



# The Alton Towers Project

## A Case Study

**“Protecting you & your premises”**



- Part of Alton Towers hotel, the spa opened in 2004.
- Hydro pool, hot tub, foot baths, 5 relaxation rooms.



**“Protecting you & your premises”**

# The Problem



- Stace – consultants to Alton Towers
- Hotel at end of 10 year warranty with builders
- Passive Fire Protection Issues
  - Protection of Steel Girders and Beams
  - Compartmentation

**“Protecting you & your premises”**

# The Enforcers



- Building Control
- Fire Authority
- Insurer

**“Protecting you & your premises”**

# The Historical Evidence

## Recent Events

- Cliveden House Spa - Jan 2016
  - Awaiting insurance details
- Junction Leisure Bournemouth - Dec 2014
  - £750,000.00 insurance pay-out
- Eden Isles Florida - Jan 2015
  - 1 fatality
- Northern Moscow - Dec 2008
  - 6 fatalities



**“Protecting you & your premises”**

# The Solution

- Comprehensive site survey
- Passive Option Problems
  - Close spa to gain access to girders for fireproofing
  - Close spa to install compartmentation in ceiling void above Crystal Bath room
  - Cost



**“Protecting you & your premises”**

## The Solution

- Comprehensive site survey
- Active Options
  - Keeps the spa open
  - Install sprinkler system
    - Plant space, pipe sizes and cost
  - Install high pressure watermist system
    - Cost
  - Install low pressure watermist system
    - Potential



**“Protecting you & your premises”**

# The Testing

- IMO Resolution MSC 258 (84)
- MED approval from Lloyd's Register
- Approved By DNV
- FM5560 Appendix 1 for HC-1



**“Protecting you & your premises”**



# The Benefits

## Low Pressure Watermist System

- Less installation time than other options
- Minimalize damage to structures
- More cost effective



**“Protecting you & your premises”**

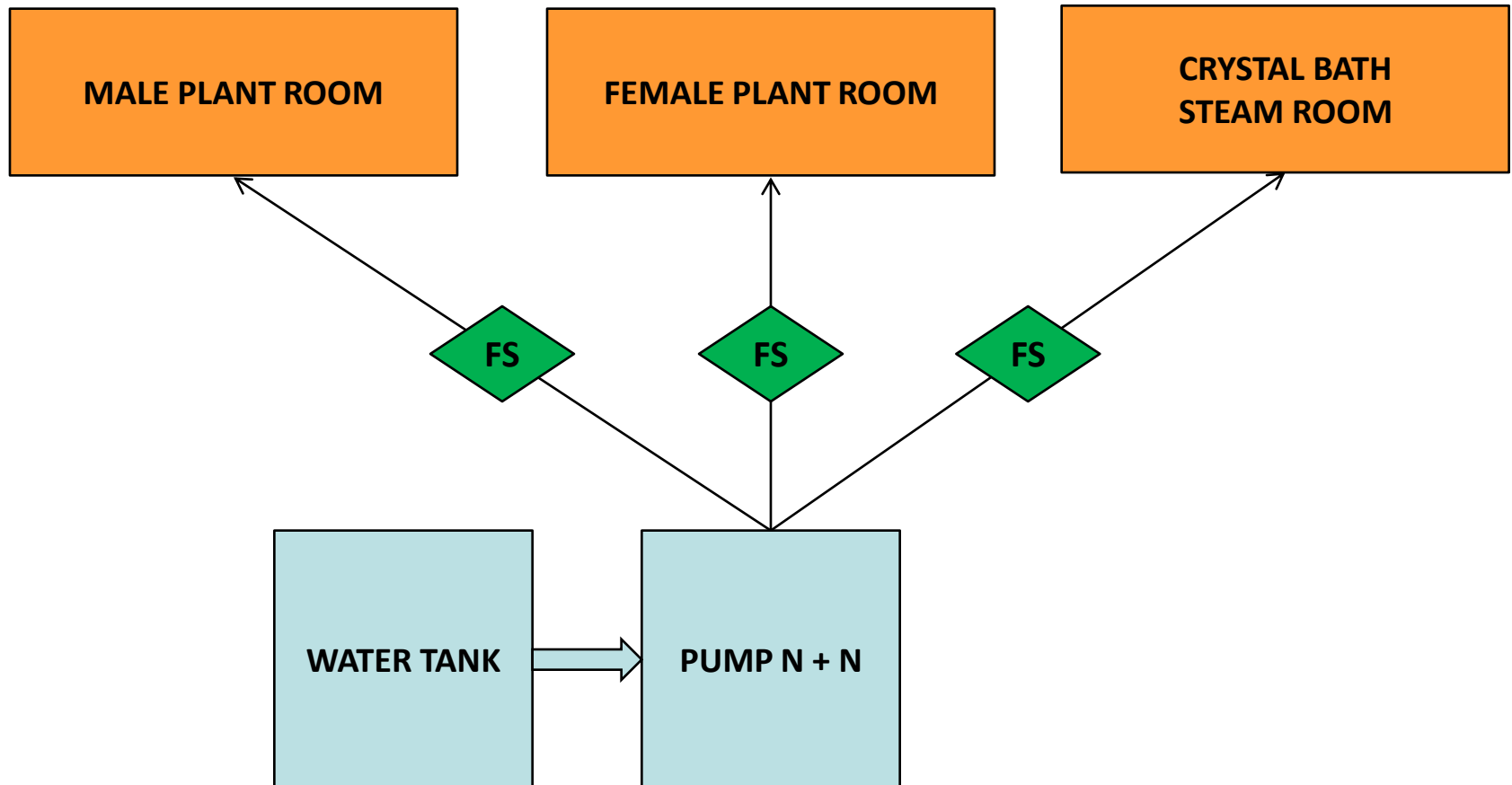
## Specific Benefits to Alton Towers



- No need to close the spa to the public
- Worked at night to minimise disruption
- Small pipe works – minimal re-decoration
- Drainage, power and water supply already available
- Small tank and pump – fitted easily into existing plant room space
- Interfaced with fire alarm system for rapid response

**“Protecting you & your premises”**

# The Installation



**“Protecting you & your premises”**

# Standards



Installed and maintained to  
standard NFPA750

**“Protecting you & your premises”**

## More Information



[Fire Suppression Guide](#)



[Fire Industry Association](#)

[Guidance to Watermist Systems](#)



[Watermist Guide](#)



[Risk Management Guidelines](#)

**“Protecting you & your premises”**



**“Protecting you & your premises”**

**More Help or Advice?**

**0845 402 3045**

**[info@assured-ltd.co.uk](mailto:info@assured-ltd.co.uk)**

**[www.assured-ltd.co.uk](http://www.assured-ltd.co.uk)**

**“Protecting you & your premises”**

**Thank you for listening**

**“Protecting you & your premises”**