

عنوان مقاله:

RELATION BETWEEN DAMAGE RATIO AND BURIAL DIRECTION OF WATER DISTRIBUTION PIPELINES IN KOBE CITY DURING 'THE IYOGOKEN-NANBU EARTHQUAKE

محل انتشار:

سومین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1378)

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خلاصه مقاله:

For improvement of lifeline seismic design, it is necessary to estimate damage mechanism by analyzing the data from the past quakes. Here, considering the burial direction of water distribution pipelines in Kobe City, the damage ratio is investigated. The ratios are classified by the pipes diameter, material and failure modes in different directions. Damage ratio in normal direction was larger than the one in parallel direction to the fault. The small and medium pipes buried in normal direction suffered more than those parallel to the fault, while for the large pipes, there was not so much difference in damage ratio for both directions. The GT pipes were much more damaged comparing to the other pipes. The damage ratio of joints failure is more than the other types of damage and this ratio for the pipes normal to the fault is more. As a design aspect it may be necessary to use different design spectrum for the important pipes near the faults

کلمات کلیدی:

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