preliminary design prior to floating of tenders.
- Inspection of material/equipment should be ensured for assessment of quality as per specifications mentioned in contract agreement.
- Timelines provided in the project should be adhered strictly for attainment of project objectives.
- In future penalty clauses should be included in contract agreement to ensure provision of quality products/services.

- Financial, supervisory and inventory controls should be strengthened for efficient implementation of project.
- Capacity building of Procurement Directorate, Islamabad is necessary to enhance skills of Contract Management, particularly preparation of tender documents, for awarding contracts on Turn Key, EPC (Engineering, procurement & construction) or Design & Build basis.

## **5.2 Lessons identified**

Being a turnkey project the insurance, duties & taxes should have been paid by the contractor instead of employer. The signaling material/equipment was under custody of contractor and payment was disbursed by employer, therefore, no inventory system and inspection of quality check was implemented which resulted in lack of control. The consortium has been paid 98% of the contract amount for system engineering and material whereas the physical progress is only 66% which shows lack of supervision and control on the part of management.

The project was started without proper planning which resulted in delay in execution of project and extension in delivery period without LD charges to international consortium and local civil work contractor. Supervision and monitoring of project activities were not exercised properly which caused defective installation, testing and commissioning of CBI Railway stations and unnecessary detention of trains.

## **ACKNOWLEDGEMENT**

We wish to express our appreciation to the Project Director and staff for the assistance and cooperation extended to the auditors during this assignment.

**STATEMENT SHOWING DETAIL OF MATERIAL  
SUPPLIED AFTER EXTENSION PERIOD (PARA 4.2.3)**

(Extension date w/o LD charges)

Amount in US\$

<b>Calculation of LD charges as per invoices</b>		<b>7,127,292</b>
<b>Calculation of LD Charges as per contract value</b>		
Contract No. DP/IDB/2009/Signal-I dated 31.12.2009	30,877,990	
Contract No. DP/IDB/2009/Signal-II dated 31.12.2009	98,618,793	
Total Value of both contracts	<b>129,496,783</b>	
<b>LD Charges @ 5% on total contract values</b>	<b>6,474,839.15</b>	<b>7,127,292</b>

**Note:** LD charges were taken which were lesser of above both calculations (detail of calculation is given along with relevant para in evidence file).

\* US\$ 6,474,839.15 @ Rs 83.70 = Rs 541,944,024.00



**DETAIL OF AMOUNT OF SPARE PARTS (PARA 4.2.4)**

<b>S No.</b>	<b>Invoice No. &amp; date</b>	<b>Description</b>	<b>Total invoiced amount US\$</b>	<b>Spare parts amount US\$</b>
1	CRSC-PR-RSGP24 201105-005/ 13.12.11	Batteries	1172760.00	117276.00
2	CRSC-PR-RSGP24 201106-006/ 13.12.11	UPS	436920.00	43692.00
3	CRSC-PR-RSGP24 201107-007/ 13.12.11	Colour light signal unit	548010.00	73068.00
4	CRSC-PR-RSGP24 201201-008/ 16.05.12	PABX telephone service system	296122.28	29612.23
5	CRSC-PR-RSGP24 201204-011/ 22.08.12	Diesel generator accessories	366120.00	36612.00
6	CRSC-PR-RSGP24 201205-012/ 12.02.12	Power supply pannel	1200480	120048
7	CRSC-PR-RSGP24 201210-017/ 09.11.12	Coded track circuit equipments	3365105.58	640000.00
8	CRSC-PR-RSGP24 201214-021/ 12.12.12	25Hz phase sensitive track circuit equipment	382483.43	306891.00
9	CRSC-PR-RSGP24 201305-027/ 14.10.13	Level crossing equipments	1815384.00	181538.40
10	CRSC-PR-RSGP24 201308-030/ 19.11.13	Euro blaise	587972.38	58797.24
11	20160909/11.01.17	Point detector and computer VCSR	895692.88	895692.88
12	20170490/22.09.17	Point machine and ML accessories	1329308.00	795692.00
<b>USD Exchange @ Rs 83.70 TOTAL (Rs 276.04)</b>			<b>12,396,358.55</b>	<b>3,298,919.75</b>

