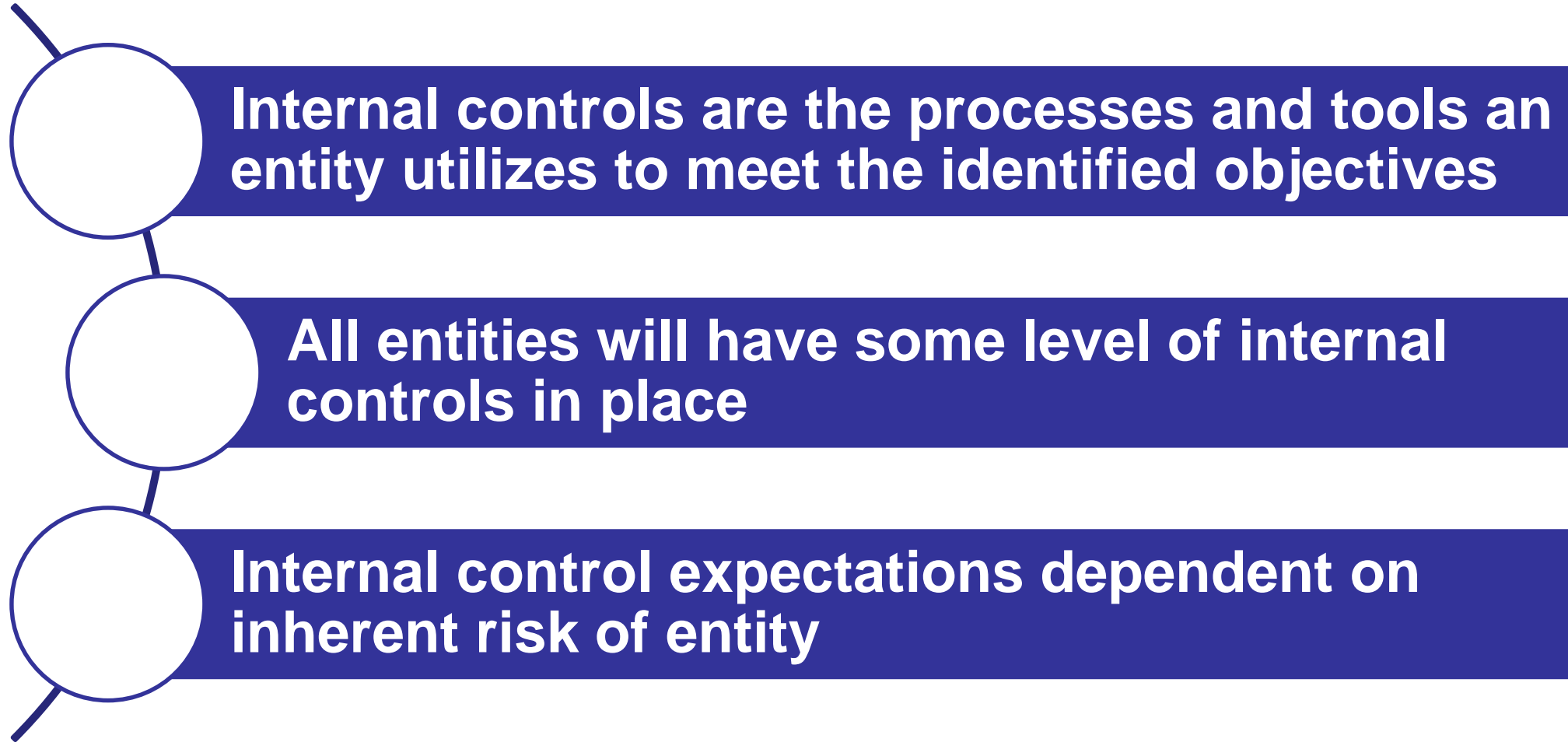


Facility Rating Internal Controls

Objectives

- **Establish Facility Ratings that respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility**
 - Consideration of all applicable equipment
 - Accurate Equipment Ratings
- **Ensure established Facility Ratings are consistently utilized**
 - Protection
 - Analysis
 - Monitoring

