

APPENDIX B

**PRIORITY CHARTS**

### 1- Inspection and Maintenance Overview Time Frame

| Priority | Time Frame  | Underground                         | Overhead and Pad-Mounted Equipment  | Wood Poles                          | Wood Pole-Related<br>Public Level<br>Communication Level<br>Power Line Level                          |
|----------|---|-------------------------------------|-------------------------------------|-------------------------------------|---|
| 1        | <b>Immediate</b> -<br>Start corrective action to eliminate hazardous condition.   | Start corrective action process.    | Start corrective action process.    | Start corrective action process.    | Start corrective action process.  |
| 2        | <b>Urgent Condition</b> -<br>Has potential to develop into a hazardous condition. Failure/interruption probable, but there is time to plan corrective action. | Corrective action within 90 days.   | Corrective action within 90 days.   | Corrective action within 90 days.   | Corrective action within 90 days. Separate criteria for Public, Communications and Power Line Levels. |
| 3        | <b>Advanced Degradation</b> -<br>Corrective action required early in inspection cycle.  | Corrective action within 12 months. | Corrective action within 12 months. | Corrective action within 12 months. | Corrective action within 12 months. Separate criteria for Public, Communications and Power Line.      |
| 4        | <b>Moderate Degradation</b> -<br>Corrective action required before the end of the inspection cycle.   | Corrective action within 3 years.   | Corrective action within 3 years.   | Corrective action within 3 years.   | Corrective action within 3 years. Separate criteria for Public, Communications and Power Line.        |
| 5        | <b>Safe and Reliable</b> -<br>No action needed  | Next inspection interval.           | Next inspection interval.           | Next inspection interval.           | Next inspection interval.   |

## 2-Non-Visual Typical Discrepancies of Overhead Wood Poles

| Priority | Time Frame/Action  | Decay pocket (GL or BGL) -<br>Shell thickness at weakest point   | Exterior Shell Rot (GL or BGL) -<br>Depth of rot   |
|----------|--|--|--|
| 1        | <b>Immediate</b> -<br>replace pole.                      | Exposed pocket, with < 0.5" shell on average at FL, causing unstable structure. Failure imminent.  | Exterior shell rot causing unstable structure. Failure imminent.   |
| 2        | <b>Urgent Condition</b> -<br>replace within 90 days.     | Shell ≤ 1.0" and GLCir. = 24" to 50"<br>Shell ≤ 1.5" and GLCir. = 51" to 61"<br>Shell ≤ 2.0" and GLCir. = 62" to higher  | Depth > 1.0" GLCir. = 24" to 38"<br>Depth > 1.5" GLCir. = 39" to 50"<br>Depth > 1.75" GLCir. = 51" to 61"<br>Depth > 2.0" GLCir. = 62" to higher                             |
| 3        | <b>Advanced Degradation</b> -<br>Replace within 1 year.  | Shell 1.0" to 1.5" GLCir. = 24" to 50"<br>Shell 1.5" to 2.0" GLCir. = 51" to 61"<br>Shell 2.0" to 2.5" GLCir. = 62" to higher  | Depth 0.75" to 1.0" GLCir. = 24" to 38"<br>Depth 1.0" to 1.5" GLCir. = 39" to 50"<br>Depth 1.5" to 1.75" GLCir. = 51" to 61"<br>Depth 1.75" to 2.5" GLCir. = 62" to higher   |
| 4        | <b>Moderate Degradation</b> -<br>Replace within 3 years. | Shell > 1.5" to 4.5" GLCir. = 24" to 38"<br>Shell > 1.5" to 5.0" GLCir. = 39" to 50"<br>Shell > 2.0" to 6.0" GLCir. = 51" to 61"<br>Shell > 2.5" to 7.0" GLCir. = 62" to higher<br>Replace if void at 96" AGL. | Depth 0.5" to 0.75" GLCir. = 24" to 38"<br>Depth 0.75" to 1.25" GLCir. = 39" to 50"<br>Depth 1.25" to 1.5" GLCir. = 51" to 61"<br>Depth 1.5" to 1.75" GLCir. = 62" to higher |
|          | Repair within 3 years.                                   | Repair if <b>no</b> void at 96" AGL.   | Depth 0.25" to 0.5" GLCir. = 24" to 38"<br>Depth 0.5" to 0.75" GLCir. = 39" to 50"<br>Depth 0.75" to 1.0" GLCir. = 51" to 61"<br>Depth 1.0" to 1.25" GLCir. = 62" to higher  |
| 5        | <b>Safe and Reliable</b> -<br>No action needed           | <i>No Criteria</i>   | <i>No Criteria</i>   |

