Lightning Strikes and Precautionary Measures

On 09 April 2016, three workers were carrying out concreting work on a building under construction when they were believed to be struck by lightning. They had just resumed work after a heavy downpour. They were sent to hospital where one of them subsequently passed away.

The rate of lightning activity in Singapore is amongst the highest in the world. Arising from the accident, the Ministry of Manpower (MOM) would like to remind all relevant stakeholders to ensure that all safety measure are in place when performing outdoor work activities at the workplace. Some of the recommended measures to undertake included the following:

1. Commit to and put in place an effective workplace safety and health management programme. This will enable operations within the organization to be guided by a safety policy, establishment of a lightning protection safety management system and proper work procedures;
2. Check with Singapore meteorological nowcast and forecast information at NEA’s website for lightning information prior to commencement of any outdoor work activities. Alternatively, personnel can subscribe to Lightning@SG, a mobile application by NEA that provides information on current lightning situation in Singapore;
3. Resume work outdoors at least 30 minutes after the last thunder is heard. Note that lightning can also occur in areas where there is no rain or when skies appear to be clear as it can strike some distance from a thunderstorm cloud;
4. Conduct a thorough Risk Assessment (RA) to cover any foreseeable risk that may be associated with inclement weather such as heavy rain and lightning strikes;
5. Incorporate measures for protection of personnel in the lightning protection system for buildings and structures; and
6. Workers should observe the following precautions under lightning conditions:
   a. Personnel caught in the open should head for safe shelter. Some of the best places to take refuge are lightning shelter, enclosed buildings, at ground level in the Process Area, enclosed metal-bodied cars, truck or van.
   b. During lightning conditions, personnel should avoid high ground or isolated trees and take shelter.
   c. In case of close proximity with lightning conditions and there are no shelter nearby, personnel should maintain the lowest possible height and adopt a low crouching position with feet together and hands on ears. For personnel working in open water, it is advisable to stay out of the water until the thunder has passed.
   d. For personnel working as a group at the outdoor during lightning conditions, it is advisable to spread out.

Further Information
1. Workplace Safety and Health Act
2. Workplace Safety and Health (General Provisions) Regulations.
3. Approved Code of Practice on Workplace Safety and Health Risk Management

*written by the Ministry of Manpower (MOM)*