Internal Controls



Internal Controls

Methodology

Inventory

Verification

Change Management

Facility Rating Methodology



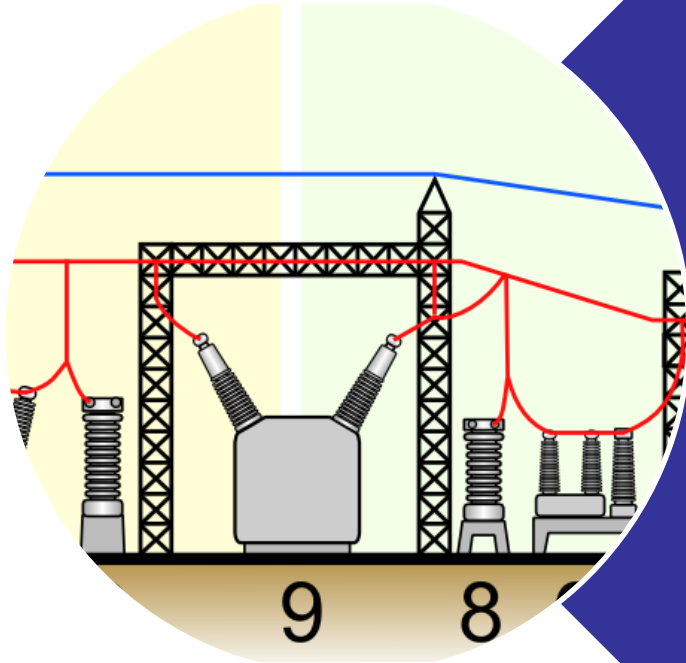
FAC-008 requires registered entities to have a methodology and/or documentation that includes the method, assumptions, and process for determining Facility Ratings

Facility Rating Methodology Example #1

- **Low Bar Power Company has a methodology addressing each item required by the Standard at a high level.**

Facility Rating Methodology Example #2

- **Max Reliability Power Company has a detailed methodology that address each item in the Standard and includes:**
 - Annual reviews
 - Roles and responsibilities
 - Identification of tools
 - Step-by-step work instructions



Inventory tracking of Facility Ratings, the equipment that comprises each Facility, and all Equipment Ratings is necessary for:

- Establishing Facility Ratings
- Evaluating change impacts
- Verifying Facility Ratings

Inventory Example #1

- **Low Bar Power Company maintains a spreadsheet that identifies the series equipment, Equipment Ratings, and Facility Rating for its Facilities**

Inventory Example #2

- **Max Reliability Power Company maintains a database that identifies the series equipment, Equipment Ratings, and Facility Rating for its Facilities, and includes:**
 - Equipment Rating documentation
 - Flagging when Equipment Rating changes impact Facility Ratings
 - Identification of Facilities with unique characteristics
 - Required fields dependent on characteristics of Facilities
 - Automated notification for Facility Rating changes



Verification of Facility Ratings is a detective control to help ensure Facility Ratings respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.

Verification Example #1

- **Low Bar Power Company states that it verified its Facility Ratings using as-built one-line diagrams at the time it established its Facility Ratings**

