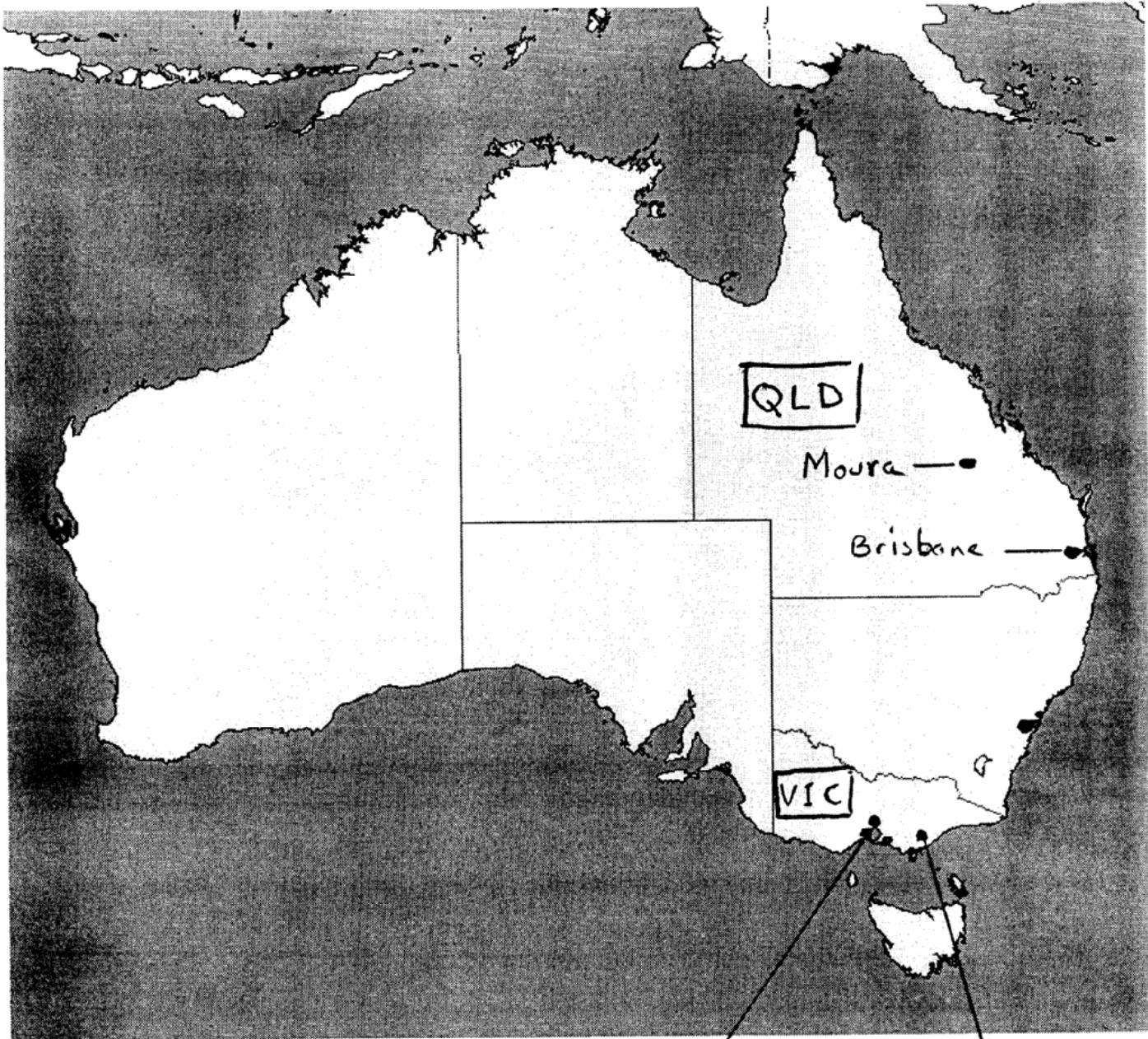


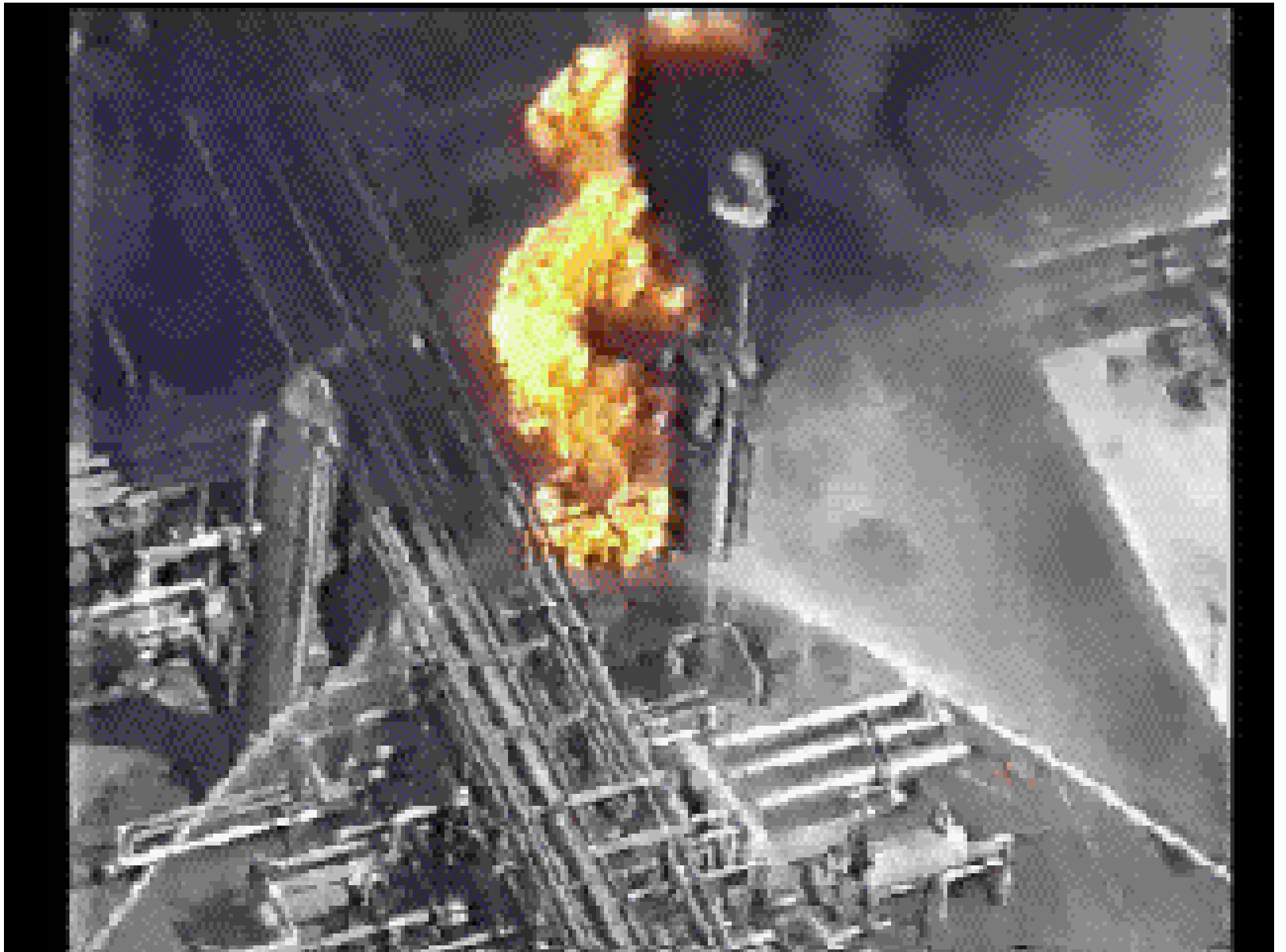
The Esso Longford Gas Plant Explosion

Andrew Hopkins
Australian National University



Melbourne

Longford







Market forces

Market ideology - Privatisation

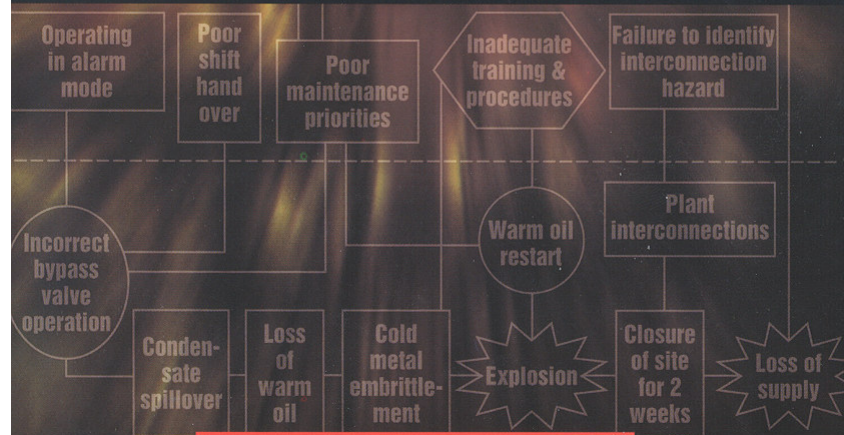
Merger of OHS and compensation agencies

Inadequate regulatory system

Government failure to provide alternative gas supply

LESSONS FROM LONGFORD

