

- B. Wet film thickness readings for successive coats shall be taken as soon as possible at a frequency of at least one per 100 square feet.
- C. Dry film thickness readings of steel surfaces shall be taken prior to the application of successive coats with a nondestructive magnetic type gauge in accordance with SSPC-PA-2.
- D. All interior coated steel surfaces shall receive holiday testing with a Tinker Razor Model M-1, or equivalent, low voltage holiday detector. Any areas failing this test shall be marked and receive an additional repair coat in accordance with Section 3.03 - INTERIOR COATING SYSTEM until satisfactory test results are achieved.
- E. The final film is to be visually inspected and shall be free of sags, runs, wrinkles and other excessive film-build characteristics and surface defects.
- F. The CONTRACTOR shall maintain a contemporaneous daily inspection log to be used as a permanent record for the project and to compliment the periodic inspections by the OWNER'S representative. The contractor's inspection log shall include:
 - 1. Daily record of materials stored and used on-site.
 - 2. Ambient conditions: min. of three measurements daily of air and surface temperature, dew point, wind speed and direction, precipitation, etc.
 - 3. Production record: personnel on-site, hours worked, location of surface preparation and painted areas and materials used at each work area.
 - 4. In-process quality control observations as described in this section to include surface cleanliness, surface profile, wet film thickness, dry film thickness, visual defects, time between cleaning and priming and time between coats.
- G. The CONTRACTOR'S daily inspection log shall be made available at any time to the ENGINEER / OWNER or their representative and an updated copy shall be included with each pay request.

3.07 ACCEPTANCE OF WORK

All surface preparation and repairs shall be approved by the OWNER before primer is applied. The CONTRACTOR shall request acceptance of each coat before applying next coat and shall correct work that is not acceptable and request re-inspection. All rigging to remain in place, and CONTRACTOR shall aid in use of rigging for all inspections by OWNER'S Representative.

3.08 REPAIRS

- A. Immediately after blast cleaning the tank interior surfaces, an inspection shall be made by the ENGINEER/OWNER or Representative in the presence of the CONTRACTOR to determine if any additional repair items will be authorized by the OWNER as additional work to be paid for at the Unit Bid prices for tank repair. This includes pit welding (sq. ft.), seam welding (lin. ft.) or patch welding (sq. ft.)

- B. All repairs shall be made in a manner to effect a permanent repair. Any welding shall be done by qualified personnel. Care shall be taken to avoid damage to seams, plates and pipe connections which could result in leakage. The CONTRACTOR shall guarantee the water tank to be free from leakage upon completion of his work.
- C. Any welding on the tank shall be in conformance with requirements of AWWA Standard for welded steel tanks for water storage (AWWA D100-84).
- D. Fill sharp edge pits and pits deeper than 1/16" with Tnemec series 215 Surfacing Epoxy. (Est. 10 SF)
- E. Sharp edges can cause premature coating failure. All sharp edges, weld spatter and burrs should be ground flush.
- F. Remove the existing oval manway at the base of the riser pipe. Install a 30" diameter bolted flange manway. The manway shall be secured with stainless steel bolts and washers and brass nuts. A new rubber gasket shall be provided.
- G. Install removable stainless steel chains across the opening in the balcony handrail at the top of the leg ladder. Lower the top bracket of the fall prevention cable so a climber can safely step onto the balcony.
- H. Install a 42" tall handrail around the opening at the top of the riser pipe to prevent a fall.
- I. Remove the inoperable level indicator and float if a SCADA system is being used. If there is no SCADA system then replace all cables with new stainless steel cables.
- J. Install an 18' diameter corral on the roof of the tank. Relocate all antennas to the corral. Remove the cables from the leg ladder siderails. Bundle the cables and support them to the ladder standoffs.
- K. Install an aluminum climb prevention shield at the base of the leg ladder.
- L. Install a lock provided by the Water District for the roof access hatch.
- M. Remove the existing 24" diameter steel vent pipe cover. Bolt an aluminum cover to the existing steel pipe flange.
- N. Install a new stainless steel insect screen between the bolted flanges on the 6" overflow pipe.
- O. Caulk all roof lapped seams with Sika Flex-1A. (Estimated quantity 123')

3.09 CLEANING AND DISINFECTION

- A. **Cleaning:** After painting, remove all scaffolding, planks, tools, rags, blast media and all other materials not part of the structural or operating facilities of the tank. Thoroughly clean and wash the walls, floor, roof and operating facilities of the tank by use of a high-pressure water jet, sweeping, scrubbing or other effective means. Flush out and otherwise remove from the tank all water, debris, and

foreign materials accumulated during this cleaning operation. Thoroughly clean and flush out the bottom of the tank and the inlet/outlet pipe.

- B. **Disinfecting:** After cleaning, but before placing it in service, disinfect the inside of the tank in accordance with AWWA Standard C 652-92, **Section 4.3 by Chlorination Method 2.**
- C. **Sampling and Testing:** After the chlorination is complete and before the tank is placed in service, water from the full facility shall be sampled and tested in accordance with AWWA Standard C652-92, **Section 4.4 Bacteriological.**
- D. **Chemicals and Equipment:** Provide all necessary chlorine bearing compounds, solution tank, pumps, hoses, mops and other items required for cleaning, disinfecting and flushing operations.

