

Safety Alert OF THE MONTH

PLEASE PASS THIS ON TO PEOPLE AND ORGANIZATIONS IN BC'S FOREST INDUSTRY

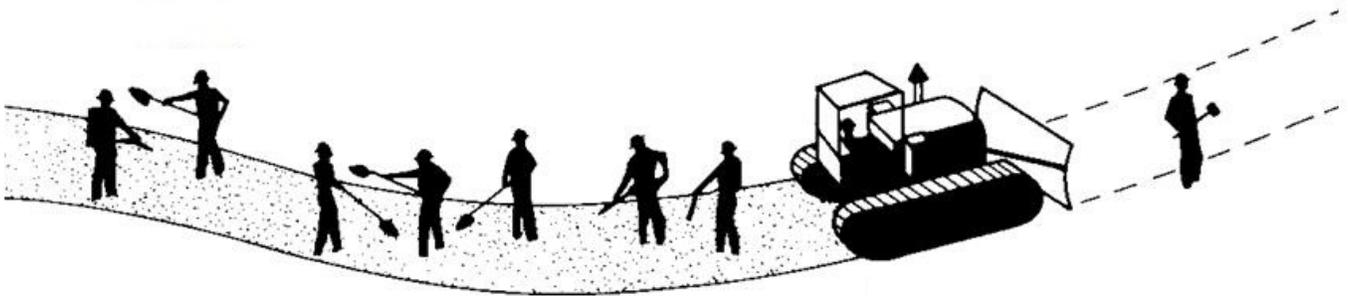
May 2020

Wildfire Hazards: Phase Congestion

This series of safety alerts for May, June and July is intended for all workers, both forestry workers and fire crews, responding to fires and highlights hazards that exist in a wildfire environment. The first hazard in this series is related to "phase congestion".

Phase congestion is when different types of work occurring simultaneously in a single worksite become bunched up, overcrowded or jammed (i.e. congested) compromising the safe and efficient operation of the work being performed.

During a wildfire, it is common for heavy equipment, fallers, aircraft and firefighters to all be working in close proximity. This integration is necessary, but if the work is not planned, communicated and controlled in an effective manner, these phases may conflict and lead to significant injury or even death. Potential for phase congestion can be further increased due to complicating factors such as smoke and threats to values, such as homes, equipment, and timber.



Poor planning is often a significant contributing factor to phase congestion. It can be from a tactical level, for example, where resources are assigned on the fire, or from a strategic level, such as how the fire is managed.

Some planning issues to be addressed are:

- Working above other workers
- Phases coming within two tree lengths of heavy equipment and fallers
- Workers placed ahead of a fast moving wildfire.
- Any phase spending a significant portion of their time in smoke.
- Resources ignoring assignments and instead doing what they "feel will work better".
- Objectives for protecting values are misaligned, e.g. safety of responders is not prioritized.



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Poor communication is also one of the most problematic issues in wildfire and is one of the biggest contributing factors of phase congestion. Improving communication can lead to a high degree of risk mitigation in phase congestion.

Some communication issues to be addressed are:

- Insufficient number of radios to go around; or radios not having the appropriate channels.
- Equipment operators unable to hear radios while operating machines.
- Different phases communicating on different radio channels, including “chat” channels for informal communication. Phases not knowing each other’s channels.
- Ground resources working under a helicopter bucketing without adequate communication.
- Poor radio or cell phone coverage.
- Inadequate or no briefings. Some workers and supervisors not knowing the plan.
- Workers not knowing the chain of command—i.e. who reports to whom.

The nature of fire can also cause issues that lead to phase congestion.

- Thick smoke can prevent resources from seeing each other when working closely. This may lead to conflict as the phases bunch up. This can be mitigated by pulling out when smoke becomes thick and re-assigning resources to clearer areas.
- When homes or other values are in danger, workers may ignore assignments and focus on dealing with obvious “flare-ups” which can put them in harm’s way, lead to confusion and potential conflict between phases.

Supervisors need to pay close attention to the issues that can lead to phase congestion and quickly implement appropriate controls. Integrating the phases through good planning, communication, and operational control will lead to a safe and effective fire response.

Additional Resources

- BC Wildfire Service Website – www2.gov.bc.ca/gov/content/safety/wildfire-status
- BC Forest Safety Council Phase Management Resource Package – www.bcforestsafe.org/node/3109
- BCFSC Safety Alert on Wildfire Risks - www.bcforestsafe.org/node/2992
- BCFSC Safety Alert – Working on Wildfires – www.bcforestsafe.org/node/3352

