

**MCKINNEY FIRE DEPARTMENT
FIRE MARSHAL'S OFFICE**

MODEL ROCKET LAUNCH

These guidelines are to be followed when a person, group, or organization proposes to perform an organized model rocketry launch, within the City of McKinney.

MODEL ROCKETRY USE

1. No model rocket user or rocketry club shall launch any model rockets without a valid permit from the Fire Department;
2. A detailed plan must be submitted to the for review and approval (see below for requirements);
3. A Range and Ignition Safety Officer (RSO), must be designated;
4. The launch site shall be located outdoors in a clear area, free from tall trees, buildings, power or utility lines, or dry combustibles;
5. Model rocket motors shall not exceed a total power limit/impulse of 320 Newton-seconds (72 pound-seconds).

SAFETY REQUIREMENTS

6. The following safety requirements shall be met:
 - a. Model rockets shall be launched from a stable launch platform or device adequate enough to provide a safe flight path;
 - b. The launch platform shall have a blast deflector to prevent the motor exhaust from impinging upon the ground directly. Area around the launch platform shall be cleared of any loose or dry combustibles;
 - c. Launching system shall be remotely or electronically controlled;
 - d. All persons shall be a minimum of 30 feet from the launching platform at time of launch;
 - e. An audible 5 second countdown is required;
 - f. Launches shall be discontinued in winds in excess of 20 mph;
 - g. Launches shall occur only during daylight hours;
 - h. Launch angles shall be within 30 degrees of vertical;
 - i. All safety requirements of 14 CFR 101.1 to 101.25, and the National Association of Rocketry (NAR).
7. The permittee and event sponsor shall be responsible for the safety of all spectators or other persons connected with launching of model rockets;
8. The Fire Department may suspend or revoke the Model Rocket Use (MRU) Permit at any time and/or when the safety guidelines of the permit are not met, or conditions are unfavorable.

SAFETY REQUIREMENTS

9. RSO, Parts, Recovery, Power Limits; Sponsoring Organization will designate a Range and Launch Ignition Safety Officer (RSO) who will check participants: Parts, non-metallic; Recovery (parachute); Power limits (<320 N-sec, 72 lb-sec).
10. Launch Site (clean, size, stable); The RSO will also check the Launch Site (clean); Size (See Table 2-8, NFPA 1122); Stable Launch Platform (provides rigid guidance until it reaches speed), Fire Extinguishers Present.
11. Launch Safety (eyes, blast deflector); Appropriate safety equipment shall be provided to all launch site personnel.

To expedite the plan review and inspection processes, please refer to the information listed below.

MODEL ROCKET LAUNCH

PERMITTING REQUIREMENTS

12. A detailed launch plan must be submitted by the sponsoring organization, and shall include at the minimum the following;
 - a. Identify the RSO and his responsibilities. Confirm he/she has the proper training/certifications within this area;
 - b. A site plan/drawing of the proposed launch site area, to include vehicle parking, buildings, obstructions, launch platform, and roadways;
 - c. Designate the launch site;
 - d. Inspection and control of all participants equipment;
 - e. Provide for the Safety of the participants and spectators before, during and after individual launches and after the event is over and the site is secured;
 - f. Provide for the disposal of any Hazardous Waste.
13. Model rocket launches shall not commence until a Permit has been issued. Any launches performed prior to the issuance of this permit may result in a citation being issued for violation of Section 113.3 of the 2015 International Fire Code.

GENERAL REQUIREMENTS

14. Each submittal shall have a completed Model Rocketry Permit Application.
15. Permits issues by the Fire Marshal's Office give authorization for launch. Final approvals are subject to field inspection.
16. All fire inspection forms and permits shall be kept on the launch site.
17. All authorized rocket launches shall comply with the permit provisions. Any deviation requires authorization from the Fire Marshal's Office.

All model rocket launches for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2015 International Fire Code, as adopted and amended by City of McKinney.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of McKinney, or determinations and positions of the Fire Chief or Fire Marshal.