Tank Owner:

City of Vicksburg

**Tank Location:** 

3580 South Frontage Road

Vicksburg, MS 39180

Licensor Project No.:

124791

Licensee Name:

New Cingular Wireless PCS, LLC

Licensee Site Name:

Indiana Ave (MS)

Licensee Site ID:

J136

Licensee Fixed Asset No:

10024258

## Ninth Amendment to License Agreement

THIS NINTH AMENDMENT TO LICENSE AGREEMENT ("Ninth Amendment") is made as of this 1/2 day of 1/2012/10, 2024, between Utility Service Communications Co., Inc., a part of USG Water Solutions, LLC a Georgia Corporation, whose business address is P.O. Box 1350, 535 Courtney Hodges Blvd., Perry, Georgia 31069 (herein referred to as the "Licensor" or "Company") and New Cingular Wireless, PCS, LLC, a Delaware limited liability company whose business address is 1025 Lenox Park Blvd NE, 3<sup>rd</sup> Floor, Atlanta, GA 30319 (herein referred to as the "Licensee").

#### WITNESSETH

WHEREAS, Licensor and Licensee entered into a License Agreement dated October 15, 2001 ("Agreement"), a First Amendment dated December 15, 2003 ("First Amendment"), a Second Amendment dated June 25, 2008 ("Second Amendment"), a Third Amendment dated September 19, 2011 ("Third Amendment"), a Fourth Amendment dated November 21, 2011 ("Fourth Amendment"), a Fifth Amendment dated April 15, 2013 ("Fifth Amendment"), a Sixth Amendment dated December 15, 2014 ("Sixth Amendment"), a Seventh Amendment dated August 6, 2018 ("Seventh Amendment"), and an Eighth Amendment dated July 17, 2019 ("Eighth Amendment") whereby Licensor granted Licensee permission to install, maintain and operate certain radio communications Equipment ("Equipment") on a Tank Site located at 3580 South Frontage Rd., Vicksburg, MS 39180.

WHEREAS, Licensor, and Licensee desire to modify and amend the Agreement and/or all Amendments as set forth herein.

Section 2 (a) Term and Termination of the License Agreement is hereby amended to extend the existing term of the Agreement. The current Term is to expire on October 31, 2026. Licensor and Licensee hereby extend the Term by adding Four (4) Five (5) year terms (each a "Renewal Term"). The new expiration date of the Agreement shall now be October 31, 2051. The Site Fee provision in the Agreement shall remain the same.

WHEREAS, Licensee desires to remove twelve (12) TMA, nine (9) RRU, six (6) antennas, six (6) RET, twelve (12) 1 5/8" coax. Add six (6) RRU, three (3) Raycaps, six (6) antennas and three (3) DC cables.

WHEREAS, Licensee, PRIOR TO ANY MODIFICATIONS TO THE SITE must provide to Licensor all licenses, permits and any other required documentation; *however*, if said documents are not obtainable prior to the execution of this Ninth Amendment, Licensee must submit said documentation to Licensor no later than three (3) days from their issuance.

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and in the Agreement, the parties hereto agree as follows:

- 1. Exhibit A-8 attached to the Eighth Amendment is hereby replaced with Exhibit A-9 attached.
- Exhibit D-8 attached to the Eighth Amendment is hereby replaced with Exhibit D-9 attached.
- 3. Exhibit E-8 attached to the Eighth Amendment is hereby replaced with Exhibit E-9 attached.
- 4. The amount of the Site Fee provided for in Section 4 of the Eighth Amendment shall be amended to reflect an increase in the Site Fee to: Eight Thousand Four Hundred Twenty Four and No/100 (\$8,424.00) Dollars effective the earlier of the first day of the month in which the modification commence or January 1, 2025 (New Site Fee Commencement Date), which shall be due and payable on the first day of each month. The Site Fee shall thereafter increase in accordance with the Agreement with the next scheduled increase to occur on July 1, 2025, at a rate of three percent (3%). To enable proper crediting of Licensee payments, please include the Site Name, Site Address, Licensor Project Number 124791 and Site I.D. Number on remittance to Licensor.
- 5. In addition to any change in the Site Fee set forth in this Ninth Amendment, Licensee shall pay to Licensor within forty-five (45) days upon Licensee's execution and delivery of this Ninth Amendment a one-time non-refundable Administrative / Inspection Fee in the amount of <a href="Two thousand and no/100">Two thousand and no/100</a> (\$2,000.00) Dollars.
- 6. A final inspection must be completed by a representative of the Licensor. Licensee must supply advance notice to Licensor to perform inspection. Such inspection approval shall not be unreasonably withheld or delayed.
- 7. Section 8 of the Sixth Amendment shall be amended to provide for current notice requirements to Licensor or Licensee as follows:

