A number of telecommunications facilities are aging, and the number of maintenance workers is decreasing. Consequently, the efficiency of maintenance work must be increased. Risk-based maintenance (RBM) enables us to determine an efficient maintenance plan by giving priority to inspection and maintenance of facilities based on the assessed risk. We introduce here a methodology for RBM of an outside installation facility using steel utility poles as a case study.

**Features**

- Risk values of facilities, for example, outside installation facilities such as steel poles, can be calculated from information including accumulated inspection records, population density data, and traffic data.
- The failure rate (probability of failure: PoF) is obtained from statistical analysis of inspection records.
- The damage quantity value (consequence of failure: CoF) can be calculated as a cost from facility data and external data.
- The maintenance priority can be visualized as a risk matrix created from the PoF and CoF.

**Application Scenarios**

- Determine an efficient maintenance plan by prioritizing maintenance based on risk.
- Make medium- to long-term business decisions using the calculated result of the risk value in the future.