

MOUNT ST. HELENS TECHNICAL INFORMATION NETWORK

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BULLETIN #22 - "Electric/Electronic Protection---Commercial and Major Systems"

Volcanic ash from eruptions of Mount St. Helens presents several classes of problems for electric and electronic systems:

- * Abrasion of moving parts, especially rotating elements.
- * Jamming of mechanical components.
- * Shorting or grounding of circuits.
- * Etching of painted and metal surfaces.
- * Generation of excessive heat under a blanket of dust or because of obstructed vents.

In general, the severity and frequency of such problems can be reduced through good housekeeping and sound maintenance programs. These measures apply to mechanical as well as to electrical systems. For example:

- * Sensitive systems should be isolated from dust.
- * Insulators should be kept clean.
- * Rubbing and brushing should be avoided.
- * Programs of protection or cleaning should be continuous because of the recurrence of blowing ash.

The foregoing are confirmed by reports from power and communications organizations operating in the ashfall area. Few actual outages have been recorded, but the potential for such problems persists. Specific difficulties reported include:

* Difficulty in operating electro-mechanical items, such as