



Flixborough Disaster

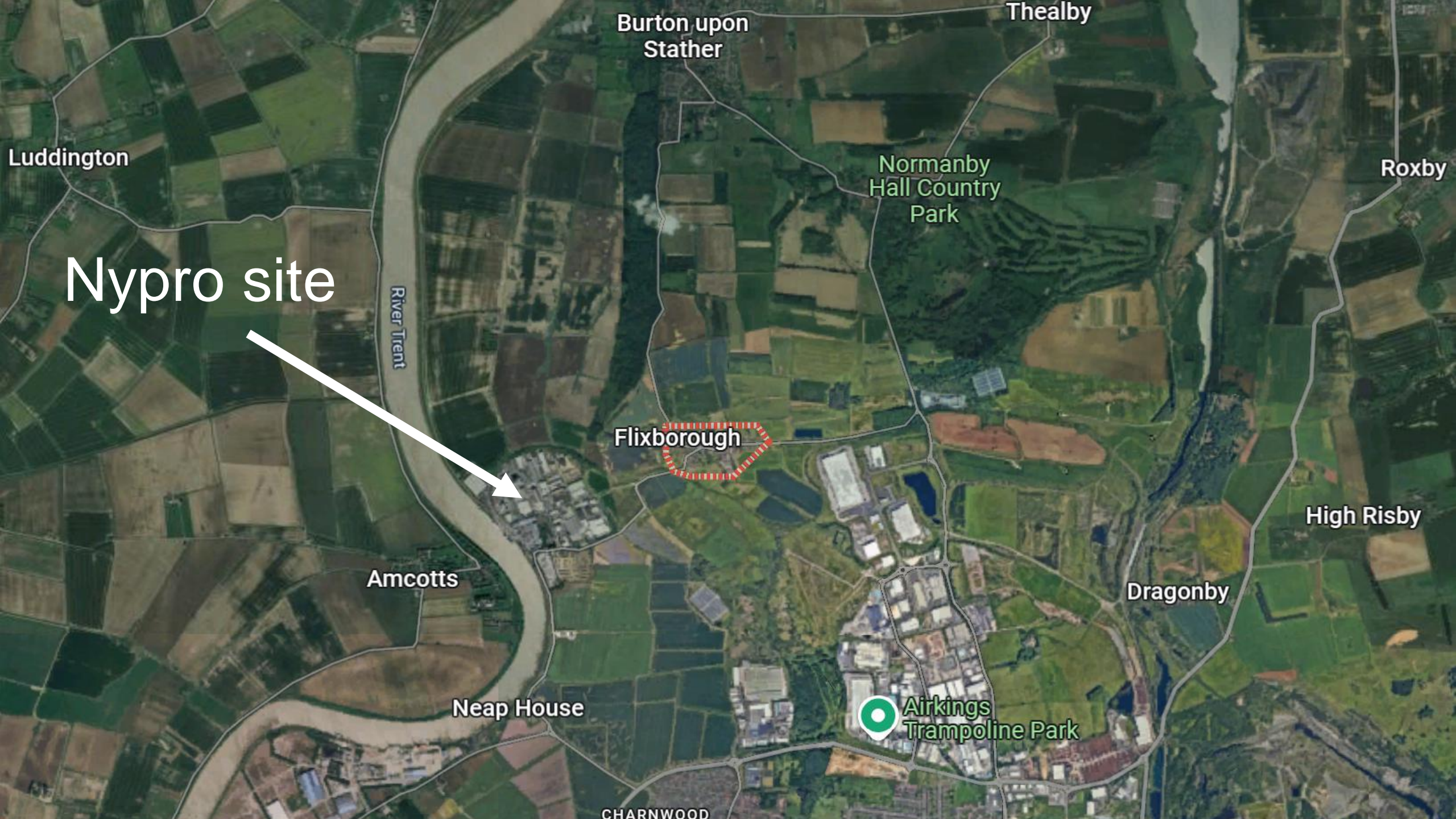
1st June 1974

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Flixborough



Burton upon
Stather

Thealby

Luddington

Roxby

Nupro site

Normanby
Hall Country
Park

River Trent

Flixborough

High Risby

Amcotts

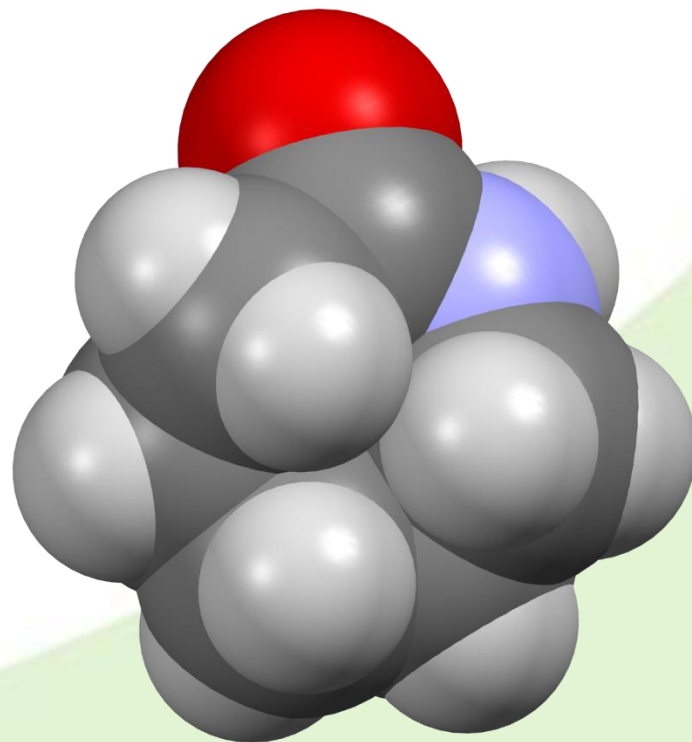
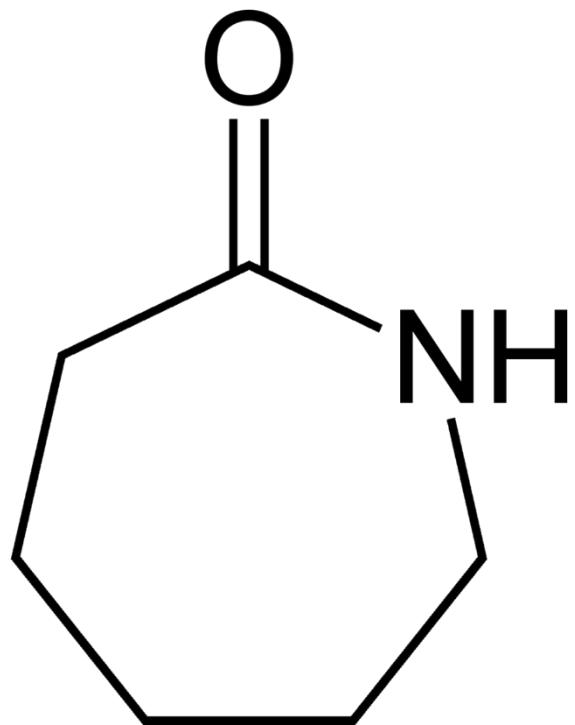
Dragonby