3.10 CLEAN UP

- A. Remove all debris and leave site in pre-project condition.

3.11 GUARANTEE

- A. The CONTRACTOR shall guarantee his work for a period of two years to the extent that he shall repair any defects due to faulty workmanship or materials which may appear on the structure during this period.
- B. A first anniversary inspection shall be conducted by the OWNER or Representative with the CONTRACTOR present in accordance with AWWA Standard D102-97, Section 5.2.

End of Section

5

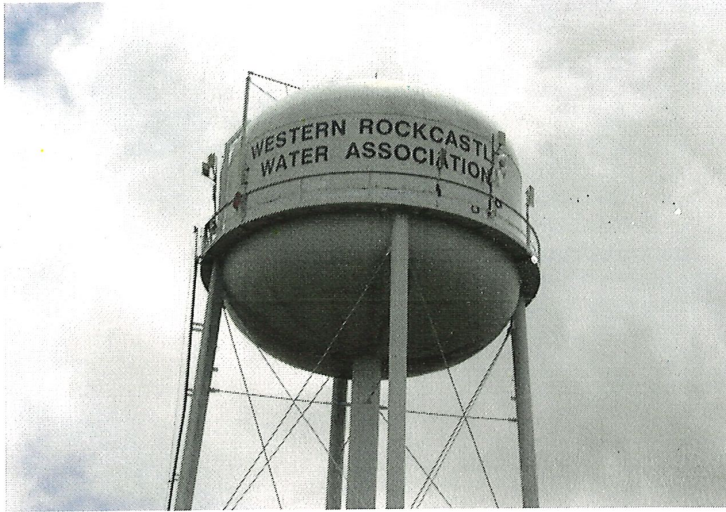


Photo shows the northeast section of the water bearing portion of the tank and the tank logo.

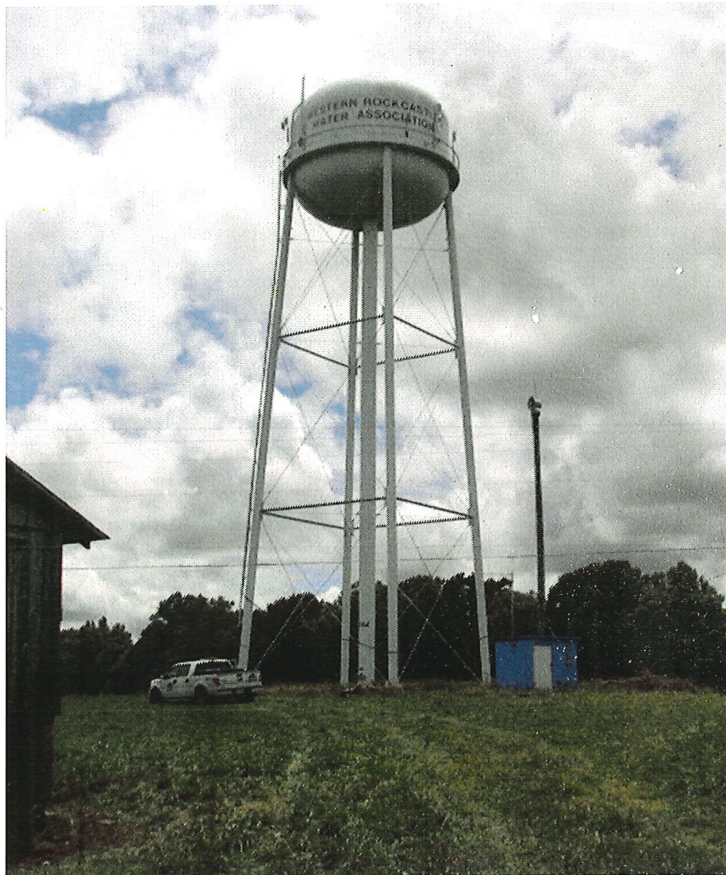


Photo shows an overall view of the northeast section of the tank and site. The tank has three panels and two struts.

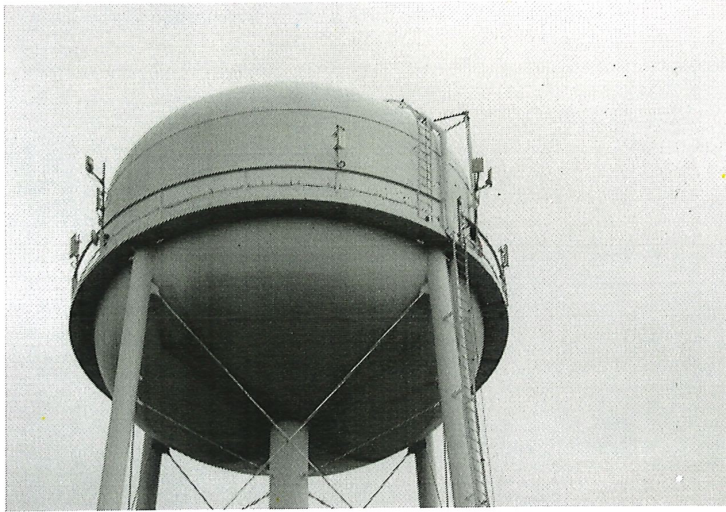


Photo shows the south section of the tank bowl. Mildew can be seen along the belly.