**NON SUPPLY OF MATERIAL (PARA 4.2.5)**

S#	ITEM	ACCORDING TO BoQ		
		TOTAL QTY (BID)	UNIT PRICE (US\$)	TOTAL PRICE (US\$)
1	<b>OCS Assembly Cabinets</b> outdoor cabinet	24	23,982	575,568
2	<b>Non Trailable Internal Lock Point Machines</b> External lock (Project-1)	70	1507.13	105,499
3	<b>25Hz Phase sensitive track circuit equipments</b> Impedance Bond (Project-1)	438	683.43	299,342
4	<b>Telecom Cable(Km)</b>	73.5	3,706.00	272,391.00
5	<b>Light motor trolley</b>	10		168,690
<b>TOTAL</b>				<b>1,421,490</b>

\* US\$ 1,421,490.00 @ Rs 83.70 = Rs 118,978,713

## STATEMENT SHOWING VALUE OF DG SETS (PARA 4.2.7)

(Amount in US\$)

S#	Item	ACCORDING TO BoQ				ACCORDING TO INVOICE		Over priced (US\$)	Under priced (US\$)
		Total Qty (installed)	Total Qty (bid)	Unit price (US\$)	Total price (US\$)	Invoice #	Total price charged (US\$)		
Project-I	Diesel Generator	7	7		128,795.49	201206-013	159,480.00	30,684.51	
Project-II	Diesel Generator	12	24	17,962.11	431,090.64	201204-011	366,120.00		64,970.64
<b>TOTAL</b>							<b>525,600.00</b>		

\* US\$ 525,600.00 @ Rs 83.70 = Rs 43,992,720.00

## STATEMENT OF LOSS DUE TO SUB-STANDARD/DEFECTIVE WORK (PARA 4.3.1)

File #	Name of station	CBI Building/ Quarter	Contractor Name	Date of Commencement	Date of Completion	Cost Rs(million)
5A	PTO,CGM,KR, PNX,RND,JBA	CBI Building	M/S Khan Engineers	27.06.2014	Contract Terminated	10.476
18B	PNX,JBA	CBI Building	M/S Abdul Majeed Sithari	08.06.2017	14.12.2017	8.077
19B	PTO,CGM,KRK	CBI Building	M/S Abdul Majeed Sithari	10.06.2017	25.07.2018	5.162
	RND	QUARTER	M/S Punjab Engineering	09.06.2018	In progress	10.476
7A	HPA	CBI Building	M/S Arif & Co	21.05.2012	29.04.2015	4.687
8A	SWAL,OKC,OK R,KSF, RQK,HBAD	CBI Building	M/S Railcop	15.02.2013	17.04.2017	23.185
2B	KSF,RKQ,HBA D,PTO	QUARTER	M/S Pervaiz Sharif	08.04.2018	07.09.2018	9.139
9B	OKC,OKR	QUARTER	M/S Amin & Co	04.08.2018	03.01.2019	12.744
14B	JBA	QUARTER	M/S Energy Construction	28.10.2018	27.03.2019	3.295
15B	HPA	QUARTER	M/S Zulifqar & Company	10.07.2017	09.01.2018	3.079
7A	CCE	CBI Building	M/S Arif & Co	21.05.2012	29.04.2015	4.687
15B	CCE	QUARTER	M/S Zulifqar & Company	10.07.2017	09.01.2018	3.079
4A	LON	CBI Building	M/S Ghulam Sarwar	22.11.2011	08.06.2014	5.587
11B	LON	CBI Building	M/S SPS Pvt Ltd	28.10.2013	14.09.2015	2.189
6A	LKP	CBI Building	M/S Khan Engineers	08.03.2014	Contract Terminated	1.936
1B	LKP	CBI Building	M/S Al-Arab	27.04.2017	31.12.2017	3.937
<b>TOTAL</b>						<b>111.735</b>

## PROCUREMENT OF BROKEN SLEEPERS (PARA 4.3.2)

S #	Name of work	Name of Agency	Cost of contract (Rs in million)	Delivery period	Payment to contractor uptill June 2019 (Rs in million)	Date of agreement	Date of commencement	Date of Completion	Qty	Rate Per Sleeper (Rs)
1	Supply of Chirr Wooden Sleepers 9'x10"x4" for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	7.79	04 Months	7.79	08.11.14	11.12.14	10.04.15	2,000	3,895
2	Supply of Chirr Wooden Sleepers 9'x10"x4" for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	11.303	06 Months	11.303	18.12.15	18.02.16	28.11.16	2,540	4,450