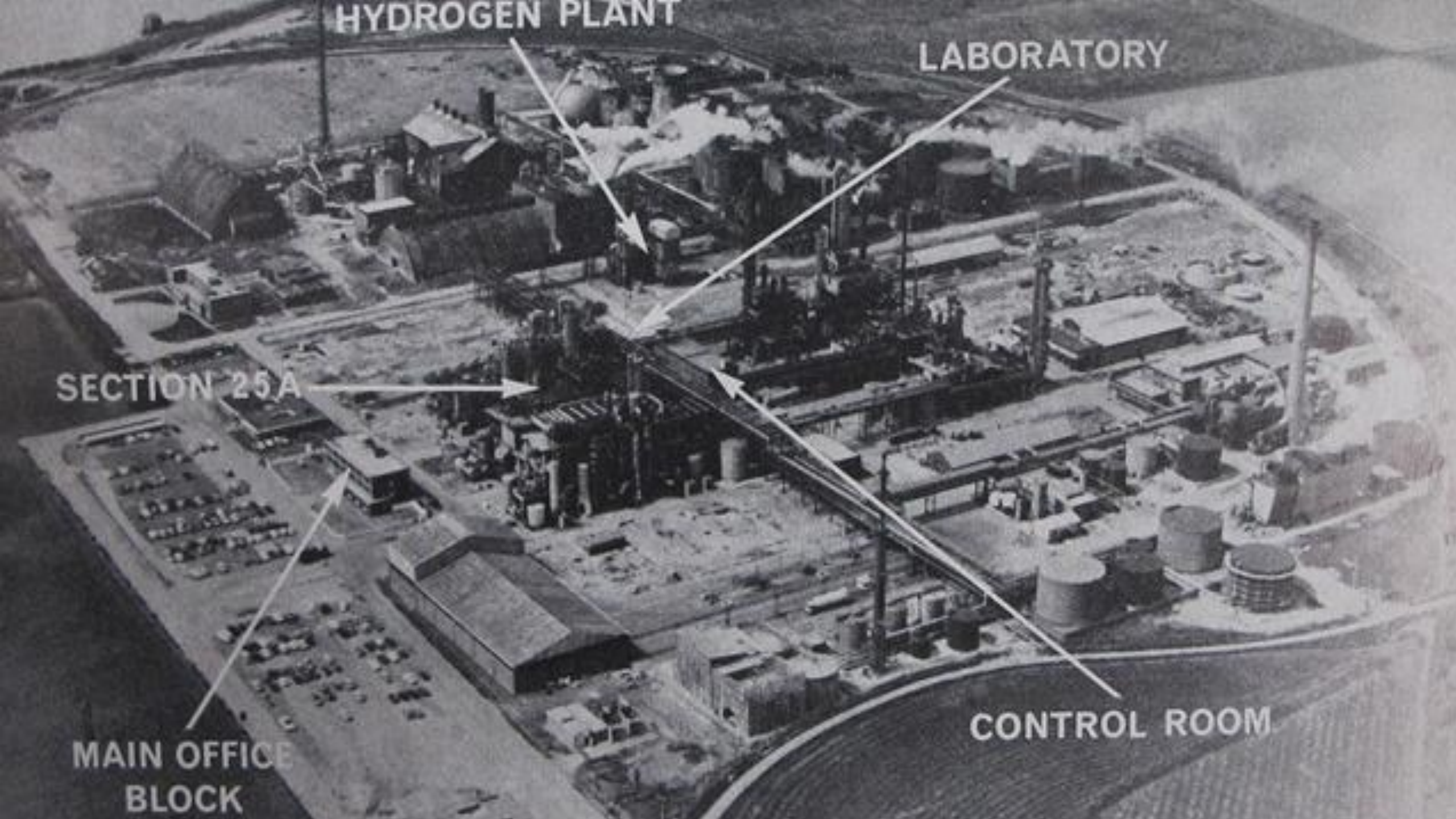
Neap House

Airkings
Trampoline Park

CHARNWOOD

Caprolactam $(\text{CH}_2)_5\text{C}(\text{O})\text{NH}$





HYDROGEN PLANT

