

Study group on seismic design of storage tanks summary progress report



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Conference

D. Whittaker

Principal, Beca Carter Hollings & Ferner Ltd, Convenor Study Group on Seismic Design of Storage Tanks

ABSTRACT: The NZSEE Study Group on Seismic Design of Storage Tanks is working towards publishing a revision to the 1986 Red Book incorporating an amended procedure for determining seismic loads on tanks. Industry Funding from interested parties has been obtained to assist the Study Group to complete its work.

1 UPDATE

The New Zealand National Society for Earthquake Engineering (NZSEE) Study Group on Seismic Design of Storage Tanks is presently revising the Society's 1986 Red Book *Recommendations for Seismic Design of Storage Tanks*. The aim is that the revised seismic design recommendations will be more widely accepted by regulatory authorities, owners and design engineers, and will thus provide benefits to the whole industry.

A revised loading scheme devised by the Study Group (Whittaker and Jury, 1998, 2000), modified for the proposed design spectra in the forthcoming revision to NZS 4203, will be included in the revised document with appropriate adjustment factors for tank behaviour and performance. The scheme has already been used unofficially by some practitioners, and has been included in draft regulations written for the Hazardous Substances and New Organisms (HSNO) Act.

Revisions to the document are in progress and are expected to be complete later this year.

The Society has received funding contributions from the following organisations to assist with this work.

New Zealand Insurance

New Zealand Refining Company

Shell Todd Oil Services

BP

Caltex

Mobil

Shell

2 STUDY GROUP MEMBERSHIP

Membership of the Study Group is as follows:

Dr David Whittaker (Convenor)	Beca
Mr Rob Jury	Beca
Dr John Wood	Phillips & Wood
Dr Barry Davidson	University of Auckland
Dr Graeme McVerry	Geological & Nuclear Sciences
Mr John Mason	Sinclair Knight Merz

Interested members and industry organisations are encouraged to participate in the completion and review of the Study Group's work.

REFERENCES:

- Whittaker D. and Jury R. D.. 2000. Seismic design loads for storage tanks. *Proceedings 12th World Conference on Earthquake Engineering*.
- Whittaker D. and Jury R. D. 1998. Study group on seismic design of storage tanks progress report. *Proceedings NZ National Society for Earthquake Engineering*.