

Nuclear 101

RISK

Probability
of
Event

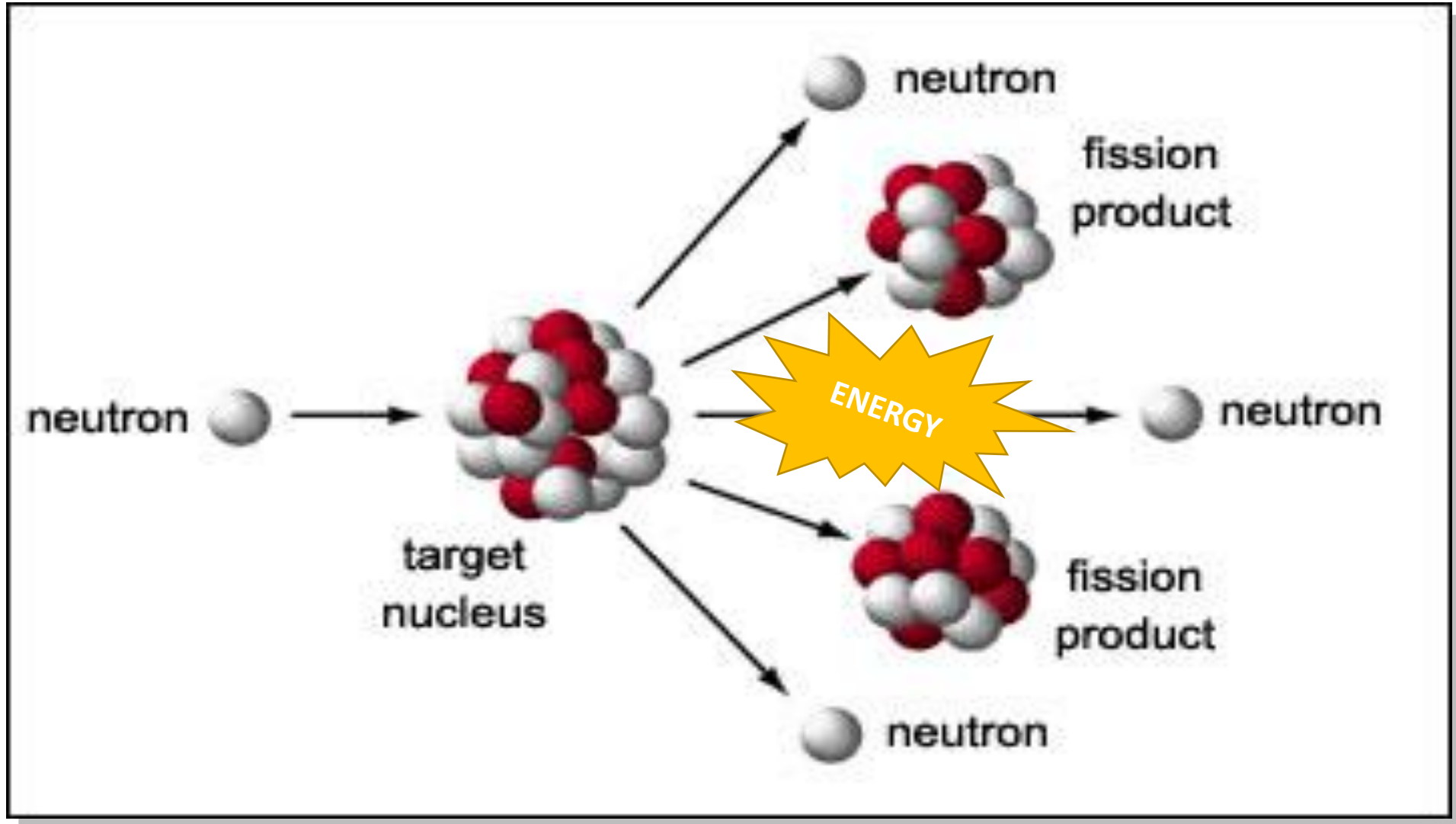
X

Consequences

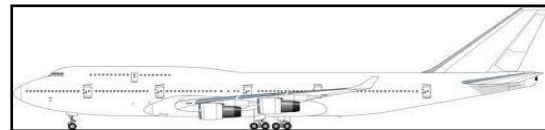
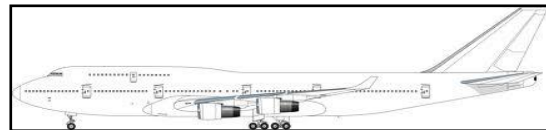
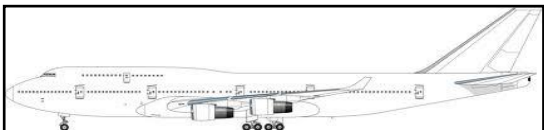
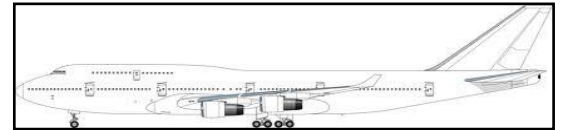
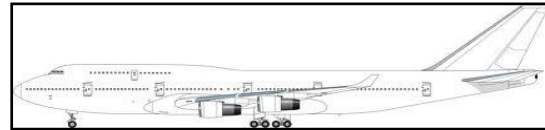
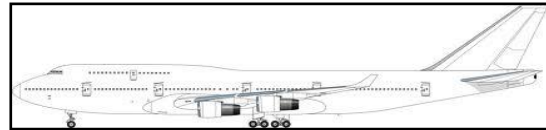
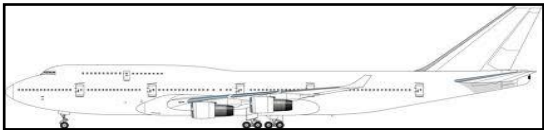
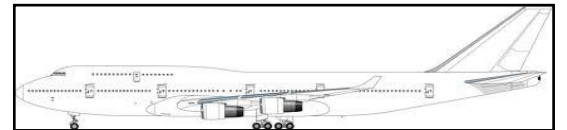
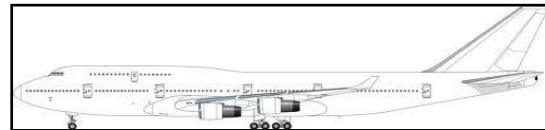
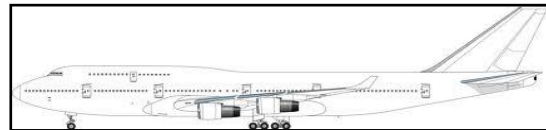
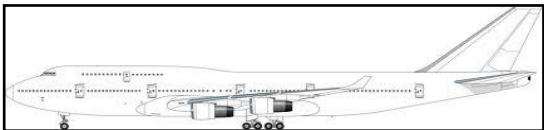