#### Licensee:

New Cingular Wireless PCS, LLC

Attn: TAG-LA

Re: Cell Site #: J136

Cell Site Name: Indiana Avenue (MS)

Fixed Asset#: 1002425 1025 Lenox Park Blvd NE 3<sup>rd</sup> Floor Atlanta, GA 30319

With a copy to:

New Cingular Wireless PCS, LLC

Attn: Legal Dept Re: Cell Site #: J136

Cell Site Name: Indiana Avenue (MS)

Fixed Asset#: 1002425 208 S. Akard Street Dallas, Texas 75202-4206

If to Licensor:

Utility Service Communications Co., Inc.

Attn: Debbie Sullivan Vice President / Director

P.O. Box 1350

535 General Courtney Hodges Blvd.

Perry, Ga. 31069 Phone: 478-987-4663 Fax: 478-987-1844

Email: Deborah.sullivan@suez.com

Licensor Accounts Receivable:

Utility Service Communications P.O. Box 207365 Dallas, TX 75320-7365

Reference project number 124791 on each remittance.

**Licensor Access Notification Requirement:** 

Lee Duke - Project Manager 478-988-5260 or 478-396-0843

Ог

Debbie Sullivan – Vice President / Director 478-988-5255 or 478-396-9534

10. The parties hereto expressly agree that in the event of any discrepancy or contradiction between the terms of the Agreement and/or any or all Amendments and the terms of this Ninth Amendment, full force and effect shall be given to the terms of this Ninth Amendment, and any clause, condition, restriction or other term of the Agreement and/or any or all Amendments that contradicts any term of this Ninth Amendment is hereby declared null and void. Except as herein modified, and subject to the foregoing, every provision, condition, obligation and covenant contained in the Agreement and/or any or all Amendments shall continue in full force and effect.

IN WITNESS WHEREOF, the undersigned have executed this Ninth Amendment as of the date first written above.

		LICENSOR: Utility Service Con	nmunications Co., Inc.	
	OLOA	Printed Name: <u>Debt</u> Title: <u>Vice Preside</u> Date:	A PARA	
		LICENSEE:		
A	dioa	New Cingular Wire By: AT&T Mobility Its: Manager	Corporation	Gl
		Printed Name: R.  Title: 1/4/20	you Coleman re Director	
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#### Exhibit A-9

Tank Owner:

City of Vicksburg

**Tank Location:** 

3580 South Frontage Road

Vicksburg, MS 39180

**Licensor Project No.:** 

124791

Licensee Name:

**New Cingular Wireless PCS, LLC** 

Licensee Site Name:

Indiana Ave (MS)

Licensee Site ID:

J136

Licensee Fixed Asset No:

10024258

## 1. Frequencies:

Existing:

Transmit: 734-746,758-768,880-894,1982.5-1990,1965-1975,2350-2360,1710-1755 Receive: 704-716,788-798,835-849,1902.5-1910,1885-1895,2305-2315,2110-2155

New:

Transmit: 3450-3550; 3700-3980 Receive: 3450-3550; 3700-3980

2. FCC call Sign(s): KNKA739, KNLG619, KNLG915

3. Type of Service: LTE, FirstNet, 5G, CBand

4. Transmitter(s):

**Existing to remain:** 

Existing to be removed:

Number: NONE

Number: NONE

New:

Number: NONE

5. Receiver(s):

**Existing to remain:** 

Number: NONE

Existing to be removed:

Number: NONE

New:

Number: NONE

6. Diplexers(s): COMBINERS / BIAS-T

**Existing to remain:** 

Number: NONE

Existing to be removed:

Number: NONE

New:

Number: NONE

7. Tower Mounted Amplifier(s): TMA / ODU/ RFU

Existing to remain:

Number: NONE

Existing to be removed:

Number: Make:

Twelve (12) Powerwave LGP 17201

Model:

TMA

Type:

Dimensions: 13.9x14.4x3.7

Weight:

31 lbs

New:

Number: NONE

8. Tower Mounted Remote Radio Heads/Units: RRU / RRH/ FRIG / FXFB / FXMB

**Existing to remain:** 

Number: Nine (9)

Make:

Ericsson

Model:

(3) 4449 B5/B12, (3) 4478 B14,

(3) RRUS-32 B30

Type:

RRU

Dimensions:14.96"x13.19"x10.43"

16.5"x13.2"x7.3" x 27.2"X12.1"X7.0"

Weight: 73 lbs, 59.4 lbs, 53 lbs

Existing to be removed:

Number:

Nine (9)

Make:

Ericsson

Model:

(3) RRUS-12 B2, (3) RRUS -A2 B25

(3) RRUS-32 B66A

Type:

RRU

Dimensions: 7.2"x12.1"x7.0";

20.4"x18.5"x7.5"; "12.8"x15"x3.5"

Weight:

53 lbs, 50 lbs, 15 lbs

New:

Number: Six (6)

Make:

Ericsson

Model: Type:

(3) 4415 B25, (3) 4426 B66 Radio

Dimensions:16.5"X13.4"X5.9"; 15.0"X13.2"X5.8"

Weight:

46lbs, 48.5 lbs

9. Remote Controlled Antenna Tilt Units: RCU / RET

Existing to remain:

Number: NONE

Existing to be removed: Number:

Six (6)

Make:

Kathrein

Model:

860-10025

Type:

RET

Dimensions: 5.9"x2.4"x2"

Weight:

1.16 lbs

New:

Number: NONE

10. Remote Mounted Junction / Distribution Box / COVP Existing to be removed:

Existing to remain:

Number: NONE

New:

Number: NONE

Number: NONE

Existing to be removed:

NONE

Number:

11. Surge Protector(s): Raycaps

Existing to remain:

Number: Three (3)

Make: Raycap

Model: DC6-48-60-18-8F

Type: Surge

Dimensions: 24" x 11" Weight: 32.8 lbs

New:

Number: Three (3) Make:

Raycap

DC6-48-60-18-8C-EV Make:

Surge Type: Dimensions: 24" x 11" Weight: 32.8 lbs

12. Antenna(s):

**Existing to remain:** 

Number: SIX (6)

Make: Kathrein

(6) 800 10992 K Model:

Panel Type:

Dimensions: 105.2"x20.0"x6.9"

Weight: 113.3 lbs

Existing to be removed:

Number: Six (6)

Make: Kathrein 800-10121

Model: Panel Type:

Dimensions: 54.9" x 11.8" x 6.0"

68 lbs Weight:

New:

Number: Six (6) Make: Ericsson

(3) AIR 6419 B77G / (3) AIR 6449 B77D Model:

Panel Type:

Dimensions: 28.3"x16.1"x7.9" / 30.6"x15.9"x10.6"

66.1lbs / 83.6lbs Weight:

13. Microwave(s):

**Existing to remain:** 

Number: NONE

New:

Number: NONE

14. Coax:

Existing to remain:

Number: NONE

Existing to be removed:

Existing to be removed:

Number:

Number:

Twelve (12)

Make:

Heliax

Model:

LCF 158-50A

Size:

1 5/8"

Color:

Black

New:

Number: NONE

EXCESS CABLES RUNS MUST BE RETAINED IN THE LICENSEE'S SHELTER, BASE OF THEIR CABINETS OR INSIDE A SLACK BOX INSTALLED AT THE BASE OF THE ANTENNA POST(S).

15. Fiber / DC / RET Cable(s):

**Existing to remain:** 

Existing to be removed: NONE Number:

Number: Ten (10)

Make:

(6) DC Cables, (3) Fiber, (1) RET

Model:

Size:

(5) 3/4"; (3) 3/8"; (1) 3/8", (1) 7/8"

New:

Number: Three (3)

Make:

DC Cable

Model:

Size:

(2) 7/8",  $(1) \frac{3}{4}"$ 

EXCESS CABLES RUNS MUST BE RETAINED IN THE LICENSEE'S SHELTER, BASE OF THEIR CABINETS OR INSIDE A SLACK BOX INSTALLED AT THE BASE OF THE

ANTENNA POST(S).

