

— Phase A
 — Phase B
 — Phase C

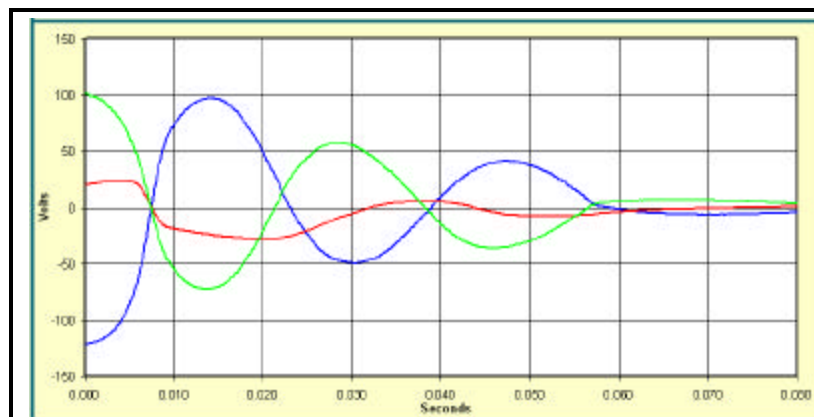
Waveform: Start of Event

Analysis

As the TEALwatch® loses power, it grabs two quick snapshots which are recorded as a **Power Loss** event. This is not an RMS or transient waveform triggered event, but rather related to TEALwatch loss of voltage.

Here, several normal cycles with no

Event	Date and Time	Type	Severity	Minimum	Maximum	Duration
2	9/12/05 10:59:31	Power Loss	Severe	0	0	1



— Phase A
 — Phase B
 — Phase C

Waveform: End of Event

Analysis

The voltage waveform decays, with an immediate change in frequency. This is typical of a power loss related to the PDU / PCPU being switched-off (primary) – the capacitance and inductance of the PCPU result in a low frequency decay of voltage when there is no significant output load.

Event	Date and Time	Type	Severity	Minimum	Maximum	Duration
2	9/12/05 10:59:31	Power Loss	Severe	0	0	1

Technical Analysis

With a minimal output load, the PDU / PCPU looks like a tank circuit: Inductance (L) related to the isolation transformer and Capacitance (C) related to the output filter .

When input power is switched off locally (via a contactor, circuit breaker, or switch), the LC tank circuit rings, at a characteristic frequency that is often different from the 60 Hz power system frequency.

If there is a significant load (R) applied when power is switched off on the PDU/PCPU primary, there is usually a rapid loss of voltage, with no significant ringing or decay time.

If the voltage loss is at the facility level or on the utility (vs. a local switch-off of voltage), the AC voltage will decay with a frequency very close to 60 Hz, as rotating motor loads in the facility or on the utility backfeed the electrical system for a few cycles.