Verification Example #2

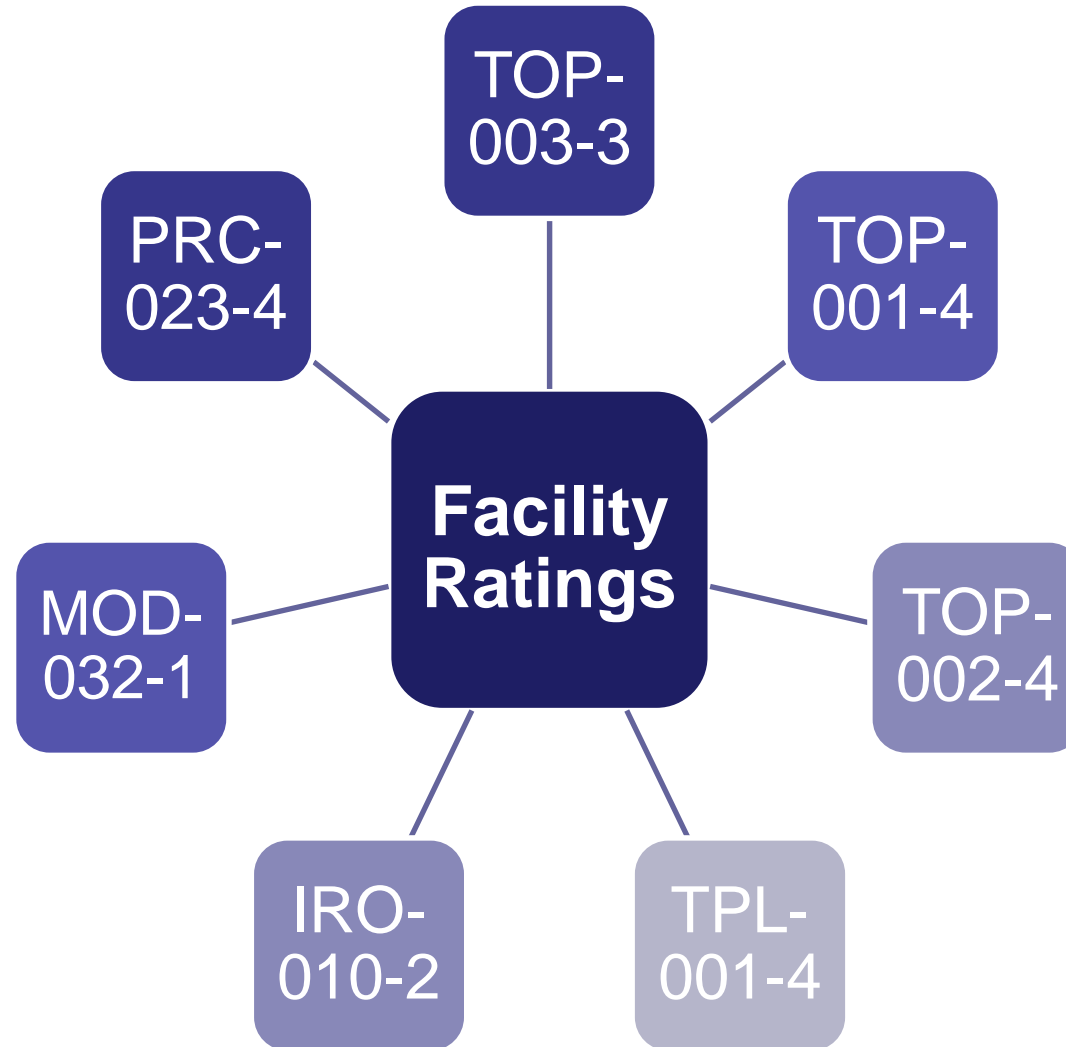
- **Max Reliability Power Company performs annual field inspections of a percentage of its Facilities to ensure all applicable equipment has been considered in Facility Ratings documentation and Equipment Ratings are accurate.**
 - Anomalies evaluated for applicability to other Facilities
 - Identified Facilities prioritized for future field inspections



Change management processes are necessary to ensure:

- Equipment Rating changes are evaluated to identify impacts to Facility Ratings
- Facility Rating changes are evaluated to identify impacts to protection, analysis, and monitoring of the Bulk Electric System

Change Management Example



Change Management Example #1

- **Low Bar Power Company has no documented change management processes but states:**
 - Its personnel will know to review Facility Ratings if equipment changes occur
 - Appropriate personnel should receive an email when Facility Ratings change

Change Management Example #2

- **Max Reliability Power Company has robust documented change management processes for equipment changes that include:**
 - Evaluation of changes by subject matter experts
 - Required change approvals prior to changes being implemented
 - Notification to update inventory after changes implemented
 - Confirmation that changes implemented as planned

Change Management Example #2

- **Max Reliability Power Company has robust documented change management processes for Facility Rating changes that include:**
 - Automated notification of Facility Rating changes
 - Protection Engineering
 - System Planning
 - System Operations
 - Operations Support
 - Checklist to verify appropriate follow-up action(s) taken
 - Periodic comparisons with internal and external models

Questions?

