

# EPA TASMANIA

## – PROTOCOL –

### UNDERGROUND PETROLEUM STORAGE SYSTEMS: STATISTICAL INVENTORY RECONCILIATION ANALYSIS

#### Background

Regulation 11 of the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2010* requires that all storage systems (which are not small storage systems) must not be used unless loss-monitoring procedures are carried out. Loss monitoring must commence:

- immediately for newly installed storage systems; or
- by 31 March 2011 for storage systems that were in use on 31 March 2010.

Regulation 11(5) requires that the loss monitoring procedure is:

- (a) capable of detecting an apparent loss of petroleum from the storage system occurring at a rate of 0.76 litres of petroleum per hour with at least a 95% probability of detection and a 5% or less probability of false detection; and
- (b) capable of detecting an apparent loss of petroleum, at the rate described in paragraph (a), from any component of the storage system; and
- (c) verified as meeting the performance standards specified under paragraphs (a) and (b) by an independent third party, using protocols for system verification approved by the Board.

Statistical inventory reconciliation analysis (SIRA)<sup>1</sup> is a loss monitoring procedure that is commonly used. This EPA protocol states the test procedure for system verification that an independent third party must use to verify that the SIRA method being undertaken can meet the performance standard specified in regulation 11(5).

#### Protocol

The SIRA method used must be verified by an independent third party as being a method that meets the performance standards in regulation 11 of the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2010*. The verification process must be in accordance with test procedures in the United States Environmental Protection Agency publication titled *Standard test procedures for evaluating leak detection methods: Statistical inventory reconciliation methods (SIR) US EPA/530/UST-90/007*. Available at: <http://www.epa.gov/oust/ustsystem/sir90.pdf>.

This protocol has been approved by the Board of the Environment Protection Authority under regulation 11(6) of the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2010*.

<sup>1</sup> SIRA can also be known as statistical inventory reconciliation method and statistical inventory analysis.

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### Further information

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