



Bhakra Beas Management Board

Right To Information Act 2005

Manual - 3

IS / ISO 9001



QMS

IS/ISO 14001



EMS

IS 18001



OHSMS

Procedure followed in Decision Making Process

| Sr. No. | Procedure followed in Decision Making Process | | | | | | | |
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| 1. | For taking decision on various matters the rules/regulations of BBMB 1974 and 1976 respectively are followed. | | | | | | | |
| 2. | The Instructions based upon the statutory rules from time to time. Refer Chapter 4 (manual 3). | | | | | | | |
| 3. | <p>The process of decision making for the service realization is as under:</p> <ul style="list-style-type: none"> ▪ In overall context the sharing of water and power among the Partner States is governed through Punjab Reorganization Act and other joint agreements viz. Bhakra Nangal Agreement etc. ▪ The annual budget meetings are held with the representatives of the partner states for finalisation of annual budget/ revised budget. ▪ Monthly meetings of Technical Committee are conducted to determine customer requirements and to review the performance of the previous month. Technical Committee has representation of all the participating states with the following constitution: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Head</th> <th>Chairman/BBMB</th> </tr> </thead> <tbody> <tr> <td rowspan="4" style="text-align: center; vertical-align: middle;">Members</td> <td>Member Irrigation & Member Power of BBMB.</td> </tr> <tr> <td>Chief Engineers/ Irrigation of Participating States.</td> </tr> <tr> <td>Technical Member of Participating State Electricity Boards/Power Utilities.</td> </tr> <tr> <td>Chief Engineer, Central Water Commission.</td> </tr> </tbody> </table> ▪ Monthly releases of water on 10 daily basis are decided during these meetings based upon the inputs related to the reservoir position, expected inflows, projected demand of partner states & water carrying capacity of canals. The generation schedules pertaining to agreed water releases are prepared by the Power Regulation Directorate of BBMB. Any subsequent changes to the schedules are communicated to Power Regulation Directorate which plans rescheduled generation of power. ▪ The information is shared with the National Regional Load Dispatch Centre (NRLDC) & State Electricity Boards/Power Utilities through regular interactions. ▪ Similarly instructions for day to day releases are communicated by Director Water Regulation, BBMB, Nangal. ▪ The Annual Budget Meetings are held with the representatives of the Partner States for finalization of the revised budget for the current year and budget proposal for the following year. ▪ The services rendered by BBMB as welfare measures to its employees and their families as well as the local population viz Hospitals/Health Centers/Dispensaries, schools etc. are rendered after review of the requirements of the beneficiaries – patients in case of hospitals / dispensaries, students / their parents in case of school, visitors in case of guest houses etc.. These reviews are made taking into consideration existing / available facilities, extant rules / regulation for availing these services / other legal / administrative requirements etc. | Head | Chairman/BBMB | Members | Member Irrigation & Member Power of BBMB. | Chief Engineers/ Irrigation of Participating States. | Technical Member of Participating State Electricity Boards/Power Utilities. | Chief Engineer, Central Water Commission. |
| Head | Chairman/BBMB | | | | | | | |
| Members | Member Irrigation & Member Power of BBMB. | | | | | | | |
| | Chief Engineers/ Irrigation of Participating States. | | | | | | | |
| | Technical Member of Participating State Electricity Boards/Power Utilities. | | | | | | | |
| | Chief Engineer, Central Water Commission. | | | | | | | |

| 4. | <p>Communication</p> <p>All communication are treated with utmost care, to ensure timely, effective appropriate response with necessary follow up actions, if any mainly during the periodic Board meetings.</p> <ul style="list-style-type: none"> - Project profile/ salient features / capabilities and strengths of BBMB are available even on web site (www.bhakra.nic.in) and are updated periodically. - All communications with respect to status of management of works, status of supply of power/water, progress of any developmental work are effectively handled at Board/operational level and responded in a timely manner through personal discussions, periodical reports and reviews, letters, fax, wireless, e-mails etc., as suitable. - All communications relating to customer/Partner State feed- back /complaints including public grievances are effectively handled at the senior-most levels, as per the gravity of the situation. These are analyzed and examined for prompt action. These communications can be received during personal meetings, during inspection visits or any other modes. - Proactive efforts for maintaining good interaction/relations with local administration / community are made by respective Chief Engineers through regular meetings with officers of concerned department/surpanches /taluka, village level officers. - The communications with beneficiaries of Welfare Services, mechanism exists for providing information on the services rendered, rules and regulations for availing these services to the beneficiaries as well as attending to their enquiries, complaints and other communications as per the merit of the case. | | |
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| 5. | The documented procedures / defined criterion for decision process along with the flow charts are given in Procedure Manual of respective Chief Engineers, Secretary, Special Secretary, Director/HRD, Director/Consultancy & Security and CVO. | | |
| 6. | Channel of supervision and accountability. | | |
| 7. | Time Limit for taking a Decision | | |
| 8. | Related provisions, acts, rules etc. | | |
| ➤ Chief Engineer/Transmission System, BBMB, Chandigarh. | | | |
| A. LIST OF PROCEDURES: | | | |
| Sr.No. | Process | Title of Procedures | Doc. No. |
| I. | Administration | i) Procedure for management of Transmission System-Works. | TS/ADM/P/01 |
| | | ii) Procedure for management of Transmission system-Establishment. | TS/ADM/P/02 |
| | | iii) Security of the sub-stations | TS/ADM/P/03 |
| II. | Sub Station | Procedure for | |
| | | i) Maintenance of substation | TS/SS/P/01 |
| | | ii) Operation of substation | TS/SS/P/02 |
| III. | Transmission Line | Procedure for maintenance of Transmission lines. | TS/TL/P/01 |
| IV. | Services | Procedure for | |
| | | i) Operation & maintenance of guest houses. | TS/SER/P/01 |
| | | ii) Operation of Dispensary | TS/SER/P/02 |

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| V. | Utilities | Procedure for i) Maintenance of residential and nonresidential buildings. ii) | TS/UTL/P/01 |
| | | iii) Drinking water supply | TS/UTL/P/02 |
| | | iv) Disposal of waste (solid & sewerage) | TS/UTL/P/03 |
| | | iv) Maintenance of vehicles | TS/UTL/P/04 |
| VI. | PLCC | Procedure for i) Attending to breakdown of EPABX and battery chargers. | TS/CC/P/01 |
| | | ii) Planned maintenance of PLCC equipment. | TS/CC/P/02 |
| | | iii) Attending to breakdown of PLCC cabinets, protection couplers. | TS/CC/P/03 |
| | | iv) Monitoring performance/activities of P&T Cell and CC Division. | TS/P&C/P/01 |
| VII. | Protection & Testing | Procedure for i) Thermo vision scanning ii) Attending breakdown of protection schemes/ equipment iii) Commissioning of new substation equipment/relays iv) Planned testing of protection schemes & equipment v) Calibration of instruments vi) Carrying out deposit work. | TS/P&T/P/01 TS/P&T/P/02 TS/P&T/P/03 TS/P&T/P/04 TS/P&T/P/05 TS/P&T/P/06 |
| VIII. | Purchase | Procedure for purchases | TS/PUR/P/01 |
| IX. | Design | Procedure for 1. TS/CC/P/03 Design of substation/Transmission System | TS/DSG/P/01 |
| | | 2. Designing equipment/replacement | TS/DSG/P/02 |
| | | 3. Designing line shifting/crossing | TS/DSG/P/03 |
| X. | Store | Procedure for operation of stores | TS/ST/P/01 |
| B. LIST OF WORK INSTRUCTIONS: | | | |
| Sr.No. | Title | | Doc. No. |
| I. | Work instructions for Utilities:- i) Mtc. Schedule for water supply system | | TS/UTL/WI/0201 |
| | ii) Works instruction for drinking water supply | | TS/UTL/WI/0202 |
| | iii) Schedule for disposal of waste (Solid & Sewerage) | | TL/UTL/WI/0301 |
| | iv) Mtc. Schedule for sewerage pumps/Motor | | TS/UTL/WI/0302 |
| II. | Work instructions for Services:- i) Detail of Guest Houses | | TS/SER/WI/0101 |
| | ii) Payment Check List | | TS/SER/WI/0102 |
| | iii) Cleanliness Check List for Guest House | | TS/SER/WI/0103 |
| III. | Work instructions for sub-station i) Mtc. schedule for the sub-station equipments. | | TS/SS/WI/0101 |
| | ii) Safety code | | TS/SS/WI/0102 |
| | iii) Schedule for Calibration of various meters, instruments and | | TS/SS/WI/0103 |