3	Supply of Chirr Wooden Sleepers 9'x10"x6".for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	11.96	06 Months	11.96	22.03.16	24.05.16	28.11.16	2,000	5,980
4	Supply of Chirr Wooden Sleepers of sizes 9'x10"x6" at Pakistan Railways Sleeper Depot Haripur Band.	M/S Nazir Engineering & Service	9.612	05 Months	9.612	14.04.17	04.10.17	08.11.17	1,800	5,340
<b>TOTAL</b>			<b>40.665</b>		<b>40.665</b>				<b>8,340</b>	

**STATEMENT OF LD CHARGES PENALTY DUE TO DELAY IN COMPLETION OF CIVIL WORK. (PARA 4.3.3)****(Rs in million)**

S. No.	Name of work	Date of Award of Contract	Contract Value Rs	Total payment made upto June 2019	Commencement Date	Completion date as per Contract	Actual Completion date	Payment made upto completion date as per contract	Remaining work	Delay period in days	Rate of LD charges %	Amount of LD charges Rs
1	Construction of equipment at LON-GLW, SJB, SSH, PNG & RZD and rooms at 19 L-Xings.	7/11/2011	31.742	33.523	11/22/2011	3/10/2012	6/8/2014	3.567	28.175	820	10	6.329
2	Construction of equipment, Rooms, Battery rooms and generator rooms etc at Khanewal, Rajput nagar, Mian Channu, Kassowal, Chicha Watni, Harappa station and rooms at 20 No L-xings with electrification on Khaneawal-Sahiwal station.	12/22/2011	26.996	28.1242	5/21/2012	8/22/2012	4/29/2015	3.846	23.15	980	10	6.215

3	Construction of 01 Officers and 07 unit class III & IV staff (BS-01, BS-08, & BS-11) residencies with electrification at lahore area, Badami bagh and Shahdra bagh stations for Resignalling project (LON-SDR) Main Line Section.	2/27/2018	30.572	23.2688	3/17/2018	8/27/2018	4/30/2019	8.173	22.399	246	10	1.510
4	Construction of 01 Officer and 03 unit class-III & IV staff residences at Khanewal.	7/5/2017	17.193	18.7841	7/8/2017	11/5/2017	5/31/2018	11.028	6.165	207	10	0.350
5	Establishment of generator and battery rooms & misc works in the newly created simulation lab for training at walton academy, Lahore	1/9/2013	1.489	1.2037	1/29/2013	3/9/2013	6/14/2013	0.472	1.017	97	10	0.027
6	Construction of maintenance centre & officer residence at MUL.	4/1/2014	9.1215	11.2298	4/24/2014	10/1/2014	10/15/2015	4.041	5.0805	379	10	0.528
7	Construction of equipment rooms at L-Xings and allied works of	9/20/2013	7.803	6.5656	10/28/2013	1/20/2013	9/14/2015	2.032	5.771	967	10	0.538



	stations buildings with electrification on LON, MUL & KW											
8	Construction of Maintenance centre & officer residence at Lahore.	4/1/2014	9.5966	9.7824	4/2/2015	10/1/2014	2/12/2015	8.118	1.4786	134	10	0.298
9	Construction of equipment, battery & generator rooms (left over work) at PNX and JBA stations, and rooms at 10 No L-xings with electrification from PNX (including) to JBA (excluding) section.	5/19/2017	9.392	8.0774	6/8/2017	8/19/2017	12/14/2017	1.577	7.815	117	10	0.251
<b>16.046</b>												

