

Process Safety Forum

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Process Safety Alert 007

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Process Safety Forum

Subject:

Electricity Meter maintenance

Issue

CBA members have reported incidents involving 'overheating electrical cables' at premises which had occurred at or before the electricity meter. The equipment is not owned by the premises operator and they are precluded from any inspection, testing or maintenance work on the equipment by contract terms, tamper evident tabs etc.

Learning

The current systems for meter inspections results in the process being split between:

- The Electricity Distribution Network Operators (DNO)
 - Who are responsible for the cables into the premises, up to the cut-out fuses (or similar)
- The Meter Operator
 - Who is responsible for the metering equipment
- The customer
 - Who is responsible for the meter tails

The exact boundaries will depend on the type of installation - clearly the engineering involved in a High Voltage site and a small commercial site (similar to domestic) will vary considerably.

The energy utilities do have a responsibility for their equipment, even when located on company premises, under the Electricity Safety, Quality and Continuity Regulations 2002 (SI No 2665). Reg 3 (1) is relevant:

3.—(1) Generators, distributors and meter operators shall ensure that their equipment is—

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- a) sufficient for the purposes for and the circumstances in which it is used; and
- b) so constructed, installed, protected (both electrically and mechanically), used and maintained as to prevent danger, interference with or interruption of supply, so far as is reasonably practicable.

24.—(1) A distributor or meter operator shall ensure that each item of his equipment which is on a consumer's premises but which is not under the control of the consumer (whether forming part of the consumer's installation or not) is:

- a) suitable for its purpose;
- b) installed and, so far as is reasonably practicable, maintained so as to prevent danger; and
- c) protected by a suitable fusible cut-out or circuit breaker which is situated as close as is reasonably practicable to the supply terminals.

Other obligations in the Health and Safety at Work Act (HASWA) 1974 and Electricity at Work Regulations (EAW) 1989 also apply.

Metering equipment has a life of between 10 and 25 years. The life is determined from physical issues, and metrological accuracy. The larger (over 100kW) sites will be nearer the **ten years** period.

There is a current programme to replace all meters with electronic remotely read meters, which is currently estimated to be half way through implementation. To make these meter changes, an electrically capable meter operative will have to visit the premises, breaking seals, removing covers, etc. to access more equipment than a meter reader would ever do. As a result of this work any problems with the equipment surrounding the metering would be more evident. Any identified problems, or concerns, would be highlighted to the DNO and/or customer, as appropriate.

Further considerations

Organisations who own premises with an electricity meter(s), should:

1. Check their electricity meter to determine the general age of the equipment, this is fairly easy.

If the meter still contains a rotating metal disc and non-digital gauges then it is an old meter and you should then contact your supplier to determine

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when, or if, the meter is scheduled to be changed.

2. Determine the last time the meter was inspected.

This is especially important if your supply is over 100Kw and there is storage of a volume of flammable materials on site. If the last inspection was over eighteen months then arrange to contact the meter supplier.

3. Implement a process to monitor the meter inspections.

As part of your safety policy and procedures regarding electricity at work introduce a verification process regarding meter inspections and then arrangements to contact the supplier if they are over six month late. This is more critical for high hazard sites where the risk of an electrical fire needs to be controlled.

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