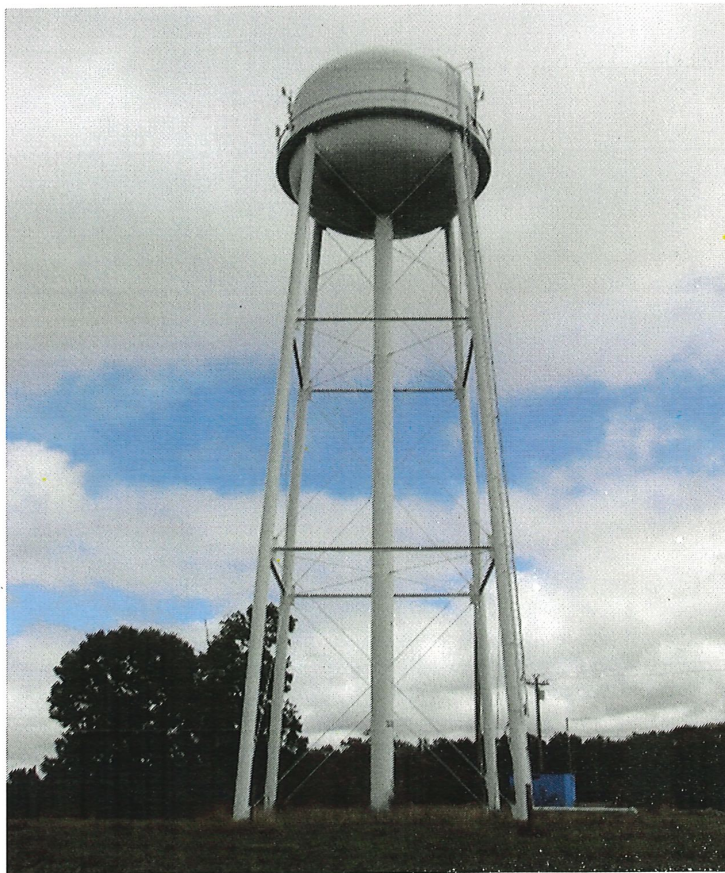


Photo shows an overall view of the south section of the tank and site. The tank is in the middle of a pasture with only a barn close by.



Photo shows the 24" roof vent and steel cover.



Photo shows an antennae mounted to the vent cover. The antennae should be moved to a stand-alone support welded to the roof cap plate to provide easier vent access.



Photo shows the 42" steel vent cover and 24" roof vent neck.

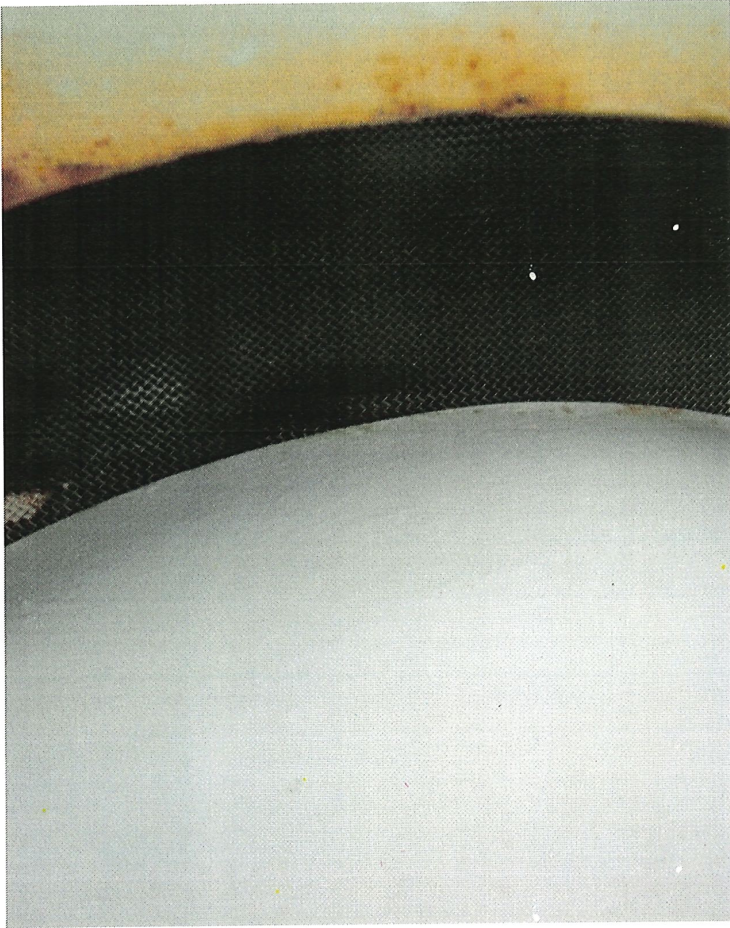


Photo shows the roof vent insect screen properly installed. Blotchy corrosion is visible along the vent frame.

