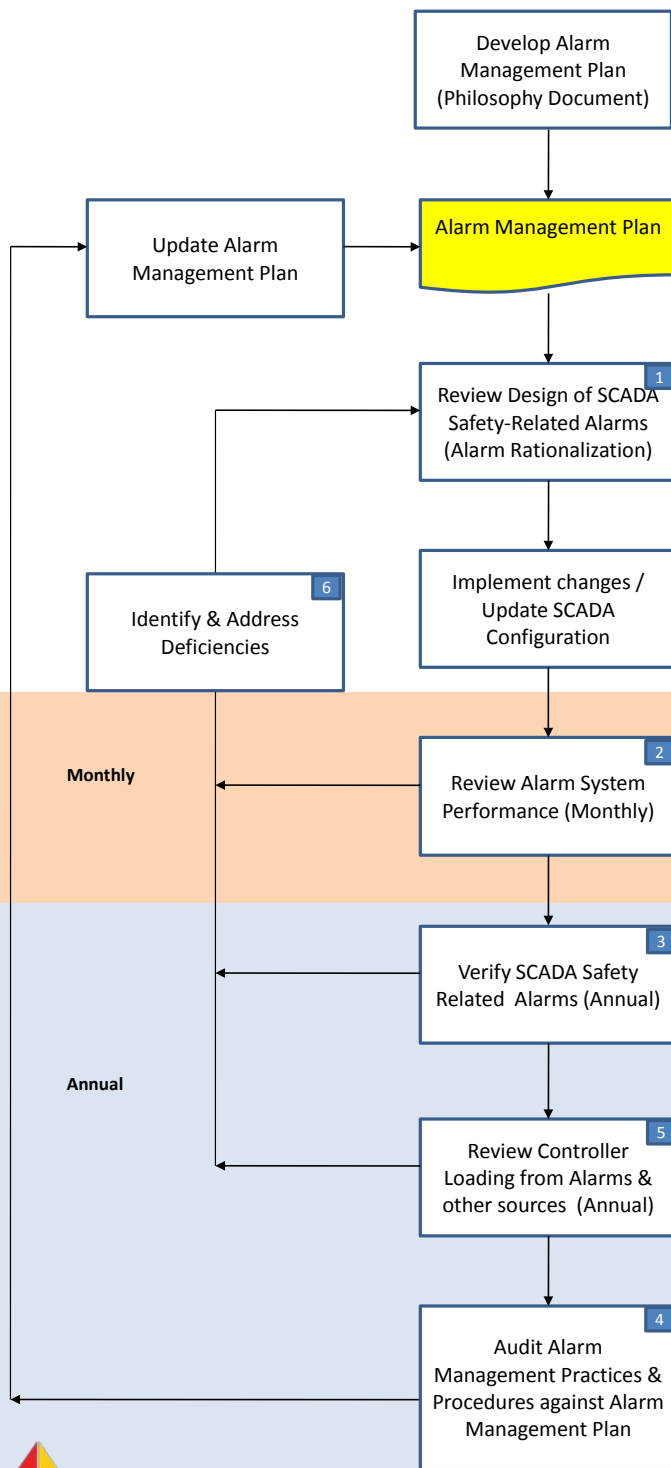


**Control Room Management (CRM) Compliance
Alarm Management Requirements**



- Contents of Alarm Management Plan**
- Design (Priority, Limit, Deadband)
 - Display of Alarms / HMI Design
 - Performance Metrics (e.g. # of alarms / hour)
 - Alarm Handling Methods
 - Roles and Responsibilities
 - Alarm Response Procedures
 - Change Management
 - Training
 - Maintenance and Testing
 - Alarm System Improvement Process

- Justify Alarms and Determine / Document Settings in a Master Alarm Database**
- Consequence
 - Time to Respond
 - Priority
 - Limit (Setpoint)
 - Description (Cause / Purpose)
 - Corrective Action
 - Confirmation / Verification

Monthly

- Identify Problem Alarms**
- Nuisance / False Alarms
 - Alarms taken off scan
 - Inhibited alarms
 - Stale / Standing Alarms
 - Frequently Occuring Alarms
 - Alarm Floods
 - Alarm Priority Distribution

Annual

- Safety Alarm Verification**
- Comparison of actual vs design settings (Master Alarm Database)
 - Alarm Limit (setpoint)
 - Description
 - Priority

- Analyze Load on the Controller**
- Number of Alarms
 - Commands executed thru SCADA
 - Phone calls
 - Reports
 - Load forecasting & supply

- Audit Areas**
- Controller Feedback / Improvement
 - Procedures in use vs specified
 - Safety Alarm Activity
 - Alarm System Performance

