Electrical System Data
Reasoning behind our Questions

Is any part of your electrical system over 30 years old?
All electrical equipment has a limited service life. Behind outlets and switches is a system of wires, panels, circuit breakers, bus bars and transformers. Repeated surges, power outages, load changes, moisture and dirt all impact the service life. As a result, any electrical systems that are over 30 years old have a much greater occurrence of failure.

Do you have an Electrical Preventive Maintenance Program (EPM) in place?
As electrical equipment ages, an increase in failures occur. More than two-thirds of electrical system failures can be prevented by a routine preventive maintenance program. Studies show that the failure rate of electrical equipment is three times higher for components that are not part of a scheduled preventive maintenance program as compared with those that are. In general, it is recommended that preventive maintenance is conducted once every three years on electrical equipment.

Have there been any recurring problems, such as blown fuses, tripped breakers, flickering lights or overheated appliance cords?
These conditions can be symptoms of an overloaded circuit or electrical system. It can also indicate potential problems with appliances as a result of insulation breakdown, requiring the appliance to draw more electricity to operate. This increases the load on the system. A qualified electrical contractor should be contacted to investigate and correct.

Are there any missing covers on junction boxes, panels, switches and receptacles?
Electrical equipment needs to be kept clean and free from dust, dirt and moisture. This will reduce the potential for overheating and arching, as well as reducing the shock hazard from exposed wires and connections.

Have there been any recent changes to the electrical system (i.e. loads added or relocated, equipment upgraded, or equipment failures)?
Understanding if loads have been added or relocated is important, because it can impact the safe operation of an electrical system. Upgrades or changes to an electrical system without proper system redesign can result in increased stress on the existing electrical distribution system and also increase the potential for arcing, fire and failure.

Who is responsible for maintaining your electrical equipment/system?
Only a qualified licensed electrical contractor should be maintaining the electrical system within a facility. The risk of failures and fires decreases significantly when work is performed by a qualified electrician familiar with local and national electrical codes.

Do you have any temporary wiring?
Temporary wiring is unacceptable and increases the risk of electrical equipment failure and fire. Directly wiring extension or electrical cords into electrical panels is unacceptable. The electrical system was not designed for this and it increases the likelihood of overheating. Temporary wiring does not meet the electrical system requirements for loading and may not be properly sized for the voltage and current. Homemade equipment or spliced wiring should also be identified as temporary and immediately removed from service by a qualified, licensed electrical contractor.

Is there any storage of combustible materials in the electrical room? ***A 3' clearance of all storage should be maintained around electrical equipment and when possible, electrical equipment rooms should not be used for any storage. Access to these areas should be limited to authorized maintenance or operations personnel. Placing storage up against electrical panels or near equipment will restrict air circulation and necessary cooling. Excessive heat buildup will result in premature failure and shortened service life. All ventilation vents and openings in equipment rooms should be kept clean and free from obstructions.***

Any evidence of moisture or excessive dirt/dust on the electrical equipment?
Continued exposure to moisture and direct contact with water can result in equipment failures. Electrical equipment areas should be kept dry and equipment protected from moisture. When evidence of moisture contamination is noted, equipment should be examined for damage and necessary repairs made. The source of the moisture needs to be identified and eliminated. All electrical work should be completed by a qualified, licensed electrical contractor.

Exposure Matrix

Electrical Observation Services

Point System by Question:

Point Scale 0-5: with 5 being best case and 0 being worst case from an exposure assessment for loss potential.

Q1. Yes = 0. No = 5. Could not be determined = 2.
Q2. Yes = 5. No = 0. Could not be determined = 0.
Q3. Yes = 0. No = 4. Could not be determined = 4.
Q4. Yes = 0. No = 2.
Q5. Not rated
Q6. Electrical Contractor = 3. Maintenance staff = 1. Other = 0.
Q7. Yes = 0. No = 2.
Q8. Yes = 0. No = 1.
Q9. Yes = 0. No = 3.

Scale Application:

Maximum points possible = 25. Least points possible = 0

Exposure	***Low***	***Moderate***	***High***
25-21 pts.	**x**		
20-15 pts.		**x**	
14-0 pts.			**x**

High Exposure – 0-14 pts.: Locations falling into this category should have a comprehensive visual inspection of the entire electrical distribution system by a qualified licensed electrical contractor. The electrical contractor's inspection should be used to assess exposure areas and compile the data necessary to provide the facility management and Catholic Mutual Group with recommendations to correct adverse conditions, and improve the electrical distribution system at the facility.

Moderate Exposure – 15-20 pts.: A judgment based on the specific responses to our electrical questionnaire will be necessary to determine if further electrical risk assessment services should be recommended or deferred for future evaluation. This determination will be made by Catholic Mutual Group Risk Management in consultation with HSB and the facility management.

Low Exposure – 21-25 pts.: Electrical exposures were found to be acceptable, but should be reevaluated within the next three years or if any modifications or conditions within the electrical distribution system dictate additional electrical assessments are necessary.