**DETAIL OF LD CHARGES ON SUPPLIES**

S. No.	Name of Work	Name of Agency	Date of award of contract	Construction/ Delivery Period of agreement	Payment made to contractor uptill June 2019 (Rs in million )	Date of Completion	Total value of supplied material (Rs in million )	Value of un-supplied material (Rs)	Rate of LD charges %	Weeks Delay	LD charges (Rs)
1	Manufacturing & Supply of 130 Nos 1:8 1/2 (90-R) Crossings, 130 Nos Switches of 90-R Rails (R/Hand) and 130 Nos Switches of 90-R (L/Hand) with fittings	M/S PRACS & AL-Tech	29.09.16	08 Months	46.02	23.09.2017	46.02	31,152,000	0.5	17	2,670,171
2	Supply of Imported hard wood crossing timbers of different sizes for Re-Signaling Project Main Line section (LON-SDR).	M/S Nazz Trading	29.10.2016	07 Months	37.0878	5.19% supply still outstanding.	39.118	17,772,865	0.5	86	7,680,417
3	Supply of Imported hard wood crossing timbers of different sizes for Re-Signaling Project Main Line section (LON-SDR).	M/S Ahmed & Co	07.11.2016	06 Months	46.250	04.06.2017	46.25	35,445,830	0.5	4	759,554

4	Supplying and fixing trench plates 0.005 M thick etc.	M/S Khurram & Co.	10.03.2016	06 Months	2.4657	22.02.17	2.3608	2465661	0.5	23	285,312
5	Supply of Chirr Wooden Sleepers of sizes 9'x10"x6" at Pakistan Railways Sleeper Depot Haripur Band.	M/S Nazir Engineering & Service	14.04.2017	05 Months	9.612	08.11.2017	9.612	9,612,000	0.5	3	137,314
6	Manufacturing and supply of gauge tie plates for Resignaling project.	M/S Nazir Engineering	11.06.16	06 Months	11.574	24.10.2017	11.574	12,457,268	0.5	40	2,518,148
7	Supply of Chirr Wooden Sleepers 9'x10"x6".for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	22.03.2016	06 Months	11.96	28.11.2016	11.96	6,111,560	0.5	26	785,772
8	Supply of Chirr Wooden Sleepers 9'x10"x4"for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	08.11.2014	04 Months	7.79	10.04.215	7.79	4,377,980	0.5	5	100,068
9	Supply of Chirr Wooden Sleepers 9'x10"x4"for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	18.12.2015	06 Months	11.303	28.11.2016	11.303	6,657,200	0.5	23	775,088
<b>TOTAL</b>											<b>15,711,844</b>

**Summary**

LD charges on 09 Nos civil works (Rs) 16.046

LD charges on 09 Nos supplies (Rs) 15.711

**Rs 31.757 million**

**Annex-8****STATEMENT OF LOSS DUE TO CONSTRUCTION OF CBI ROOMS (PARA 4.3.4)****(Rs in million)**

<b>File #</b>	<b>Name of station</b>	<b>CBI Building/ Quarter</b>	<b>Contractor Name</b>	<b>Date of Commencement</b>	<b>Date of Completion</b>	<b>Cost (Rs)</b>
8A	SWAL,YSWL,OKC	CBI Building	M/S Railcop	15.02.2013	17.04.2017	11.593
<b>TOTAL</b>						<b>11.593</b>

**Annex-9****LOSS DUE TO NON-FINALIZATION OF DESIGN/DRAWING OF MAINTENANCE CENTERS (Para 4.3.5)****Rs in million**

<b>S No</b>		<b>Original Tender (Rs)</b>	<b>Re-tender (Rs)</b>	<b>Add: Work (Rs)</b>	<b>Total (Rs)</b>	<b>Loss (Rs)</b>
1	LHR	8.88	9.7824	2.816	12.5984	3.7184
2	Multan	8.068	11.223	1.943	13.166	5.098
	<b>TOTAL</b>	16.948	21.0054	4.759	25.7644	<b>8.8164</b>