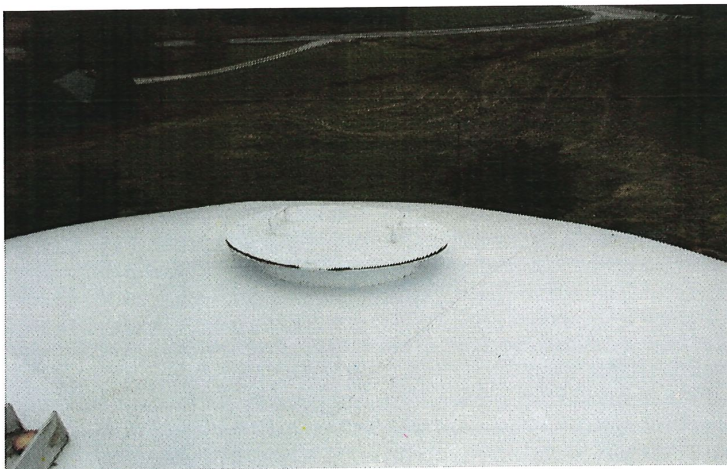


Photo shows the 24" flanged secondary roof manway. Coating coverage is very good.

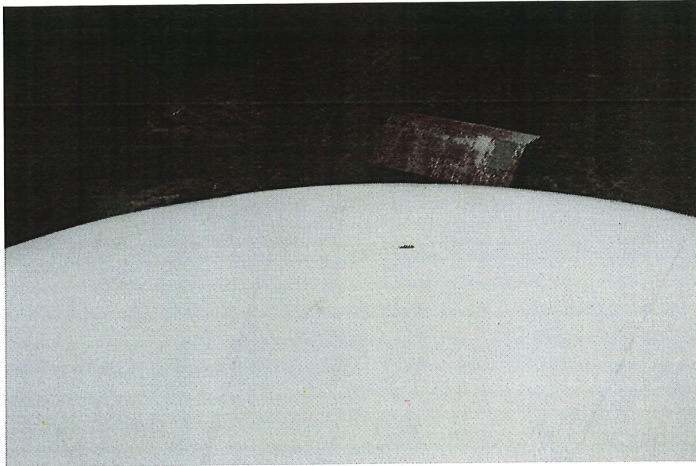


Photo shows the northeast section of the roof finger panels. A small active corrosion cell is visible.

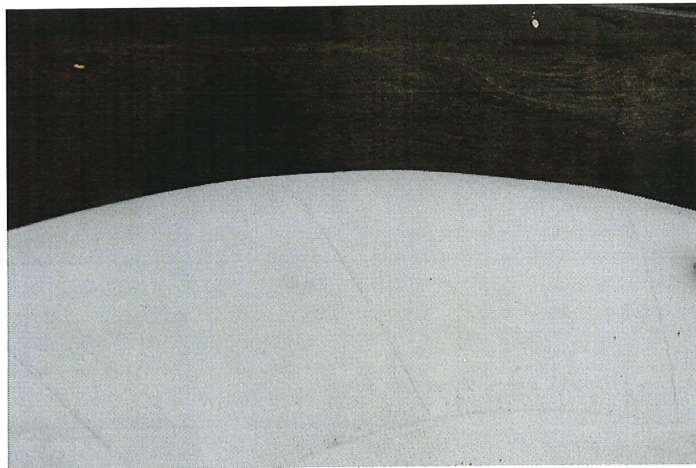


Photo shows the north section of the roof finger panels. The existing coating system in this area has become chalky and dull.

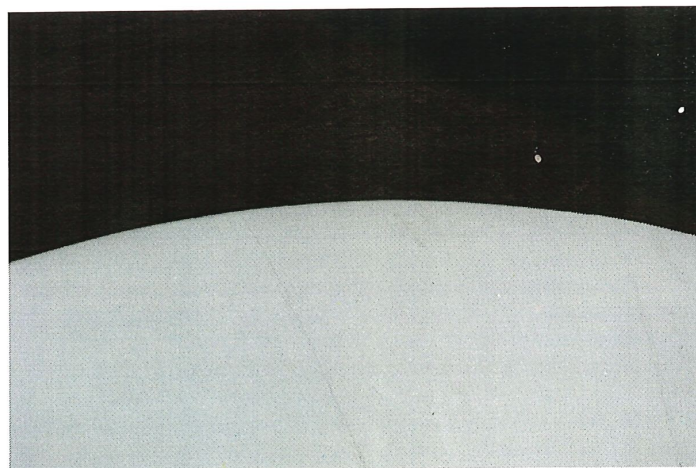


Photo shows the existing faded blue coating system applied to the west section of the roof finger panels.

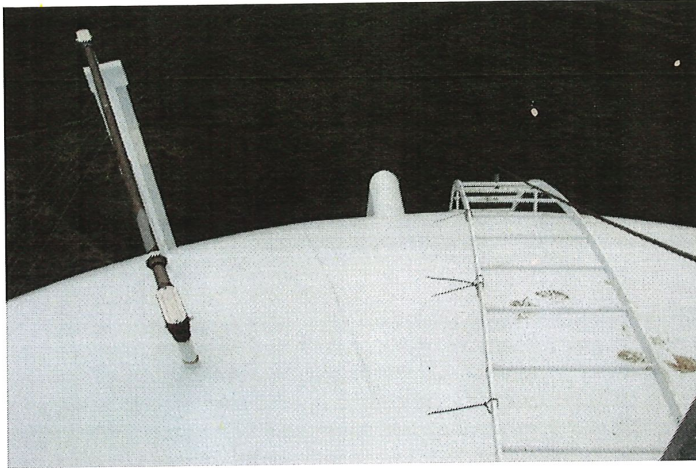


Photo shows the southeast section of the roof finger panels, roof ladder, and water level indicator system. The coating has faded but continues to protect the steel.



