

WIND TURBINE BLADE INSPECTION CHECKLIST

GENERAL INFORMATION

Name: _____

Date: _____

Location: _____

Foundation, Base Flanges, and Tower Sections

☐ Yes ☐ No — Foundation concrete shows no structural cracking, spalling, or settling

☐ Yes ☐ No — Tower base anchor bolts and tension nuts show no signs of loosening or corrosion

☐ Yes ☐ No — Tower interior climbing ladder and cable fall arrest safety sleeves are secure

☐ Yes ☐ No — Tower flange connection bolts and weld seams show no micro-cracking or paint blistering

Nacelle Main Shaft and Planetary Gearbox

☐ Yes ☐ No — Main rotor shaft bearings show proper grease lubrication and normal running temperature

☐ Yes ☐ No — Planetary gearbox oil level sight glass confirms proper lubricant level and cleanliness

☐ Yes ☐ No — Gearbox lubrication pump pressure and inline oil filter differential gauges read normal

☐ Yes ☐ No — Gear teeth, pinion meshes, and high-speed shaft couplings show no excessive backlash

Rotor Hub and Blade Pitch Control System

☐ Yes ☐ No — Hydraulic blade pitch cylinders and rotary manifolds show zero hydraulic fluid seepage

☐ Yes ☐ No — Blade root bearing mounting bolts exhibit uniform torque and no visual displacement

☐ Yes ☐ No — Emergency feathering accumulator gas pre-charge pressures meet manufacturer specifications

☐ Yes ☐ No — Blade shell leading edges and lightning receptor buttons show no erosion or strike damage

Generator, Yaw Drive, and Mechanical Brake System

☐ Yes ☐ No — Generator stator windings and slip ring assemblies show no carbon dust accumulation

☐ Yes ☐ No — High-speed shaft mechanical disc brake caliper pads have adequate remaining wear thickness

☐ Yes ☐ No — Yaw drive electric motors and reduction gearboxes show smooth gear mesh without noise

☐ Yes ☐ No — Yaw ring gear teeth exhibit uniform lubrication and zero chipped gear teeth

Safety, Aviation Lighting, and Emergency Descent Equipment

- ☐ Yes ☐ No — Nacelle roof emergency exit hatch seals tightly and latches securely
- ☐ Yes ☐ No — Tower top aviation obstruction strobe beacon operates in daytime and night modes
- ☐ Yes ☐ No — Emergency controlled-rate descent escape rescue kits are inspected and within expiration
- ☐ Yes ☐ No — Fire suppression aerosol extinguishers and thermal sensors in nacelle cabinets are active

FINAL NOTES

Inspector Name: _____

Inspector Email: _____

Inspection Date: _____

☐ I confirm this inspection was completed accurately