Standard Operating Procedure

Uttrakhand Power Corp. Ltd,
Dehradun, Uttrakhand

Contents

1. Context

Uttrakhand Power Corporation is an important department for the uninterrupted supply of electricity to the state. It plays an important role in the state in rescue and relief operations after disaster despite of its geographical constraints. Though Corporation delivers its responsibilities in collaboration with its associate organizations (Power Transmission Corporation of Uttrakhand Limited (PTCUL), Uttrakhand Jal Vidyut Nigam Limited (UJVNL), Uttrakhand Renewable Energy Development Agency (UREDA)) but it also takes responsibilities and obligations in preparations and reconstruction work during and post disaster phase that help in minimizing impacts of disaster. In context of disaster, Secretary, Disaster Management issues guidelines to the corporation's state level unit to lowest unit on regular basis. This Standard Operating Procedure (SOP) is a compiled set of these guidelines and works, on the basis of which corporation can deliver its responsibilities in effective and qualitative manner in order to reduce the disaster risk.

2. Objective

The following are the objectives of Standard Operating Procedure:

- To develop clarity of work and responsibilities among the state to the village level units of corporation considering the Departmental Disaster Management Plan (DDMP).
- To ensure uninterrupted power supply for relief and rescue operations.
  To prevent electricity of being a disaster itself through ensuring various preparedness measures

3. Pre-Preparation Actions

The following activities will be undertaken by the department under disaster preparedness phase:

3.1 Roles and responsibilities

- Chief Engineer (Distribution) will constitute a Nodal Officer by setting up region wise disaster management team within the department by May month so that coordination can be established with other departments on need basis.

- The Executive Engineer will prepare the update report on the status of preparations of the department with the help of District Disaster Management Authority (DDMA) in between April and June month, and share it with EOC, E.S.F, IRS Nodal, Associate Agencies and other departments.

3.2 Risk Assessment

Sub-divisional officers and the junior engineers will identify and check the vulnerable points going through the forests before the onset of summer and take appropriate action accordingly.

3.3 Resource Mapping

- As per the instructions of the Chairman, Uttrakhand Power Corporation, the Executive Engineer (Distribution) will develop an action plan by keeping in view the local geographical situation at the district level and accordingly ensure preparedness actions.

- The Executive Engineer (Distribution) will identify and prepare the list of contractors by March month and laborers in order to overcome the shortcomings encountered during the disaster. The updated list will be made available to the District Disaster Management Authority and Department Headquarters so that they can be called as and when required.

- The Executive Engineer (Distribution) will maintain the trolleys and transformers in order to keep them in working condition (by the month of March), so that it can be used without any interruption if necessary.

- As per the instructions of the executive engineer (Distribution), the junior engineer will prepare a list of common equipment, materials, mobile transformer, wire, insulator, etc. before June and update the information on IDRN / SDRN through District Disaster Management Authority.

- As per the instructions of Chief Engineer (Distribution), superintending engineers will prepare and keep the list of generators ready to use for uninterrupted power supply at identified sensitive places before monsoon.

3.4 Identification and improvement of sensitive sites

- Executive Engineer will work on identified places for temporary helipads under the guidance and support of administration.

- Under the direction of the Executive Engineer, sub-division officer and the junior engineer will clean the jungle before the monsoon and ensure the pruning of cables from the wire on both sides of the transmission line.

3.5 Capacity enhancement

- In collaboration with the District Disaster Management Authority, Executive Engineer will ensure the training of the staff on disaster management before the monsoon.

- Under the guidance of the Executive Engineer (Distribution), all the officers / employees will be linked with a Whatsapp group by the month of March at the departmental level so that they can get timely information.

- As per the instructions of Chairman (Uttrakhand Power Corporation Limited), Chief Engineer (Purchase and Contract), Chief Engineer (Material Management and Inspection) and Superintending Engineer (Material Management) will purchase the goods on the basis of assessment before Monsoon and send it to different stores for effective use during the disaster.

4. Guidance for flow of information and activity

The disaster related information in Uttrakhand Power Corporation can be shared with two dimensional approach :

Top-down Approach

At this level, the information related to the disaster will reach to executive engineer at district from the state headquarter. Executive Engineer (distribution) will further dissimilate the information along with the instructions to Assistant Engineer, Junior Engineer, Sub-section Officer and up to lineman.

Bottom-Up Approach

At this level, the information related to the disaster travel from bottom to top level The lineman, who is the lowest unit, will be responsible to appraise situation and inform it to executive engineer in any kind of disaster. The junior engineer will provide guidelines simultaneously to the lineman with it posting on WhatsApp Group and will reach the affected site itself. The junior engineer will inform the executive engineer also to get necessary directions. The information further will go to the state headquarters through the executive engineer.