Photo shows the roof ladder equipped with a cable style climber safety device.

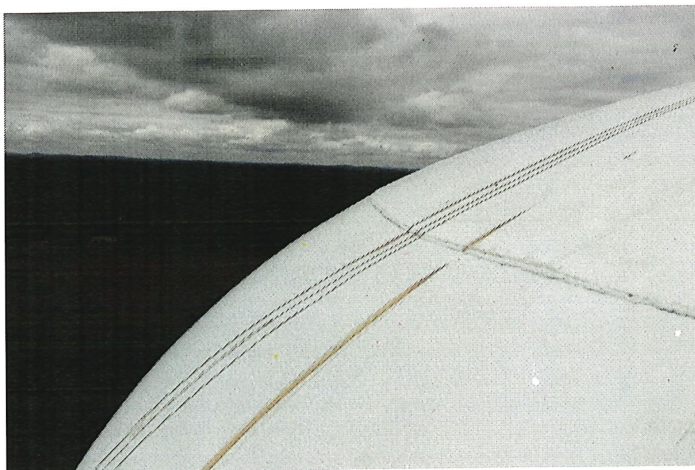


Photo shows the south section of the upper knuckle. The existing coating system has become chalky and dull.

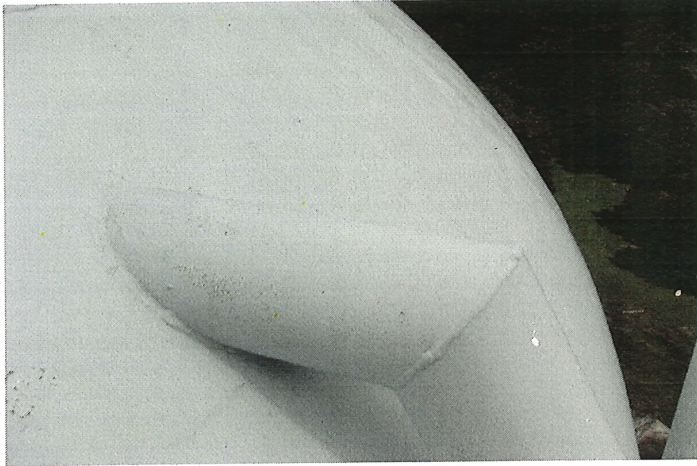


Photo shows the east section of the upper knuckle and overflow egress point. No active corrosion was noted.

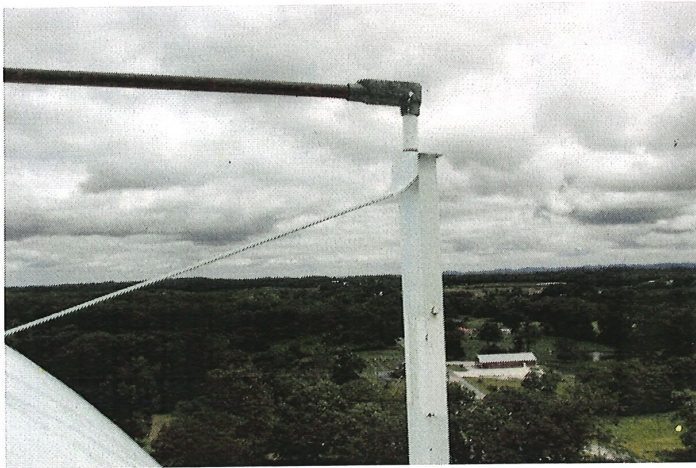


Photo shows the water level indicator system. The target board and piping should be removed and the holes patched if the system is no longer being used or if a SCADA system is in operation.



Photo shows the east section of the shell, roof ladder, and overflow pipe. The coating continues to protect the steel.



Photo shows the southeast section of the lower shell, balcony floor, and handrail. Small areas of localized corrosion can be seen.

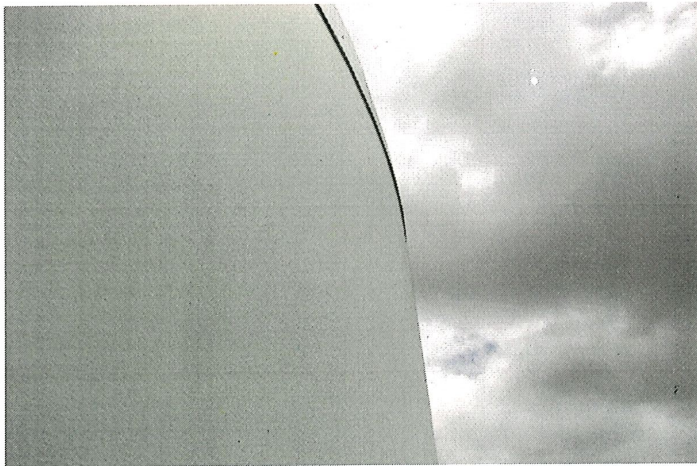


Photo shows the existing urethane finish coat along the south section of the shell. The steel substrate remains protected in this area.



Photo shows an antennae mounted to the south section of the balcony handrail. Installing a roof corral and relocating all antennas should be considered.

