

Managing a refinery turnaround during the Covid-19 pandemic

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REFERAT 33 – AIR QUALITY, AIR POLLUTION CONTROL



Baden-Württemberg

Refinery turnaround

- Regular shut-down of all or part of the refinery for maintenance, repair, inspection and testing.
- Planning time line: ca. 4-5 years
- Activities involved in carrying out a turnaround:
 - Scaffolding (construction and dismantling)
 - Removal of insulation from pipework and components
 - Re-insulation after completion of work
 - Emptying plant and equipment of hazardous substances
 - Cleaning
 - Welding, cutting, construction, demolition
 - Lifting (cranes)
 - Testing and inspection
 - Third-party contracted staff: ca. 3000 (typically)

Covid-19 pandemic requirements in the workplace

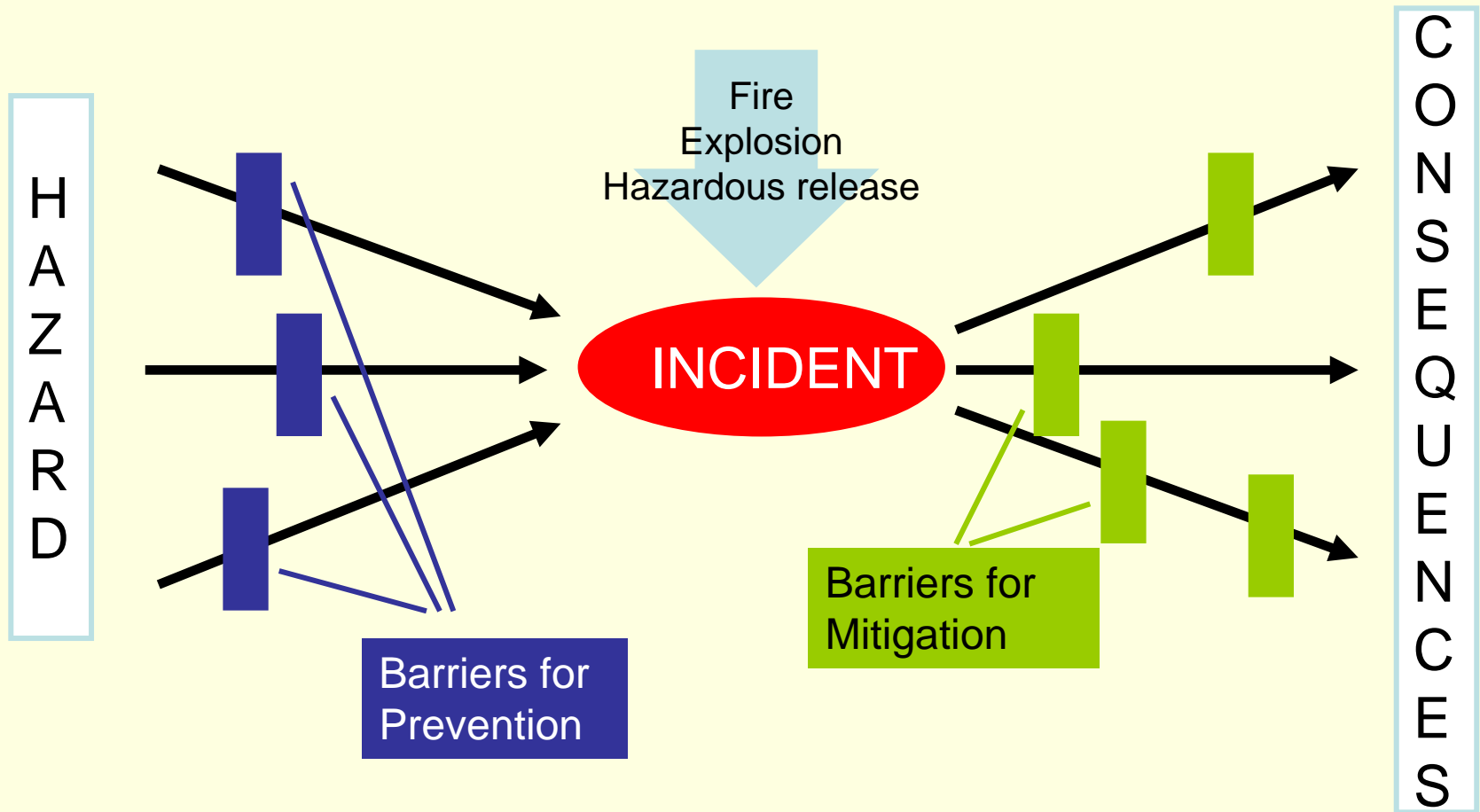
- Social distancing:
 - Physical separation between people
 - Remote operations where possible
 - As few people in the work place as possible
 - Reduced travelling
- Hygiene
 - Washing hands,
 - Disinfection
- Face coverings / Masks