16. Generator:

**Existing to Remain:** 

Number: NONE

Existing to be removed:

Number:

NONE

New:

Number: NONE

17. Fuel Tank:

**Existing to Remain:** 

Number: NONE

Existing to be removed:

Number: NONE

New:

Number: NONE

18. Licensee's Existing Ground space measuring 18' x 26' will remain the same.

19. Licensee desires to obtain NO additional ground space.

(Location of Licensee's additional ground space must be approved by Licensor.)

20. All tower mounted equipment, including but not limited to: Antennas, Microwaves, Diplexers, Amplifiers, Remote Controlled Tilts, Remote Radio Heads, Junction/Distribution Boxes and Surge Protectors must be approved by Licensor. Exact location, mounting method, height, and orientation of tower mounted equipment must be approved by Licensor. Loose gravel is NOT permitted at the site.

Removing Six (6) antennas mounted on (6) post(s) on the <u>corral</u> at the <u>146'</u> level.

Adding <u>Six (6)</u> antennas mounted on same (6) post(s) on the <u>corral</u> at the <u>146'</u> level, giving Licensee a total of Twelve (12) antennas on Twelve (12) post(s) at a maximum separation between posts of five feet in each sector.

21. Antenna Orientation:

Alpha position at 60 degrees, on Post(s) #3, 3A, 4 & 5
Beta position at 175 degrees, on Post(s) # 9, 9A, 10 & 11
Gamma position at 310 degrees, on Post(s) #15,15A,16 & 17

22. Scope of work relating to this upgrade:

Remove twelve (12) TMA, nine (9) RRU, six (6) antennas, six (6) RET, twelve (12) 1 5/8" coax. Add six (6) RRU, three (3) Raycaps, six (6) antennas and three (3) DC cables.

23. Final Configuration:

FIFTEEN (15) RRU SIX (6) RAYCAPS TWELVE (12) ANTENNAS SIX (6) ¾" DC CABLES THREE (3) 7/8" DC CABLES THREE (3) 3/8" FIBER CABLES ONE (1) 3/8" RET CABLE

#### Exhibit D-9

# Utility Service Communications Co., Inc. Structural & Drawing Requirements

## Structural Requirements: Standards:

- ANSI/ TIA-222-H: Structural Standard for Antenna Supporting Structures and Antennas

   Section 15: Existing Structures
- 2. ASCE/ SEI 7: Minimum Design Loads for Buildings and other Structures
  - a. Section 15.7.7: Water Storage and Water Treatment Tanks and Vessels
- 3. ANSI/AWWA D100: Welded Carbon Steel Tanks for Water Storage
  - a. Appendix A.5.6: Antennas and Related Equipment
- 4. ANSI/AWWA D103: Factory-Coated Bolted Carbon Steel Tanks for Water Storage

A rigorous structural analysis, with calculations, of the entire structure using design loads appropriate for the geographical area per the latest applicable standards and local codes. The analysis must determine the overall stability and show the actual versus allowable stresses for the structural members and connections including anchor bolts, wind rods, columns and struts. In addition, local stresses should be evaluated at the antenna supports attachment points. Analysis must include fully loaded corral if applicable.

## Summary page must include:

- 1. Size of Tank (Capacity in gallons)
- 2. Style of Tank (Elevated, Pedisphere, Composite etc.)
- 3. Total number of posts if corral installation and number of coax
- 4. Total number of posts, antennas and coax if balcony installation
- 5. Diameter of Tank bowl and balcony
- 6. Total Tank height
- 7. Balcony height
- 8. List of all equipment installed on tank. To include Model Numbers, Dimensions and Weight
- 9. Type of analysis (feasibility or rigorous)
- 10. Design Loading Criteria: Occupancy Category, Applicable Load Cases (Wind, Ice, Seismic, etc.) and Controlling Load Combinations
- 11 Results of analysis
- 12. Proposed reinforcement of existing members and/or connections and all proposed additional members where needed
- 13. Sources of Data: Previous Structural Analysis, Fabrication Drawings, Field mapping, As-Built Drawings, Geotechnical Reports, etc.

