

**Summary Report for Individual Task  
052-204-2211  
Develop a Bill of Materials (BOM) List  
Status: Approved**

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DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

**Condition:** As a Power Line Distribution Supervisor in a tactical or nontactical environment when materials are needed for an electrical construction project, you are given electrical construction prints, TM 5-811-1, the Lineman's and Cableman's Handbook (LCH), paper, pencils, a calculator, and DA Form 2702 (Bill of Materials). This task should not be trained in MOPP.

**Standard:** Develop a BOM list that reflects the total materials required to complete an electrical construction project. Materials must be the sizes and types specified in the electrical construction prints, TM 5-811-1, and the LCH. Record materials on DA Form 2702.

**Special Condition:** None

**Safety Level:** Low

**MOPP:** Never

**Task Statements**

**Cue:** None

**DANGER**

None

**WARNING**

None

**CAUTION**

None

**Remarks:** None

**Notes:** None

## Performance Steps

1. Review the electrical construction prints.
2. Complete a BOM list.
  - a. Record the stock or part number indicated on the electrical construction prints if applicable.
  - b. Record the item name or description indicated on the electrical construction prints.
  - c. Record the number of required pieces indicated on the electrical construction prints if applicable.
  - d. Record the sizes and lengths of items indicated on the electrical construction prints if applicable.
  - e. Record the unit of issue and indicate whether the item is a spool or a length or if the item is issued as "each."
  - f. Record the estimated waste of each item.
  - g. Total the quantities needed based on the number of pieces, units of issue, required lengths, and estimated wastes for each item.
  - h. Record the total quantity of each item.
3. Complete DA Form 2702.
  - a. Complete the heading with the current information of the unit.
  - b. Record the stock or part number.
  - c. Record the name and description of the item.
  - d. Record the unit of issue.
  - e. Record the total quantity of each item.

(Asterisks indicates a leader performance step.)

**Evaluation Preparation:** Provide the Soldier with all the items listed in the conditions. Give the Soldier a safety briefing before starting the test, and ensure that all safety precautions are followed. Prepare the testing area and equipment in advance to ensure that the task standards can be met.

| PERFORMANCE MEASURES                            | GO | NO-GO | N/A |
|-------------------------------------------------|----|-------|-----|
| 1. Reviewed the electrical construction prints. |    |       |     |
| 2. Completed a BOM list.                        |    |       |     |
| 3. Completed DA Form 2702.                      |    |       |     |

**Supporting Reference(s):**

| Step Number | Reference ID | Reference Name                                                                         | Required | Primary |
|-------------|--------------|----------------------------------------------------------------------------------------|----------|---------|
|             | DA FORM 2702 | Bill of Materials                                                                      | Yes      | No      |
|             | FM 5-412     | PROJECT MANAGEMENT                                                                     | No       | No      |
|             | LCH          | The Lineman's and Cableman's Handbook, 11th Edition, McGraw-Hill. 2007                 | Yes      | No      |
|             | TM 3-34.45   | ENGINEER PRIME POWER OPERATIONS                                                        | No       | No      |
|             | TM 5-684     | Facilities Engineering - Electrical Exterior Facilities. NAVFAC MO-200/AFJMAN 32-1082. | No       | No      |
|             | TM 5-811-1   | Electric Power Supply and Distribution {AFJMAN 32-1080}                                | Yes      | No      |

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

For classroom instruction:

No major environmental impact, training entirely of an administrative or classroom nature, with little or no environmental impact on the environment, equipment or personnel. [32 CFR Part 651, Appendix B, Section II, (i)(2)]

For practical exercises and demonstrations:

Instructors should complete a risk assessment before conducting training, operations, or logistical activities. Risk assessments assist instructors in identifying potential environmental hazards, develops controls, make risk decisions, implement controls, and ensure proper supervision and evaluation. FM 3-100.4, Environmental Considerations in Military Operations.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