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| | gauges etc. | | |
| IV. | Work instructions for Transmission line. | | |
| | i) Maintenance Schedule for EHV Transmission lines | | TS/TL/WI/0101 |
| C. LIST OF QUALITY PLANS: | | | |
| Sr.No. | Process | Title | Doc. No. |
| I. | Sub Station | Quality Plan for Sub-Station | TS/SS/QP/01 |
| II. | Transmission Line | Quality Plan of maintenance of Transmission line. | TS/TL/QP/01 |
| III. | Services | i) Operation & maintenance of guest houses. | TS/SER/QP/01 |
| | | ii) Operation of Dispensary | TS/SER/QP/02 |
| IV. | Utilities | i) Maintenance of residential and non-residential buildings. | TS/UTL/QP/01 |
| | | ii) Drinking water supply | TS/UTL/QP/02 |
| | | iii) Disposal of waste (solid & sewerage) | TS/UTL/QP/03 |
| | | iv) Maintenance of vehicles | TS/UTL/QP/04 |
| V. | Store | Quality Plan for operation of stores | TS/ST/QP/01 |
| VI. | PLCC | Quality Plan for Planned Maintenance/ Breakdown of PLCC Equipment's. | TS/CC/QP/01 |
| VII. | Purchase | Quality Plan for Purchases | TS/PUR/QP/01 |
| VIII. | P&T | Quality Plan for P&T | TS/P&T/QP/01 |
| ➤ Chief Engineer/System Operation, BBMB, Chandigarh (SYSTEM OPERATION) | | | |
| A. LIST OF PROCEDURES: | | | |
| Sr.No. | Title | | Document No. |
| I. | Procedure for Management of System Operation-Works | | SO/ADM/P/01 |
| II. | Procedure for Management of System Operation-Establishment | | SO/ADM/P/02 |
| ■ (POWER REGULAITON DIRECTORATE) | | | |
| A. LIST OF PROCEDURES | | | |
| Sr.No. | Category | Title | Document No. |
| I. | LD-I | I. Procedure for maintenance of SLDC software. | SO/PR-LD-1/P/01 |
| | | II. Procedure for Management of office security. | SO/PR-LD-1/P/02 |
| | | III. Procedure for Management of office canteen. | SO/PR-LD-1/P/03 |
| II. | LD-II | I. Procedure for maintenance & updation of Real time Power System Network Data under ULDC. | SO/PR-LD- II/P/01 |
| | | II. Procedure for maintenance of SLDC Hardware at RTU Stations/ Sub LDC/ SLDC under ULDC. | SO/PR-LD- II/P/02 |
| | | III. Procedure for maintenance of auxiliary power supplies. | SO/PR-LD- II/P/03 |
| III. | Computer Cell | I. Procedure for maintenance of hardware and other equipment. | SO/PR- EDP/P/01 |

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| | | II. Procedure for Data Processing. | SO/PR- EDP/P/02 |
| | | III. Procedure for maintenance of Application Software Packages | SO/PR- EDP/P/03 |
| | | IV. Procedure for Allotment of various codes. | SO/PR- EDP/P/04 |
| | | V. Procedure for Windows Server Maintenance. | SO/PR- EDP/P/05 |
| | | VI. Procedure for maintenance of Service Packs/Antivirus Packs. | SO/PR- EDP/P/06 |
| | | VII. Procedure for Database Server Maintenance | SO/PR- EDP/P/07 |
| | | VIII. Procedure for Network Planning & Maintenance | SO/PR- EDP/P/08 |
| | | IX. Procedure for Software Development. | SO/PR- EDP/P/09 |
| | | X. Procedure for maintenance of Website. | SO/PR- EDP/P/10 |
| | | XI. Procedure for Backup & Recovery. | SO/PR- EDP/P/11 |
| | | XII. Procedure for annual Maintenance. | SO/PR- EDP/P/12 |
| | | XIII. Procedure for Disposal of E-Waste & other Hardware | SO/PR- EDP/P/13 |
| IV. | POWER CONTROL DIVISION | I. Procedure for preparation of Ex-Bus Generation Schedule for Reservoir based Power Houses (Bhakra & Pong). | SO/PR- PCD/P/01 |
| | | II. Procedure for preparation of Ex-Bus Generation Schedule for Dehar Power House. | SO/PR-PCD/P/02 |
| | | III. Procedure for Planned Shutdown of Generating Units. | SO/PR- PCD/P/03 |
| | | IV. Procedure for Planned Shutdown of Transmission Lines. | SO/PR- PCD/P/04 |
| | | V. Procedure for Grid revival | SO/PR- PCD/P/05 |
| | | VI. Procedure for Monitoring of System Voltage. | SO/PR- PCD/P/06 |
| | | VII. Procedure for Monitoring Loading of ICTs and Transmission Lines. | SO/PR- PCD/P/07 |
| | | VIII. Procedure for maintenance of works associated with SLDC Control Room & Power Control Division. | SO/PR- PCD/P/08 |
| B. LIST OF WORK INSTRUCTIONS: | | | |
| Sr.No. | Category | Title | Document No. |
| i. | POWER CONTROL DIVISION | Work instruction regarding procedure for 15 Minutes Day-Ahead Ex-Bus Generation Schedule for BBMB Power Houses. | SO/PRPCD/WI/0101 |
| | | Work instructions for maintenance of works associated with SLDC Control Room and Power Control Division | SO/PR-PCD/WI/0801 |
| ii. | | Work instructions for maintenance of works associated with SLDC Control Room and Power Control Division | SO/PR-PCD/WI/0802 |

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| | | Work instructions for maintenance of works associated with SLDC Control Room and Power Control Division | SO/PR-PCD/WI/0803 |
| C. | LIST OF QUALITY PLANS: | | |
| Sr.No. | Category | Title | Document No. |
| i. | POWER CONTROL DIVISION | Quality plan for planned shutdown for Generating Units. | SO/PR-PCD/QP/0301 |
| | | Quality plan for allowing shutdowns of Transmission Lines | SO/PR-PCD/QP/0401 |
| | | Quality plan for maintenance of works associated with SLDC Control Room and Power Control Division | SO/PR-PCD/QP/0801 |
| ➤ | Chief Engineer/Bhakra Dam, BBMB, Nangal. (BHAKRA COMPLEX) | | |
| A. | LIST OF PROCEDURES: | | |
| Sr.No. | Title of Procedure | DOC No. | |
| I | Water Regulation Directorate Hydrology Division, Phase – I, Hydro-meteorological observations | | |
| i | Measurement of snow fall | NGL/RGLN-HYD/P-01 | |
| ii | Measurement of winds speed | NGL/RGLN-HYD/P-02 | |
| iii | Measurement of evaporation | NGL/RGLN-HYD/P-03 | |
| iv | Measurement of discharge | NGL/RGLN-HYD/P-04 | |
| v | Measurement of temperature & relative humidity | NGL/RGLN-HYD/P-05 | |
| vi | Measurement of sunshine hours | NGL/RGLN-HYD/P-06 | |
| vii | Measurement of atmospheric temperature | NGL/RGLN-HYD/P-07 | |
| viii | Measurement of atmospheric pressure | NGL/RGLN-HYD/P-08 | |
| ix | Measurement of rain fall | NGL/RGLN-HYD/P-09 | |
| • | Regulation Division, Phase – I | | |
| i | Regulation of Water Releases – During Depletion Period | NGL/RGLN/P-01 | |
| ii | Regulation of Water Releases – During Filling Period | NGL/RGLN/P-02 | |
| iii | Preparation of Water Accounts | NGL/RGLN/P-03 | |
| iv | Water Power Studies. | NGL/RGLN/P-04 | |
| v | Daily Recording & Transmission of data | NGL/RGLN/P-05 | |
| II | Dam Safety Directorate | | |
| | Phase – I | | |
| i | 10 yearly inspections of Dam Safety Committee experts. | NGL/DS/P01/01 Issue 1.1 | |
| ii | Compilation of pre-monsoon & post monsoon inspection reports. | NGL/DS/P-I/02 | |
| iii | Yearly health status report to CWC | NGL/DS/P-I/03 | |
| iv | Scheduled inspections by Dam Safety Committee. | NGL/DS/P-I/04 | |
| III | Bhakra Beas Design Directorate | | |
| | Phase – I | | |