#### **Drawing Requirements:**

- 1. All drawings must be Site specific
- 2. If Licensor's Project Manager has made site visit prior to drawing, a sketch of site (not to scale) will be given to Site Acquisition Representative
- 3. 4-6 gang meter for Power and Telco must be placed at the Site to accommodate utility meter reader
- 4. Coax will be required to be buried by Licensor's Project Manager and/or Tank Owner, unless prior approval has been given by Licensor for alternate method (ice bridge)
- 5. Coax must be routed on the inside (riser side) face of the Tank leg. Only exception: design of Tank would not allow
- 6. First Licensees coax must be installed in the inside of a hinged jumbo cluster bracket. Subsequent Licensees may be required to install on the outside of same bracket, if ground Equipment location is limited
- 7. Tank height, RAD center height, balcony height must be on plans
- If Licensee is co-locating on top of Tank or corral, the diameter of Tank must be on plans. Plans must indicate current antenna locations on the Tank, by post number with post #1 = True North
- 9. Only full sealed welding is allowed and must be indicated on plans
- 10. All coax running over the bowl of Tank must have at least four foot (4') separation from Tank logo and coax must be shrouded with shrouding painted to match Tank
- 11. Corral must be painted to match Tank
- 12. Licensee may be required to use white or colored coax to match Tank.
- 13. Painting of coax not allowed
- 14. Corral posts must be marked 1, 2, 3, etc., indicating which post Licensee will be using and the orientation of the antenna. Post number one (#1) to align with True North. (No skipping of post within a sector)
- 15. The number of coax installed must be denoted on plans. Also must have a detail showing coax being installed on the kickers
- 16. Licensee may be required to install a "Stymielock" at the compound entry gate. If applicable this lock must be denoted on the drawings
- 17. Signature box with date must be included on the title sheet drawings. Signature box to include:
  - a. Licensor's Project Manager
  - b. Licensee Project Manager
- 18. The distance from Tank to Equipment shall be no less than ten feet (10')
- 19. Licensed Ground area must be in concrete not gravel, due to ground maintenance problems. No loose gravel is allowed at the site
- 20. Include cover sheet listing General Structural Notes (Applicable codes, Standards, Design Load Criteria), Structural Metals, etc. as applicable

Installation must follow the Installation Standards attached in License Agreement/Amendment along with any site-specific requirements and/or Governmental and AWWA standards.

Installation inspection must be performed by Licensor prior to Licensee being allowed to go on air (Regardless of Contractor).

Licensor's Project Manager will make every effort to meet at the Tank Site with Tank Owner, Site Acquisition contact, Project Manager and any other parties prior to Licensee submitting for plans. This will help insure drawings are correct the first time.

Make sure all involved parties are issued these requirements as well as Exhibit E-7 Installation Standards in License Agreement/Amendment.

## If you have any questions, please contact:

Lee Duke, Project Manager Office: 800-679-7819

Desk: 478-988-5260

Cell: 478-396-0843

OR

Debbie Sullivan, Vice President / Director Office: 800-679-7819 Desk: 478-988 Cell: 478-396-9534 Desk: 478-988-5255

#### Exhibit E-9

Utility Service Communications Co., Inc.
Installation Standards for Antennas and Related Communication Equipment

#### 1.0 Introduction:

- 1.1 The various communication companies have been installing antennas and related communication Equipment on Tanks/Site for a number of years, but more recently the frequency and complexity of these installations has increased dramatically. The types of installations typically being utilized have the potential of reducing the structural integrity of the Tank facility and have several adverse effects on the maintenance of the structure and its coating systems. Major Tank manufactures have historically avoided providing any engineering analysis or installation assistance with regard to this type of Equipment.
- 1.2 The purpose of this standard is to:
  - Provide a general guide for Licensee, their consultants, site construction managers, installation contractors and their crews.
  - 2. Prevent possible structural failure.
  - 3. Ensure compliance with the industry standards.
  - Ensure current operational and maintenance standards.
  - 5. Provide maintenance access to the Tank.

New appurtenances and attachments are to be in compliance with the latest AWWA standards including proposed amendments and or commentaries.

- 1.3 Licensee may be required to install a "Stymielock" on the compound entry gate & any time during the Licensee's occupancy of the site.
- 1.4 Antenna installations on Tanks without previous Licensee antenna installations will be required to furnish and erect a corral in accordance with Licensor's standard design and meeting the OSHA 1926.502 and 1910.23 Rail Requirements with a locking gate when applicable. Corral shall be sized to fit the diameter of the Tank
- 1.5 At Tank Owner's request, Licensee may be required to use white or colored coax to match the color of the Tank as closely as possible.

