



Sequence of Operation

Electrostatic precipitators are typically installed at a power station in order to remove smoke from waste gases that are produced during the burning of fossil fuels such as coal and oil.

- 1) The precipitator needs to be isolated and earthed before personnel can enter, therefore the circuit breakers must be isolated by turning and removing the 8 keys from the panel mounted key switches to trip the breakers.
- 2) The 8 released breaker keys can now be inserted and trapped in the 28 way key exchange unit before the 20 trapped keys can be released.
- 3) These 20 keys are then used to open the earth box doors which are located on the roof of the precipitator. The earth box doors are fitted with purely mechanical double doors locks with fixed actuators with chains and plates that are attached to the front of the doors. Once the doors have been opened, the 20 trapped keys from the door locks can be released and returned to the substation to be inserted into the 25 way key exchange unit.
- 4) Inserting the 20 trapped keys from the earth box door locks into the key exchange will release 5 trapped keys that can now be inserted into the mechanical double door locks that are mounted to the Precipitator inlet doors. The precipitator door locks will then release a further 5 trapped keys, enabling the inlet doors to be opened.
- 5) These 5 released keys from the precipitator inlet doors must now be taken back to the substation and inserted into the 6 way key exchange unit which will release 1 final trapped key that must be taken to the station lockout for safe keeping.

