

- b) Acceleration measured at the center of the model tank, and bending stresses of the pile become very large near the resonance period, but rapidly drop down as the frequency changes from the resonance frequency.
- c) Accelerations measured at each point near the surface (for example AG-3, and AG-4) are closely coincident independent of frequency.
- d) Stresses due to bending moment occurred in each pile are almost the same value corresponding to the positions.
- e) When the ground is put into resonance condition, acceleration near the ground surface increases very larger than that of the underground and bending stresses in piles approaches closely to the same values. (see Fig. 5(b)) In Fig. 5, S-33, S-32, and S-31, mean the strain gages at the top, at the middle point, and the end of the pile respectively.

S-33 and S-31 have the same phase, which is faster than S-32 by 180 degrees, and this phenomenon is elucidated by the fact that the ground movement becomes more severe than that of the structure model at the frequency more than 9, and the surrounding soil is actively pushing the pile in this case.

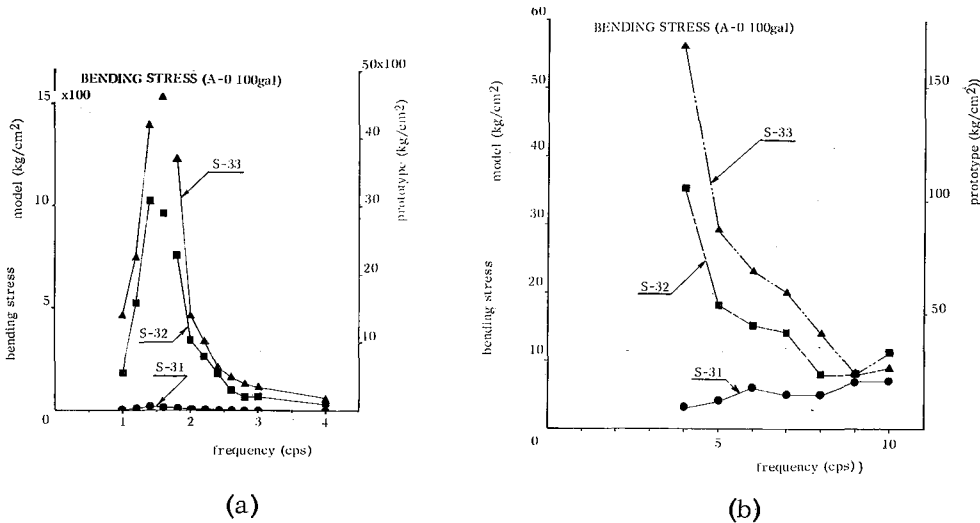


Fig. 5 Bending Stresses Pile in Forced Oscillation

News

■ IAEA (International Atomic Energy Agency) Panel Discussion Meeting on "Aseismic Design and Testing of Nuclear Facilities" was held at the Palace Hotel in Tokyo June 12 to 17. Prof. S. Okamoto and Asso. Prof. M. Shibata attended and presented the papers.

■ "9th International Congress on Large Dams" was held at Istanbul in Turkey September 4 to 8. Prof. S. Okamoto attended as a general reporter of Question No. 35 and presented the paper on "Dynamic Behavior of Earth Dam during Earthquake".