## 2.0 <u>Contractor Qualifications</u>:

2.1 All Licensee installations require the use of certified electronics technicians, steeplejacks electricians or licensed contractors that have received Licensor's approval prior to commencing any installation work. Such approval shall require the completion of a Licensor's Contractors Qualification Package along with submittal of photographs of prior Tank installations. All installation work shall be in accordance with an Licensor's previously approved installation plan. Licensor,

at its sole discretion, shall have the right to supervise the installation at Licensee's expense of any and all Equipment. Certificates of insurance will be required by Licensor of any installer.

- 2.2 All approved installers shall have demonstrated capability of conforming to established manufacturer's installation standards, as well as any special standards imposed by Licensor. All work shall be performed in a neat and workmanlike manner. Licensor may require that certain work be supervised and or inspected by Licensor's approved contractor at Licensee's expense.
- 2.3 All installers will have a certified welder per AWS D1.1 performing any welding.
- 2.4 All installers will have a demonstrated familiarity with AWWA D100 standards as it relates to the installation of appurtenances and attachments.

#### 3.0 Health and Safety:

- 3.1 Access to an existing structure shall not be permitted by installation personnel without the express consent and approval of Licensor.
- 3.2 Any access to the interior of the Tank is not permitted unless the Tank is emptied, taken out of service and isolated from the water supply system.
- 3.3 Precautions shall be taken to prevent water contamination. Any intrusion to the Tank interior may be considered contamination. If contamination occurs disinfect the Tank (see ANSI/AWWA C652)
- 3.4 Lockout and Tagout procedures should be in place and followed.
- 3.5 Site keys obtained will not be duplicated. Combinations shall not be shared with anyone other than the Licensor and Licensee's tech personnel.
- 3.6 Personal RF monitors must be worn and examined when it is not possible to turn off the energy to any and all existing devices on the structure.
- 3.7 The coating system shall be checked for hazardous materials. Where hazardous materials are found, the environment, potable water supply and all personnel shall be protected from contamination in accordance with applicable standards.
- 3.8 The contractor shall provide fall protection for their personnel during installation or inspection of any Equipment in accordance with OSHA.
- 3.9 Cables shall not be attached to any ladder structures, in accordance with OSHA standards.
- 3.10 Manholes and other access ports shall not be obstructed in any way by cable routing or attachments, in accordance with OSHA standards.

- 3.11 Balconies and platforms shall not be obstructed in any way by cable routing or attachments, in accordance with OSHA standards.
- 3.12 Licensee's contractor must comply with applicable Site Safety Plans.

#### 4.0. General Workmanship:

- 4.1 Epoxy attachments shall not be used. Epoxy compounds can lose strength at temperatures exceeding 140 degrees Fahrenheit. Additionally, epoxy compounds can be subjected to extreme stresses from thermal expansion/contraction of the metal structure due to changes in the ambient temperature and subsequently exhibit shear failure.
- 4.2 Stud welding shall not be used. A properly installed stud weld will scorch the internal coating system in the same manner as a full seal weld. In addition, the plate attachment to the studs is open to water seepage and corrosion from trapped water and moisture. Proper coating procedures cannot be used on the Tank surfaces that have plates or other attachments bolted to them.
- 4.3 Any penetrations larger than three inch (3") in diameter that are to be cut into the support structure require special expertise in design and installation to minimize the possibility of structural damage to the structure. Consideration should be given to reducing the Tank water level whenever openings are cut into the support structure per AVWA D100 A5.6 recommendations. A professionally engineered solution must be provided.
- 4.4 Older Tanks are prone to hidden corrosion. A careful inspection of all components, including ultrasound thickness measurements are recommended to verify the Tank's structural strength relative to the original design. Corrective repairs should be made as recommended by a professional structural engineer competent with ANSI/TIA-222-G, ASCE/SEI 7 and AWWA D100 standards.
- 4.5 Should Licensee's Equipment installed on the Tank and Site be allowed to remain at the site during tank maintenance at Licensee's expense antenna cables should be arranged and located to allow protective wrapping during abrasive blasting and recoating. Neatly arranged cables shall be offset from the Tank to allow maintenance contractors to perform this work without removing the cable runs. Chaining or strapping to tower legs or handrails is not allowed. Cable runs should be routed under balconies or walkways to minimize access and rigging interference. Vertical coax routing up a leg should be orientated towards the center of the Tank on the inside face of the leg, typically between the struts and riser rods.
- 4.6 Licensee shall use hinged cluster brackets with snap-in clips capable of supporting twenty-four (24) 1 5/8" coax cables and shall route the coax cables on the inside of the cluster brackets.

