



Whether your facility is complex like this or simple, you need to be safe and to minimise risk



Our premises in Williamstown



Investigating a chemicals fire

## INTRODUCTION

We are Chemical, Environmental, Process Safety, Loss Prevention, Risk and Forensic Engineers, OHS Consultants, Occupational Hygienists and Town Planning Advisors.

We assess your premises for compliance with dangerous goods, safety, manual handling, machine guarding and environmental legislation. We smooth your way towards compliance with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and with Workplace Health and Safety (WHS) obligations.

We obtain planning permission for your chemical plant or project, approve your chemical and mechanical engineering designs and assess your site for environmental contamination, cleaning-up where necessary. We prepare emergency information books, escape route diagrams, emergency & evacuation plans, job safety analyses (JSAs) and safety data sheets (SDSs).

In the unfortunate event of an accident or a loss, we are your independent investigator and provide you with an expert report. If the matter is not settled between lawyers, we will act as your expert witness.

The following tells you something about us, our qualifications and experience. To learn more, please view our website at [www.ifta.com.au](http://www.ifta.com.au)

### PRINCIPAL, Dr Ian F Thomas

#### Qualifications

BScHons(ChemEng), MEngSci(EnvEng), PhD(AppSci)



### PARTNER, Ms Joan A Thomas

#### Qualifications

Assoc Memb AIOH  
Assoc Memb RACI

### ASSOCIATE, Stuart Thomas

BEng(Mech), ASM

### Principal's professional associations

Member and Past Chair, Forensic Engineering Society of Australia Inc ([www.fesaust.com.au](http://www.fesaust.com.au))



Principal	Ian Thomas	BScHons(ChemEng), MEngSci(EnvEng), PhD(AppSci) FIChemE, FIEAust, FRACI, FSIA, CEng(UK), CPEng NER APEC Engineer IntPE(Aus), CChem, RSP(Aust)
Partner	Joan Thomas	Assoc Memb RACI, Comp Memb IChemE, Assoc Memb AIOH
Associate	Stuart Thomas	BEngHons(Mech), ASM

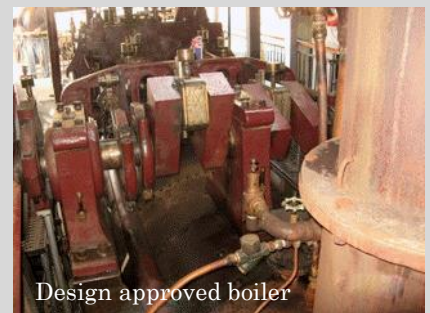
Editor for Australia, the International Journal of Forensic Engineering (IJFE)  
 Committee Member/Past Chair, Risk Engineering Society of Engineers Australia (EA)  
 Member, Membership Interview Panel, Victoria Division, EA  
 Committee Member Victoria, Asset Management Council Inc  
 Chairperson, Health Safety and Environment Group, Victorian Branch, RACI  
 Member, RACI Victorian Branch Committee  
 Member, Western Safety Group Inc  
 Member, Standards Australia, Committee CH 026, Safety in Laboratories  
 Member, Coode Island Community Consultative Committee (CICCC) (Quantem P/L/Maribyrmong Ccl)

**Principal's former associations**

Victorian Bushfires Royal Commission, Engineers Australia panel  
 Chair, Risk Stream, ICOMS Asset Management Conference 2007  
 Chair, Risk 2004 Conference Committee, Risk Engineering Society  
 National Chair, Risk Engineering Society, Engineers Australia  
 Member, Fire Safety Engineering Expert Panel, EA  
 Member, Road Safety Sub-Committee, Victoria Division, EA  
 Vice President, Victoria, Royal Australian Chemical Institute  
 President, Eastern Safety Group  
 Technical Committee, SIA Inc



Design-approved bitumen trailers



Design approved boiler

**Principal's prior engagements : chronological - latest last**

**Rugby Portland Cement Co Ltd UK** - laboratory analyst.  
**British Petroleum Ltd Kent Refinery UK** - laboratory analyst & undergraduate project engineer.  
**Reed Paper Group Ltd UK** - laboratory technician, paper and board products.  
**Procter & Gamble Ltd UK** - R&D Division - process development engineer, soap & edible oil products.  
**Industrial Engineering Ltd** - Chemical Plant & Engineering Division - senior chemical engineer - design, supply, installation and commissioning of filtration, mixing, grinding and spray drying plant.  
**Humes Ltd** - production manager PVC pipe.  
**BF Goodrich Chemical Ltd** - safety & environment engineer - dichloroethylene cracking & vinyl chloride polymerisation - responsible for plant-wide safety & environmental performance.  
**Thomas Environmental Consultants** - provision of contract engineering services to industry and fuel/chemical distribution terminals.

