

**SYSTEM BULLETIN****To: All Transportation Employees****All Regions – Canada****Date: June 17, 2020****SUBJECT: Securing Equipment in Emergency on Grade**

The additions and changes described in this bulletin are in effect at 0001 ET June 24. After this time, all T&E and RTC employees must have a copy of this bulletin accessible while on duty.

**New Definitions:****HEAVY GRADE**

A portion of a track 2 miles in length or greater, with an average grade greater than 1.0%, and less than or equal to 1.8%.

**MOUNTAIN GRADE**

A portion of a track 2 miles in length or greater, with an average grade greater than 1.8%.

**In GOI Section 4, add new Item 10.0:****10.0 Securing Equipment After An Emergency Brake Application on Grade**

- (a) When a movement experiences an emergency brake application on a heavy or mountain grade, the crew must immediately provide details of the situation to the RTC, and be governed by any additional instructions received from the RTC.
- (b) When a movement experiences an emergency brake application and any portion is located on a heavy or mountain grade, the entire movement is considered to be on such heavy or mountain grade.
- (c) In the event of a derailment or a separation on heavy or mountain grade, the portion at greatest risk of unintended movement must be secured first.

**Mountain Grade**

- (d) When a movement experiences an emergency brake application on a mountain grade, the hand brakes must be immediately applied per (f) before attempting to recover the air brake system.

**Heavy Grade**

- (e) When a movement experiences an emergency brake application on a heavy grade:
  - (i) the movement must be secured immediately per (f) if any of the following conditions exist:
    - ambient temperature is -20 degrees Celsius or colder;
    - ambient temperature is between -15 and -19 degrees Celsius, and snow is three inches or greater above the top of rail;
    - the crew has experienced unusual braking conditions or difficulty controlling speed;
    - doubt exists as to the ability to safely recover and control the movement;
    - more than one emergency brake application has occurred on the grade; or
    - operating conditions do not permit a recovery attempt

- (ii) If none of the conditions in (e)(i) apply, attempt to recover from the emergency brake application. If air does not recover, the movement must be immediately inspected for cause. If cause cannot be determined or immediately corrected, so that air can recover, the movement must be secured per (f).

### **Hand Brake Requirements**

- (f) When securing using the hand brake requirement table, the following apply:
- (i) If less equipment is present in the movement than required by the following table, hand brakes must be applied on all equipment.
  - (ii) The retarding force of locomotive(s) is not included in the following hand brake requirements, and must not be used to diminish these requirements.

Total Tons:	Minimum Required Number of Handbrakes							
	Heavy Grade (%)				Mountain Grade (%)			
	1.01 - 1.2	1.21 - 1.4	1.41 - 1.6	1.61 - 1.8	1.81 - 2.0	2.01 - 2.2	2.21 - 2.4	> 2.4
0 – 2000	4	5	6	7	8	9	11	11
2001 - 4000	8	11	13	15	16	18	20	23
4001 - 6000	14	16	19	23	25	28	31	34
6001 - 8000	19	23	26	30	34	37	41	45
8001 - 10000	25	28	33	38	41	47	52	57
10001 - 12000	28	35	40	46	50	57	62	68
12001 - 14000	34	40	47	53	59	66	73	79
14001 - 16000	39	47	53	61	68	75	83	91
16001 - 18000	45	52	60	69	77	85	94	102
18001 - 20000	50	59	68	77	85	95	105	113
20001 - 22000	53	64	74	84	93	104	115	125
22001 - 24000	59	71	82	92	102	114	126	136
24001 - 26000	64	77	89	100	111	124	136	147
26001 - 28000	70	83	95	107	119	134	147	159
28001 - 30000	75	89	102	116	128	143	157	170

### **Important Note:**

The table above details handbrake requirements for attended movements stopped by an emergency brake application on grade. These requirements differ from those in GOI Section 4 Appendix A, which pertain to unattended equipment left on grade. When securing, ensure you are using the correct requirements for your particular situation.

Remember that if you are required to leave equipment unattended, Appendix A applies, and you will be required to apply additional brakes beyond the number above.

***Home Safe is a commitment to be vigilant about personal safety and the safety of co-workers.***

