Paris Session 2022

Statutory requirements/conditions of constructing overhead lines in proximity with gas/oil pipe lines or fuel storage in Japan

SCB2 PS1 - Group 3 - Question 1.13

Would the authors of B2-10852 and experts from other countries/utilities share information on any statutory requirements/conditions of constructing overhead lines in proximity with gas/oil pipe lines or fuel storage?

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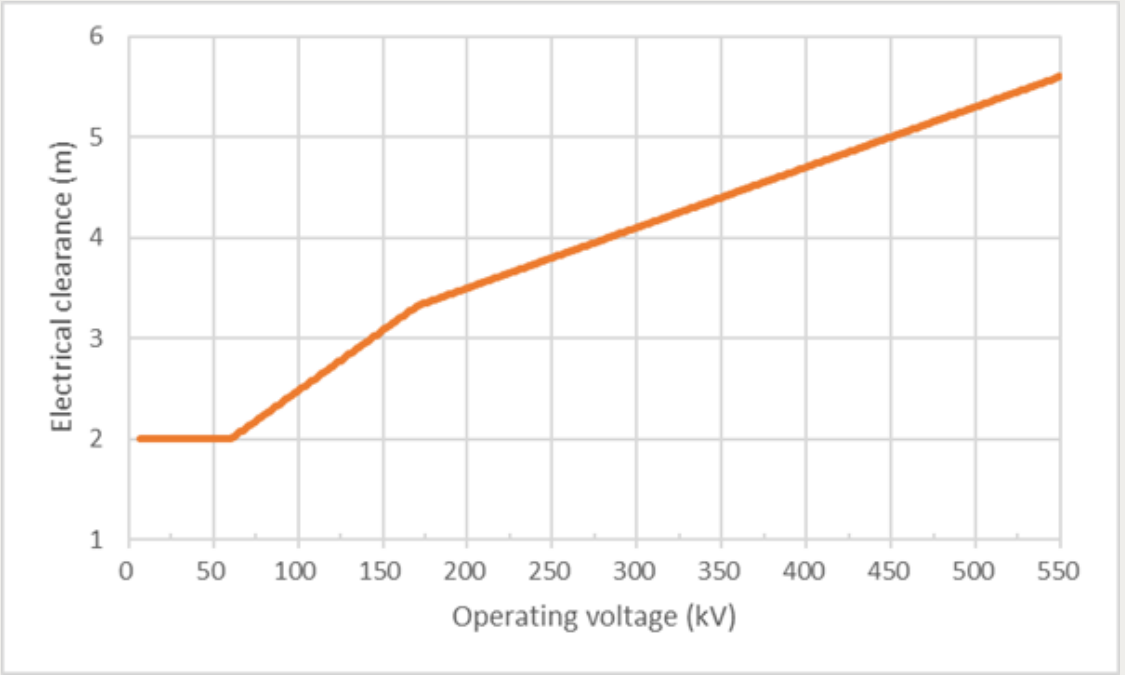
1. Electrical clearance according to the Electricity Business Act

Electrical clearance between gas or oil pipeline or fuel storage and overhead transmission line

Operating voltage	Electrical clearance
60 kV or less	2 m
More than 60 kV and less than 170 kV	(2 + c) m*1
Exceeding 170 kV	(3.32 + d) m*2

*1: c is the difference between the operating voltage of the overhead transmission line and 60 kV divided by 10 kV (rounded up to the nearest kV) multiplied by 0.12.
*2: d is the difference between the operating voltage of the overhead transmission line and 170 kV divided by 10 kV (rounded up to the nearest kV) multiplied by 0.06.

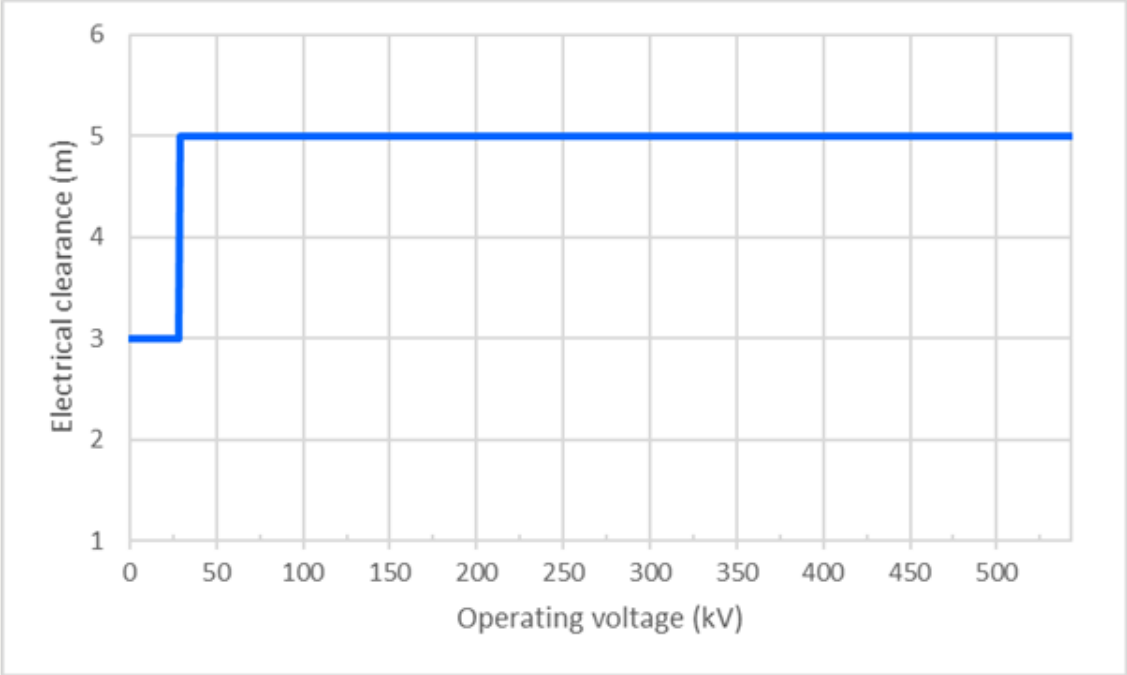


2. Electrical clearance according to the Fire Service Act

Electrical clearance between gas or oil pipeline or fuel storage and overhead transmission line

Operating voltage	Electrical clearance
Overhead transmission lines exceeding 7 kV but not exceeding 35 kV	**Horizontal distance of 3 m or more**
Overhead transmission lines exceeding 35 kV	**Horizontal distance of 5 m or more**

Note that there is no provision in the Fire Service Act for electrical clearances between gas and oil pipelines and overhead transmission lines.



3. Electrical clearances combining by the Electricity Business Act and the Fire Service Act

Electrical clearance between gas or oil pipeline or fuel storage and overhead transmission line

Operating voltage	Electrical clearance
35 kV or less	**3 m**
More than 35 kV and less than 450 kV	**5 m**
Exceeding 450 kV	**(5 + e) m*3**

*3: e is the difference between the operating voltage of the overhead transmission line and 450 kV divided by 10 kV (rounded up to the nearest kV) multiplied by 0.06.