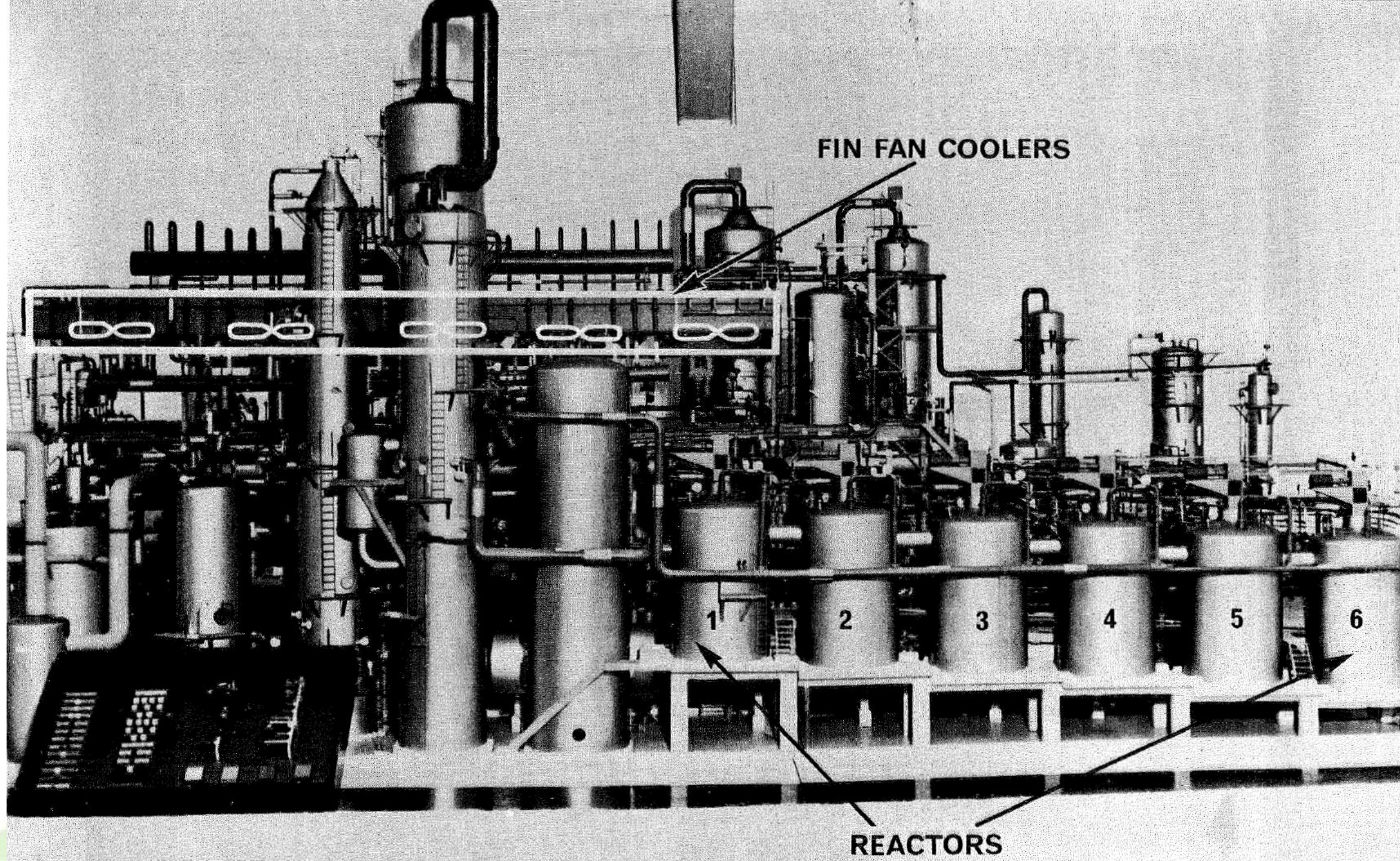
LABORATORY

SECTION 25A

MAIN OFFICE
BLOCK

CONTROL ROOM





FIN FAN COOLERS

1

2

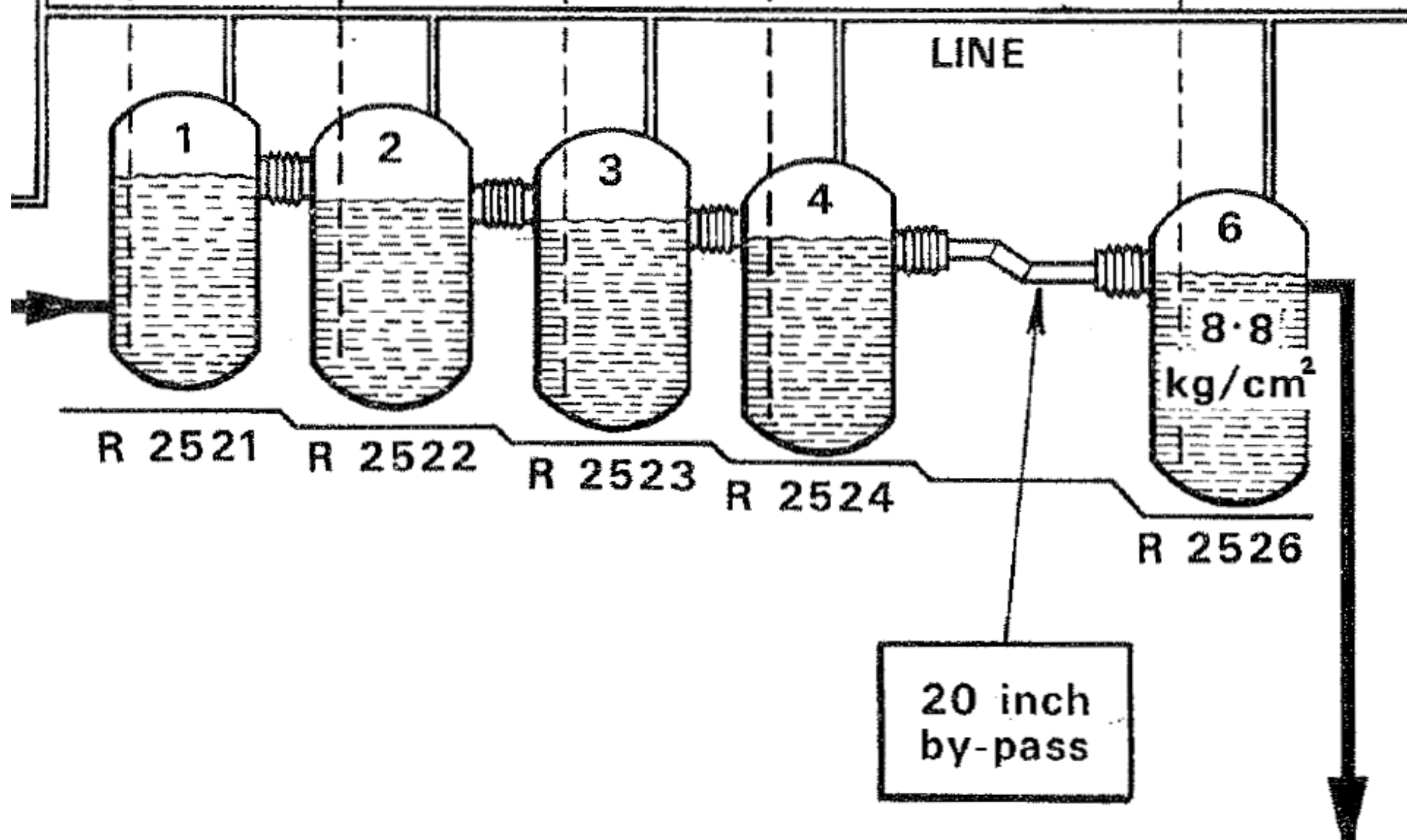
3