The Esso Gas Plant Explosion



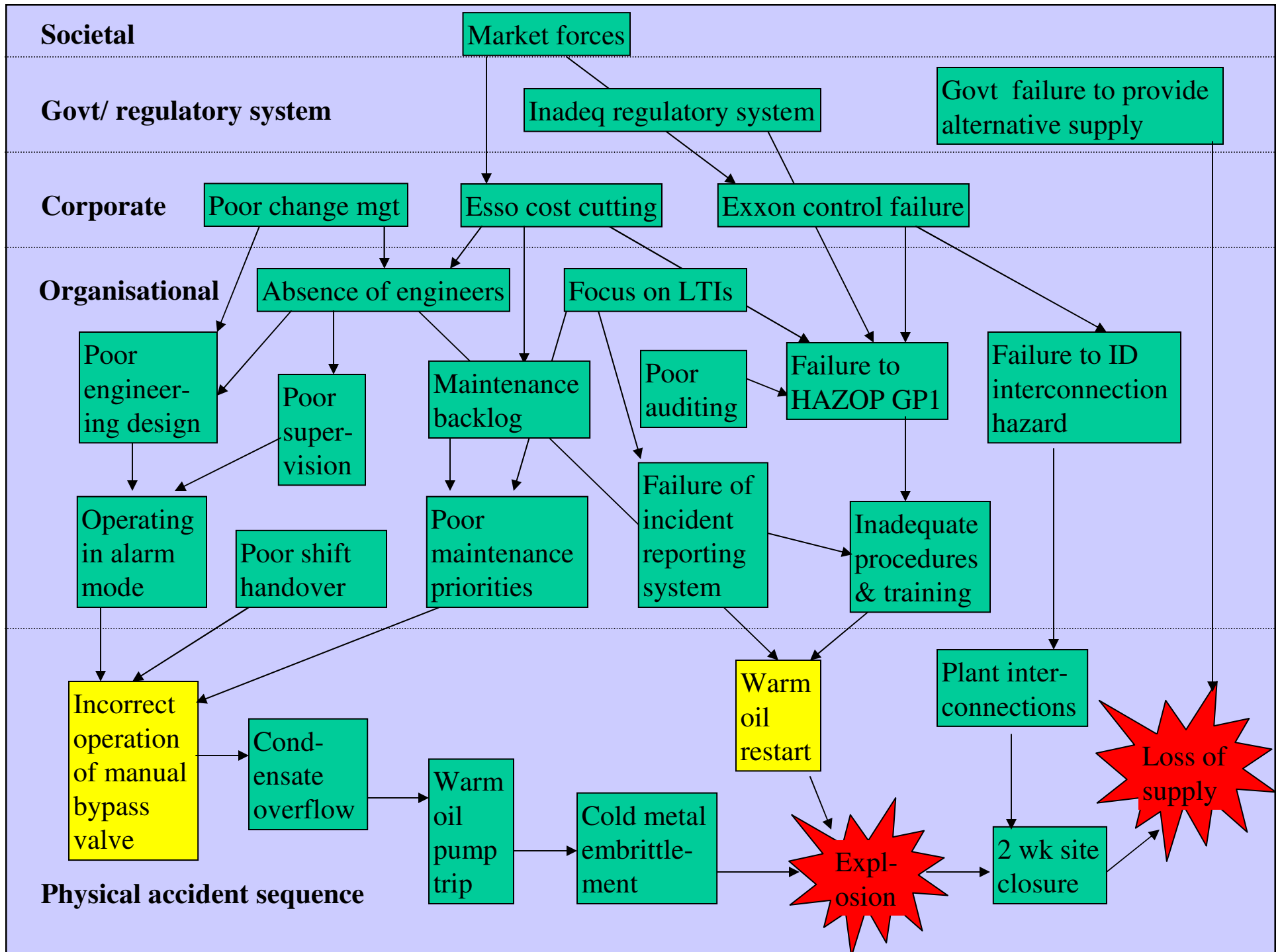
ANDREW HOPKINS

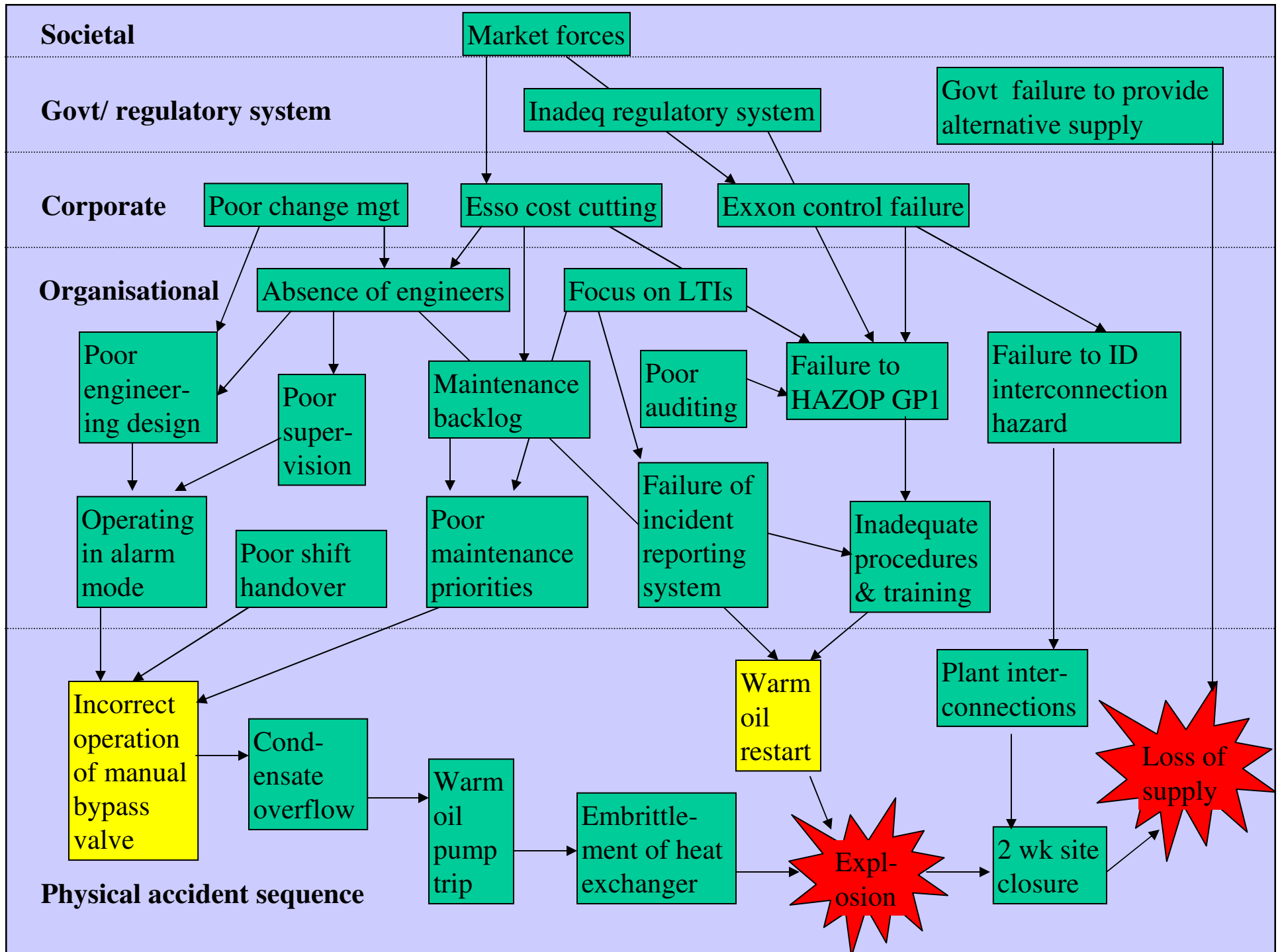
Criminal prosecution

- \$2 million fine - unprecedented
- 11 counts
- Maximum penalty (\$250,000)
 - Failure to carry out hazard identification on GP1
 - Failure to adequately train employees about risks
- 80% of max (\$200,000)
 - Failure to maintain plant that was safe
 - Failure to monitor conditions
 - Failure to ensure safety of non employees

Civil action

- Esso sued for \$500 million
- Breach of contract?
- Breach of duty of care?
- Court found - duty to avoid property damage
example: food damage
- Court found - no duty to avoid pure economic loss
examples: loss of business
loss of wages
purchase of electric appliances
- Artificial distinction?
- Compensation for pure economic loss
would “open floodgates”





General lessons from this analysis

- Systematic hazard identification is vital for accident prevention.
- Auditing must be good enough to identify the bad news and to ensure that it gets to the top.
- Reliance on LTIFR as the primary safety indicator in major hazard industries is itself a major hazard.
- Reporting systems must highlight information about major hazards.
- Communication between shifts must highlight safety-critical information.

