

Chernobyl

EPSC Learning Sheet , Dec 2019



What Happened:

During a test, before shutting down a nuclear reactor, the graphite rods were lifted to regain activity. When activity got too high, the emergency stop was activated, but it did not work and an explosion took place: worlds largest nuclear disaster.



Aspects:

- The test was not well prepared or authorised
- Due to a personal error the activity dropped below the point of the test. Regaining activity in the Xe poisoned reactor was difficult and dangerous. The test should have been aborted
- The test leader had personal interest to get the test executed, and forced it into a dangerous area
- The emergency stop, was slow and initially increased nuclear activity. These flaws were known but not addressed. The explosion happened after starting the emergency shutdown
- Due to the heat of the nuclear run away the graphite rods got stuck and could not be re-entered in the reactor
- The incident was badly communicated, limiting adequate emergency response

Plant tests can be hazardous and need good preparation and authorization