### Notes:

1. **GL** – Ground Level; **AGL** – Above Ground Level; **BGL** – Below Ground Level
2. **SF** – Safety Factor
3. Shell thickness measured from two borings at GL or BGL, 90 degrees apart.
4. **GLCir.** – Ground Level Pole Circumference

### 3-Visual Typical Discrepancies of Overhead Wood Poles

| Priority | Time Frame/Action   | Split or Decay in Pole   | Hole/Boring Damage - Animal, Bird or Insect  | Exterior Damage - Compression/Fire/Animal/Mechanical   | Footing/Set Depth  |
|----------|---|--|--|--|--|
| 1        | <b>Immediate</b> -<br>Correct, replace, or PTR.   | Split or decay damage causing unstable structure. Failure imminent - R, PTR.   | Hole/boring damage causing unstable structure. Failure imminent - R, PTR.  | Exterior damage causing unstable structure. Failure imminent - R, PTR.   | Footing/set depth no longer supports pole - C.   |
| 2        | <b>Urgent</b> -<br>Correct, replace, or PTR.<br>Complete within 90 days.                        | Split or decay allows light through pole - R, PTR.<br>Split or decay at critical attachment; bolt pulling through pole - R, PTR.<br>Exposed decay pocket at GL or BGL where part of the shell is gone - R. | Hole allows light through pole - R, PTR.<br>Hole > 2" diameter and extends past center - R, PTR.<br>Cavity with < 1" shell thickness - R, PTR.<br>Three or more holes > 2" diameter within 18" vertical at <b>high stress area</b> - R, PTR. | Compression wood, peeling off > 2" depth - R.<br>Exterior damage > 2" depth and > 1/4 pole circumference (1 quadrant) - R.   | Depth in soil > 20% shallow and heavy equipment (Xfmr/long span/2+ circuits, and so forth) - C.  |
| 3        | <b>Advanced Degradation</b> -<br>Correct, SAM <sup>1</sup> , or PTR.<br>Complete within 1 year. | Split within 6" of critical attachment; not pulling through - C, R, PTR.<br>Decay within 6" of critical attachment; not pulling through - R, PTR.  | Hole > 2" diameter with possible cavity in <b>high stress area</b> - SAM, PTR.<br>Three or more holes > 2" diameter within 18" vertical - SAM, PTR.<br>Insect borings or droppings - SAM.  | Compression wood, peeling off 1" to 2" depth - SAM.<br>Exterior damage 1" to 2" depth and > 1/4 pole circumference (1 quadrant) - SAM.<br>Cross break - SAM.   | Depth in soil > 10% shallow and heavy equipment - C.<br>Leaning > 1' per 10' height with heavy equipment (Xfmr/long span/2+ circuits, and so forth) - C. |
| 4        | <b>Moderate Degradation</b> -<br>Correct, SAM <sup>1</sup> , or re-inspect within 3 years.      | Split within 6" of critical attachment, but contained by construction bolt or adequate repair - Re-inspect.  | Hole < 2" diameter with cavity - SAM, PTR.   | Exterior damage 1" to 2" depth and 2" to 1/4 pole circumference (1 quadrant) - SAM.<br>Extensive top damage > 6" above all critical attachments - C, PTR.<br>Adequate temporary repair - Re-inspect. | Leaning > 1' per 10' height - C.<br>Depth in soil > 10% shallow - C.   |
| 5        | <b>Safe and Reliable</b> -<br>No action needed.   | <i>No Criteria</i>   | <i>No Criteria</i>   | <i>No Criteria</i>   | <i>No Criteria</i>   |

**Notes:**

1. **SAM (Structural Assessment Method)** – To be performed by a specially trained individual; **only** for Priorities 3 and 4, as noted.
2. **PTR (Pole-Top Replacement)** – Only applies if the noted damage is limited to the top five feet of the pole. Certain repairs are not applicable for all PTR situations. PTR requires both (1) **pass intrusive** and (2) **wind load** before actual repair. PTR is a permanent repair.
3. **Critical Attachment** – Examples: guy fixture, X-arm through-bolt, insulator through-bolt, or equipment through-bolt.
4. **High Stress Area** – Ex: For poles with guy, at guy attachment; for other distribution poles, GL up to 5 feet; for H-frame poles, at "X"-brace attachments.
5. **R** = Replace; **C** = Correct.