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| i | Processing of data and publication of Annual Observation Reports. | NGL/DESIGN/P-01 |
| ii | Issuance of Design & Drawings of different structures. | NGL/DESIGN/P-02 |
| IV | Nangal Mechanical Circle | |
| | Phase – I | |
| A | Bhakra Mechanical Division | |
| i | Pre-monsoon & Post monsoon inspection of all gates & hoist at Bhakra Dam | NGL/NMC-MECH/P-01 |
| ii | Yearly inspection at River outlet gates. | NGL/NMC-MECH/P-02 |
| iii | Testing of River outlet gates | NGL/NMC-MECH/P-03 |
| iv | Capital Maintenance of river outlet gates | NGL/NMC-MECH/P-04 |
| v | Maintenance of elevators | NGL/NMC-MECH/P-05 |
| vi | Maintenance of 14/15 ton Hoists | NGL/NMC-MECH/P-06 |
| vii | Maintenance of 150 ton gantry crane | NGL/NMC-MECH/P-07 |
| viii | M & O of dehumidifying plant | NGL/NMC-MECH/P-08 |
| ix | Capital Maintenance of penstock head gates. | NGL/NMC-MECH/P-09 |
| x | Inspection of trash racks | NGL/NMC-MECH/P-10 |
| xi | Guniting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECH/P-11A |
| xii | Grouting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECH/P-11B |
| xiii | Pinning & Rock Bolting of Shattered Rocks | NGL/NMC-MECH/P-11C |
| xiv | Maintenance of radial gates | NGL/NMC-MECH/P-12 |
| xv | O & M of mini cursing plants. | NGL/NMC-MECH/P-13 |
| xvi | Dewatering of Seepage Water | NGL/NMC-MECH/P-14 |
| xvii | Maintenance of transport vehicles | NGL/NMC-MECH/P-15 |
| xviii | Maintenance of Heavy vehicles | NGL/NMC-MECH/P-16 |
| xix | Maintenance and operation of field repair shop | NGL/NMC-MECH/P-17 |
| xx | Maintenance of Water Supply system at Bhakra Dam | NGL/NMC-MECH/P-18 |
| xxi | Running of Bhakra Train | NGL/NMC-MECH/P-19 |
| xxii | Maintenance of Loco Engine | NGL/NMC-MECH/P-20 |
| xxiii | Maintenance of Railway Track | NGL/NMC-MECH/P-21 |
| xxiv | Maintenance of wagons & coaches | NGL/NMC-MECH/P-22 |
| xxv | Receipt & issue of Petrol & Diesel | NGL/NMC-MECH/P-23 |
| B | Bhakra Electrical Division | |
| | Phase – I | |
| i | Maintenance of Sub Station at Bhakra Dam | NGL/NMC-BE/P-01 |
| ii | Maintenance of Transmission System at Bhakra Dam | NGL/NMC-BE/P-02 |
| iii | Maintenance of Communication System at Bhakra Dam | NGL/NMC-BE/P-03 |
| iv | Maintenance of Electrical System of permanent structures at Bhakra Dam | NGL/NMC-BE/P-04 |
| v | Maintenance of outdoor & indoor light point/fitting at Bhakra Dam | NGL/NMC-BE/P-05 |
| vi | Removal of Trash in Gobid Sagar at Bhakra Dam | NGL/NMC-BE/P-06 |
| vii | Maintenance of log boom at Bhakra Dam | NGL/NMC-BE/P-07 |
| | Phase - II | |
| i | Maintenance & repair of internal wiring in Residential & Non-Residential Buildings at Nangal | BHD/BED/P-08 |

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| ii | Maintenance of Sub Stations at Nangal | BHD/BED/P-09 |
| iii | Maintenance of distribution lines in Township area | BHD/BED/P-10 |
| iv | Maintenance & repair of Street Light Fittings in Township area. | BHD/BED/P-11 |
| v | Maintenance & repair of Air Conditioners, Air Conditioning Plant, Water Coolers & other electrical equipments at Nangal | BHD/BED/P-12 |
| C | Procurement, Central Stores & Disposal Division | |
| | Phase – I | |
| i | Procurement of Material | NGL/NMC-PUR/P-01 |
| ii | Receipt & issue of Material | NGL/NMC-PUR/P-02 |
| iii | Disposal of surplus spare parts | NGL/NMC-PUR/P-03 |
| iv | Disposal of scrap material | NGL/NMC-PUR/P-04 |
| v | Disposal of surplus machinery | NGL/NMC-PUR/P-05 |
| D | Workshop Division | |
| | Phase – I | |
| i | Maintenance of Electrical Machines | NGL/NW/P-01 |
| ii | Fabrication of Rubber Products | NGL/NW/P-02 |
| iii | Maintenance of Vehicles & Cranes | NGL/NW/P-03 |
| iv | Operation of Sheet Metal Shop | NGL/NW/P-04 |
| v | Pipe Fabrication | NGL/NW/P-05 |
| vi | Tower Fabrication | NGL/NW/P-06 |
| vii | Fabrication of Stop Log Gate | NGL/NW/P-07 |
| viii | Fabrication of Trash Rack cleaning Machine | NGL/NW/P-08 |
| ix | Operation of Machine Shop | NGL/NW/P-09 |
| x | Maintenance & Repair of Machines in Machine Shop | NGL/NW/P-11 |
| xi | Canteen services | NGL/NW/P-12 |
| xii | Operation of Cast Iron Castings | NGL/NW/P-13 |
| xiii | Operation of Carpentry & Painting Shop | NGL/NW/P-14 |
| xiv | Operation of acetylene plant | NGL/NW/P-15 |
| xv | Operation of Oxygen Plant | NGL/NW/P-16 |
| xvi | Operation of Air Compressor | NGL/NW/P-17 |
| xvii | House keeping | NGL/NW/P-18 |
| xviii | Apprentice Training School | NGL/NW/P-19 |
| xix | Operation of estimating, production & inspection Sub Divn. | NGL/NW/P-20 |
| xx | Security Section | NGL/NW/P-21 |
| xxi | Upholstery job work | NGL/NW/P-22 |
| xxii | Repair of Guide Vanes | NGL/NW/P-23 |
| xxiii | Repair of Tug | NGL/NW/P-24 |
| E | Bhakra Dam Circle | |
| A | RM & SR Division,Phase-I | |
| i | Inspection & repair of Spillway apron of Bhakra Dam | NGL/BDC/RM&SR/P-01 |
| ii | Sediment Analysis of Silt Samples | NGL/BDC/RM&SR/P- 02 |
| iii | Capacity survey of Bhakra Dam | NGL/BDC/RM&SR/P-03 |
| iv | Inspection of Spillway by Divers | NGL/BDC/RM&SR/P- 04 |
| v | Management of Bhakra Reservoir area. | NGL/BDC/RM&SR/P- 05 |
| B | Bhakra Dam Division, Phase-I | |

