



Commercial Unmanned Aircraft (DRONE) Safe Operation Policy

September 2024

Purpose

This policy focuses on the safety of employees, the general public, and property owned by others. E Light Electric Services Inc strictly adheres to Federal Aviation Administration (FAA) requirements governing remote pilots, equipment, and operational rules.

The goal of this operational policy is to reduce or eliminate accidents, injuries, and property damage by following safe operating practices. This policy is provided so each employee is aware of their responsibilities.

Compliance with this program is mandatory for all company drone operators. Violations of this program may result in disciplinary action, up to and including suspension of drone operating privileges. Any deviations from this program must be immediately brought to the attention of the employee's supervisor and the program administrator.

General Responsibilities

Management

Management is responsible for ensuring that safety policies and procedures are established and enforced consistently, including providing a qualified pilot and safe equipment free from defect or damage.

Management is also responsible for:

- Selecting drones appropriate for the work to be performed.
- Ensuring drones are properly maintained and safe for operation.
- Ensuring all remote pilots have their FAA Certification.
- Ensuring all remote pilots have been trained on the company's policies and procedures.
- Ensuring all remote pilots have received appropriate "flight" training on the drone they will use to complete their daily work.
- Maintaining appropriate FAA registrations and insurance.
- Ensuring the unmanned aircraft system weighs less than 55 lbs.

Remote Pilots

Remote pilots are responsible for following all FAA requirements, procedures, and company guidelines established in this Safety Policy.

- Pilots will also ensure the drone is properly maintained for safe operation and kept in a secure location when not in use.

Definitions

- **Control Station** means an interface used by the remote pilot to control the flight path of the small, unmanned aircraft.
- **The Federal Aviation Administration (FAA)** is the governing body that sets regulations for the safe operation of small Unmanned Aircraft Systems (UAS) in the airspace of the United States and certification requirements for remote pilots.
- **Remote Pilot** means the person manipulating the operating controls of the small, unmanned aircraft.
- **Small Unmanned Aircraft** means an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft.
- **Small Unmanned Aircraft System** means a small, unmanned aircraft and its associated elements (including communication links and the components that control the small-unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.
- **Unmanned Aircraft** means an aircraft operated without the possibility of direct human interaction from within or on the aircraft.
- **Visual Observer** means a person who is designated by the remote pilot in command to assist the remote pilot in command to see and avoid other air traffic or objects aloft or on the ground.

Authorized Remote Pilots/Personal Use

Company-owned drones and associated equipment will be assigned to authorized employees for work-related duties. Authorized employees will not allow any unauthorized individual to operate the drone. If unauthorized use results in an accident, the authorized employee may be required to make restitution for any damages. Additionally, disciplinary action may be taken. Use of company drones for personal or recreational purposes is strictly prohibited.

Compliance Requirements

Drone operators must comply with the following regulations:

- Federal Regulations:
 - Federal Aviation Administration (FAA) Part 107:
 - All drone operators must possess a valid FAA Part 107 Remote Pilot Certificate.

- Drones must be registered with the FAA if they weigh more than 0.55 pounds (250 grams).
- Drone flights are limited to a maximum altitude of 400 feet above ground level, and operators must maintain visual line-of-sight with the drone at all times.
- Operations in controlled airspace require authorization from the FAA through the LAANC (Low Altitude Authorization and Notification Capability) system.
- Colorado State Laws:
 - Colorado Revised Statutes (C.R.S.) § 18-4-515:
 - It is illegal to use drones for surveillance of private property without the owner's consent. Operators must ensure that no privacy rights are violated while capturing footage on or around the site.
 - Colorado State Parks & Recreation Regulation:
 - Drones are prohibited in state parks unless prior approval has been obtained. While this may not directly affect construction sites, it's important to ensure flight paths don't encroach on restricted areas, especially near parks or protected wildlife areas.
- Local Regulations:
 - Specific municipalities in Colorado may have their own drone laws. For example, some cities have enacted no-fly zones or require additional permits for drone operations. It is the responsibility of the drone operator to verify compliance with local ordinances.