5. Direction and coordination

SDMA will issue warning alerts to all related departments on the basis of the information of Meteorological Department so that corporation gets always ready in best possible way in any disaster situation. In case of any disaster event, corporation will remain in regular contact with the State Emergency Operation Center at the State level and the District Emergency Operation Center at the district level and work under the direction of the Executive Engineer (Distribution) and District Magistrate.

Determination of levels of activity based on the intensity disaster

The L1, L2 and L3 levels of functioning will be determined on the basis of intensity of disaster. Planning also needs to be done based on these three levels and the planning of the same will be as follows :

L-1 operation

This is the minimum level of functionality and only a few people are required at this level. The main task is to create plans and broadcast information. For example, broadcasting warnings or planning related to low intensity events are done at this level.

L-2 operation

At this level of disaster, more numbers of rescue staffs is required. District Nodal Officer can conduct and coordinate all the operations at this level during disaster.

L-3 operation

At this level, active involvement and engagement of departmental officials is required. This level is generally applied in a condition when the time of disaster is predetermined and the intensity of the disaster is very high.

6. Process of activities undertaken during disaster

- The station operator and lineman will immediately stop the supply of power from the substation under the direction of the concerned junior Engineer, so that the accidents due to electricity supply can be avoided.
- In the leadership of the Executive Engineer, concerned junior engineers and Linemen will be patrolling the damaged sites to detect the damages and to remove the fuse of transformer.
- The concerned Engineers and Linemen will restore the rest of the power supply except the damaged parts within one to two days.
- From safety point of view, all standard operational procedures will be followed at department level

7. Process of activities in post-disaster phase

The following are the list of various administrative functions and their processes undertaken after the disaster :

- The junior engineer and lineman will change the damaged wires and poles and repair them under the guidance of the Executive Engineer (distribution) and with collaboration of sub-divisional officer.
- Executive Engineer (Distribution), sub-divisional officers, junior engineers and linemen will assist other departments in recovery and rehabilitation process after the disaster under the direction of Chief Engineer (distribution).
- The power supply system will be restored in the affected areas under the direction of Executive Engineer.
- The power services will be restored on priority basis such as in hospitals, fire services and disaster management cells
- Based on the experience of previous disaster, sub-division officer will prepare a list of resources following the desired standard. He will also prepare a plan for procuring those resources under the direction of executive engineer.
- The departmental damage will be assessed in the month of October and its detailed report will be prepared under the guidance of the Executive Engineer (Distribution), sub-divisional officer and the junior engineer disaster and forwarded to the headquarters and state government.
- Under the direction of Chief Engineer (Distribution) and Executive Engineer (Distribution), accomplished work during the disaster will be reviewed, the gaps will be identified and resolved while incorporating learning in the future Action Plan.
- Executive Engineer (Distribution) will document the learning gained from the disaster period and will share with the department headquarters at state level and DDMA at district level.

8. Monitoring Checklist

8.1 Disaster Preparedness

The given form will be filled and handed over to the District Emergency Operation Centre/state headquarter by departmental Nodal Officer:

Work Undertaken	Yes/No	Comment
Determining Institutional roles and responsibilities Departmental District Disaster Management Team has been constituted.		
Communication arrangements have been made by the District Nodal Officer with the following departments / offices- - State Emergency Operations Center - District Emergency Operation Center - Commissioner -disaster - District Magistrate - All departmental offices under the division		
Risk assessment All the lines passing through the forests have been checked		
Blocking of weak poles and stars has been done		
A list of defective electrical appliances (transformers) has been prepared and repairing works are being done before monsoon.		
Resource mapping Resource mapping has been prepared as per departmental action plan		
Identification and listing of contractors and laborers		
Electric materials have been made available in all stores		
List of all electrical appliances and materials, mobile transformers, wires, insulator etc. prepared.		
Availability of all the generators have been ensured after survey		
Capacity enhancement and Mockdril		
All staff have been trained on disaster		
At the departmental level, WhatsApp group is working for officers and employees as a mean to exchange information on disaster		

8.2 During disaster

Work Undertaken	Yes/No	Comment
The team is now ready to be deployed at the disaster site immediately after receiving information related to the disaster		
Provision of alternative power supply is ensured for the important places		
Order to disrupt the power supply has been passed		
Linemen / junior engineers have been kept ready to repair damaged lines in the snow-bearing areas		
A list of defective electrical appliances (transformers) has been prepared and repairing work is being done before monsoon.		

8.3 Post Disaster

Work Undertaken	Yes/No	Comment
All damaged poles, wires have been replaced		
Power supply at disaster affected sites has been restored		
A team is constituted for damage assessment		