



SAFETY ALERT



JKKP/DOSH

SAFETY ALERT EXPLOSION OF A STERILIZER



An explosion occurred in the sterilizer causing the inlet quick opening door in the sterilizer forced open around 12.30 pm. A complete cycle of a fresh fruit bunches (FFB) cooking process occurs at 42 psi steam pressure for 50-52 minutes. During the event, the sterilizer unit was found to explode at 30 psi steam pressure resulting the inlet quick opening door of the sterilizer forced open from inside. The contents were thrown out and caused damage to the part of the building's wall structure.

In order to prevent accidents in the work place the following preventive measures should have been taken: -

- i. Sterilizer inspection and operation need to emphasized consists of diameter of door, lock ring and other components with pressure must be monitored.
- ii. Periodic maintenance record must be updated and audited.
- iii. Ensure during inspection there is no defect at the quick opening door, integrity of the weld joints and lock ring.
- iv. Ensure that insulation completely intact to prevent the sensor damaged
- v. Design calculation need to improved to ensure the tolerance of door and lock ring should follow the specification and recommendation from the manufacturer.

References:

1. Factory and Machinery Act 1967
2. Pressure Vessel Field Manual, Common Operating Problems dan practical solutions. Elsevier Inc.