Pilot Qualifications

Remote pilots must have a valid unmanned aircraft system rating/certificate for the operation of the equipment by passing an FAA knowledge examination.

Remote pilots must complete recurrent training courses, as required by the FAA.

Remote pilots must complete initial training on company policies and procedures spelled out in this document, as well as complete "flight" training on the specific unmanned aircraft (drone) assigned to them.

Remote pilots understand airspace classifications and notification requirements.

Remote pilots understand the FAA Best Practices for Privacy, Transparency, and Accountability.

Remote pilots shall have no medical or physical conditions that can affect the safe operation of the small, unmanned aircraft system. Impairments that could influence operation include, but are not limited to:

- The temporary or permanent loss of dexterity needed to operate the control system

- The inability to maintain “see and avoid” diligence due to blurred vision
- The inability to maintain proper situational awareness due to illness and/or use of medications that caution the user to not drive or operate heavy machinery after taking.
- A debilitating condition, such as a migraine headache or moderate-to-severe body aches or pains, that would render the remote pilot unable to manipulate the controls.
- A hearing or speaking impairment that would inhibit the remote pilot from communicating.
- Consuming alcohol within the previous eight hours.
- Being under the influence of alcohol.
- Having a blood alcohol concentration of .04% or greater.
- Using a drug that affects the person’s mental or physical capabilities.

Remote Pilot Safety Rules

Authorized remote pilots must operate the drone in a safe manner, adhering to federal, state, and local laws. Remote pilot safety rules include:

- Remote pilots are encouraged to read the owner’s manual thoroughly to become familiar with all features, limitations, and recommended maintenance.
- Be courteous and respectful to motorists, bicyclists, pedestrians, and property tenants.
- Do not engage in distracting activities while flying the drone, such as talking on a phone, texting, eating, or any other activity that takes your attention away from operating the drone.
- Do not operate a drone while attempting to drive a vehicle.
- Do not allow unauthorized individuals to operate the drone on your behalf.
- Do not operate the drone while impaired by alcohol, illegal drugs, medications, illness, or fatigue.
- Do not operate the drone in or around natural disasters, emergency responses, or related situations.
- Do not operate the drone in an unethical fashion.

Privacy Considerations

Drones must not capture footage of unauthorized areas or individuals without prior consent. Ensure that sensitive areas of the site or neighboring properties are not captured in drone footage.

Emergency Procedures

- Drone operators must have a contingency plan in place for emergencies, such as loss of signal, mechanical failure, or nearby air traffic.

- Report any accidents, near-misses, or equipment malfunctions to the Director of Education and Loss Prevention immediately.

Pre-Flight Operational/Safety Check

The remote pilot will complete a pre-flight operational/safety check in accordance with the manufacturer's inspection procedures. The pre-flight check includes these visual and functional checks:

- Visual condition of the unmanned aircraft system components.
- Airframe structure, including all flight control surfaces, lights, and linkages.
- Registration markings for proper display and legibility.
- Moveable surfaces, including airframe and attachment points.
- Motor(s), including attachment points.
- Propulsion system, including power plant, propellers, rotors, and ducted fans.
- Verifies all systems have adequate energy supply for the intended operation and are functioning properly (battery).
- Avionics, including control link transceiver, communications navigation equipment and antennas.
- Calibration of the unmanned aircraft systems compass prior to flight.
- Control link transceiver, communication/navigation data link transceiver, and antennas.
- Display panel if used is operating properly.
- Ground support equipment, including any takeoff and landing systems for proper operation.
- The control link is functioning properly between the aircraft and control system.
- Check for correct movement of control surfaces using the control system.
- Onboard navigation and communication systems data links
- Flight termination system if installed.
- Equipment, such as a camera, is securely attached.
- Verify communication with the unmanned aircraft system and that the unmanned aircraft system has acquired the GPS location.
- Start the propellers to inspect for any imbalance or irregular operation.
- Verify controller operation for heading and altitude.
- Verify any obstructions that may interfere with operation of the unmanned aircraft system.

- At a controllable altitude, fly within range of interference and re-check all controls and safety.