**Loss due to difference between original and re-tender Rs 4.0574 (21.0054-16.948)**

**STATEMENT SHOWING DETAILS OF EXPENDITURE ON ACCOUNT OF PAID INVOICES**  
**(SIGNAL-D) INSTALLATION (PARA 4.5.1)**

S#	Invoice #	Date	Description / specifications	Total Invoiced Amount (US\$)	Less Advance (20%) (US\$)	Retention Money (5%) (US\$)	Net Payment (US\$)	Exchange Rate (Rs)	Invoice Amount (Rs)
1	20140221	23.04.14	ITC of PGB	318,881.43	63,776.29	0.00	255,105.14	97.6000	24,898,261.66
2	20140735	11.11.14	ITC of RZD	318,881.43	63,776.29	0.00	255,105.14	101.1000	25,791,129.65
3	20140732	20.11.14	Retention of PGB	16,783.04	3,356.61	0.00	13,426.43	101.2000	1,358,754.72
4	20140736	12.11.14	Retention of RZD	16,783.04	3,356.61	0.00	13,426.43	101.4000	1,361,440.00
5	20160826	17.11.16	Installation LON	318,880.82	63,776.16	0.00	255,104.66	105.1000	26,811,499.77
6	20160449	27.06.16	Installation GLW	318,881.43	63,776.29	0.00	255,105.14	104.9800	26,780,937.60
7	20160452	27.06.16	Installation SJB	318,881.43	63,776.29	0.00	255,105.14	104.9800	26,780,937.60
8	20160453	27.06.16	Installation SSH	318,881.43	63,776.29	0.00	255,105.14	104.9800	26,780,937.60
9	20160451	07.06.16	Installation MUL	318,881.43	63,776.29	0.00	255,105.14	104.9800	26,780,937.60
10	CRSC-PR-RSGP07-201407-038	17.12.14	Installation of PGB	410,256.71	82,051.00	0.00	307,692.87	100.1000	30,800,056.29
11	CRSC-PR-RSGP07-201502-041	16.03.15	Retention of PGB (Refund)	0.00	0.00	0.00	20,512.84	101.3000	2,077,950.69
12	CRSC-PR-RSGP07-201411-039	17.12.14	Installation of RZD	410,256.71	82,051.00	0.00	307,692.87	100.1000	30,800,056.29
13	CRSC-PR-RSGP07-201501-040	16.03.15	Retention of RZD (Refund)	0.00	0.00	0.00	20,512.84	101.3000	2,077,950.69

14	CRSC-PR-RSGP07-201702-064	16.05.17	Installation SSH	410,256.71	82,051.00	20,513.00	307,692.71	105.7000	32,523,119
15	CRSC-PR-RSGP07-201702-065	16.05.17	Installation MUL	410,256.71	82,051.00	20,513.00	307,692.71	105.7000	32,523,119
16	CRSC-PR-RSGP07-2016-11-062	12.08.16	Installation GLW & SJB	820,513.42	164,102.68	41,025.67	615,385.07	105.3000	64,800,047.87
17	CRSC-PR-RSGP07-2016-11-063	23.11.16	Installation LON	410,256.71	82,051.00	20,513.00	307,692.71	105.2000	32,369,273.09
<b>TOTAL (USD 5,137,532.45 @ Rs 83.70 = Rs 430.011 million)</b>				<b>5,137,532.45</b>	<b>1,027,504.80</b>	<b>102,564.67</b>	<b>4,007,462.98</b>	<b>-</b>	<b>415,316,410.01</b>

**STATEMENT SHOWING THE DETAIL OF CIVIL WORKS AGREEMENTS IN CONNECTION WITH PROJECT OF  
REPLACEMENT OF OLD & OBSOLETE SIGNAL GEARS (LON-SDR) MAIN LINE SECTION. (PARA 4.5.3)**

(Rs in million)

S. No.	Name of Work	Date of award of contract	Cost of Awarded contract (Rs)	Construction/ Delivery Period of agreement	Payment made to contractor uptill June 2019 (Rs)	Date of commencement	Date of Completion	Performance security @10% (Rs)
1	Construction of 13 Unit Class-III & IV staff quarter for Resignaling project on LON-RZD section of Multan Division.	23.07.2016	26.874	12 Months	29.7883	10.10.2016	09.10.2017	2.687
2	Providing 3" thick surface treatment to roads at Level crossings on LON-KWL section.	18.04.2015	21.3792	08 Months	20.5790	09.10.2015	30.12.2015	2.138
3	Manufacturing & Supply of 130 Nos 1:8 1/2 (90-R) Crossings, 130 Nos Switches of 90-R Rails (R/Hand) and 130 Nos Switches of	29.09.2016	46.02	08 Months	46.02	27.03.2017	23.09.2017	4.602

