

## SOIL LIQUEFACTION FIELD TEST IN MEPPEN PROVING GROUND, 1978 STRUCTURE RESPONSE

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The measuring arrangement for the structure was so conceived, that, on the one hand, liquefaction data in the zone of influence of the structure and, on the other hand, the response of the structure (shock response, drift etc.) could be obtained. Two triaxial and three uniaxial acceleration transducers, placed at various locations on the structure, served in the first instance to record the shock response of the structure during the primary phase of loading from the ground shock. Low sensitive but high frequency and high load capacity piezoquartz acceleration transducers were employed for this purpose. The results of these measurements could also be used partly to interpret the drift behavior of the structure.

In the following the liquefaction investigations (in the vicinity of the structure), including the total pressure measurements, are presented. From the results of the free-field measurements and from the measurements

for the structure an interpretation is given concerning the stability of the tested shelter, under these loading conditions. It is then shown to what extent these results can be applied to the behavior of buried shelters and what questions still remain open.