If any operational or safety-related problems are found during the pre-flight operational/safety check, repairs should be made before the completion of the planned flight. If repairs cannot be made onsite, the flight should be rescheduled for a later time so appropriate repairs can be completed.

Ongoing scheduled and unscheduled maintenance of the unmanned aircraft system and its components (controller) should be completed in accordance with the manufacturer's instructions. This includes software updates provided by the manufacturer.

Pre-flight Planning and Preparation

The remote pilot is responsible for obtaining any waivers required for the intended business use of the company's unmanned aircraft from the FAA.

Communicate with the appropriate air traffic control facility for operations within Class B, C, D, or the lateral boundaries of class E airspace. If entering this airspace, prior authorization from ATC must be obtained.

Notify the airport operator and the airport traffic control tower (when an air traffic control facility is located on an airport) when flying within five miles of an airport.

Be aware of traffic patterns when operating within the vicinity of an airport.

Check for any NOTAM's (Notice to Airman) to determine if any areas where the drone may be flying are affected.

Complete an assessment of the operating environment, paying particular attention to these items:

- Local weather conditions (heavy winds, rain, lightning).
- Local airspace and any flight restrictions (NOTAMS).
- Heavy pedestrian traffic.
- Heavy traffic areas.
- Radio/Cell towers.
- Power lines, tunnels, bridges, and overpasses.
- Trees, buildings, and personal property.

Drone Use Authorization Process

To request drone use on a site, operators must:

1. Submit a Drone Use Request Form to the Director of Education and Loss Prevention. Drone Use Request Form is available on iAuditor.



2. Provide a copy of their FAA Part 107 certification and any other relevant qualifications.
3. Ensure the drone is registered and all equipment complies with FAA requirements.

In-Flight Safety Rules

1. Fly the unmanned aircraft system during daylight hours unless a waiver has been obtained before the flight.
2. Maintain visual sight of the drone at all times unless a waiver has been obtained before the flight.
3. Do not fly the unmanned aircraft system higher than 400 feet above ground level unless flown within a 400-foot radius of a structure.
4. Maintain a minimum visibility of three statute miles from the control station location.
5. Maintain a minimum distance of 500 feet below and 2000 feet horizontally from any clouds.
6. Do not fly the unmanned aircraft system over crowds of individuals unless a waiver has been obtained before the flight.
7. Do not operate the unmanned aircraft system from a moving vehicle unless a waiver has been obtained before the flight.
8. Do not operate the unmanned aircraft system in a careless or reckless manner.
9. Store the unmanned aircraft system in a secure, locked location when not in use.
10. No person shall operate a drone at night.
11. A person may not manipulate flight controls or act as a remote pilot in command or visual observer in the operation of more than one unmanned aircraft at the same time.

Accident Reporting

All incidents involving damage to the drone, property of others, personal injury to employees or others should be reported to E Light Electric Services Inc.'s Director of Education and Loss Prevention IMMEDIATELY.

If an incident occurs, return the drone to the home location and turn the engine off and protect the scene to the best of your ability to prevent further damage/injury. Ensure medical attention is provided to any injured parties as quickly as possible.

Notify emergency personnel or law enforcement in the event of an accident where injuries or property damage occurs.

Gather as much information as possible about the accident and document facts using E Light's Accident Report form on iAuditor. Gather witness statements as you are able, including name, address, and phone numbers.

Take photos of damaged property and/or conditions contributing to the accident.



In the event of an accident, the remote pilot is required to report any of the following to the FAA within **10 days** of the accident:

- Accidents involving serious injury or loss of consciousness
- Damage to property, other than the unmanned aircraft, if the cost is greater than **\$500** to repair or replace the property, whichever is lower.

Accident reports should include:

- The name and contact information of the remote pilot in command.
- The airman certificate number of the remote pilot in command.
- The unmanned aircraft system's FAA registration number.

Training

All drone operators shall receive training on the manufacturer's requirements, drone operation, and on this policy prior to operation. Training records shall be maintained by E Light Electric Services Inc.'s training department.

Review and Revisions

This policy will be reviewed annually and revised as necessary to ensure compliance with evolving federal and state regulations, including updates to FAA Part 107.