

DEPARTMENT OF THE INTERIOR  
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To: All Field Officials

From: Director, National Office of Fire and Aviation

Subject: Guidelines for Aerial Application of Retardants and Foams in Aquatic Environments

On March 28, 2000, federal wildland fire management agencies suspended use of some fire retardant products because of concerns about their effects on aquatic environments. The action was taken based on the preliminary results of a report issued by the U.S. Geological Survey's Columbia Environmental Research Center.

In the last few weeks, an in-depth evaluation of the report indicates that the risks to aquatic life are less than first thought. Accordingly, the suspension of Fire-Trol Holdings, L.L.C., products have been lifted, although additional guidelines for aerial delivery of retardants and foams immediately will be put into effect. The revised guidelines are attached. They will be in effect until additional field studies are completed, which will allow us to amend and further refine them.

In addition to the guidelines, the federal wildland fire management agencies will undertake two studies, beginning this field season. One study will address the residual environmental effects of the retardant where it was dropped during the 1999 season. The second study will determine if the impacts identified in the report actually occur in the natural environment. When these two reports are completed, we should be able to refine the guidelines, providing further protection to the environment when retardants are used in fighting wildland fires.

For further information, please contact Ron Dunton, Acting Deputy Director, National Office of Fire and Aviation, (208)-387-5446; or Lynn Findley, Aviation Program Manager, National Office of Fire and Aviation, (208)-387-5448.

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## **Guidelines for Aerial Delivery of Retardant or Foam near Waterways**

### **Definition:**

WATERWAY – Any body of water including lakes, rivers, streams and ponds whether or not they contain aquatic life.

### **Guidelines:**

#### **Avoid aerial application of retardant or foam within 300 feet of waterways.**

These guidelines do not require the helicopter or airtanker pilot-in-command to fly in such a way as to endanger his or her aircraft, other aircraft, or structures or compromise ground personnel safety.

Guidance for pilots: To meet the 300-foot buffer zone guideline, implement the following:

- Medium/Heavy Airtankers: When approaching a waterway visible to the pilot, the pilot shall terminate the application of retardant approximately 300 feet before reaching the waterway. When flying over a waterway, pilots shall wait one second after crossing the far bank or shore of a waterway before applying retardant. Pilots shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant within the 300-foot buffer zone.
- Single Engine Airtankers: When approaching a waterway visible to the pilot, the pilot shall terminate application of retardant or foam approximately 300 feet before reaching the waterway. When flying over a waterway, the pilot shall not begin application of foam or retardant until 300 feet after crossing the far bank or shore. The pilot shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant within the 300-foot buffer zone.
- Helicopters: When approaching a waterway visible to the pilot, the pilot shall terminate the application of retardant or foams 300 feet before reaching the waterway. When flying over a waterway, pilots shall wait five seconds after crossing the far bank or shore before applying the retardant or foam. Pilots shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant or foam within the 300-foot buffer zone.

**Exceptions:**

- When alternative line construction tactics are not available due to terrain constraints, congested area, life and property concerns or lack of ground personnel, it is acceptable to anchor the foam or retardant application to the waterway. When anchoring a retardant or foam line to a waterway, use the most accurate method of delivery in order to minimize placement of retardant or foam in the waterway (e.g., a helicopter rather than a heavy airtanker).
- Deviations from these guidelines are acceptable when life or property is threatened and the use of retardant or foam can be reasonably expected to alleviate the threat.
- When potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator may approve a deviation from these guidelines.

**Threatened and Endangered (T&E) Species:**

The following provisions are guidance for complying with the emergency section 7 consultation procedures of the ESA with respect to aquatic species. These provisions do not alter or diminish an action agency's responsibilities under the ESA.

Where aquatic T&E species or their habitats are potentially affected by aerial application of retardant or foam, the following additional procedures apply:

1. As soon as practicable after the aerial application of retardant or foam near waterways, determine whether the aerial application has caused any adverse effects to a T&E species or their habitat. This can be accomplished by the following:
  - a. Aerial application of retardant or foam outside 300 ft of a waterway is presumed to avoid adverse effects to aquatic species and no further consultation for aquatic species is necessary.
  - b. Aerial application of retardant or foam within 300 ft of a waterway requires that the unit administrator determine whether there have been any adverse effects to T&E species within the waterway.

These procedures shall be documented in the initial or subsequent fire reports.

2. If there were no adverse effects to aquatic T&E species or their habitats, there is no additional requirement to consult on aquatic species with Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS).

3. If the action agency determines that there were adverse effects on T&E species or their habitats then the action agency must consult with FWS and NMFS, as required by 50 CFR 402.05 (Emergencies). Procedures for emergency consultation are described in the Interagency Consultation Handbook, Chapter 8 (March, 1998). In the case of a long duration incident, emergency consultation should be initiated as soon as practical during the event. Otherwise, post-event consultation is appropriate. The initiation of the consultation is the responsibility of the unit administrator.

Each agency will be responsible for insuring that the appropriate guides and training manuals reflect these guidelines.