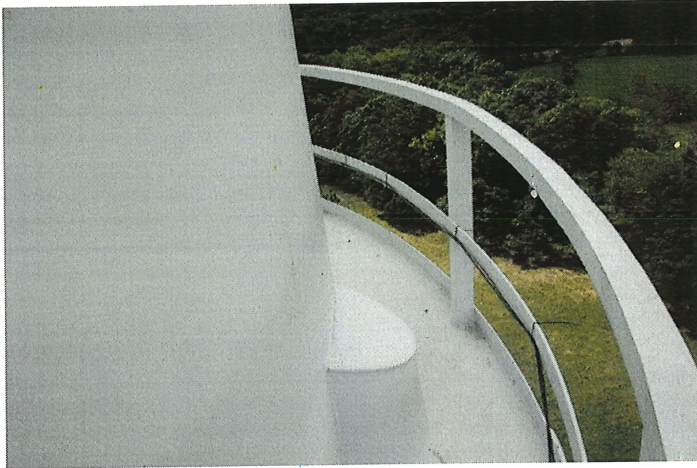


Photo shows the northwest section of the lower shell and balcony. The existing coatings system in this area has become chalky and dull.



Photo shows two antennas mounted to the north section of the balcony handrail.



Photo shows the northeast section of the shell and tank logo.



Photo shows another view of the northeast facing tank logo.



Photo shows the deficient water level indicator target board. The board should be removed if an active SCADA system is in place.

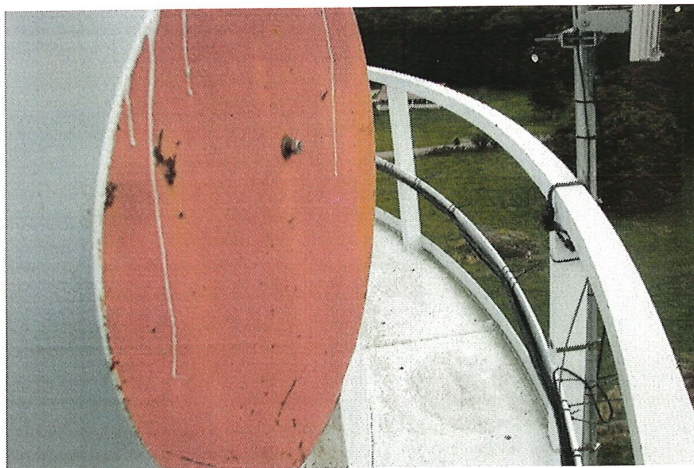


Photo shows the water level indicator target. The target should be at the top with the tank empty.

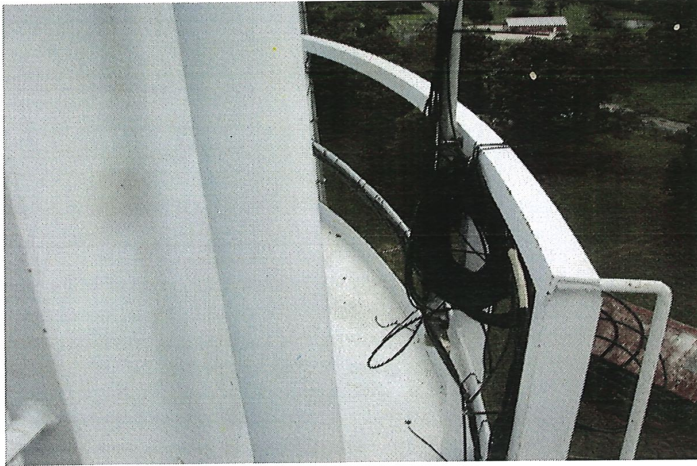


Photo shows a large bundle of antenna wire along the east section of the balcony.

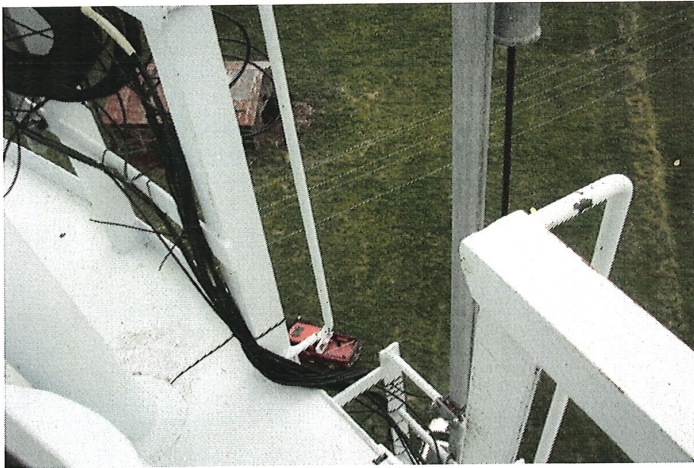


Photo shows the 26" balcony opening with grab bars. Safety chains should be installed along the opening.



Photo shows the upper bracket for the tower ladder cable style climber safety device. The bracket should be lowered to allow a climber easier access to the balcony.



Photo shows the overflow pipe and underside of the balcony. Minor corrosion is present.