**Prerequisite Individual Tasks :** None

**Supporting Individual Tasks :**

| Task Number  | Title                                                                             | Proponent                   | Status             |
|--------------|-----------------------------------------------------------------------------------|-----------------------------|--------------------|
| 052-302-7104 | Direct Installation of Theater of Operation (T/O) Electrical Equipment / Fixtures | 052 - Engineer (Individual) | Approved           |
| 052-244-4205 | Perform Electrical Project Management                                             | 052 - Engineer (Individual) | Reviewed           |
| 052-204-1128 | Interpret an Electrical One-Line Diagram                                          | 052 - Engineer (Individual) | Reviewed           |
| 052-204-2218 | Supervise the Installation of Underground Cable                                   | 052 - Engineer (Individual) | Approved           |
| 052-204-2217 | Manage a Power Line Crew                                                          | 052 - Engineer (Individual) | Analysis Completed |

|              |                                                                                 |                             |                    |
|--------------|---------------------------------------------------------------------------------|-----------------------------|--------------------|
| 052-204-2219 | Supervise the Use of a Line Truck With Trailer to Load and Unload Utility Poles | 052 - Engineer (Individual) | Approved           |
| 052-204-2306 | Supervise the installation of a Utility Pole                                    | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-1211 | Install Distribution System Protection and Equipment (De-energized)             | 052 - Engineer (Individual) | Approved           |
| 052-204-2307 | Supervise the Installation of a Utility Pole Line                               | 052 - Engineer (Individual) | Analysis Completed |

**Supported Individual Tasks :**

| <b>Task Number</b> | <b>Title</b>                                                        | <b>Proponent</b>            | <b>Status</b>      |
|--------------------|---------------------------------------------------------------------|-----------------------------|--------------------|
| 052-204-2309       | Design Underground Electrical Distribution System                   | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-2306       | Supervise the installation of a Utility Pole                        | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-2307       | Supervise the Installation of a Utility Pole Line                   | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-1211       | Install Distribution System Protection and Equipment (De-energized) | 052 - Engineer (Individual) | Approved           |
| 052-204-2308       | Design an Overhead Electrical Distribution System                   | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-2217       | Manage a Power Line Crew                                            | 052 - Engineer (Individual) | Analysis Completed |
| 052-204-2216       | Perform Maintenance on Electrical Distribution Equipment            | 052 - Engineer (Individual) | Approved           |

**Supported Collective Tasks :**

| <b>Task Number</b> | <b>Title</b>                                                                                  | <b>Proponent</b>            | <b>Status</b> |
|--------------------|-----------------------------------------------------------------------------------------------|-----------------------------|---------------|
| 05-3-5732          | Conduct Electrical-Power Generation Equipment Intermediate Maintenance Operations             | 05 - Engineers (Collective) | Approved      |
| 05-3-5715          | Created from Template: Perform Power Plant Design Technical Assistance                        | 05 - Engineers (Collective) | Delete        |
| 05-3-5720          | Select a Temporary Power Plant Site                                                           | 05 - Engineers (Collective) | Approved      |
| 05-3-5716          | Created from Template: Perform Power Plant Installation Technical Assistance                  | 05 - Engineers (Collective) | Analysis      |
| 05-3-5704          | Created from Template: Perform Nonorganic Equipment Power Distribution Maintenance Operations | 05 - Engineers (Collective) | Analysis      |
| 05-3-5728          | Assess Power Generation Systems for Damage                                                    | 05 - Engineers (Collective) | Approved      |
| 05-3-5717          | Perform Power Plant Distribution System Design Technical Assistance                           | 05 - Engineers (Collective) | Approved      |
| 05-3-5707          | Perform Nonorganic Power Generation System Maintenance Operations                             | 05 - Engineers (Collective) | Approved      |
| 05-3-5709          | Perform a Power Plant Installation Survey                                                     | 05 - Engineers (Collective) | Approved      |
| 05-3-5730          | Perform Electrical-Power Generation Equipment Organizational Maintenance Operations           | 05 - Engineers (Collective) | Approved      |
| 05-3-5715          | Perform Power Plant Design Technical Assistance                                               | 05 - Engineers (Collective) | Approved      |
| 05-3-5712          | Perform a Power Plant Maintenance Survey                                                      | 05 - Engineers (Collective) | Approved      |
| 05-3-5705          | Retrieve Electrical-Power Generation and Distribution Equipment                               | 05 - Engineers (Collective) | Approved      |
| 05-3-5720          | Created from Template: Select a Temporary Power Plant Site                                    | 05 - Engineers (Collective) | Analysis      |
| 05-3-5703          | Perform Electrical Safety Systems Testing and Maintenance                                     | 05 - Engineers (Collective) | Approved      |