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| i | Observation by instrumentation Sub Division at Bhakra Dam | NGL/BDC/BDD/P-01 |
| ii | Geodetic Observation work of Settlement Observation Sub Division Bhakra. | NGL/BDC/BDD/P-02 |
| iii | Maintenance of Civil Works of Bhakra Dam | NGL/BDC/BDD/P-03 |
| iv | Chemical Analysis of Water Air & Cement Sample | NGL/BDC/BDD/04/P- 01 |
| v | Physical Analysis of Concrete Sample | NGL/BDC/BDD/04/P- 02 |
| vi | Fire Control | NGL/BDC/BDD/EMS/P-05 |
| C | Nangal Dam Division Phase - I | |
| i | Maintenance of River Head & Canal Head Regulator – Civil Structures | NGL/BDC-NDD/P-01 |
| ii | Maintenance of NHC – Canal Banks, Dowels, Lining, Drain, Outer sloops & Cross drainage works | NGL/BDC-NDD/P-02 |
| iii | Capital Maintenance of automatic bye – pass radial gates at Ganguwal & Kotla on NHC | NGL/BDC-NDD/P-03 |
| iv | Maintenance of Gates & Gearing at Nangal Dam | NGL/BDC-NDD/P-04 |
| D | Building Construction & Township Division, Phase - II | |
| i | Operation of sewerage plant at Nangal Township | BHD/BC&TOWNSHIP/P-01 |
| ii | Arrangement of drinking water supply at Nangal Township | BHD/BC&TOWNSHIP/P-02 |
| iii | Maintenance and repair of sanitary installations in BBMB colony | BHD/BC&TOWNSHIP/P-03 |
| iv | Maintenance and repair of residential buildings in BBMB colony at Nangal | BHD/BC&TOWNSHIP/P-04 |
| v | Maintenance and repair of non-residential buildings at Nangal | BHD/BC&TOWNSHIP/P-05 |
| vi | Up-keep of various rest houses at Nangal Township | BHD/BC&TOWNSHIP/P-06 |
| vii | Maintenance and repair of road net works in BBMB area at Nangal | BHD/BC&TOWNSHIP/P-07 |
| VI | BBMB Hospital, Nangal, Phase - II | |
| i | Registration and treatment of patients in OPD, Emergency & Indoor | BHD/HOSPITAL/P-01 |
| ii | Maintenance and Calibration of equipments | BHD/HOSPITAL/P-02 |
| iii | Receipt, issue of storage of medicines and up keep of medicine and other items/material | BHD/HOSPITAL/P-03 |
| iv | Management of different wards | BHD/HOSPITAL/P-04 |
| v | Management of Laboratory and Radiology department | BHD/HOSPITAL/P-05 |
| VII | BBMB DAV School, Phase - II | |
| i | Admission of students in school & deposit of admission fees and other dues. | BHD/SCHOOL/P-01 |
| ii | Planning of academic session | BHD/SCHOOL/P-02 |
| iii | Selection of teachers and their placement/duty roster | BHD/SCHOOL/P-03 |
| iv | Monitoring the performance of teachers | BHD/SCHOOL/P-04 |
| v | Monitoring the performance of students | BHD/SCHOOL/P-05 |
| vi | Counselling of students | BHD/SCHOOL/P-06 |
| vii | Extra curricular activities | BHD/SCHOOL/P-07 |
| viii | Management of computer Lab, Physics Lab, & Chemistry Lab. | BHD/SCHOOL/P-08 |

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| ix | Management of School Library | BHD/SCHOOL/P-09 |
| x | Participation in Tournaments | BHD/SCHOOL/P-10 |
| xi | Training and Refresher Courses for teachers | BHD/SCHOOL/P-11 |
| xii | Parents/students feed back and parents teachers meeting | BHD/SCHOOL/P-12 |
| VIII | Project Security, Phase - II | |
| i | Security of vital installations at project sites. | BHD/SECURITY/P-01 |
| IX | Bhakra Beas Training Centre, Phase - II | |
| i | Running of Bhakra Beas Training Centre at Nangal. | BHD/TRAINING/P-01 |
| B. | LIST OF WORK INSTRUCTIONS: | |
| Sr.No. | Title of Work instructions | |
| I. | Nangal Mechanical Circle Phase – I | DOC No. |
| A | Bhakra Mechanical Division | |
| i | Yearly inspection at River outlet gates. | NGL/NMC-MECH/WI- 02 |
| ii | Testing of River outlet gates | NGL/NMC-MECH/WI- 03 |
| iii | Capital Maintenance of river outlet gates | NGL/NMC-MECH/WI-04 |
| iv | Maintenance of elevators | NGL/NMC-MECH/WI- 05 |
| v | Maintenance of 14/15 ton Hoists | NGL/NMC-MECH/WI-06 |
| vi | Maintenance of 150 ton gantry crane | NGL/NMC-MECH/WI- 07 |
| vii | M & O of dehumidifying plant | NGL/NMC-MECH/WI-08 |
| viii | Capital Maintenance of penstock head gates. | NGL/NMC-MECH/WI-09 |
| ix | Guniting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECHWI-11A |
| x | Grouting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECH/WI-11B |
| xi | Pinning & Rock Bolting of Shattered Rocks | NGL/NMC-MECH/WI-11C |
| xii | Maintenance of radial gates | NGL/NMC-MECH/WI- 12 |
| xiii | O & M of mini cursing plants. | NGL/NMC-MECH/WI-13 |
| xiv | Dewatering of Seepage Water | NGL/NMC-MECH/WI- 14 |
| xv | Maintenance of transport vehicles | NGL/NMC-MECH/WI-15 |
| xvi | Maintenance of Heavy vehicles | NGL/NMC-MECH/WI- 16 |
| xvii | Maintenance of Water Supply system at Bhakra Dam | NGL/NMC-MECH/WI-18 |
| xviii | Receipt & issue of Petrol & Diesel | NGL/NMC-MECH/WI- 23 |
| B | Bhakra Electrical Division | |
| | Phase – I | |
| i | Maintenance of Sub Station at Bhakra Dam | NGL/NMC-BE/WI-01 |
| ii | Maintenance of Transmission System at Bhakra Dam | NGL/NMC-BE/WI-02 |
| iii | Maintenance of Communication System at Bhakra Dam | NGL/NMC-BE/WI-03 |
| iv | Maintenance of Electrical System of permanent structures at Bhakra Dam | NGL/NMC-BE/WI-04 |
| v | Maintenance of outdoor & indoor light point/fitting at Bhakra Dam | NGL/NMC-BE/WI-05 |
| vi | Removal of Trash in Gobid Sagar at Bhakra Dam | NGL/NMC-BE/WI-06 |
| vii | Maintenance of log boom at Bhakra Dam | NGL/NMC-BE/WI-07 |
| | Phase - II | |
| i | Maintenance & repair of internal wiring in Residential & Non-Residential Buildings at Nangal | BHD/BED/WI-08 |
| ii | Maintenance of Sub Stations at Nangal | BHD/BED/WI-09 |
| iii | Maintenance of distribution lines in Township area | BHD/BED/WI-10 |
| iv | Maintenance & repair of Street Light Fittings in Township area. | BHD/BED/WI-11 |

