

---

## EDF Rod Drop Monitoring

### **Rod Drop Monitoring Commercial Off The Shelf (COTS) System Integration**

#### **Hinkley Point B, Dungeness and Hunterston B**

The recording of control rod drop times is a regulatory requirement of the nuclear site license. To overcome the spares issues with obsolete equipment, ITI developed a new Rod Drop Monitoring system using commercially off-the-shelf hardware and software. The following solution can be easily adapted to the requirements of any nuclear power station, and has a proven install base.



**System Benefits**

**Automatic data processing:**

The previous system involved laborious manual intervention to process & print the data charts. All data processing & chart printing is fully automated in the new system.

**Calibration facility:**

The system includes a calibration spreadsheet HMI to allow operators to calibrate the rod height data against actual rod height (conversion of pulse inputs into analogue rod height).

**Resolution:**

The system provides increased resolution & extended windows for the data charts. This enhances the data quality for 'post trip' analysis work.

**Chart Display:**

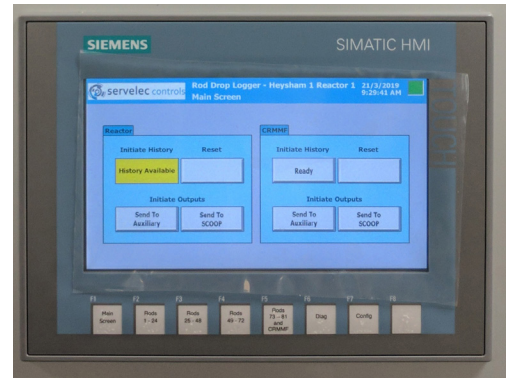
Multi-line detailed charts showing 2 secs before trip and 28secs afterwards.

**Security:**

User access is based on an 'administrator controlled' user privileges set-up.

**File management and archiving facility:**

Offering user-friendly off-line storage of trip & calibration data.



- Real-time rod height display & slack switch status

- Automatic collection of 'reactor trip' data.

Data window requirements:

- Data window to start at 2 sec. pre trip condition
- Data window to extend for 28 sec. post trip condition
- Data collection to include all 121 rods.
- Data resolution: 20 msec.

- Data to be visualised through chart display & printouts: rod height versus time

- System to calculate intermediate values

- Alarm system to include: reactor trip, power supply failure & system health status



**Contact us**

T +44 1246 437600  
 E enquiries@itigroup.co.uk  
 www.itigroup.co.uk

**Follow us**

LinkedIn: /ITI\_transforms  
 Twitter: @ITI\_transforms