

# SYSTEM AUDIT AND ANALYSIS

## 1.0 SYSTEM AUDIT AND ANALYSIS INCLUDES...

- *Equipment and Substation Audit*
- *Documentation of Equipment and System Operating Conditions*
- *Updating One-Line Diagrams*
- *Load and Harmonic Audit*
- *Power Factor and Harmonic Analysis*
- *Short Circuit, Coordination, and Arc Flash Analysis*
- *Development of a Plan with Specific Recommendations*

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## OFTEN, FOR INDUSTRIAL PLANTS OVER 20 YEARS OLD...

- *The system was designed to standards and codes that may be out of date.*
- *There are many different types of equipment.*
- *There is equipment from many different manufacturers.*
- *System and equipment documentation is either incomplete or nonexistent.*
- *One-line diagrams are either badly out-of-date or nonexistent.*
- *Less reliable analog trip devices are in use instead of modern static trip devices.*
- *Consideration is given to replacing aging switchgear.*
- *Equipment short circuit ratings may be inadequate.*
- *Equipment maintenance is lacking.*
- *When a breaker trips or a process misoperates, it is difficult to identify the source of the problem.*

*Develop a “**PLAN**” so that steps can be taken to improve system efficiency and reliability. Begin with a “**SYSTEM AUDIT AND ANALYSIS**” done by the experienced staff at **Qual-Tech Engineers**.*

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## OLDER PLANTS ARE A CHALLENGE...

... THEY ARE OUR “**SPECIALTY**” AT QUAL-TECH!