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| v | Maintenance & repair of Air Conditioners, Air Conditioning Plant, Water Coolers & other electrical equipments at Nangal | BHD/BED/WI-12 |
| C | Workshop Division | |
| | Phase – I | |
| i | Maintenance of Electrical Machines | NGL/NW/WI-01 |
| ii | Fabrication of Rubber Products | NGL/NWWI-02 |
| iii | Maintenance of Vehicles & Cranes | NGL/NW/WI-03 |
| iv | Pipe Fabrication | NGL/NW/WIP-05 |
| v | Tower Fabrication | NGL/NW/WI-06 |
| vi | Operation of Machine Shop | NGL/NW/WI-09 |
| vii | Working of galvanizing and pickling | NGL/NW/WI-10 |
| viii | Maintenance & Repair of Machines in Machine Shop | NGL/NW/WI-11 |
| ix | Canteen services | NGL/NW/WI-12 |
| x | Operation of Cast Iron Castings | NGL/NW/WI-13 |
| xi | Operation of Carpentry & Painting Shop | NGL/NW/WI-14 |
| xii | Operation of acetylene plant | NGL/NW/WI-15 |
| xiii | Operation of Oxygen Plant | NGL/NW/WI-16 |
| xiv | Apprentice Training School | NGL/NW/WI-19 |
| xv | Operation of estimating, production & inspection Sub Divn. | NGL/NW/WI-20 |
| xvi | Security Section | NGL/NW/WI-21 |
| xvii | Upholstery job work | NGL/NW/WI-22 |
| xvii | Gas cutting process. | NGL/NW/WI-25 |
| xix | Welding process. | NGL/NW/WI-26 |
| xx | Marking and cutting process. | NGL/NW/WI-27 |
| II. | BHAKRA DAM CIRCLE | |
| A | RM & SR Division, Phase-I | |
| i | Work Instructions for Assembly sequence | NGL/BDC/RM&SR/01/WI/01 |
| ii | Guidelines For Personnel working in compressed air | NGL/BDC/RM&SR/01/WI 02 |
| iii | Repair of Spillway Damage | NGL/BDC/RM&SR/01/WI03 |
| iv | Dismantling sequence. | NGL/BDC/RM&SR/01/WI04 |
| v | Safety precaution during silt sampling | NGL/BDC/RM&SR/02/WI 01 |
| B | Bhakra Dam Division, Phase-I | |
| i | Geodectic Observation Work. Proper handling /transportation of instrument/equipment. | NGL/BDC/BDD/02/WI 01 |
| ii | Installation/setting of instruments/equipment. | NGL/BDC/BDD/02/WI0 2 |
| iii | Taking Geodetic Observations. | NGL/BDC/BDD/02/WI0 3 |
| iv | Safety precautions | NGL/BDC/BDD/02/WI0 4 |
| v | Fire Control Guidelines for Fire Fighting Fire standing orders. | NGL/BDC/BDD/05/WI0 5 NGL/BDC/BDD/05/WI0 2 |
| C | Nangal Dam Division Phase - I | |
| i | Maintenance of River Head & Canal Head Regulator – Civil Structures | NGL/BDC-NDD/01/WI/01 |
| ii | Maintenance of NHC – Canal Banks, Dowels, Lining, Drain, Outer sloops & Cross drainage works | NGL/BDC-NDD/02/WI01 |
| iii | Capital Maintenance of automatic bye – pass radial gates at Ganguwal & Kotla on NHC | NGL/BDC-NDD/03/WI01 |

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| iv | Maintenance of Gates & Gearing at Nangal Dam | NGL/BDC-NDD/04/WI01 |
| D | Building Construction & Township Division, Phase -II | |
| i | Operation of sewerage plant at Nangal Township | BHD/BC&TOWNSHIP/WI-01 |
| ii | Arrangement of drinking water supply at Nangal Township | BHD/BC&TOWNSHIP/WI-02 |
| iii | Maintenance and repair of sanitary installations in BBMB colony | BHD/BC&TOWNSHIP/WI-03 |
| iv | Maintenance and repair of residential buildings in BBMB colony at Nangal | BHD/BC&TOWNSHIP/WI-04 |
| v | Maintenance and repair of non-residential buildings at Nangal | BHD/BC&TOWNSHIP/WI-05 |
| vi | Up-keep of various rest houses at Nangal Township | BHD/BC&TOWNSHIP/WI-06 |
| vii | Maintenance and repair of road net works in BBMB area at Nangal | BHD/BC&TOWNSHIP/WI-07 |
| III | BBMB Hospital, Phase - II | |
| i | Registration and treatment of patients in OPD, Emergency & Indoor - Work instructions for Injection room. -Work instructions for dressing room. -Work instructions for emergency department. | BHD/HOSPITAL/WI- 01A BHD/HOSPITAL/WI- 01B BHD/HOSPITAL/WI-01C |
| ii | Management of different wards -Work instructions for Male/Female wards. | BHD/HOSPITAL/WI- 04 |
| iii | Management of Laboratory and Radiology department -Work instructions for Laboratory - Work instructions for X-ray Department. | BHD/HOSPITAL/WI- 05 BHD/HOSPITAL/WI- 05B |
| C. | LIST OF QUALITY PLANS: | |
| Sr.No. | Title of Quality Plans | DOC No. |
| I | Water Regulation Directorate | |
| | Hydrology Division, Phase – I | |
| | Hydro-meteorological observations | |
| i | Measurement of snow fall | NGL/RGLN-HYD/QP- 01 |
| ii | Measurement of winds speed | NGL/RGLN-HYD/QP-02 |
| iii | Measurement of evaporation | NGL/RGLN-HYD/QP-03 |
| iv | Measurement of discharge | NGL/RGLN-HYD/QP- 04 |
| v | Measurement of temperature & relative humidity | NGL/RGLN-HYD/QP- 05 |
| vi | Measurement of sunshine hours | NGL/RGLN-HYD/QP- 06 |
| vii | Measurement of atmospheric temperature | NGL/RGLN-HYD/QP-07 |
| viii | Measurement of atmospheric pressure | NGL/RGLN-HYD/QP- 08 |
| ix | Measurement of rain fall | NGL/RGLN-HYD/QP-09 |
| | Regulation Division, Phase – I | |
| i | Regulation of Water Releases – During Depletion Period | NGL/RGLN/QP-01 |
| ii | Regulation of Water Releases – During Filling Period | NGL/RGLN/QP-02 |
| iii | Preparation of Water Accounts | NGL/RGLN/QP-03 |
| iv | Water Power Studies. | NGL/RGLN/QP-04 |
| v | Daily Recording & Transmission of data | NGL/RGLN/QP-05 |
| II | Dam Safety Directorate | |
| | Phase – I | |

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| i | 10 yearly inspections of Dam Safety Committee experts. | NGL/DS/P-I/01, issue 1.1 |
| ii | Compilation of pre-monsoon & post monsoon inspection reports. | NGL/DS/QP-I/02 |
| iii | Yearly health status report to CWC | NGL/DS/QP-I/03 |
| III | Bhakra Beas Design Directorate | |
| | Phase – I | |
| i | Processing of data and publication of Annual Observation Reports. a) Quality Plan(Bhakra Nangal Project) b) Quality Plan (Pong Dam) c) Quality Plan (BSL Project). | NGL/DESIGN/Bh/QP- 01 NGL/DESIGN/PONG/QP-01 NGL/DESIGN/BSL/QP-01 |
| ii | Issuance of Design & Drawings of different structures. | NGL/DESIGN/P-02 |
| IV | Nangal Mechanical Circle | |
| | Phase – I | |
| A | Bhakra Mechanical Division | |
| i | Pre-monsoon & Post monsoon inspection of all gates & hoist at Bhakra Dam | NGL/NMC-MECH/QP-01 |
| ii | Yearly inspection at River outlet gates. | NGL/NMC-MECH/QP- 02 |
| iii | Testing of River outlet gates | NGL/NMC-MECH/QP- 03 |
| iv | Capital Maintenance of river outlet gates | NGL/NMC-MECH/QP-04 |
| v | Maintenance of elevators | NGL/NMC-MECH/QP- 05 |
| vi | Maintenance of 14/15 ton Hoists | NGL/NMC-MECH/QP-06 |
| vii | Maintenance of 150 ton gantry crane | NGL/NMC-MECH/QP- 07 |
| viii | M & O of dehumidifying plant | NGL/NMC-MECH/QP- 08 |
| ix | Capital Maintenance of penstock head gates. | NGL/NMC-MECH/QP-09 |
| x | Inspection of trash racks | NGL/NMC-MECH/QP-10 |
| xi | Guniting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECH/QP-11A |
| xii | Grouting of Shattered Rocks at Bhakra Dam | NGL/NMC-MECH/QP-11B |
| xiii | Pinning & Rock Bolting of Shattered Rocks | NGL/NMC-MECH/QP- 11C |
| xiv | Maintenance of radial gates | NGL/NMC-MECH/QP-12 |
| xv | O & M of mini cursing plants. | NGL/NMC-MECH/QP-13 |
| xvi | Dewatering of Seepage Water | NGL/NMC-MECH/QP-14 |
| xvii | Maintenance of transport vehicles | NGL/NMC-MECH/QP-15 |
| xviii | Maintenance of Heavy vehicles | NGL/NMC-MECH/QP-16 |
| xix | Maintenance and operation of field repair shop | NGL/NMC-MECH/QP-17 |
| xx | Maintenance of Water Supply system at Bhakra Dam | NGL/NMC-MECH/QP-18 |
| xxi | Running of Bhakra Train | NGL/NMC-MECH/QP-19 |
| xxii | Maintenance of Loco Engine | NGL/NMC-MECH/QP- 20 |
| xxiii | Maintenance of Railway Track | NGL/NMC-MECH/QP-21 |
| xxiv | Maintenance of wagons & coaches | NGL/NMC-MECH/QP-22 |
| xxv | Receipt & issue of Petrol & Diesel | NGL/NMC-MECH/QP-23 |
| B | Bhakra Electrical Division | |
| | Phase – I | |
| i | Maintenance of Sub Station at Bhakra Dam | NGL/NMC-BE/QP-01 |