- 4.7 Cables and antenna shall be installed to provide a minimum of six inch (6") clearance from the coating systems. Any deviations must be expressly approved by Licensor.
- 4.8 Coax runs shall have a minimum of four foot (4'-0") clearance from Tank logos. The coax run on the Tank bowl shall be shrouded and painted to match the Tank.
- 4.9 A heavy duty "Hoisting Bracket" shall be installed at the top of the messenger pipe for the purpose of coax support on the tank leg. The weight of the coax cannot be supported on the catwalk penetration or on the bowl brackets used for routing coax over the dome.
- 4.10 If new antennas are installed on the top of the Tank, FAA obstruction lighting may need to be installed or raised to meet FAA guidelines. Local FAA height restrictions should be adhered to strictly.
- 4.11 Many components common to the communications industry are designed for easy shipping. When bolted together, back to back components should be seal welded to prevent future corrosion and rust streaking.
- 4.12 When electrical components are installed within the Tank support pedestal, the effects of high humidity, moisture and condensations should be considered and the Equipment adequately protected or waterproofed.
- 4.13 Interference with interior Tank components should be considered and avoided to minimize cable rerouting.
- 4.14 Penetrations shall be designed in accordance with AWWA D100 Section 3.13.
- 4.15 Penetrations through walkways and platforms shall be toe board compliant in accordance with OSHA regulations.
- 4.16 Ground bars and leads shall not be installed on any part of the structure. Full seal welded coax and antenna standoffs may be utilized for mounting ground bars and leads.
- 4.17 A rigorous structural analysis by a professional engineer competent in the application of the ANSI/ TIA-222-G, AWWA D100 and ASCE 7 Standards is required on each structure.
- 4.18 All installers shall comply with applicable local, state and federal requirements. In the absence of any applicable government standards, applicable BOCA and NEC codes, as well as EIA, TIA and AWWA, Standards will apply.
- 4.19 All materials and workmanship are to be in compliance with the latest AWWA standards.

## 5.0 Welding:

- 5.1 All welding shall be in accordance with AWWA D100 Section 8, Welding and Section 11, Inspection and Testing. This requires all welders to be certified in accordance with AWS D1.1. Only Licensor's approved contactors will be allowed to weld on Licensor's managed Tanks.
- 5.2 All welds to the Tank surface shall be made with E7018 low hydrogen rod and shall be smooth and free of burs and undercuts. Unacceptable welds shall be repaired as Section 6.1 below indicates to meet AWWA D100 requirements.
- 5.3 No welding shall be done when the ambient temperature is below 32 degrees Fahrenheit unless the cold weather welding requirements of AWWA D100, Section 10.2.1 are followed.
- Penetrations shall not intersect Tank weld seams. Penetrations should clear existing seams by 6 inches (6"). If this clearance is not possible, a review by a professional engineer shall be made of adjacent weld seams that may be affected by local welding.
- 5.5 Welding to the Tank or access tube opposite the water level is not permitted. The water level shall be drawn down to a level not less than 2 feet (2') below the point of welding.
- 5.6 Galvanized components shall not be welded directly to the Tank surface. Galvanized surfaces mating to the Tank structure must be ground free of galvanizing prior to welding.
- 5.7 Tubular columns on multi-leg supported Tanks are hermetically sealed and must not be breached or punctured under any circumstance since moisture will accumulate inside the leg and eventually cause serious structure damage.

## 6.0 Painting:

- 6.1 Welding may cause blistering of the interior paint opposite the weld. Damaged interior paint surfaces shall be repaired in a manner that is compatible with the existing paint system. Exterior paint damage shall be repaired after completion of the antenna installation, and should be compatible with the existing paint system. It is recommended that a one-year anniversary inspection be made to evaluate the quality of the touchup and repainting if required. AWWA D102 should be consulted for proper paint procedure.
- 6.2 All painting and surface preparation shall be in compliance with SSPC and NACE regulations.
- 6.3 Utility Service Company must be given "First Right of Refusal" to perform the interior touch ups on Tanks that are currently being maintained by Utility Service Company.