#### 4-Overhead Pole-Related Typical Discrepancies

| Priority | Time Frame/Action  | Public Level -<br>Up to Inspector's reach   | Communications Level -<br>Cable, phone  | Power Line Level -<br>Above communications level   |
|----------|--|---|---|--|
| 1        | <b>Immediate</b> -<br>Start corrective action.   | Riser and cable damage.<br>Guys/Anchor Rods - BMW, pole leaning,<br>public hazard.<br>Guy guard - BMW, high public traffic. <sup>3</sup><br>Ground wire exposed. <sup>3</sup>   | <i>No Criteria</i>  | Major equipment bracket - BMW.<br>Insulator or pin - BMW.  |
| 2        | <b>Urgent Condition</b> -<br>But there is time to<br>plan.<br>Correct within 90 days.              | Guys/Anchor rods - BMW, pole not leaning.<br>Riser - BMW, uncoupled/gap, cable exposed,<br>no damage.<br>Guy guard - BMW, low public traffic. <sup>3</sup><br>Visibility strip - BMW. <sup>3</sup><br>Illegal attachments.<br>Loose/missing riser strap. <sup>3</sup><br>Uncapped COV riser sweep. <sup>3</sup> | Climbing space obstruction<br>caused by COV - no bucket truck<br>access.<br>Climbing space obstruction<br>caused by others - safety hazard<br>to employee. <sup>5</sup>   | Animal/bird's nest near circuitry/equipment.<br>Braces - BMW.<br>Tie Wire - CDL, BMW.<br>Tap - BMW.<br>Pole switch mechanism - BMW.  |
| 3        | <b>Advanced<br/>Degradation</b> -<br>Repair or replace<br>required within<br>12 months.            | Ground wire - BMW discontinuous and not<br>exposed.<br>Riser - major damage, cable not exposed.   | Riser - CDL, conductor exposed.<br>Ground wire - BMW.   | Riser - BMW and conductor exposed.<br>Insulator or pin - CDL.<br>Ground wire - BMW.<br>Primary side tie insulator touching arm.<br>Pole switch mechanism - CDL, but can be operated.   |
| 4        | <b>Moderate<br/>Degradation</b> -<br>Repair, re-inspect or<br>replace, required<br>within 3 years. | Guy wires - CDL.<br>Riser - CDL, coupling missing or broken and<br>no gap, cable not exposed.<br>Guy Guard - BMW at remote and inaccessible<br>site.  | Communications clearance to<br>power line.<br>Pole steps - BMW, CDL.<br>Riser - separating from pole.<br>Riser - CDL and cable not<br>exposed.<br>Ground wire exposed.<br>Riser strap loose,<br>uncoupled/gap.<br>Climbing space obstruction. <sup>4</sup><br>Growth - ivy/vines on climb-only<br>pole. | Equipment bracket/braces - CDL.<br>Primary side tie insulator wood pin<br>protruding > 1"; insulator not touching arm.<br>Span guy - CDL.<br>"High Voltage" signs - CDL, BMW causing illegibility.<br>Idle hardware (bolts, racks, and so forth).<br>Riser- CDL and cable not exposed.<br>Bond wire - CDL.<br>Ground wire exposed.<br>Primary top tie or secondary insulator touching arm.<br>Pole steps - CDL, BMW.<br>Under arm conduit BMW, CDL.<br>Climbing space obstruction. |
| 5        | <b>O Safe and Reliable</b> -<br>No action needed   | <i>No Criteria</i>  | <i>No Criteria</i>  | <i>No Criteria</i>   |

**Notes:**

1. **CDL** - Cracked/Damaged/Loose. **Performs functions**, may be repairable.
2. **BMW** - Broken/Missing/Worn-out. **Does not perform function** and requires replacement/repair.
3. **Inspector Correctable (IC) items** are to be repaired as part of Detail Inspection.
4. Climbing space obstruction caused by COV - bucket truck access pole.