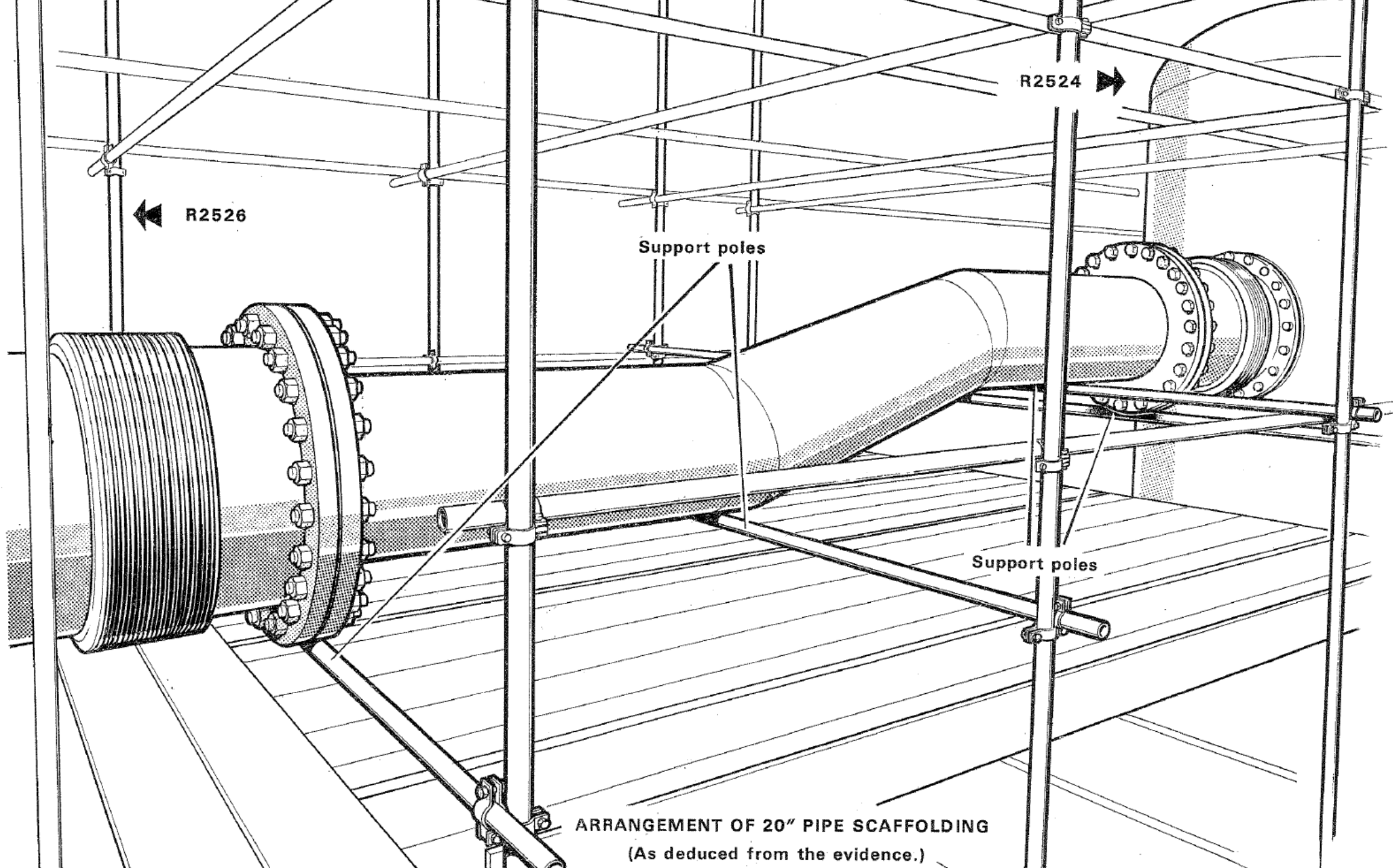
4

5

6

REACTORS

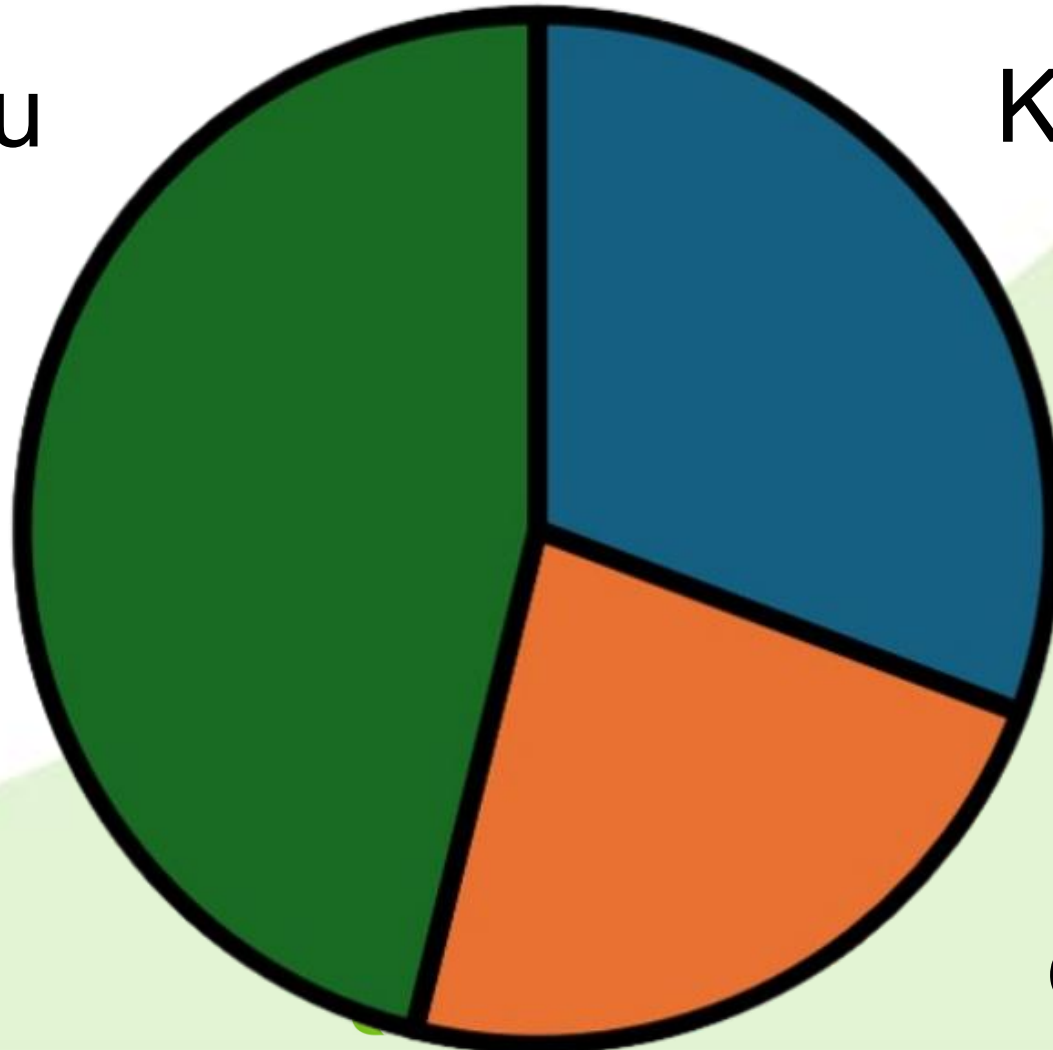




ARRANGEMENT OF 20" PIPE SCAFFOLDING
(As deduced from the evidence.)