	90-R (L/Hand) with fittings							
4	Construction of equipment at LON-GLW, SJB, SSH, PNG, & RZD and rooms at 19 L-Xings.	11.07.2011	31.741848	08 Months	33.5227	22.11.2011	08.06.2014	3.174
5	Construction of equipment, battery & generator rooms, etc, at PTO, CGM, KRK, PNX, RND & JBA stations, and rooms at 16 No L-xings with electrification from PTO to JBA section.	25.01.2014	30.2814	06 Months	10.4755	27.06.2014	Contract Terminated	3.028
6	Construction of equipment, battery & generator rooms, etc, at LKP, LRC, LHR, BBG and SDR stations and rooms at 18 No L-xings with electrification from JBA (excluding) to SDR (including) section. M/S Khan Engineers & Contractors/Lahore	25.01.2014	25.6583	06 Months	9.6819	08.03.2014	Contract Terminated	2.566



7	Construction of Equipment, Rooms, Battery Room and Generator Rooms e.t.c at Khanewal, Rajput Nagar, Main Channu, Kassowal, Chicha Watni, Harappa, Station and room at (20 Nos. ) level crossing with electrification on Khanewal-Sahiwal Station.	22.12.2011	26.9961	08 Months	28.1242	21.05.2012	29.04.2015	2.700
8	Construction of equipment battery, generator rooms , etc at SWAL , YSWL , OKC, OKR, KSF , RKQ HBAD & rooms at 18 L-xings on SWLA – HBAD Section	28.01.2013	34.0432	06 Months	27.0495	15.02.2013	17.04.2017	3.404
9	Supply of Imported hard wood crossing timbers of different sizes for Re-Signaling Project Main Line section (LON-SDR).	29.10.2016	39.118	07 Months	37.0878	02.02.2017	5.19% supply still outstanding	3.912

10	Supply of Imported hard wood crossing timbers of different sizes for Re-Signaling Project Main Line section (LON-SDR).	07.11.2016	46.250	06 Months	46.2500	20.04.2017	04.06.2017	4.625
11	Construction of 01 officers and 07 unit class III & IV staff (BS-01, BS-08 & BS-11) residencies with electrification at Lahore area, Badami Bagh and Shahdara Bagh stations or re-signaling project (LON-SDR) main line section.	27.02.2018	30.572	06 Months	23.2688	17.03.2018	30.04.2019	3.057
12	Supply of hard Wood Crossing timbers	19.08.2015	23.969	08 Months	23.969	17.11.2015	08.08.2016	2.397
	Supply of hard Wood Crossing timbers	19.08.2015	20.161	08 Months	20.161	24.06.2016	19.11.2016	2.016
13	Construction of equipment, battery & generator rooms, etc, (Left Over Work of KEC) at LKP, LRC, BBG & SDR stations	26.04.2017	18.606	03 Months	15.7463	27.04.2017	31.12.2017	1.861

	and rooms at 16 No L-xings with electrification from JBA (excluding) to SDR (incl:) section.							
14	Construction of 05 Unit Class-III & IV staff (BS-01, BS-08, BS-11) residencies with electrification.	07.04.2018	10.0938	05 Months	9.1385	08.04.2018	07.09.2018	1.009
15	Construction of 01 Officer & 03 unit Class-III & IV staff residences at Khanewal.	05.07.2017	17.1932	04 Months	18.7841	08.07.2017	31.05.2018	1.719
16	Supplying and fixing trench plates 0.005 M thick etc.	10.03.2016	2.3608	06 Months	2.4657	24.08.2016	22.02.17	0.236
17	Re-surfacing of roads at level crossings	17.11.2016	7.561	06 Months	7.4550	28.12.2016	22.03.2017	0.756
18	Establishment of generator and battery rooms & misc. works in the newly created simulation lab for training at Walton Academy, Lahore.	09.01.2013	1.4890	02 Months	1.2037	29.01.2013	14.06.2013	0.149