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| ii | Maintenance of Transmission System at Bhakra Dam | NGL/NMC-BE/QP-02 |
| iii | Maintenance of Communication System at Bhakra Dam | NGL/NMC-BE/QP-03 |
| iv | Maintenance of Electrical System of permanent structures at Bhakra Dam | NGL/NMC-BE/QP-04 |
| v | Maintenance of outdoor & indoor light point/fitting at Bhakra Dam | NGL/NMC-BE/QP-05 |
| vi | Removal of Trash in Gobid Sagar at Bhakra Dam | NGL/NMC-BE/QP-06 |
| vii | Maintenance of log boom at Bhakra Dam | NGL/NMC-BE/QP-07 |
| | Phase - II | |
| i | Maintenance & repair of internal wiring in Residential & Non-Residential Buildings at Nangal | BHD/BE/QP-08 |
| ii | Maintenance of Sub Stations at Nangal | BHD/BE/QP-09 |
| iii | Maintenance of distribution lines in Township area | BHD/BE/QP-10 |
| iv | Maintenance & repair of Street Light Fittings in Township area. | BHD/BE/QP-11 |
| v | Maintenance & repair of Air Conditioners, Air Conditioning Plant, Water Coolers & other electrical equipments at Nangal | BHD/BE/QP-12 |
| C | Procurement, Central Stores & Disposal Division | |
| | Phase – I | |
| i | Procurement of Material | NGL/NMC-PURQ/P-01 |
| ii | Receipt & issue of Material | NGL/NMC-PUR/QP-02 |
| iii | Disposal of surplus spare parts | NGL/NMC-PUR/QP-03 |
| iv | Disposal of scrap material | NGL/NMC-PURQ/P-04 |
| v | Disposal of surplus machinery | NGL/NMC-PUR/QP-05 |
| D | Workshop Division | |
| | Phase – I | |
| i | Maintenance of Electrical Machines | NGL/NW/QP-01 |
| ii | Fabrication of Rubber Products | NGL/NW/QP-02 |
| iii | Maintenance of Vehicles & Cranes | NGL/NW/QP-03 |
| iv | Operation of Sheet Metal Shop | NGL/NW/QP-04 |
| v | Pipe Fabrication | NGL/NW/QP-05 |
| vi | Tower Fabrication | NGL/NW/QP-06 |
| vii | Fabrication of Stop Log Gate | NGL/NW/QP-07 |
| viii | Fabrication of Trash Rack cleaning Machine | NGL/NW/QP-08 |
| ix | Operation of Machine Shop | NGL/NW/QP-09 |
| x | Maintenance & Repair of Machines in Machine Shop | NGL/NW/QP-11 |
| xi | Canteen services | NGL/NW/QP-12 |
| xii | Operation of Cast Iron Castings | NGL/NW/QP-13 |
| xiii | Operation of Carpentry & Painting Shop | NGL/NW/QP-14 |
| xiv | Operation of acetylene plant | NGL/NW/QP-15 |
| xv | Operation of Oxygen Plant | NGL/NW/QP-16 |
| xvi | Operation of Air Compressor | NGL/NW/QP-17 |
| xvii | House keeping | NGL/NW/QP-18 |
| xviii | Apprentice Training School | NGL/NW/QP-19 |

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| xix | Security Section | NGL/NW/QP-21 |
| xx | Upholstery job work | NGL/NW/QP-22 |
| xxi | Repair of Guide Vanes | NGL/NW/QP-23 |
| xxii | Repair of Tug | NGL/NW/QP-24 |
| V | Bhakra Dam Circle | |
| A | RM & SR Division, Phase-I | |
| i | Inspection & repair of Spillway apron of Bhakra Dam | NGL/BDC/RM&SR/QP-01 |
| ii | Sediment Analysis of Silt Samples | NGL/BDC/RM&SR/QP-02 |
| iii | Capacity survey of Bhakra Dam | NGL/BDC/RM&SR/QP-03 |
| iv | Inspection of Spillway by Divers | NGL/BDC/RM&SR/QP-04 |
| v | Management of Bhakra Reservoir area. | NGL/BDC/RM&SR/QP-05 |
| B | Bhakra Dam Division, Phase-I | |
| i | Observation by instrumentation Sub Division at Bhakra Dam | NGL/BDC/BDD/QP-01 |
| ii | Geodetic Observation work of Settlement Observation Sub Division Bhakra. | NGL/BDC/BDD/QP-02 |
| iii | Maintenance of Civil Works of Bhakra Dam | NGL/BDC/BDD/QP-03 |
| iv | Chemical Analysis of Water Air & Cement Sample | NGL/BDC/BDD/04/QP-01 |
| v | Physical Analysis of Concrete Sample | NGL/BDC/BDD/04/QP-02 |
| vi | Fire /Rescue Call | NGL/BDC/BDD /QP-05 |
| C | Nangal Dam Division Phase - I | |
| i | Maintenance of River Head & Canal Head Regulator – Civil Structures | NGL/BDC-NDD/QP-01 |
| ii | Maintenance of NHC – Canal Banks, Dowels, Lining, Drain, Outer sloops & Cross drainage works | NGL/BDC-NDD/QP-02 |
| iii | Capital Maintenance of automatic bye – pass radial gates at Ganguwal & Kotla on NHC | NGL/BDC-NDD/QP-03 |
| iv | Maintenance of Gates & Gearing at Nangal Dam | NGL/BDC-NDD/QP-04 |
| D | Building Construction & Township Division, Phase - II | |
| i | Operation of sewerage plant at Nangal Township | BHD/BC&TOWNSHIP/QP-01 |
| ii | Arrangement of drinking water supply at Nangal Township | BHD/BC&TOWNSHIP/QP-02 |
| iii | Maintenance and repair of sanitary installations in BBMB colony | BHD/BC&TOWNSHIP/QP-03 |
| iv | Maintenance and repair of residential buildings in BBMB colony at Nangal | BHD/BC&TOWNSHIP/QP-04 |
| v | Maintenance and repair of non-residential buildings at Nangal | BHD/BC&TOWNSHIP/QP-05 |
| vi | Up-keep of various rest houses at Nangal Township | BHD/BC&TOWNSHIP/QP-06 |
| vii | Maintenance and repair of road net works in BBMB area at Nangal | BHD/BC&TOWNSHIP/QP-07 |
| VI | BBMB Hospital, Nangal, Phase - II | |
| i | Registration and treatment of patients in OPD, Emergency & Indoor | BHD/HOSPITAL/QP- 01 |
| ii | Maintenance and Calibration of equipments | BHD/HOSPITAL/QP- 02 |