What were they thinking?

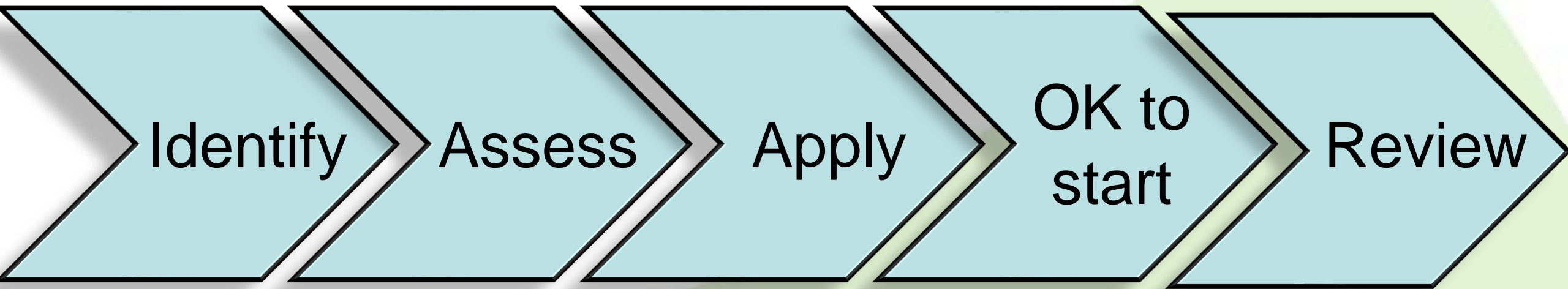
Don't know you
don't know



Know you
know

Know you
don't know

Management of Change (MoC)