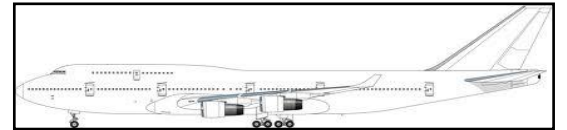
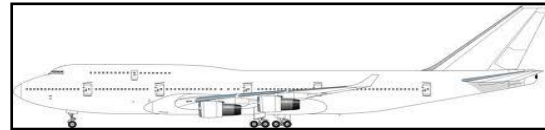
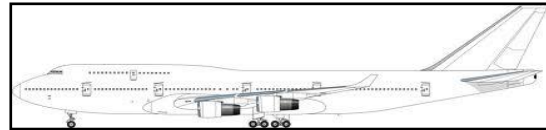
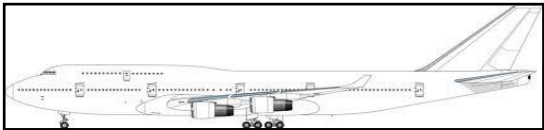
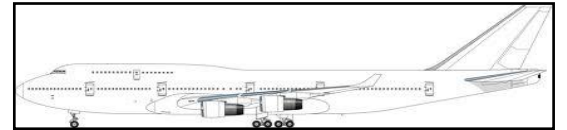
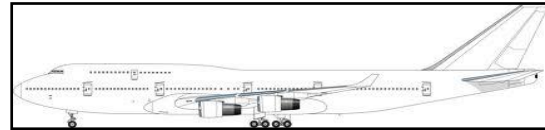
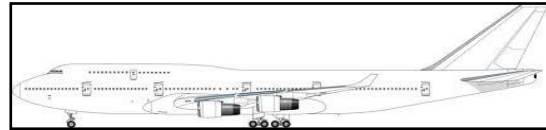
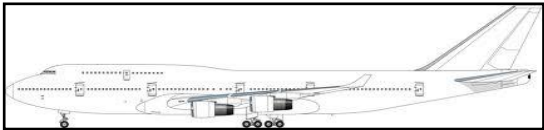
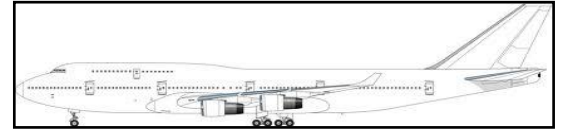
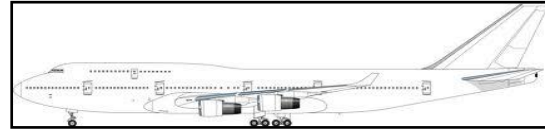
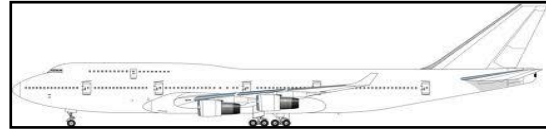
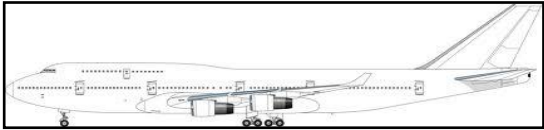
Design
Procedures
Training
Safety Culture
Behaviours