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| iii | Receipt, issue of storage of medicines and up keep of medicine and other items/material | BHD/HOSPITAL/QP- 03 |
| iv | Management of different wards | BHD/HOSPITAL/QP-04 |
| v | Management of Laboratory and Radiology Department | BHD/HOSPITAL/QP-05 |
| VII | BBMB DAV School, Phase - II | |
| i | Admission of students in school & deposit of admission fees and other dues. | BHD/SCHOOL/QP-01 |
| ii | Planning of academic session | BHD/SCHOOL/QP-02 |
| iii | Selection of teachers and their placement/duty roster | BHD/SCHOOL/QP-03 |
| iv | Monitoring the performance of teachers | BHD/SCHOOL/QP-04 |
| v | Monitoring the performance of students | BHD/SCHOOL/QP-05 |
| vi | Counseling of students | BHD/SCHOOL/QP-06 |
| vii | Extra-curricular activities | BHD/SCHOOL/QP-07 |
| viii | Management of computer Lab, Physics Lab, & Chemistry Lab. | BHD/SCHOOL/QP-08 |
| ix | Management of School Library | BHD/SCHOOL/QP-09 |
| x | Participation in Tournaments | BHD/SCHOOL/QP-10 |
| xi | Training and Refresher Courses for teachers | BHD/SCHOOL/QP-11 |
| xii | Parents/students feedback and parents teachers meeting | BHD/SCHOOL/QP-12 |
| VIII | Project Security, Phase - II | |
| i | Security of vital installations at project sites. | BHD/SECURITY/QP-01 |
| IX | Bhakra Beas Training Centre, Phase - II | |
| i | Running of Bhakra Beas Training Centre at Nangal. | BHD/TRAINING/QP-01 |
| ➤ | Chief Engineer/Generation, BBMB, Nangal. | |
| A. | LIST OF PROCEDURES QMS (PONG POWER HOUSES): | |
| (A) | <u>Operation</u> | <u>Document No.</u> |
| 1. | Starting of unit & Monitoring of operating parameter | PPH/OP/P-01 |
| 2. | Stopping of Unit | PPH/OP/P-02 |
| 3. | Issue and cancellation of permit to work. | PPH/OP/P-03 |
| 4. | Restoration of supply after grid failure | PPH/OP/P-04 |
| 5. | Running of machine on synchronous condenser for regulation of system voltage. | PPH/OP/P-05 |
| (B) | <u>Mechanical Maintenance</u> | |
| | <u>Turbines</u> | |
| 1. | Capital maintenance of machines (Turbine and Generator) | PPH/MM/P-01 |
| 2. | Annual and six-monthly maintenance of turbine (Runner and Draft tube) | PPH/MM/P-02 |
| 3. | Annual and six-monthly maintenance of turbine (Guide bearing & shaft gland system) | PPH/MM/P-03 |
| 4. | Annual and Six-monthly maintenance of turbine (governor , governor oil system, guide vane operation mechanism). | PPH/MM/P-04 |
| 5. | Inspection of runner after pre-defined running hours. | PPH/MM/P-05 |

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| | Generators | |
| 6. | Annual & six monthly maintenance of Generator (Stator & Rotor) | PPH/MM/P-06 |
| 7. | Annual & six monthly maintenance of Generator (Thrust, Guide bearing and coolers. | PPH/MM/P-07 |
| | Maintenance of Mechanical auxiliary system | |
| 8. | Maintenance of pumps. | PPH/MM/P-08 |
| 9. | Overhauling of compressors (HP / LP) | PPH/MM/P-09 |
| 10. | Draft tube & PRV gate maintenance | PPH/MM/P-10 |
| 11. | Maintenance of EOT & semi gantry cranes | PPH/MM/P-11 |
| 12. | Maintenance of passenger elevator at Pong Power House & emergency gates. | PPH/MM/P-12 |
| 13. | Maintenance of firefighting system (transformer, generator, cable gallery) | PPH/MM/P-13 |
| 14. | Maintenance of ventilation & AC system. | PPH/MM/P-14 |
| 15. | Scheduled maintenance of emergency gates of penstock (P-1,P-2,P-3) & their` hydraulic hoist | PPH/MM/P-15 |
| (C) | Electrical Maintenance. | |
| 1. | Annual & six monthly maintenance of unit transformer, auxiliary transformer & bus duct. | PPH/EM/P-01 |
| 2. | Annual & six monthly maintenance of Electro Hydro governors. | PPH/EM/P-02 |
| 3. | Annual and six monthly maintenance of 220 KV sub-station equipment and bus bar. | PPH/EM/P-03 |
| 4. | Annual and six monthly maintenance of 66 KV sub-station equipment and bus bar | PPH/EM/P-04 |
| 5. | Maintenance of DC battery in Power House and Switchyard. | PPH/EM/P-05 |
| 6. | Scheduled maintenance & testing of protection system of machines. | PPH/EM/P-06 |
| 7. | Scheduled maintenance & testing of Protection system of transmission lines 220/66 KV. | PPH/EM/P-07 |
| (D) | RE | |
| 1. | Maintenance & repair of vehicles. | PPH/RE/P-01 |
| 2. | Overhauling of vehicles. | PPH/RE/P-02 |
| 3. | Operation of vehicles | PPH/RE/P-03 |
| 4. | Procurement procedure | PPH/RE/P-04 |
| 5. | Receipt & issue of material | PPH/RE/P-05 |
| 6. | Disposal of surplus/obsolete items | PPH/RE/P-06 |
| 7. | Civil Maintenance and sanitary fitting of residential and non-residential building | PPH/RE/P-07 |
| 8. | Electrical maintenance of residential and non-residential building. | PPH/RE/P-08 |
| B. | LIST OF PROCEDURES EMS (PONG POWER HOUSES): | |
| (A) | Electrical & Mechanical Maintenance | Document No. |
| 1. | Electrical and mechanical maintenance of equipments and protection system of Power House. | PPH/EM&MM/IO/01 |
| 2. | Workshop | PPH/EM&MM/IO/02 |
| 3. | Laboratory | PPH/EM&MM/I O/03 |
| 4. | Storage of oil and lubricant | PPH/EM&MM/IO/04 |
| 5. | Canteen | PPH/EM&MM/I O/05 |

