

## National Center for Research on Earthquake Engineering

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<http://www.ncree.gov.tw>

No. ST090502-1

**Applicant :** P.E.E.S GmbH  
(申請者) Von Waldhausenstr 12  
44577 Castrop-Rauxel  
Germany

LIFE PROTECTION B.V.  
Nijverheidstraat 6  
4143 HM Leerdam  
The Netherlands

**Item Tested :** SOS-LIFE earthquake early warning system  
(試驗件) Model : SOS-LIFE EARTHQUAKE/EMERGENCY ALARM  
S/N : 2039/00149

**Date of Test(s) :** September 5, 2002  
(試驗日期)

**Equipment Used :** Tri-axial Seismic Simulator  
(試驗系統)

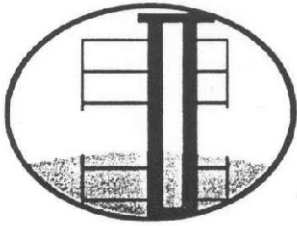
**Test method or procedure :**  
(試驗步驟)

The test was carried out by using the shaking table of National Center for Research on Earthquake Engineering in Taiwan. The SOS-LIFE test unit was located horizontally upon the table, and the specified bi-axial excitations are the vertical and NS- components of the actual earthquake ground motions observed at Bolu-Bayindirlik ve Iskan Mudurlugu during the Duzce (Turkey) Earthquake in 1999 and Chi-Chi (Taiwan) Earthquake in 1999.

本試驗是利用國家地震工程研究中心三軸向地震模擬器，將試驗件 SOS-LIFE 直接水平置放在模擬器平台上，並以 Bolu-Bayindirlik ve Iskan Mudurlugu during the Duzce (Turkey)及台灣集集大地震的地震紀錄，以水平兩軸方向同時作為模擬測試的地震力。

**Test Results :**  
(試驗結果)

Based on the actual earthquake data observed at Bolu-Bayindirlik ve Iskan Mudurlugu during the Duzce (Turkey) Earthquake in 1999 , the SOS-LIFE test unit responded correctly on the first arrival of the P-waves by triggering the alarm. Then, the SOS-LIFE test unit has been exposed to the



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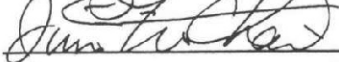
same earthquake waveform with scaled-down amplitudes (the amplitudes of the first P-wave are scaled-down to be about  $0.5 \text{ m/sec}^2$ ), however, it did not sound the alarm. It can be summarized that the SOS-LIFE test unit will only respond to major and potential life-threatening earthquakes.

以 Bolu-Bayindirlik ve Iskan Mudurlugu during the Duzce (Turkey)的地震紀錄作測試時，觀察試驗件 SOS-LIFE 確實能在第一個 P 波到達時產生反應，但當同一地震紀錄之 P 波震幅，以正比率降至  $0.5 \text{ m/sec}^2$  時，該試驗件則無反應；因此，該試驗件於本次試驗時，在大地震發生時始有功效。

(以下空白)

Name : Chai, Juin-Fu

Position : Associate Research Fellow

Signature : 

Date : September 5, 2002