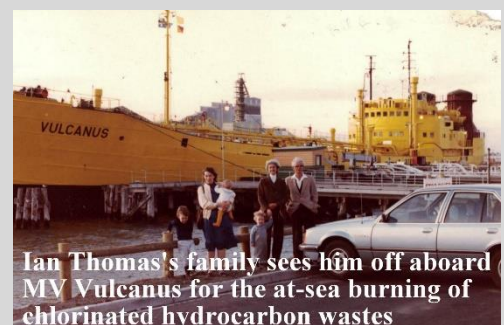
**Publications and presentations**

138 in the period 1980-2019 on the following topics :-

- Existential Risk
- Population & Economic Degrowth
- Sustainable Alternative Fuels
- Land Use Planning near Major Hazard Facilities
- Vapour Cloud Modelling
- Process Safety & Loss Prevention
- Tunnel Safety
- Environment
- Occupational Health & Safety
- Dangerous Goods Compliance
- Case Studies of Significant Accidents



Planning adequate separation between sensitive land uses and Major Hazard Facilities



Ian Thomas's family sees him off aboard MV Vulcanus for the at-sea burning of chlorinated hydrocarbon wastes

**Partner's Associations**

Associate Member, Australian Institute of Occupational Hygienists  
 Member, Risk Engineering Society of Engineers Australia  
 Treasurer, Health Safety and Environment Group, RACI  
 Member, Stolthaven (Coode Island) Consultative Group  
 Member, Mobil Yarraville Terminal Consultative Group



Partner Joan Thomas conducting soil sampling during a contamination assessment

**Partner's Prior Engagements : chronological - latest last**

WINTHROP LABORATORIES, UK - laboratory analyst  
 PROCTER & GAMBLE Ltd, UK - technical assistant  
 WATSON VICTOR Ltd, technical sales representative  
 DULUX AUSTRALIA Ltd, technical assistant  
 ICI AUSTRALIA Ltd Central Research Laboratories, laboratory technician  
 ICI AUSTRALIA OPERATIONS Pty Ltd, receptionist to chief executive and directors  
 RMIT TAFE COLLEGE, laboratory technician

**Quantified Risk Assessment**



To prevent ...

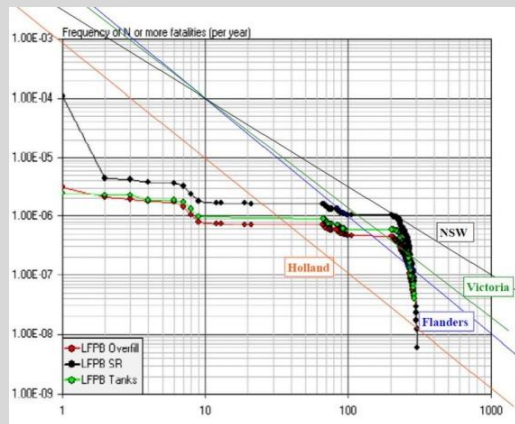


THIS happening at your facility, and leading to .....

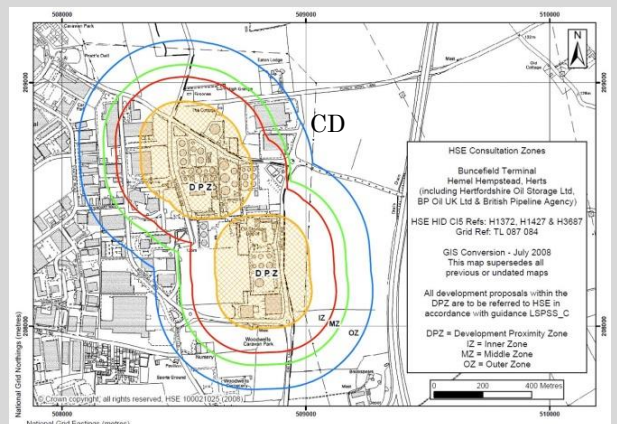


THIS, as it did at Buncefield UK in December 2005 .....

consider asking I F Thomas & Associates to conduct a risk assessment. We perform Quantified Risk Assessment (QRA) by hand calculation, by using our own mathematical model and by applying the findings of extensive research conducted after the Buncefield accident by the UK Health and Safety Executive (HSE).



Typical graph of Frequency of Occurrence vs Number of Deaths caused (F/N plot)



Post Buncefield Consultation Distance (CD, 400m) inside which HSE must be consulted to obtain planning permission for proposed developments

The Buncefield photographs and data provided by courtesy of UK HSE Buncefield Major Incident Investigation Board (MIIB), aerial photographs by courtesy of Google Earth, bitumen sprayer trailers by courtesy of Matthews Brothers Engineering Pty Ltd, and boiler by courtesy of PS Ruby Wentworth Inc.