19	Construction of Maintenance center & Officer residence at MUL.	01.04.2014	9.1215	06 Months	11.2298	24.04.2014	15.10.2015	0.912
20	Additional Remaining Works in connection with Construction of Maintenance center & Officer residence at MUL.	07.01.2015	1.9336	04 Months	1.9435	14.01.2016	12.05.2016	0.193
21	Construction of 04 Unit Class-III & IV Staff (BS-1, BS-8, BS-11 & BS-16) Residences and 01 Subordinate Office alongwith T&P Store & Workshop with Electrification at Okara Cantt & Okara for Re signaling Project (LON-SDR) M/Line Section.	27.07.2018	14.7787	05 Months	12.7437	04.08.2018	03.01.2019	1.478
22	Construction of 04 Unit Class-III & IV Staff (BS-1, BS-8 & BS-11) Residences with Electrification at Changa Manga, Kot Radha Kishan and Preem Nagar	06.10.2018	8.1861	06 Months	7.9090	17.10.2018	16.04.2019	0.819

	stations for Re-signaling Project (LON-SDR) main line section.							
23	Construction of equipment rooms at L-Xings and allied works of Stations buildings with electrification on LON, MUL & KWL.	20.09.2013	7.8030	04 Months	6.5656	28.10.2013	14.09.2015	0.780
24	Construction of 03 Unit Class-Iii & IV Staff Residencies at RPNG & MYH Stations with Electrification at RPNG & MYH.	16.08.2017	8.129	04 Months	7.3889	10.10.2017	09.02.2018	0.813
25	Supply of Chirr Wooden Sleepers of sizes 9'x10"x6" at Pakistan Railways Sleeper Depot Haripur Band.	14.04.2017	9.612	05 Months	9.612	04.10.2017	08.11.2017	0.961
26	Construction of 03 Unit Class-III & IV Staff (BS-1, BS-8 & BS-11) Residences with Electrification at Jia Bagga and Kot Lakhpat Stations for Re-signaling Project	12.10.2018	6.5785	04 Months	6.5896	28.10.2018	27.03.2019	0.658

	(LON-SDR) main line section.							
27	Construction of 04 unit Class-III & IV staff (BS-1, BS-8 & BS-11) Residences at KSL, CCE & HPA stations with electrification for Resignaling Project (LON-SDR) Main Line Section.	05.07.2014	10.5506	04 Months	9.2368	10.07.2017	09.01.2018	1.055
28	Manufacturing and supply of gauge tie plates for Resignaling project.	11.06.2016	11.574	06 Months	11.574	24.12.2016	24.10.2017	1.157
29	Construction of Maintenance center & Officer residence at Lahore	01.04.2014	9.5966	06 months	9.7824	02.04.2015	12.02.2015	0.960
30	Construction of equipment, battery, generator rooms (left over work) at PNX, JBA stations and rooms at 10 L-xings with electrification from PNX (including) to JBA (excluding) section.	19.05.2017	9.392	03 Months	8.0774	08.06.2017	14.12.2017	0.939

31	Construction of equipment, battery, generator rooms (left over work) at PTO, CGM & KRK Stations and rooms at 07 L-xings with electrification on PTO (including) to PNX (Excluding) Section.	19.05.2017	6.432	03 Months	5.1623	10.06.2017	25.07.2018	0.643
32	Supply of Chirr Wooden Sleepers 9'x10"x6".for Resignaling project (LON-SDR) main line section	22.03.2016	11.96	06 Months	11.96	24.05.2016	28.11.2016	1.196
33	Supply of Chirr Wooden Sleepers 9'x10"x4"for Resignaling project (LON-SDR) main line section	08.11.2014	7.79	04 Months	7.79	11.12.2014	10.04.215	0.779
34	Supply of Chirr Wooden Sleepers 9'x10"x4"for Resignaling project (LON-SDR) main line section	18.12.2015	11.303	06 Months	11.303	18.02.2016	28.11.2016	1.130
<b>TOTAL-2</b>								<b>60.509</b>

