1. General

1.1 This specification covers the requirements for cellular antenna installations on wood distribution poles.

1.2 All costs shall be the sole responsibility of the communications company, unless stated otherwise in this standard.

1.3 This standard is applicable only to distribution lines less than or equal to 34.5kv.

1.4 By submitting a license application, you represent and warrant that you have met the contractual obligations of your Pole Top Antenna Agreement and are thereby affirming you performed a complete structural analysis of the effects of the proposed attachment(s) to NV Energy infrastructure.

2. Pole Selection Criteria

2.1 Installations are limited to distribution poles only.

2.2 Must be an existing wood service pole or NV Energy owned streetlight pole.

2.3 Must be a “clean” pole, meaning, the pole cannot be encumbered by an air break switch, transformer, capacitor bank, regulator, dead-end guys, or a three-phase dip.

2.4 The use of pole top extensions is prohibited.

2.5 Distribution facilities must be nearby for providing electrical service.

2.6 Communications equipment cabinets must not block access to the pole. Conduits shall be run underground between the pole and the cabinet.

2.7 For locations where a proposed pole top antenna is to be installed, the existing pole shall be replaced with a pole 5 feet greater in height to allow required clearances to be met.

3. Application

3.1 All requests must contain the following at a minimum. Contact the Joint Use Department for additional requirements:

a) Installation contractor
b) Address of the pole
c) All information located on the pole tag
d) Photographs of the upper portion of the pole and area around it
e) Drawings of the antenna facilities proposed to be attached (See section 4)
f) A proposed installation schedule
g) Proof of any government required permits (See section 5)

3.2 Only one antenna shall be installed per pole.

3.3 NV Energy reserves all right to make any changes to allow the installation at the communications company’s expense, or decline the proposed location.

3.4 All modifications to the pole or associated electrical system to accommodate the installation shall be paid for by the communications company.

3.5 Any requests to install an antenna must be sent to the Joint Use Department:

Installations in the North:
Joint Use Contracts Analyst
6100 Neil Road
M/S R77CSE
Reno, NV 89511

Installations in the South:
Joint Use Contracts Analyst
7155 Lindell Road
M/S B54RN
Las Vegas, NV 89118

4. Drawings

4.1 The drawings will not be conceptual, but location specific and complete for the proposed installation.

4.2 Drawings shall include:

a) Clearances to current carrying conductors
b) Down guys where required
c) Equipment cabinet sizes and mounting locations
d) Metering and electric service facilities and their proposed locations
e) Antenna array size
f) Wind loading information. If the wind loading is greater than 1.5 square feet, pole loading calculations will be required. Contact the Joint Use Department for details concerning structural analysis and loading calculation requirements.
g) Estimated electrical load for all equipment

5. Zoning

5.1 The customer is wholly responsible for obtaining all government required permits and approvals

5.2 NV Energy reserves the right to remove any and all equipment if requested by the local authority

5.3 The communications company shall perform a TOWAIR (or Landing Slope Facility Calculator) study. The study shall be sent to NV Energy to be filed with the Federal Aviation Administration. If the FAA requires the structure to be registered, an Antenna Structure Registration number must be obtained from the FCC. Any and all requirements from the FAA will be the responsibility of the communications company.

5.4 The communications company shall reimburse NV Energy for any and all engineering studies

6. Equipment Requirements

6.1 Equipment details shall be provided and approved prior to installation.

6.2 All equipment associated with the pole top antenna must be housed in a pad-mounted communications cabinet a minimum distance of 4 feet from the pole.

6.3 A visible service disconnect switch box for the antenna must be provided

a) The service disconnect shall be housed in a lockbox located a minimum of 4 feet away, adjacent or attached to the communications cabinet.
b) The lock must be a “horseshoe” type lock.

6.4 Switch box shall be designed with two enclosures, one for the cutoff switch, the other storing three RF monitoring devices

6.5 RF monitoring devices shall be worn by all NV Energy personnel while servicing the pole. Until the RF device confirms that the power to the RF devices is off, no NV Energy personnel may be within 30 feet of an energized antenna system. NV Energy shall inspect and maintain these devices according to the recommendation by the manufacturer, including maintaining the batteries.

6.7 The meter and associated equipment shall be on a separate meter pedestal or attached to the pad-mounted enclosure.

6.8 A service disconnect is required to comply with NEC. Additionally, a manual transfer switch (double pole double throw, break before make) will be required when connected to an auxiliary generator.

6.9 The telecommunications equipment owner shall incur the cost of removing the equipment from a pole in the event that the equipment is abandoned.

7. Conduit

7.1 All communications conduit which enters the utility space must be non-conductive as per NESC 239H or latest edition/revision. All metallic conduit outside of the utility space must be bonded to the pole ground.

7.2 Conduit less than two inches in diameter may be banded to the pole. Anything larger than two inches, or if there are more than two conduits, must be mounted on standoffs.

7.3 Conduit standoffs must be mounted jointly with NV Energy conduit when a single-phase primary dip is already fixed to the pole.

7.4 Conduit shall not interfere with a lineman's ability to climb the pole.

8. Grounding

8.1 When a ground is not available on the pole, the communications company must request NV Energy to install a ground.

8.2 NV Energy grounds are not guaranteed to comply with the NEC requirements for grounding.

8.3 The communications company must bond their NEC ground to NV Energy's ground with not less than a #4 solid copper conductor.

8.4 The antenna owner shall provide lightning and over/under voltage protection adequate to protect their equipment from damage.

9. Installation Requirements

9.1 Required power outages for equipment installation must be coordinated with NV Energy.

9.2 All work is to be performed by qualified electric linemen, except within the communications space. Work within the communications space must be performed by a qualified communications worker.

9.3 The communications company must notify NV Energy at least 45 days in advance when an outage will be required to service an installed antenna. Outages may not be possible at certain times of the year or under certain power routing conditions.

9.4 Customer shall affix a sign to the pole nearest to the shutoff box reading "High Energy Field – RF Monitors Must Be Worn."

9.5 There shall be a 5 foot minimum clearance from the closest energized conductor to the antenna bracket and/or mounting baseplate.

9.6 The electric service conduit shall be installed on standoff brackets which provide 5 inches of clear space between the conduit and pole face.

9.7 The weatherhead shall be installed such that service conductors shall be more than 40 inches above the highest communications cable or metallic attachment bracket. The communications company shall coordinate with NV Energy to determine the proper location for the weatherhead.

9.8 All installations must be in compliance with the FCC Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01 “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields” or the latest revision thereof.