

Seismic Safety Evaluation of Base Isolation Devices for Broadcasting and Communications Facilities

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ABSTRACT

This study investigates the seismic safety of base isolation devices for application to broadcasting and communications facilities under seismic excitations. Three-dimensional computational models of three buildings (two telecommunication buildings and one commercial building) were developed, and non-linear time history analyses were carried out to obtain acceleration responses at each building floor. A series of shake table testing were conducted for communication rack with two types of base isolators subjected to the numerically obtained floor accelerations. From the test, excessive translations and rotations of the base isolators were observed.

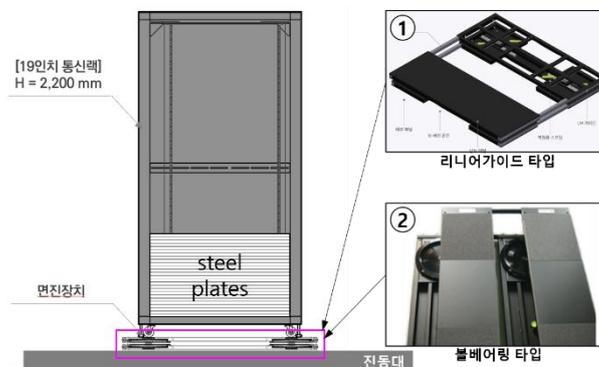


Fig. 1 Shake table testing of a communication rack with two types of base isolators

REFERENCES

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