## STATEMENT SHOWING DETAIL OF DETENTION IN MULTAN DIVISION (PARA 4.6.1)

Period	Hours	Minutes	Total time in minutes	Fuel consumption per minute (Rs)	Amount (Rs)
Jan-17	39	55	2395	1770	4,239,150
Feb-17	28	30	1710	1770	3,026,700
Mar-17	53	35	3215	1770	5,690,550
Apr-17	120	30	7230	1770	12,797,100
May-17	92	50	5570	1770	9,858,900
Jun-17	167	15	10035	1770	17,761,950
Jul-17	139	15	8355	1770	14,788,350
Aug-17	115	35	6935	1770	12,274,950
Sep-17	99	55	5995	1770	10,611,150
Oct-17	82	5	4925	1770	8,717,250
Nov-17	136	30	8190	1770	14,496,300
Dec-17	71	55	4315	1770	7,637,550
Jan-18	46	20	2780	1770	4,920,600
Feb-18	48	40	2920	1770	5,168,400
Mar-18	47	15	2835	1770	5,017,950
Apr-18	44	25	2665	1770	4,717,050
May-18	11	5	665	1770	1,177,050
Jun-18	10	30	630	1770	1,115,100
Jul-18	30	55	1855	1770	3,283,350
Aug-18	17	25	1045	1770	1,849,650



Sep-18	11	10	670	1770	1,185,900
Oct-18	12	40	760	1770	1,345,200
Nov-18	23	20	1400	1770	2,478,000
Dec-18	11	0	660	1770	1,168,200
Jan-19	6	20	380	1770	672,600
Feb-19	7	45	465	1770	823,050
Mar-19	22	35	1355	1770	2,398,350
Apr-19	15	25	925	1770	1,637,250
May-19	6	5	365	1770	646,050
Jun-19	28	10	1690	1770	2,991,300
Jul-19	13	35	815	1770	1,442,550
Aug-19	18	25	1105	1770	1,955,850
Sep-19	8	15	495	1770	876,150
<b>TOTAL</b>			<b>95350</b>		<b>168,769,500</b>

## STATEMENT OF NEGOTIATED CONTRACTS (PARA 4.6.2)

(Rs in million)

S. No.	Name of Work	Name of Agency	Quoted Rate (Rs)	Negotiated Rate (Rs)	Payment made to contractor uptill June 2019 (Rs)	Date of Completion
1	Providing 3" thick surface treatment to roads at Level crossings on LON-KWL section.	M/S Ch. Rashid Arain	21.624	21.379	20.5790	30.12.2015
2	Manufacturing & Supply of 130 Nos 1:8 1/2 (90-R) Crossings, 130 Nos Switches of 90-R Rails (R/Hand) and 130 Nos Switches of 90-R (L/Hand) with fittings	M/S PRACS & AL-Tech	51.48	46.02	46.02	23.09.2017
3	Supply of Chirr Wooden Sleeper 9"x10"x4" for insulation of L-xings at Haripur Band	M/s Ishfaq Ahmed & Co	12.192	11.303	11.303	28.11.2016
	<b>TOTAL</b>			<b>78.702</b>		

## SPLITTING OF PROCUREMENT OF SLEEPERS (PARA 4.6.3)

(Rs in million)

S #	Name of work	Name of Agency	Cost of contract (Rs)	Delivery period	Payment to contract or uptill June 2019 (Rs)	Date of agreement	Date of commencement	Date of Completion	Qty	Rate Per Sleeper (Rs)	Higher Rate in (Rs)	Higher Rate in %	Total Loss (Rs)
1	Supply of Chirr Wooden Sleepers 9'x10"x4" for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	7.79	04 Months	7.79	08.11.14	11.12.14	10.04.15	2,000	3,895	-	-	-
2	Supply of Chirr Wooden Sleepers 9'x10"x4" for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	11.303	06 Months	11.303	18.12.15	18.02.16	28.11.16	2,540	4,450	555	14	1,409,700
3	Supply of Chirr Wooden Sleepers 9'x10"x6" for Resignaling project (LON-SDR) main line section	M/S Ishfaq Ahmed & Co.	11.96	06 Months	11.96	22.03.16	24.05.16	28.11.16	2,000	5,980	2,085	54	4,170,000

4	Supply of Chirr Wooden Sleepers of sizes 9'x10"x6" at Pakistan Railways Sleeper Depot Haripur Band.	M/S Nazir Enginee ring & Serivce	9.612	05 Months	9.612	14.04.17	04.10.17	08.11.17	1,800	5,340	1,445	37	<b>2,601,000</b>
<b>TOTAL</b>			<b>40.665</b>		<b>40.665</b>				<b>8,340</b>				<b>8,180,700</b>