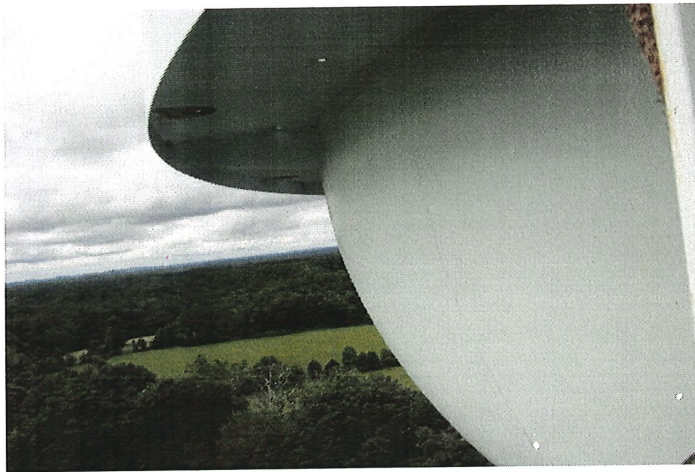


Photo shows the south section of the lower knuckle. The existing coating system in this area has become chalky and dull.

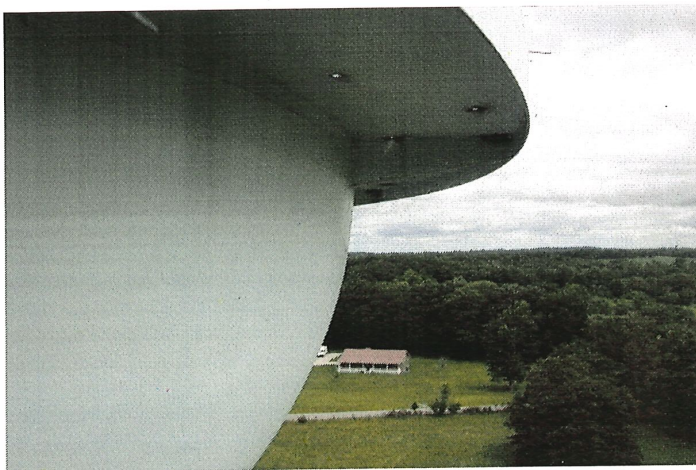


Photo the east section of the lower knuckle. The urethane finish coat in this area continues to protect the steel substrate.

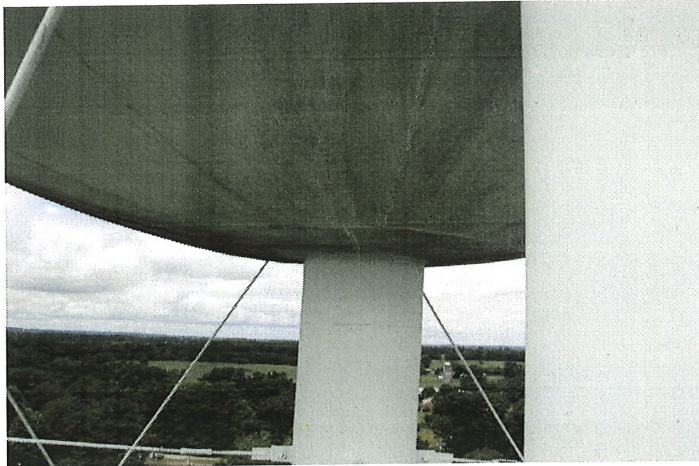


Photo shows mildew present along the belly and upper riser.

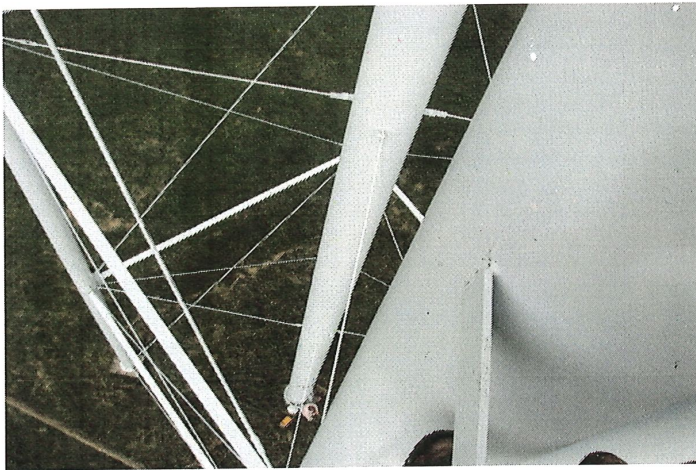


Photo shows an overall view of the riser, riser stay rods, and windage rods. All rods appear to be properly adjusted.

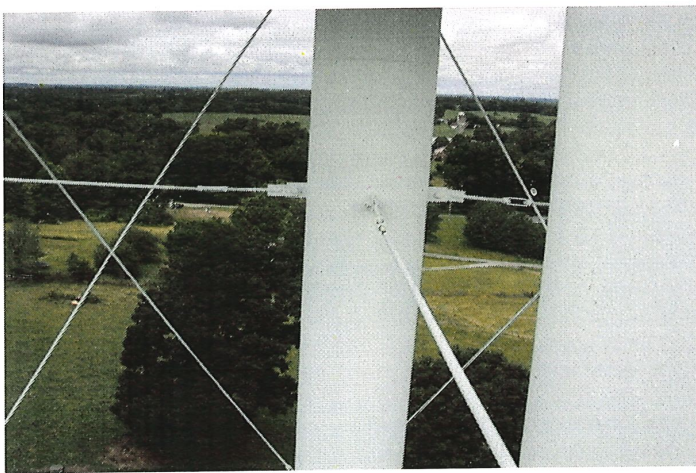


Photo shows the middle section of the riser and riser rods. All connections appear sound.