### 7.0 Electrical:

- 7.1 All installation work shall be performed in a neat and workmanlike manner. Any new installation shall not cause mechanical, electrical or electronic interference to other RF Equipment located on the site.
- 7.2 All installations shall comply with all applicable local, state and federal requirements. In the absence of any applicable government standards, applicable BOCA and NEC codes, as well as EIA, TIA and AWWA standards must be adhered to.
- 7.3 All RF Equipment and transmission lines installed shall be FCC type accepted for the radio service and frequencies proposed in the License Agreement and attached exhibits.
- 7.4 All transmission lines shall be attached to tower coax supports using snap-in hangers. The use of stainless steel angle adapters (Andrew 31768A or approved equal) is authorized. Cable ties are not permitted.
- 7.5 Cable runs shall be buried between the tower and electrical Equipment housing. Any excessive or slack cabling must be attached at the cabinet or inside the shelter. No excessive or slack cabling should be visible on the Tank or attached to the Tank itself.
- 7.6 Licensee must have an independent line locate performed prior to the final approval of the drawings and construction start date.
- 7.7 When possible, the Equipment cabinet or shelter will be located a minimum of ten feet (10'-0") from the Tank.
- 7.8 A four (4) to six (6) gang meter for Power and Telco shall be provided by the Licensee.

## 8.0 Equipment:

- 8.1 All transmission lines shall be tagged at the top and bottom of each run near the connector with an identification tag containing the Licensee's name, with Sector location FCC or IRAC call sign and the frequency assigned. Brass tags with copper wire are preferred. Plastic tags with vinyl labels or indelible ink markings are acceptable. Licensee's name, site name, site I.D., site address, contact for the licensee, phone number and the output power must be posted at the site.
- 8.2 Licensee shall be responsible for the proper signage at the site per all regulatory requirements. Attaching signs to the Tank is not allowed.
- 8.3 Equipment shall only be installed in locations and positions determined by the Licensor. The Licensor's Project Manager will designate the exact locations for

the installation of electric equipment, transmission lines and antennas. If for any reason the proposed installation cannot conform to these instructions, the Licensor's Project Manager shall be contacted prior to any further work.

- 8.4 All installed Equipment shall be housed in suitable EIA approved enclosures or Equipment racks. All enclosure doors and covers shall remain closed and locked at all times except during actual Equipment servicing.
- 8.5 New installations will not cause mechanical, electrical or electronic interference to other Licensee's RF Equipment, other associated Licensee's Equipment or any Licensor Equipment located in the Equipment shelter, tower structure or anywhere else on the site.
- 8.6 The use of Ice Bridges must be approved by the Licensor.

### 9.0 Inspections & Approvals:

- 9.1 Licensor shall require a structural analysis for review and approval. (See "Exhibit D-9" for Requirements)
- 9.2 Licensor shall be provided with 'as-built plans' for review.
- 9.3 Licensor shall be provided with all drawings for review and approval prior to start of construction. (See "Exhibit D-9" for Requirements)
- 9.4 Licensee must have the following in hand prior to releasing the site for permitting.
  - A. Fully Executed License Agreement / Amendment
  - B. Licensor's Approved Structural
  - C. Licensor's Approved and Stamped Drawings
  - D. Licensor's Approved Contractor to perform the work on the tank
  - E. All fees and charges must be paid
  - F. Copy of P.O. Confirming Scope of Work (Pricing redacted)
  - G. Licensor Issued NTP Executed with a firm construction start date
- 9.5 Licensor will issue an NTP prior to the site being released for construction/permitting. Licensee must sign and give a firm construction date and return the NTP to Licensor. Licensor will then release the site for construction.

  Licensor will supply a Tank Owner contact name and number to Licensee.
- 9.6 Licensor must be supplied with a copy of the Purchase Order (P.O.) and/or Notice to Proceed (NTP) and a tentative schedule date of when exterior and interior touch up will be completed.
- 9.7 Contractor shall provide a closeout package at the end of the project prior to acceptance by Licensor. This package shall supply as a minimum, photographs, sweep charts, copies of permits and as-built drawings and lien waivers for subcontractors and vendors.

Licensor must complete a final inspection and approve the installation 9.8 prior to Licensee going on air. (Regardless of Contractor)

## If you have any questions regarding these installation standards contact:

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