### 5- Wood Crossarms Typical Discrepancies

| Priority | Time Frame/Action  | Bowed/Fracture/Canting  | Split/Insect/Decay Damage (SIDD)   | Burning/Tracking (Electrical)                              |
|----------|--|---|--|--|
| 1        | <b>Immediate</b> -<br>Start corrective action.                                     | Complete fracture.<br>Partial fracture causes > 5" deflection.<br>Primary bowed > 5" and splintering. Canting - through-bolt pulled out.                        | SSID at through-bolt, arm has moved.<br>SIDD at insulator pin/bolt and pin/bolt ready to separate from arm.  | X-arm tracking - cross section missing > 50%.              |
| 2        | <b>Urgent Condition</b> -<br>But there is time to plan.<br>Correct within 90 days. | Partial fracture causes < 5" deflection.<br>Primary bowed > 5", no splintering.<br>Secondary bowed > 5" and splintering.<br>Canting - through-bolt pulling out. | SIDD at through-bolt, arm has not moved.<br>SIDD at attachment, or insulator pin/bolt and pin/bolt pulling through.<br>If multiple X-arm and bolt at SIDD has pulled through one of two arms.  | X-arm tracking - cross section missing between 25% to 50%. |
| 3        | <b>Advanced Degradation</b> -<br>Repair or replace required within 1 year.         | Secondary bowed > 5", no splintering.   | SIDD at attachment hole or insulator pin/bolt - bolts not pulling through.<br>SIDD within 2" of attachment or insulator pin/bolt hole.<br>If multiple X-arm and bolt at SIDD has not pulled through either arm. No damage on second arm. | X-arm tracking - cross section missing up to 25%.          |
| 4        | <b>Moderate Degradation</b> -<br>Repair or replace required within 3 years.        | <i>No Criteria</i>  | SIDD, but not within 2" of attachment or insulator pin/bolt holes.<br>Split at bolt/pin, but contained by construction bolt, or adequate repair.   | <i>No Criteria</i>   |
| 5        | <b>Safe and Reliable</b> -<br>No action needed                                     | <i>No Criteria</i>  | <i>No Criteria</i>   | <i>No Criteria</i>   |

**Notes:**

1. SIDD – Split and/or insect and/or decay damage.
2. Decay can include various kinds of rot and/or fungi.
3. Insects can include various kinds of termites, carpenter ants, and carpenter bees.

### 6- Streetlights (SL-1) – Typical Discrepancies

| Priority | Time Frame/Action  | Luminaire   | Structure - Non-Wood Pole, Electrolier, Mast Arm  |
|----------|--|---|---|
| 1        | <b>Immediate</b> -<br>Start corrective action.                                     | Broken glass ready to fall.<br>Fixture or fixture door ready to fall.   | Structural/mechanical failure.<br>Vehicle hit pole.<br>Access plate on pole missing - conductor exposed.                                    |
| 2        | <b>Urgent Condition</b> -<br>But there is time to plan.<br>Correct within 90 days. | Fixture door/cover missing.<br>Fixture - visible cracks.<br>Broken/missing glass - no hazard.<br>Streetlight out (SLO) <sup>2</sup> . | Mast arm weak and unsecured.<br>Pole mechanical damage and may fail soon.<br>Anchor bolts missing/rusted through.<br>Large, multiple holes. |
| 3        | <b>Advanced Degradation</b> -<br>Repair or replace required within 1 year.         | <i>No Criteria</i>  | Bolt covers corroded, irremovable.<br>Anchor bolts corroded, irremovable.<br>Small holes.<br>Unauthorized attachments.                      |
| 4        | <b>Moderate Degradation</b> -<br>Repair or replace required within 3 years.        | <i>No Criteria</i>  | Paint flaking, rust.<br>Base metal showing through.   |
| 5        | <b>Safe and Reliable</b> -<br>No action needed                                     | <i>No Criteria</i>  | Light graffiti.<br>Paint chalking, faded.   |

**Notes:**

1. Do not report bullet hole damage unless it causes other discrepancies described above.
2. Streetlight out (SLO) caused by bulb/cell/simple repair corrected in five working days. SLO source feed repairs in 17 working days.