Photo shows the upper section of the tower ladder equipped with a cable style climber safety device.

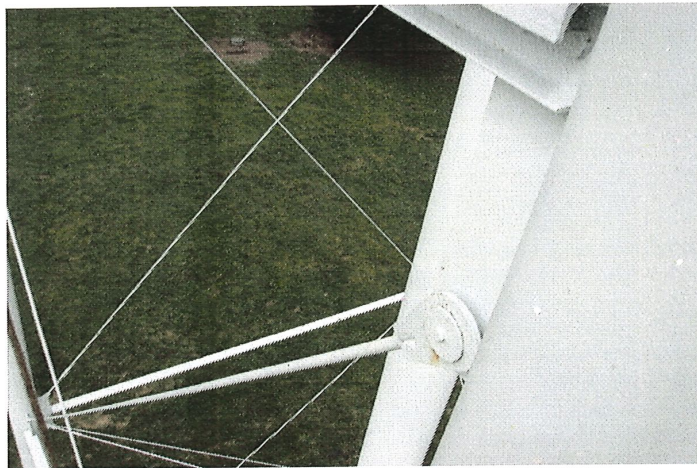


Photo shows a minor area of rust bleed along the upper windage rod to leg connection.



Photo shows minor rust bleed along the upper strut pinned connection point.



Photo shows the south facing upper strut. All member alignment is within tolerance.



Photo shows crevice corrosion and rust bleed present along the northeast upper windage rod to leg pinned connection.



Photo shows an active corrosion cell present along the middle section of the riser.



Photo shows crevice corrosion present along the southeast middle windage rod to leg pinned connection.

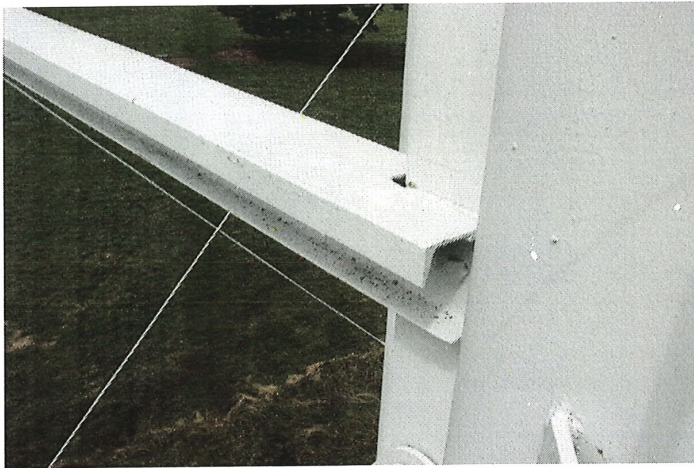


Photo shows the southeast lower strut to leg connection point. All pinned and bolted connections appear sound.

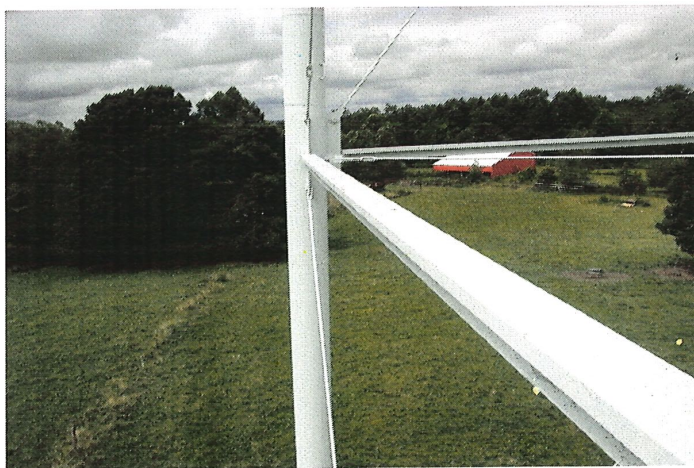


Photo shows the south facing lower strut. The finish coat has lost its gloss but continues to protect the steel.



Photo shows the lower section of the tower ladder. All cables should be removed from the ladder side rail since this is an OSHA violation.

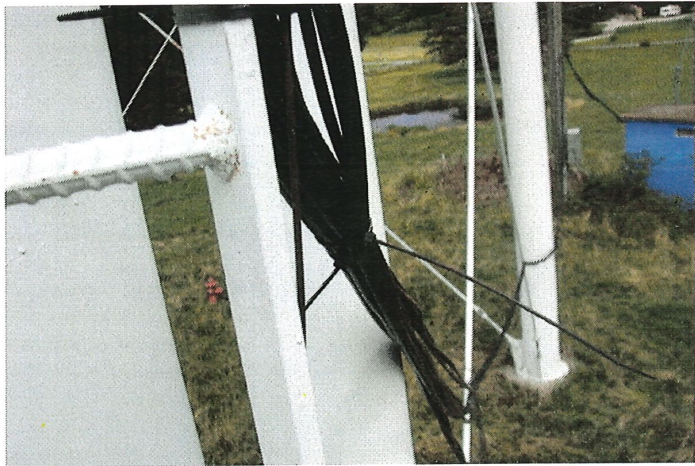


Photo shows the antennae cables zip tied to the ladder rail. Conduit clips should be installed along a leg every ten feet and all cable relocated away from the ladder.



Photo shows the northeast lower leg, windage rod connection, and exposed foundation. The concrete is in sound condition.