

## Sample Inspection Report

### **Inspection Summary**

EvapTech performed an inspection of the cooling tower at the Example Plant in City, State during February of 2026. The findings of this inspection are organized in the following sections to allow reference against future inspections.

- Cooling Tower Description
- Tower Structure
- Access (Stairs & Ladders and Plenum Access Doors)
- Casing (Exterior Walls, Partition Walls, Wind Walls, & Louvers)
- Fan Deck (Fan Deck & Guardrails and Fan Stacks)
- Fill Media
- Drift Eliminators
- Distribution System
- Mechanical Equipment (Mechanical Equipment Supports, Fan, Driveshaft, Motor, and Gear)
- Recommendation Summary (Critical, High Priority, & Low Priority)

### **Cooling Tower Description**

Tower Reference Number: **00000A01**

2-cell FRP-structure counterflow cooling tower, each cell measuring approximately 30' long × 30' wide × 24' tall with a 22' diameter fan.



## Sample Inspection Report

### Tower Structure

Acceptable

The structure is in fair condition with no loose or missing hardware found during the inspection. Although no damaged members were noted during the inspection, minor weathering was noted throughout the tower that should be monitored during future inspections.



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**Tower Structure cont.**

Acceptable



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## Access

- Stairs & Ladder**

Acceptable

The FRP stair tower providing access to the fan deck is in acceptable condition, as is the FRP escape ladder and associated landing.

The steel stair tower handrails were replaced with new FRP members during the inspection mobilization.



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- **Plenum Access Doors**

Acceptable

The FRP plenum access doors are in good condition as are the DE access ladders & platforms.



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## **Casing**

- **Exterior Walls**

**Low Priority**

The FRP structural wall panels are in good condition with secure hardware, though minor leaks and weathering was noted. Gaps were observed around the headers where they enter the cooling tower allowing air bypass.



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- Partition Walls**

Acceptable

The corrugated FRP partition walls are in acceptable condition.



- Wind Walls**

Acceptable

The corrugated FRP wind walls, though dirty, are in otherwise acceptable condition.



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- **Louvers**

Acceptable

The air inlet louvers are in good condition. No damaged segments were found, however, calcium buildup was observed that should be monitored.

The water diverters are in a similar condition with calcium buildup noted around the perimeter of the tower.



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### **Fan Deck**

- **Fan Deck & Guardrails**

**Low Priority**

The FRP fan deck is in fair condition with minor weathering and no loose hardware. Decking panels were found to be missing hardware in the center of the panels allowing the panels to bulge and/or sag in some locations. Additionally, a section of fan deck near the cell A stack was noted to be soft and covered with plywood. New fasteners were installed and the soft section of fan deck near cell A was repaired during the inspection mobilization and no further action is required.

The FRP fan deck supports are in overall good condition with the following exception. No mid-bay supports are installed between supports contributing to the sagging deck panels in some locations.

The FRP handrails and knee rails around the deck were noted to be weathered and worn; however, these were replaced during the inspection mobilization and no further action is required.



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- Fan Stacks**

Acceptable

The FRP fan stacks are in good condition. The anchorage and seam hardware are in place and secure.



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### Fill Media

Acceptable

The fill media is in overall good condition. Minor damage was noted on the top layer of fill in several locations that should be monitored during future inspections.

The FRP fill supports are in acceptable condition.



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### **Drift Eliminators**

**Acceptable**

Drift eliminators are in good to fair condition. While no damaged or missing packs were noted during the inspection, minor gaps were observed between the packs.

The FRP eliminator supports are in acceptable condition.



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### **Distribution System**

**Acceptable**

The distribution system is in good condition with no loose or missing laterals or nozzles.

The FRP lateral supports and header saddles are in acceptable condition.



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### Mechanical Equipment

- **Mechanical Equipment Supports**

Acceptable

Mechanical support torque tubes are in fair condition with secure hold-down hardware. Corrosion was noted on the gearbox end of the torque tubes that should be monitored during future inspections.

All driveshaft guards were found to be in place and secure.



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- Fan**

**Acceptable**

The fan assemblies are in good condition with secure blade clamp hardware and unobstructed drain holes. No exposed fibers or blade damage was noted on the FRP fan blades; however the the exterior gel coating is beginning to deteriorate and should be monitored



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- **Driveshaft**

Acceptable

The composite driveshafts are in acceptable condition with secure hardware, as are the associated coupling flex elements.



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- Motor**

Acceptable

The motors are in acceptable condition with secure hold-down hardware.



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- Gear**

**Low Priority**

The gearboxes are in fair condition with secure hold-down hardware. The gearboxes were noted to have corroded oil lines and output shafts, moderately worn flex hoses, and leaking pinion seals.



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- **Gear cont.**

**High Priority**





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### **Recommendations – Critical**

Items of concern are considered critical if they pose safety risks or risk of tower failure. These items should be addressed as soon as possible.

- None

### **Recommendations – High Priority**

Items of concern are considered high priority if they reduce performance or may exacerbate rapidly. These items should be addressed during the next scheduled outage.

- None

### **Recommendations – Low Priority**

All other items of concern are considered low priority. These items should be budgeted for future outages and performed as time and funds allow.

- Seal the gaps around the header penetrations to prevent losses in efficiency from air bypass.
- Install new mid-bay supports at the fan deck level to prevent the decking panels from sagging and ensure the decking panels remain properly supported.  
**Note:** In its current condition the fan deck remains safe for use.
- Replace the leaking gearbox pinion seals to maintain proper oil levels and prevent potential damage to the gearing.  
**Note:** The corroded oil lines and gearbox output shafts should be monitored closely for replacement.

### **Recommendations – Completed**

The following items were completed while mobilized for the inspection.

- Installed new hardware on the centers of the decking panels.
- Replaced FRP handrails and guardrails around the perimeter of the fan deck.
- Replaced steel stair tower handrails with new FRP components.
- Repaired the soft section of fan deck near the cell A stack.

### **Inspection Summary**

In consideration of the above recommendations, EvapTech considers the tower to be in good condition able to perform until a convenient outage allows for the repairs to be performed.