|           |                                                                                                 |                             |          |
|-----------|-------------------------------------------------------------------------------------------------|-----------------------------|----------|
| 05-3-5701 | Install Low-Voltage, Electrical-Power Distribution Equipment                                    | 05 - Engineers (Collective) | Approved |
| 05-3-5725 | Install Aerial Electrical Power Distribution Equipment                                          | 05 - Engineers (Collective) | Approved |
| 05-3-5716 | Perform Power Plant Installation Technical Assistance                                           | 05 - Engineers (Collective) | Approved |
| 05-3-5713 | Perform a Power Distribution System Maintenance Survey                                          | 05 - Engineers (Collective) | Approved |
| 05-3-5727 | Install Underground Distribution Equipment                                                      | 05 - Engineers (Collective) | Approved |
| 05-3-5719 | Perform Power Plant Generation System Maintenance Technical Assistance                          | 05 - Engineers (Collective) | Approved |
| 05-3-5701 | Created from Template: Install Low-Voltage, Electrical-Power Distribution Equipment             | 05 - Engineers (Collective) | Analysis |
| 05-3-5702 | Install Underground Electrical-Power Distribution Equipment                                     | 05 - Engineers (Collective) | Approved |
| 05-3-5715 | Created from Template: Perform Power Plant Design Technical Assistance                          | 05 - Engineers (Collective) | Analysis |
| 05-3-5702 | Created from Template: Install Underground Electrical-Power Distribution Equipment              | 05 - Engineers (Collective) | Analysis |
| 05-3-5700 | Install Nonstandard Low-Voltage, Electrical-Power Distribution Equipment                        | 05 - Engineers (Collective) | Approved |
| 05-3-5700 | Created from Template: Install Nonstandard Low-Voltage, Electrical-Power Distribution Equipment | 05 - Engineers (Collective) | Analysis |
| 05-3-5704 | Perform Nonorganic Equipment Power Distribution Maintenance Operations                          | 05 - Engineers (Collective) | Approved |
| 05-3-5723 | Install Prime Power Generation Equipment                                                        | 05 - Engineers (Collective) | Approved |
| 05-3-5717 | Created from Template: Perform Power Plant Distribution System Design Technical Assistance      | 05 - Engineers (Collective) | Analysis |
| 05-3-5731 | Perform Electrical-Power, Distribution Equipment Organizational Maintenance Operations          | 05 - Engineers (Collective) | Approved |
| 05-3-5722 | Prepare Power Systems Construction Estimates                                                    | 05 - Engineers (Collective) | Approved |
| 05-3-5733 | Perform Power Plant and Distribution Equipment Shipment                                         | 05 - Engineers (Collective) | Approved |
| 05-3-5708 | Perform a Mission Survey                                                                        | 05 - Engineers (Collective) | Approved |
| 05-3-5711 | Perform a Power Plant Operations Survey                                                         | 05 - Engineers (Collective) | Approved |
| 05-3-5729 | Operate Power Generation and Distribution Equipment                                             | 05 - Engineers (Collective) | Approved |
| 05-3-5700 | Created from Template: Install Nonstandard Low-Voltage, Electrical-Power Distribution Equipment | 05 - Engineers (Collective) | Analysis |
| 05-3-5706 | Perform Project Management                                                                      | 05 - Engineers (Collective) | Approved |
| 05-3-5724 | Install Expedient, Surface-Laid, Electrical-Power Distribution Equipment                        | 05 - Engineers (Collective) | Approved |

**ICTL Data :**

| ICTL Title                                               | Personnel Type | MOS Data                   |
|----------------------------------------------------------|----------------|----------------------------|
| 12Q20, Power Line Distribution Specialist, skill level 2 | Enlisted       | MOS: 12Q, Skill Level: SL2 |