

**MP 608 – Marshall, Michigan Incident  
NTSB/PHMSA Information Request No. 192**

**192. Reference:** Email request by Matt Nicholson of December 22, 2010

**Preamble:**

**Request:** List of AOC's.

**Response:** Pipeline Obstruction  
Suspected Overpressure  
MBS Alarm  
Suspected Leak  
Confirmed Leak  
Site Emergency Alarm  
Suspected Column Separation  
Communications Failure  
SCADA Field Equipment Malfunction  
Station Lockout  
Valve Malfunction

## a) Abnormal Operating Conditions

An Abnormal Operating Condition (AOC) is a condition that may indicate a malfunction of a component or deviation from normal operation that may:

- Indicate a condition exceeding design limits, or
- Result in a hazard(s) to persons, property or the environment

The following are identified as AOCs for Control Centre Operations. Additional conditions that could constitute an AOC according to the above definition must be reported to CCO Management.

### Pipeline Obstruction

[Obstruction Triggers – Pipeline](#) <Link>

[Obstruction Triggers – Terminal](#) <Link>

[Pipeline Obstruction](#) <Link>

### Station Lockout

[Station Lockout](#) <Link>

### Suspected Leak

[Suspected Leak - Pipeline - From SCADA Data](#) <Link>

[Building Leak Detected](#) <Link>

[Densitometer Trouble or Densitometer Leak](#) <Link>

[Station Trouble \(those that state "bldg leak"\)](#) <Link>

[Leak Triggers - From CMT Data](#) <Link>

[Leak Triggers - From SCADA Data](#) <Link>

### MBS Alarm

[MBS Alarm](#) <Link>

[MBS System Malfunction](#) <Link>

### Suspected Column Separation

[Suspected Column Separation](#) <Link>

### Communications Failure

[Communications Failure – Pipeline](#) <Link>

[Communications Failure – Terminal](#) <Link>

### SCADA Field Equipment Malfunction

[PLC Outage – Station](#) <Link>

[PLC Failure - Frozen Data](#) <Link>

[Pressure Readback Outage – Station](#) <Link>

### Confirmed Leak

[Confirmed Leak - Pipeline - SCADA or CMT Data](#) <Link>

### Valve Malfunction

[Terminal Valve Failures <Link>](#)  
[Sectionalizing Valve Alarms <Link>](#)  
[Sectionalizing Valve - Command Failure <Link>](#)  
[Station Trouble \(those that state "PCV pump not running"\) <Link>](#)

### **Site Emergency Alarm**

[Fire Alarm – Terminal <Link>](#)  
[Gas Alarm – Terminal <Link>](#)  
[Fire Alarm – Station <Link>](#)  
[Gas Alarm – Station <Link>](#)  
[Tank High High Level Alarm <Link>](#)

### **Suspected Overpressure**

[Overpressure Triggers <Link>](#)

### **Reported Incident**

[Reported in Incident Receiving Form <Link>](#)

### **Related Topics**

[Abnormal Operating Condition Reporting Requirements](#)