DEVELOPMENT OF ENCLOSED DEMOLITION METHOD FOR HIGH-RISE BUILDINGS

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In recent years, the number of demolitions of high-rise buildings has been growing; in some cases, buildings over 100 meters high are being demolished. With the traditional demolition method, temporary scaffolding and sound-proof panels are set up around the outer perimeter of the building. In this method the top part remains uncovered while the crawler cranes and other heavy machinery, placed next to the building, are used to tear down the building. When the top is uncovered during the demolition work, there are concerns for increase in unworkable days due to weather, scattering of dust particles in wide areas, risk of falling debris, and generation of construction noise and vibration. As the construction is carried out over long periods, it is essential to ensure the security and safety of the neighboring people. A new environmental load-reducing demolition system for high-rise buildings (TECOREP system: Taisei ECOlogical REProduction system) was developed aiming at the realization of three concepts, “Safety”, “Consideration for environment”, and “Efficiency”.