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| 6. | Batteries Management. | PPH/EM&MM/IO/06 |
| 7. | Operation and maintenance of 220KV switchyard. | PPH/EM&MM/I O/07 |
| 8. | Oil filtration plant. | PPH/EM&MM/I O/08 |
| 9. | Diesel Generating Set. | PPH/EM&MM/I O/09 |
| (B) | RE,PPH Divn. | |
| 1. | Maintenance & repair / overhauling of vehicles | PPH/RE/IO/01 |
| 2. | Operation of Vehicles | PPH/RE/IO/03 |
| 3. | Receipt and issue of material | PPH/RE/IO/05 |
| 4. | Civil Maintenance & sanitary fitting of residential and non-residential buildings | PPH/RE/IO/07 |
| 5. | Electrical Maintenance of residential and non-residential buildings. | PPH/RE/IO/08 |
| C. | Procedures for QMS for Guest Houses and other Residential/Non-Residential Buildings | |
| 1. | Procedure for maintenance of internal electric wiring system of Residential/Non- Residential Buildings. | BPHs/RE/P/01 |
| 2. | Procedure for Maintenance of Civil Works / Water supply and Sanitary fittings for Residential and Non-Residential Buildings. | BPHs/RE/P/02 |
| 3. | Procedure for Operation and Maintenance of Guest Houses. | BPHs/RE/P/03 |
| D. | Procedures for EMS for Guest Houses and other Residential/Non-Residential Buildings | |
| 1. | Failure mode and effect analysis for evaluation of impacts of environmental aspects for Residential and Non-Residential Buildings. | BPHs/RE/EP/01 |
| 2. | Failure mode and effect analysis for evaluation of impacts of environmental aspects for Guest Houses. | BPHs/RE/EP/02 |
| ➤ | Chief Engineer/Beas Dam, BBMB, Talwara. (TALWARA CIRCLE) | |
| A1. | LIST OF PROCEDURES QMS (TOWNSHIP DIVISION, BBMB, TALWARA TOWNSHIP): | |
| Sr.No. | Name of Procedure | Document Nos. |
| 1. | Supply of drinking water in BBMB colony Talwara Township. | BD/TOWNSHIP/P/01 |
| 2. | Maintenance of Sanitary installation internal Water Supply System & Sewerage system. | BD/TOWNSHIP/P/02 |
| 3. | Disposal of Sewerage Water in BBMB Colony Talwara Township. | BD/TOWNSHIP/P/03 |
| 4. | Running Repair & Maintenance of Pumps at Water Works, Talwara Township. | BD/TOWNSHIP/P/04. |
| 5. | Operation & Maintenance of BBMB Guest House, Talwara Township. | BD/TOWNSHIP/P/05 |
| 6. | Maintenance of Residential & non-residential buildings. | BD/TOWNSHIP/P/06 |
| 7. | Maintenance of Nursery in BBMB Colony Talwara Township. | BD/TOWNSHIP/P/07 |
| 8. | Disposal of Solid Waste in BBMB Colony Talwara Township. | BD/TOWNSHIP/P/08 |
| 9. | Enforcement of Allotment Rules in BBMB Colony Talwara Township. | BD/TOWNSHIP/P/09 |
| 10. | Allotment of BBMB houses in Talwara Township. | BD/TOWNSHIP/P/10 |
| LIST OF QUALITY PLANS PERTAINING TO TOWNSHIP DIVISION, BBMB, TALWARA TOWNSHIP. | | |
| Sr.No. | LIST OF QUALITY PLANS | Document Nos. |

| | | |
|----------------|---|---------------------|
| 1. | Supply of drinking water in BBMB colony Talwara Township. | BD/TOWNSHIP/QP-01 |
| 2. | Maintenance of Sanitary installation internal WaterSupply System & Sewerage system. | BD/TOWNSHIP/QP-02 |
| 3. | Disposal of Sewerage Water in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-03 |
| 4. | Running Repair & Maintenance of Pumps at Water Works, Talwara Township. | BD/TOWNSHIP/QP-04. |
| 5. | Operation & Maintenance of BBMB Guest House, Talwara Township. | BD/TOWNSHIP/QP-05 |
| 6. | Maintenance of Residential & non- residential buildings. | BD/TOWNSHIP/QP-06 |
| 7. | Disposal of Solid Waste in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-07 |
| 8. | Enforcement of Allotment Rules in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-08 |
| 9. | Allotment of BBMB houses in Talwara Township. | BD/TOWNSHIP/QP-09 |
| A2. | LIST OF PROCEDURES QMS (Superintendent, Procurement Stores and Disposal Division): | |
| Sr. No. | Description of Procedure | Document No. |
| 1 | Purchase of material. | BD/PS&D/P/01 |
| 2 | Receipt/Issue of Material | BD/ PS&D/P/02 |
| 3 | Disposal of Surplus Spare parts. | BD/ PS&D/P/03 |
| 4 | Disposal of Scrap material. | BD/ PS&D/P/04 |
| 5 | Disposal of Surplus Machinery. | BD/ PS&D/P/05 |
| 6 | Evaluation of Impacts of Environmental Aspects. | BD/ PS&D/P/06 |
| 7 | Control Measures for Environmental Aspects. | BD/ PS&D/P/07 |
| A3. | LIST OF PROCEDURES QMS (MECHANICAL DIVISION): | |
| 1. | Machine shop activities | BD/MECH/P/01 |
| 2. | Operation of Canteen | BD/MECH/P/02 |
| 3. | Carpenter & Paint Shop Activities. | BD/MECH/P/03 |
| 4. | O& M of Diesel Supply Station | BD/MECH/P/04 |
| 5. | Supply of Compressed air in the Dam area. | BD/MECH/P/05 |
| 6. | Supply of water in Dam Area, | BD/MECH/P/06 |
| 7. | Workshop area. | BD/MECH/P/07 |
| 8. | Allotment/Deployment of Vehicles | BD/MECH/P/08 |
| 9. | Breakdown Maintenance of Vehicles | BD/MECH/P/09 |
| 10. | Scheduled Maintenance Maintenance/Repair of Radial Gates. | BD/MECH/P/10 |
| 11. | Procedure for Operation of Radial Gates | BD/MECH/P/11 |
| 12. | Monthly Maintenance of Hoist | BD/MECH/P/12 |
| 13. | Quarterly Maintenance of F/D Crane | BD/MECH/P/13 |
| 14. | Dock & Painting Scheduled Maintenance of Motor Boats | BD/MECH/P/14 |
| 15. | Maintenance of anchorage points of | BD/MECH/P/15 |
| 16. | Floating Equipment's | BD/MECH/P/16 |
| C1. | LIST OF QUALITY PLANS (TOWNSHIP DIVISION): | |
| 1. | Supply of drinking water in BBMB colony Talwara Township. | BD/TOWNSHIP/QP-01 |

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| 2. | Maintenance of Sanitary installation internal Water Supply System & Sewerage system. | BD/TOWNSHIP/QP-02 |
| 3. | Disposal of Sewerage Water in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-03 |
| 4. | Running Repair & Maintenance of Pumps at Water Works, Talwara Township. | BD/TOWNSHIP/QP- 04. |
| 5. | Operation & Maintenance of BBMB Guest House, Talwara Township. | BD/TOWNSHIP/QP-05 |
| 6. | Maintenance of Residential & non-residential buildings. | BD/TOWNSHIP/QP-06 |
| 7. | Disposal of Solid Waste in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-07 |
| 8. | Enforcement of Allotment Rules in BBMB Colony Talwara Township. | BD/TOWNSHIP/QP-08 |
| 9. | Allotment of BBMB houses in Talwara Township. | BD/TOWNSHIP/QP-09 |
| C2. | LIST OF QUALITY PLANS (MECHANICAL DIVISION): | |
| 1. | Machine shop activities | BD/MECH/QP/01 |
| 2. | Operation of Canteen | BD/MECH/QP/02 |
| 3. | Carpenter & Paint Shop Activities. | BD/MECH/QP/03 |
| 4. | O& M of Diesel Supply Station | BD/MECH/QP/04 |
| 5. | Supply of Compressed air in the Dam area. | BD/MECH/QP/05 |
| 6. | Supply of water in Dam Area, Workshop area. | BD/MECH/QP/06 |
| 7. | Allotment/Deployment of Vehicles | BD/MECH/QP/07 |
| 8. | Breakdown Maintenance of Vehicles | BD/MECH/QP/08 |
| 9. | Scheduled Maintenance | BD/MECH/QP/09 |
| 10. | Maintenance/Repair of Radial Gates. | BD/MECH/QP/10 |
| 11. | Procedure for Operation of Radial Gates | BD/MECH/QP/11 |
| 12. | Monthly Maintenance of Hoist | BD/MECH/QP/12 |
| 13. | Quarterly Maintenance of F/D Crane | BD/MECH/QP/13 |
| 14. | Dock & Painting | BD/MECH/QP/14 |
| 15. | Maintenance of anchorage points of | BD/MECH/QP/15 |
| 16. | Floating Equipments | BD/MECH/QP/16 |
| 17. | Quality Maintenance of Elevators | BD/MECH/QP/17 |
| 18. | Machine shop activities | BD/MECH/QP/01 |