Fission



How Much Energy?



Nuclear Safety –The 3 Cs

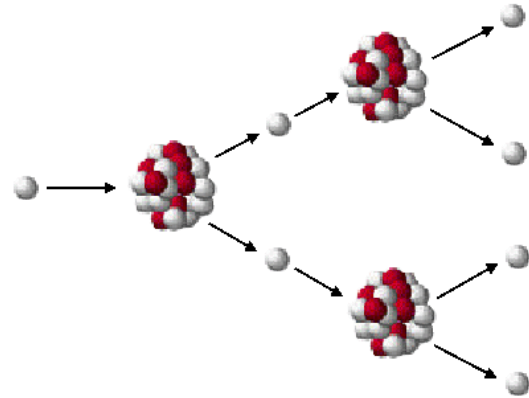
Control

Cool

Contain

Control

- Maintain **Control** of the Chain Reaction



- Shut Down the Reactor

SDS1

SDS2

Cool

- Cool the Fuel at all times



- Even after Shut Down

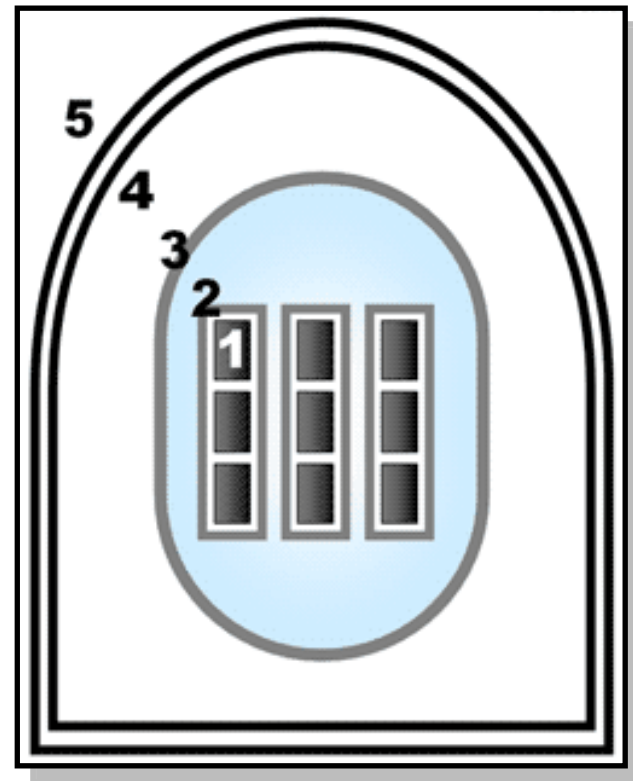
Shut Down Cooling

Emergency Core Cooling

Contain

Contain any reactivity that may be released

1. Fuel Pellet
2. Fuel Bundle
3. Heat Transport System
4. Containment Structure
5. Exclusion Zone



RISK = Probability of Event X Consequences

Questions?