Federal Aviation Administration, DOT § 29.305

§ 29.305 Strength and deformation.

(a) The structure must be able to support limit loads without detrimental or permanent deformation. At any load up to limit loads, the deformation may not interfere with safe operation.

(b) The structure must be able to support ultimate loads without failure. This must be shown by—

(1) Applying ultimate loads to the structure in a static test for at least three seconds; or

(2) Dynamic tests simulating actual load application.

§ 29.251 Vibration.

Each part of the rotorcraft must be free from excessive vibration under each appropriate speed and power condition.