General lessons from this analysis (cont)

- Alarm systems must be carefully designed so safety-critical alarms are not swamped.
- Maintenance cutbacks foreshadow trouble.
- Management of change must be done scrupulously
- Corporate headquarters should maintain safety departments which can exercise effective control over the management of major hazards.
- Front line operators must be provided with backup from technical experts - engineers. (i.e. companies must tolerate “redundancy”)
- Governments should enact safety case legislation.

These are the *Lessons of Longford*

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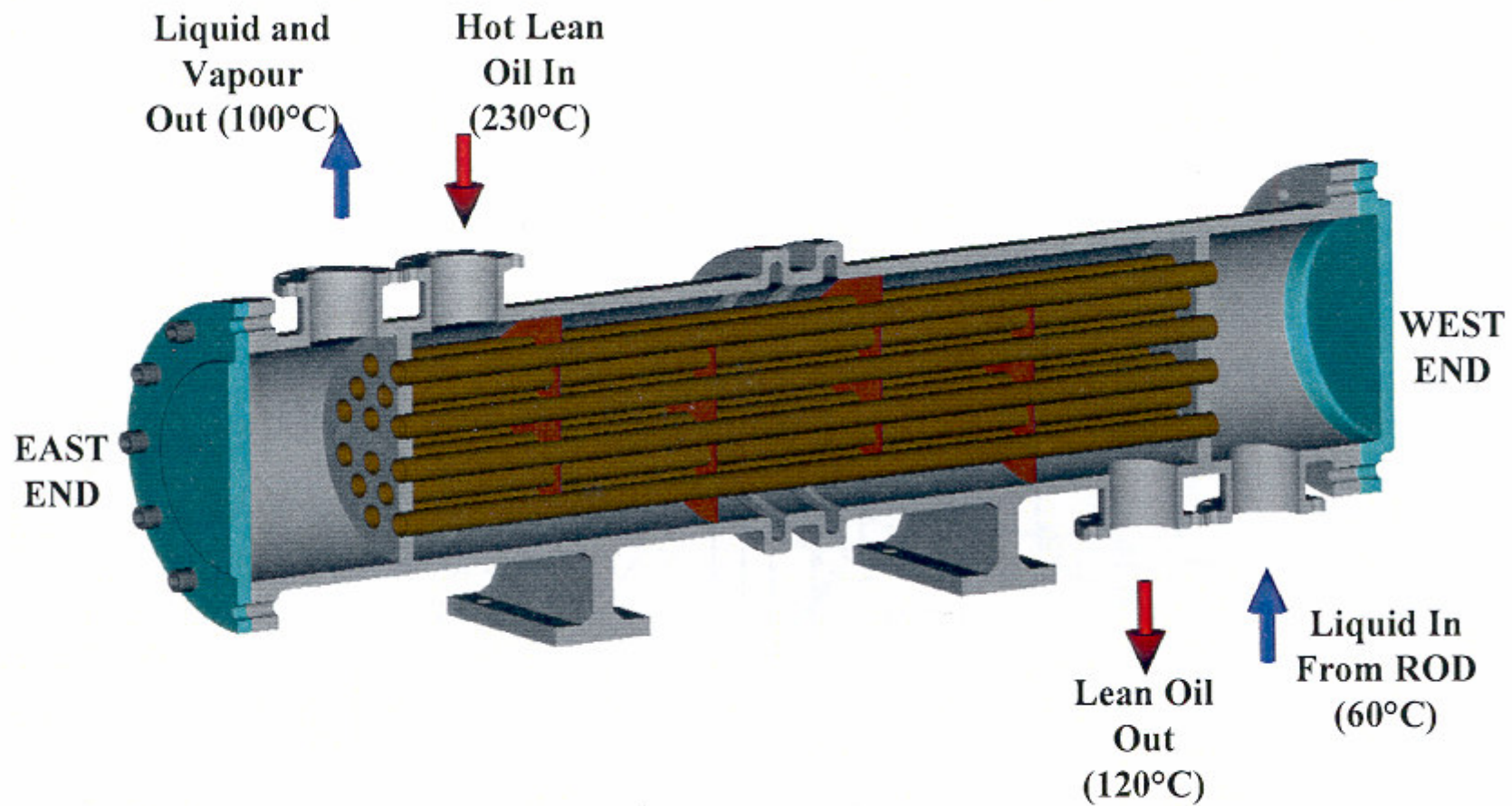


Figure 6.1 Schematic view of the GP905 Reboiler