### 7- Overhead Conductors – Typical Discrepancies

| Priority | Time Frame/Action  | Primary Voltage Conductors   | Secondary Voltage Conductors  | Service Drop  |
|----------|--|--|---|---|
| 1        | <b>Immediate</b> -<br>Start corrective action.                                     | Conductor in contact with other conductors or where contact is imminent. Metal debris. Vegetation arcing or heavy contact.   | Conductor - extreme safety hazard to public, such as public level reachable, wire down, bare wires touching anything, wires touching each other at bare spots.  | Drop > 15% reduction in vertical clearance.<br>Drop bare > 10% reduction in vertical clearance.<br>Drop bare and arcing.  |
| 2        | <b>Urgent Condition</b> -<br>But there is time to plan.<br>Correct within 90 days. | Overhead lines not in good repair, such as one-third of strands BMW.<br>Conductor > 10% reduction in radial or vertical clearance.<br>Ivy/vines or vegetation < 18" from energized conductors.<br>Growth on climb-only pole causing inability to operate and access primary devices/equipment.<br>Trees < 4' in HFA. | Conductor > 10% reduction in vertical clearance.  | Drop > 10% but < 15% reduction in vertical clearance.<br>Bare drop < 10% reduction in vertical clearance.<br>Bare drop in tree.   |
| 3        | <b>Advanced Degradation</b> -<br>Repair or replace required within 1 year.         | Conductor - uneven sag in high wind area; foreign material in line.<br>Growth on pole > 18" and < 48" from energized conductors.   | Conductor - bare in rack construction and through tree.<br>Conductor - tree condition causing significant strain or abrasion with visible damage.<br>Conductor < radial clearance with contact.<br>Any growth on pole within secondary level. | Drop < radial clearance with contact.<br>Drop - tree condition causing significant strain or abrasion with visible damage.<br>Bare drop. <sup>3</sup><br>Drop connector bare at weatherhead. <sup>4</sup> |
| 4        | <b>Moderate Degradation</b> -<br>Repair or replace required within 3 years.        | Conductor - uneven sag and not in high wind areas.   | Conductor - bare in rack construction.<br>Conductor < vertical clearance (up to 10% reduction).<br>Conductor - tree condition causing strain or abrasion<br>Conductor < radial clearance - no contact.  | Drop < vertical clearance (up to 10% reduction).<br>Drop - tree condition causing strain or abrasion.<br>Drop < radial clearance - no contact.  |
| 5        | <b>Safe and Reliable</b> -<br>No action needed                                     | <i>No Criteria</i>   | <i>No Criteria</i>  | <i>No Criteria</i>  |

**Notes:**

1. **BMW** - Broken/Missing/Worn-out. **Does not perform function**, needs to be repaired.
2. Clearance or Height- In all cases, clearance or height means G.O. 95 rule minimum values.
3. Replace bare service drop within 12 months.
4. Correct bare weatherhead connector within 12 months.

### 8-Overhead fault Indicators – Typical Discrepancies

| Priority | Time Frame/Action  | Age                              | Functionality  | Integrity  |
|----------|--|----------------------------------|--|--|
| 1        | <b>Immediate -</b><br>Start corrective action.                                     | <i>No Criteria</i>               | <i>No Criteria</i>   | <i>No Criteria</i>                                       |
| 2        | <b>Urgent Condition -</b><br>But there is time to plan.<br>Correct within 90 days. | Age of unit is 20 years or more. | Unit has malfunctioned or has failed to operate when tested. | Visible damage that has caused a malfunction under test. |
| 3        | <b>Advanced Degradation -</b><br>Repair or replace required within 1 year.         | <i>No Criteria</i>               | <i>No Criteria</i>   | <i>No Criteria</i>                                       |
| 4        | <b>Moderate Degradation -</b><br>Repair or replace required within 3 years.        | <i>No Criteria</i>               | <i>No Criteria</i>   | <i>No Criteria</i>                                       |
| 5        | <b>Safe and Reliable -</b><br>No action needed.                                    | <i>No Criteria</i>               | <i>No Criteria</i>   | <i>No Criteria</i>                                       |

**Notes:**

1. Planned replacement cycle for OH Fault Indicators is 20 years.
2. OH Fault Indicators are to be replaced on a program basis. These inspections should only identify Fault Indicators that have passed their 20-year life and were not replaced by the program.

### 9-Arresters and Fuses – Typical Discrepancies

| Priority | Time Frame/Action  | Arresters  | OH Fuses   | UG Fuses   |
|----------|--|--|--|--|
| 1        | <b>Immediate</b> -<br>Start corrective action.   | Failure with visible risk of interruption and/or reduced clearance.        | Any fuse operation.  | Any fuse operation.  |
| 2        | <b>Urgent Condition</b> -<br>But there is time to plan.<br>Correct within 90 days.       | Failure with no visible risk of interruption or reduced clearance.         | Dry/Low liquid level in liquid fuses.                                | <i>No Criteria</i>   |
| 3        | <b>Advanced Degradation</b> -<br>Replace within 12 months.                               | Corroded, missing, or broken hardware.                                     | Corroded, missing, or broken hardware.<br>Holder burned or tracking. | Corroded fuseholder or fuse canister.<br>Missing or broken hardware. |
| 4        | <b>Moderate Degradation</b> -<br>Maintenance required. Repair or replace within 3 years. | If disconnected from circuit, either remove it permanently, or replace it. | <i>No Criteria</i>   | <i>No Criteria</i>   |
| 5        | <b>Safe and Reliable</b> -<br>No action needed.  | <i>No Criteria</i>   | <i>No Criteria</i>   | <i>No Criteria</i>   |