Trevor Kletz Compendium

His Process Safety Wisdom Updated for
a New Generation

Andy Brazier, David Edwards, Fiona Macleod, Craig Skinner, and Ivan Vince



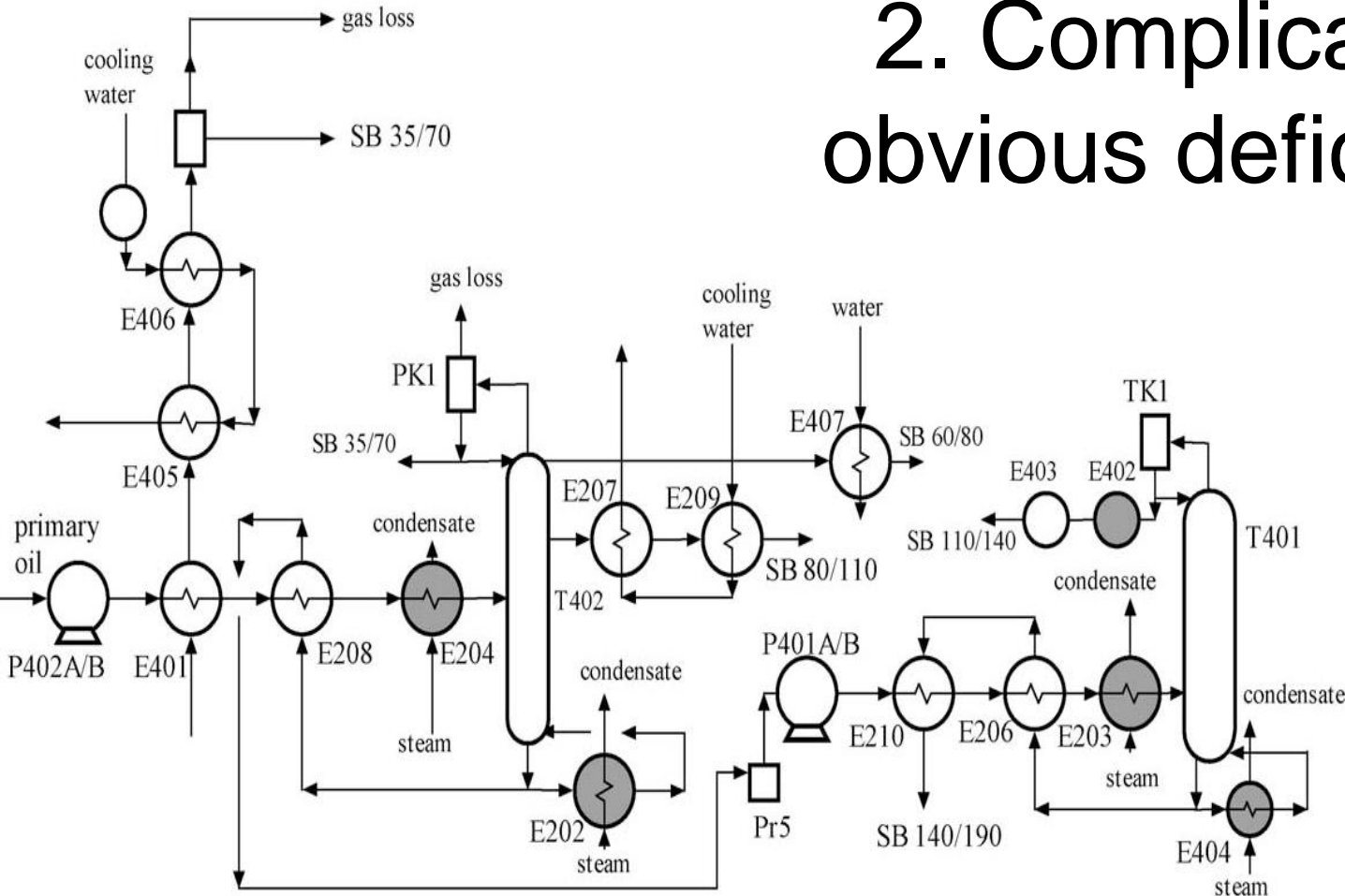
What you don't have
can't leak



People who aren't there
can't be harmed

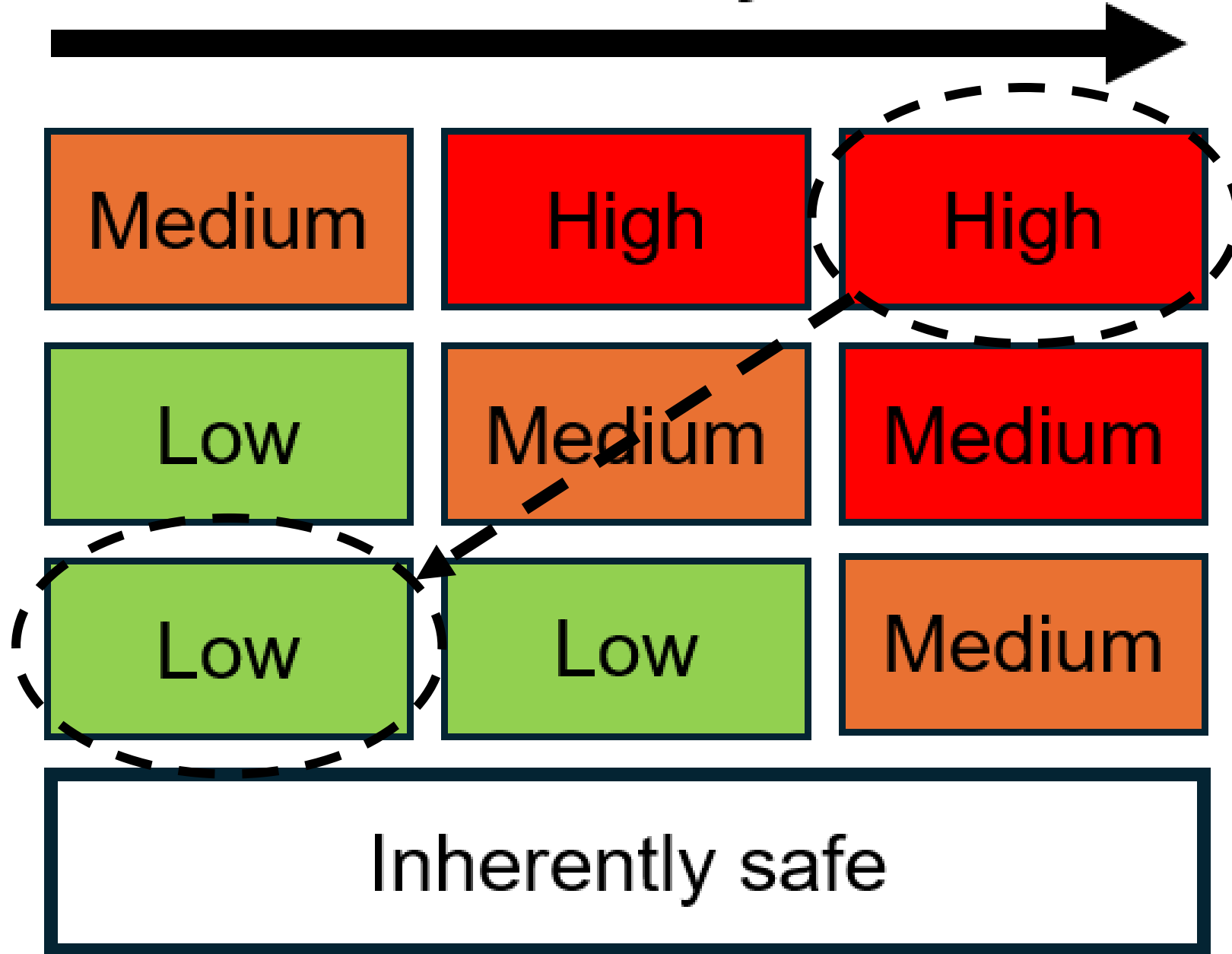
There are two types of design

1. Simple so there are obviously no deficiencies,
2. Complicated so there are no obvious deficiencies



Severity

Probability



MOST
EFFECTIVE

ELIMINATION

PHYSICALLY REMOVE
THE HAZARD

SUBSTITUTION

REPLACE THE HAZARD

**ENGINEERING
CONTROLS**

ISOLATE PEOPLE
FROM THE HAZARD

**ADMINISTRATIVE
CONTROLS**

CHANGE THE WAY
PEOPLE WORK

PPE

PPE IS AN EXAMPLE OF MITIGATION
INTENDED TO PROTECT WORKERS
AFTER CONTROL OF HAZARD

LEAST
EFFECTIVE

Paul Fitts – 1950's

People are better than machines at:

Detection

Induction

Perception

Improvisation

Judgement

Long term memory

Machines are better than people at:

Speed

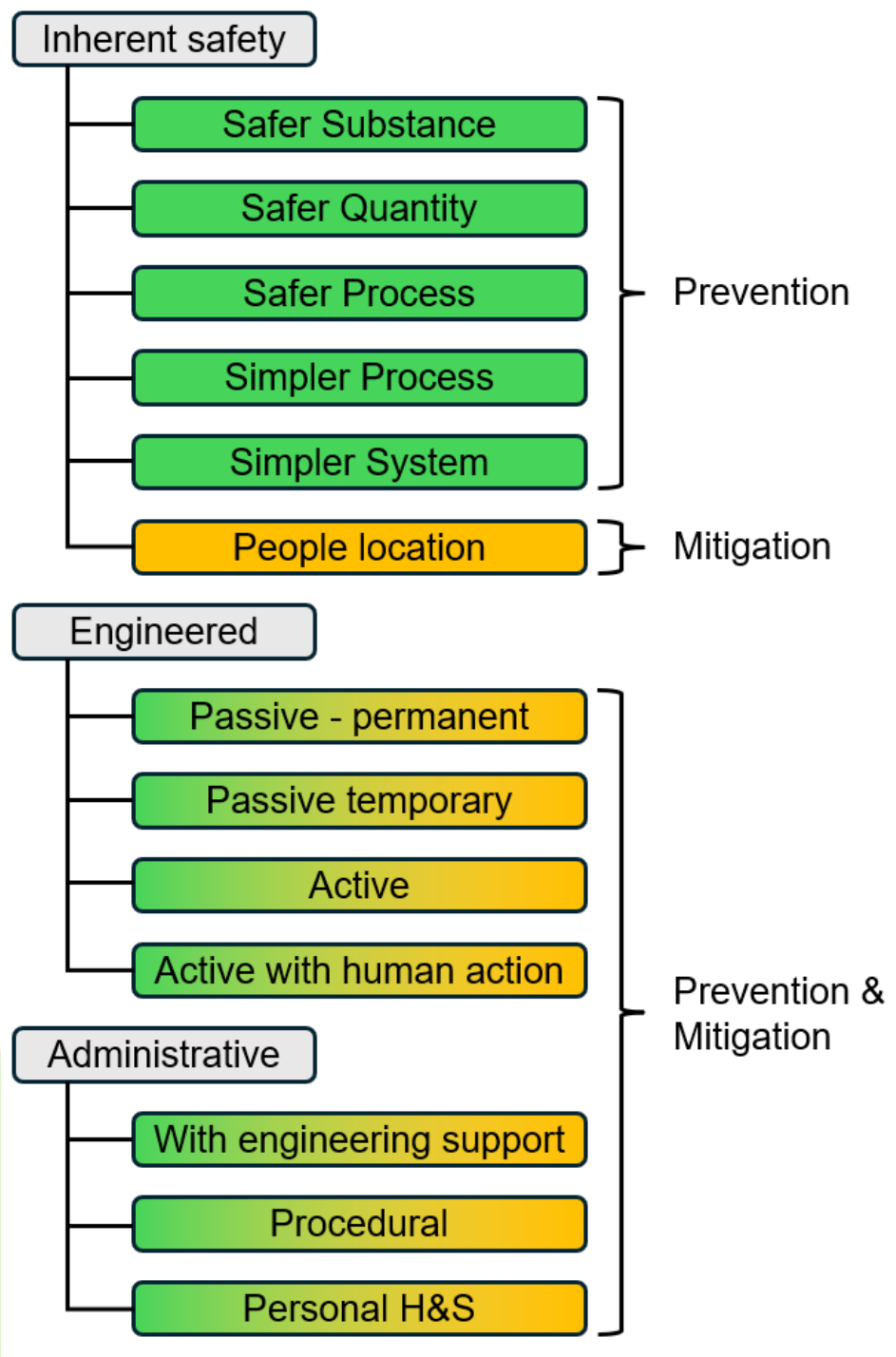
Replication

Power

Simultaneous operation

Computation

Short term memory



1 June 1974

31 July 1974

the-flixborough-disaster-report-of-t... 1 / 108 100%

PARTMENT OF EMPLOYMENT

**The Flixborough
disaster**

Report of the Court of Inquiry

HS010674

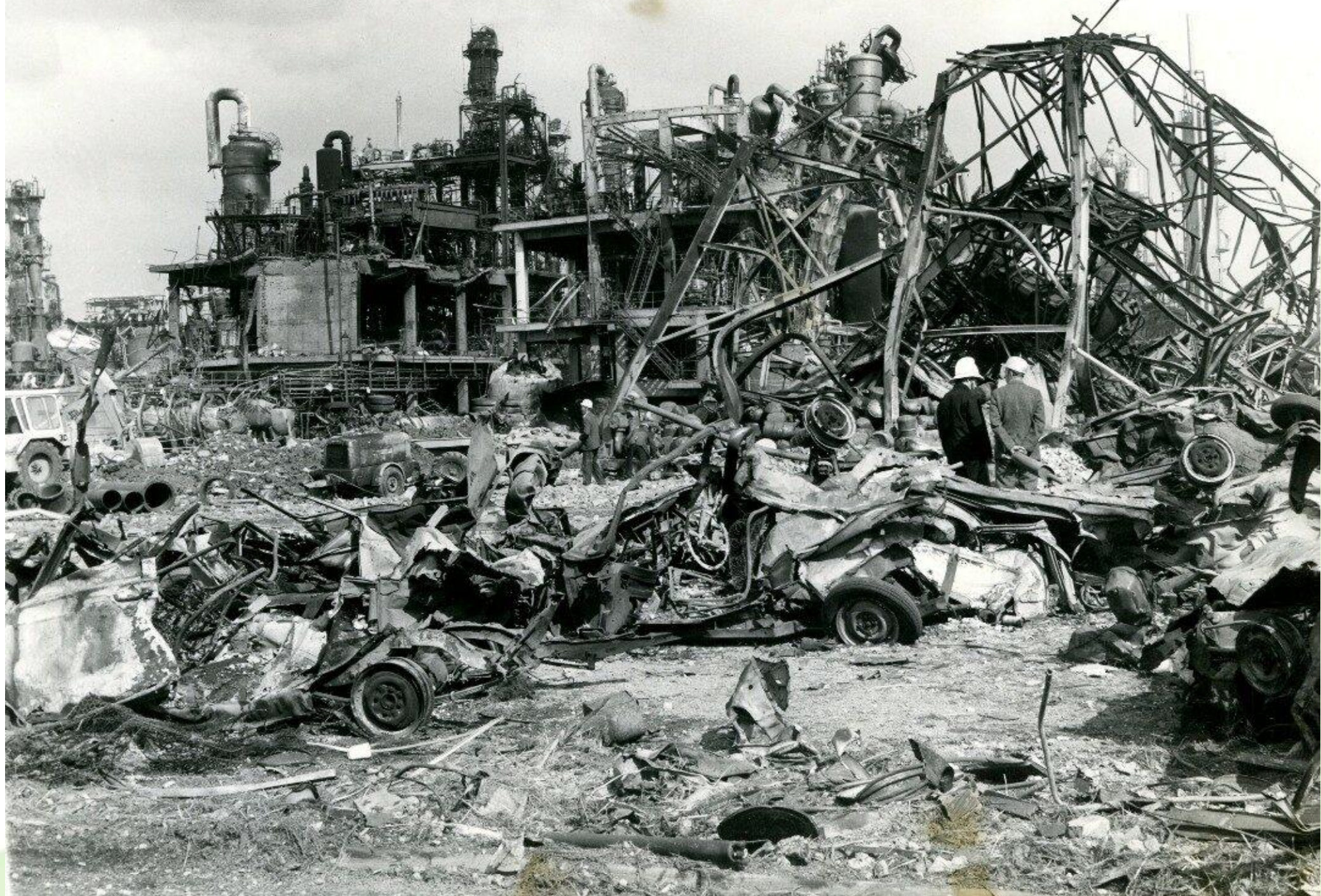
legislation.gov.uk/ukpga/1974/37/contents/data.pdf

Work etc. ... 1 / 6 100%

Changes to legislation: Health and Safety at Work etc. Act 1974 is up to date with all changes known to be in force on or before 17 October 2024. There are changes that may be brought into force at a future date. Changes that have been made appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes



Health and Safety at Work etc. Act 1974





TO COMMEMORATE
THOSE WHO
LOST THEIR LIVES
1st JUNE 1974

JOHN BARRETT
WAYNE BRADSHAW
TERENCE CARTER
MICHAEL CLARK
KENNETH CRAWFORTH
ROLAND CRIBB
THOMAS CROOKES
JAMES DOHERTY
STEVEN DRURY
RONALD FORSTER
ANTHONY FREEAR
STANLEY GRUNDY
MICHAEL HICKSON
EDWIN HOLLAND
IAN KIDNER
ALLAN LAMBERT
DENIS LAWRENCE
THOMAS LEIGHTON
GEOFFREY MARSHALL
ALBERT NUTT
JOHN RENDER
GRAHAM RICHARD
RICHARD SIMPSON
MICHAEL SKELTON
HARRY STARK
GEOFFREY TWIDALE
FREDERICK WATKINS
KEITH WINTER

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