Covid-19 pandemic requirements in the workplace

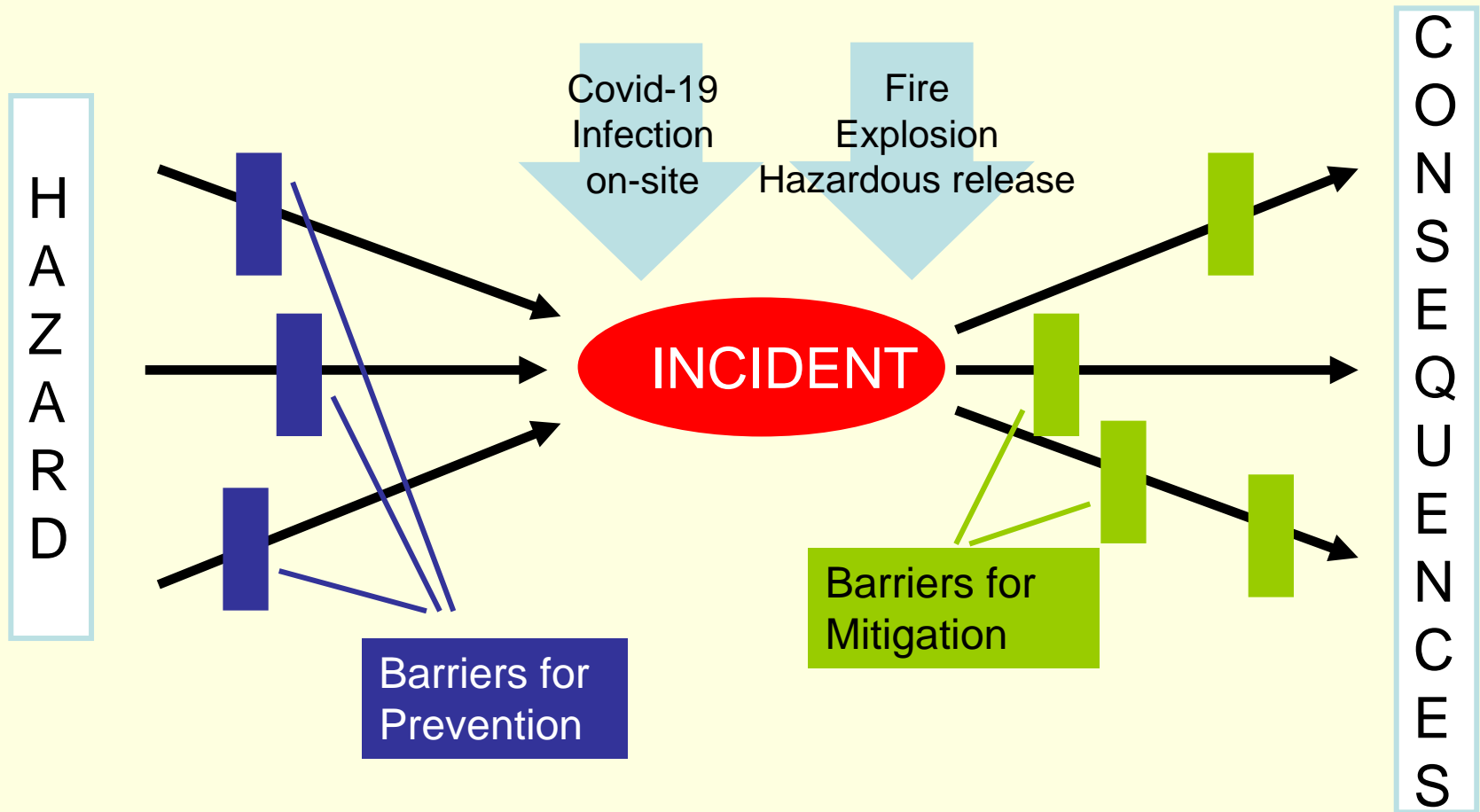
- Social distancing:
 - Physical separation between people
 - Remote operations were preferred
 - As few people in the workplace as possible
 - Reduced travel
- Hygiene
- Face coverings / Masks

**Conflict with the requirements
of a turnaround**

Risk Management for Process Safety Bow-Tie Method



Risk Management for Turnaround under Covid-19 Pandemic, Bow-Tie Method



Barriers (Covid-19 pandemic)

Prevention

- Time based separation of work teams for site entry.
- Increased number of site entrances
- Regular PCR-Testing of all workers
- Separation of meal times and dining possibilities
- Wash rooms with warm water
- Coordination of individual work items

Mitigation

- In case of „discovered infections“ then the employee is informed by the contracted medical service.
- Communication chain between employee,, sub-contractor, health authorities, refinery is critical. There are problems of confidential health information.
- Infected employee must be quarantined.

Vielen Dank für Ihre
Aufmerksamkeit !

