

Type of Risk	Level of Risk						Score
	Low Risk	Score	Moderate Risk	Score	HIGH RISK	Score	
Elevation	< 2,000 ft	1	2,000-4,000 ft	2	> 4,000 ft	3	
Slope	Level or On a Fill	3	Upslope < 45°	6	Upslope ≥ 45°	9	
Slope Facing	North or No Slope	1	East	2	SouthWest	3	
Emergency Access	Road/ROW Access	1	Off-Road Access	2	Only Accessible by Rail	3	
Fuel Type	Sparse/green vegetation: new cuttings/slash/brush and hardwood species, if summer/green/fully leafed; marsh grasses; green wetland/meadow/swamp	3	Moderate vegetation: dried cuttings/slash/brush; brush mixed with dead fine fuels or leaf drop; hardwoods or brush without leaves (except when leaves have just fallen, or in early spring thaw) or if dried out; new and growing perennial grasses; green wetland/meadow/marsh or swamp vegetation after drought.	6	Dry or dead vegetation; very dry slash; dead grass that is high and has brush growing in it, dry hardwoods and leaves; any matured grasses or low-growing plant, weeds or small vegetation after a killing frost	9	
Adjacent Property	Farmland and sparsely vegetated & sparsely populated areas	5	Residential/commercial areas among combustible vegetation or forest.	10	High density residential structures constructed from timber, heavily-traveled roadway less than 1/4 mile downwind, areas of large capital investment	15	
Fire Danger Class	Low	5	Moderate	10	High-Very High-Extreme	15	
Time of Day	8 PM to 10 AM	1	10 AM to 3 PM	2	3 PM to 8 Pm	3	
distance to Vegetation	> 100 ft	5	50 - 100 ft	10	< 50 ft	15	
Wind Speed	0-10 MPH	3	11 MPH - 15 MPH	6	> 15 MPH	9	
Temperature	< 60 ° F	1	61° F - 70° F	2	> 70 ° F	3	
Humidity	> 50 %	2	25% - 50%	2	< 25 %	3	
Precipitation**	Precipitation or Heavy Fog	3	Moisture Within Last 3 Days	6	No Moisture Within Last 3 Days	9	
Total	33-54		55-69		70-99		

** A Fire Risk Assessment must be completed prior to conducting any hot work unless on fo the conditions below exists at the site.

When any of the conditions below does exist, the fire risk is low (green). Check the box that applies:

- Ground is covered by snow
- Ground is covered by a heavy frost
- Rain, snow, or sleet is currently falling (at time work is to be performed)
- Ground is saturated as evidence by standing water and no dry vegetation (e.g. reeds, weeds, dead wood) is present

		Preventive Actions Based on Level of Risk			Indicate Selection
Type of Work		33-54 or No Vegetation Within 100'	55-69	70-99	
Production Rail Grinding		A+F	A+F+H	X	
Flash-Butt Welding		A+B	A+B+C+E	(A+B+C+E+F+I) or X	
Open Flame Rail Heating		A	A	(A+F+I) or X	
Thermite Welding ¹		A+B	A+B+(C or D)+E	(A+B+D+E+F+G+I) or X	
Arc Welding or Arc Cutting		A+B	A+B+(C or D)+E	(A+B+(D *or C)+E+F+G+I) or X	
Rail Cutting or Grinding		A+B	A+B+(C or D)+E	(A+B+(D *or C)+E+F+G+I) or X	
Oxy-Acetelyne Torch		A+B	A+B+(C or D)+E	(A+B+(D *or C)+E+F+G+I) or X	
Cadweld Bonding		A	A	(A+B+I) or X	

Notes:

¹ Includes all operations associated with Thermite welding such as cutting and grinding

² Provide fire watch for areas below open deck bridges. (For rail grinding fire watch is to continue 4 hours, all other work fire watch must continue for 2 hours)

A Normal operations

B Use spark shields to protect all hot work

C Saturate with water or clear vegetation within 30 feet of the hot work

D Use a welding tent to protect hot work

E Post a fire watcher or fire watchers to watch for signs of smoke or fire during hot work

F Leave one employee at the job site for 1 hour after hot work (2 or 4 hours for timber structures)²

G A minimum of three (3) employees will be required for thermite welding, rail cutting, or grinding operations

H Hi-rail water truck must follow grinding operations

I Hot work must be authorized by Director of Track and Structure Maintenance (or a Manager of Track, Signals, or Bridge & Structures)

X Shut down hot work operations

* When fire risk is high, tent must be used if it can be used (**D**). If tent cannot be used, saturate or clear vegetation (**C**)

Comply with All requirements of the Fire Prevention Plan Whether or Not Summarized Above

Fire Risk Assessment Form completed by: _____ Verified by: _____

Subdivision (circle): OL OR PA SG RI VE VY MP: _____ Gang: _____ Date: _____ Time: _____