June 7, 1991

Harold M. Clark Jr.
Washington State Department of
Natural Resources
8410 Martin Way East
Mail Stop PN-11
Olympia, WA 98504

Dear Mr. Clark:

This is in response to your letter of May 29, 1991, attached to which was a Department of Natural Resources internal memorandum relating to "Bucket Cable Length". You requested that our office review Page 4, paragraph (2) of that memorandum and provide you with a legal opinion on the applicability of the height-velocity curve (HVC) to potential FAA enforcement actions against helicopter pilots. The paragraph in question states, in part, that "Several FAA (Federal Aeronautics Administration) actions have been taken against pilots for merely operating helicopters within the unsafe area of the HVC". The paragraph continues by stating that actions have been taken for violations of FAR 91.119 (formerly 91.79) and 91.13 (formerly 91.9) against pilots who have operated within the shaded areas of the height velocity curve.

There is no Federal Aviation Regulation which per se creates a violation for operations conducted within the shaded areas of the height-velocity curve. Rather, the height-velocity curve is a factor which is considered in determining whether a particular operation is in violation of certain specific regulations. The regulations most often involved in this consideration are FAR 91.13 (formerly 91.9) and FAR 91.119 (formerly 91.79). Those regulations state in pertinent part:

91.13 CARELESS OR RECKLESS OPERATION
(a) Aircraft operations for the purpose of air navigation. No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another.
(b) .....

91.119 MINIMUM SAFE ALTITUDES: GENERAL
Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:
(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.
(b) .....
(c) .....
(d) Helicopters. Helicopters may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section if the operation is conducted without hazard to persons or property on the surface.
.....

FAA enforcement actions against helicopter pilots for violations of these regulations have generally involved situations where the aircraft is operating within the shaded area of the height-velocity curve and where, because of the location or concentration of persons or structures on the surface, the likelihood of an engine-out landing without damage or injury to those persons or structures is limited. It is not our position that the mere operation of a helicopter within the height-velocity curve will automatically give rise to an FAA enforcement action. We are aware that the nature of helicopter external load operations is such that flight within the shaded areas cannot be avoided in all instances. Thus, we would have to review the circumstances of a particular operation to determine whether it falls within the scope of the regulations. This review and determination would initially be the responsibility of our Flight Standards District Office, the agency organization which employs the safety inspectors who possess the technical expertise to determine whether a particular operation creates an undue hazard to persons or property. I would suggest that if you have any questions regarding specific operations, you contact a helicopter specialist at the Seattle Flight Standards District Office {227-1882).

We hope that this letter has been responsive to your request. If we may provide you with further information, please do not hesitate to contact our office.
Sincerely yours,

John J. Callahan
Deputy Assistant Chief Counsel