

HIGHWAY MAINTENANCE BULLETIN #8/2008

Unit Price Adjustment for Out-Of-Spec Sand

Summary

This Bulletin is issued to inform maintenance contractors and department staff of the department’s recommended practices to be followed for adjusting the unit price for out-of-specification sand. It has been reviewed and agreed upon by the ARHCA/AT Joint Steering Committee.

When Alberta Transportation accepts out-of-spec sand, and an adjustment is assessed, the amount of the adjustment is not to be included in the Contractor’s Performance Measures (i.e. not to be assessed as Punitive Damages).

Information

Alberta Transportation has adopted two specifications for sand to be used as an abrasive in winter maintenance. Below are the specifications.

8 mm Sand Specification

Sieve	% Passing
8000	100
5000	75-100
1250	0-65
315	0-30
160	0-18
80	0-10

- Plasticity Index (PI) – NP-6
- A 3% tolerance will be allowed on the top size
- All material must pass the 10000 sieve

5 mm Sand Specification

Sieve	% Passing
5000	100
1250	0-75
315	0-30
160	0-18
80	0-10

- Plasticity Index (PI) – NP-6
- A 3% tolerance will be allowed on the top size
- All material must pass the 8000 sieve

In the event that the sand is outside of these specifications, the following procedure shall be followed to adjust the unit price.

This unit price adjustment does not apply to emergency sand brought in during a winter storm situation.

The Engineer will review sand material that does not meet the specified gradations. The Engineer has the option of rejecting the material, or accepting it at a reduced rate. This Unit Price Adjustment is a method to determine the reduced rate. Unit price adjustments for sand material not meeting specified gradation limits shall be applied as herein described for Department Supply of Sand when paid as "Sand – Supply and Stockpile to: (location)".

All QC and QA test results (from either the Contractor or the Department) for the applicable sand stockpile shall be used to determine the mean aggregate gradation. Mean adjustment points for mean aggregate gradations not meeting specified gradation limits (either those listed above, or those listed in the Special Provisions) shall be determined as outlined in Tables 1a and 1b. A unit price adjustment for applicable sand material shall be calculated as follows:

$$\text{UPAg} = \text{APg} \times \$0.02$$

Where:

UPAg = Unit Price Adjustment for Gradation
 APg = Sum of Adjustment Points from Table 1a or 1b

The Unit Price Bid per tonne will be calculated as follows:

Unit Price Per tonne	=	Contract Unit Price Bid Per tonne	-	UPAg
----------------------------	---	---	---	------

**TABLE 1a – 8 mm
 MEAN ADJUSTMENT POINTS FOR DEVIATIONS FROM GRADATION LIMITS
 AND MAXIMUM DEVIATIONS ALLOWABLE**

LOT MEAN REQUIREMENTS	SIEVE SIZE Φm		
	5000 ⁽¹⁾ 1250 315	160	80
Mean Adjustment Points for Deviations outside of specified gradation limits	5 for each 1% Deviation	0.5 for each 0.1% Deviation	5 for each 0.1% Deviation
Maximum Allowable Deviation outside of specified gradation limits. ⁽²⁾	5	5	2.5

**TABLE 1b – 5 mm
MEAN ADJUSTMENT POINTS FOR DEVIATIONS FROM GRADATION LIMITS
AND MAXIMUM DEVIATIONS ALLOWABLE**

LOT MEAN REQUIREMENTS	SIEVE SIZE Φm		
	1250 ⁽¹⁾ 315	160	80
Mean Adjustment Points for Deviations outside of specified gradation limits	5 for each 1% Deviation	0.5 for each 0.1% Deviation	5 for each 0.1% Deviation
Maximum Allowable Deviation outside of specified gradation limits. ⁽²⁾	5	5	2.5

Notes:

⁽¹⁾ Include all applicable sieves up to one size smaller than top size.

⁽²⁾ Sand material with gradation deviations exceeding the Maximum Allowable Deviation may be rejected for use at the discretion of the Engineer. If accepted for use by the Engineer, the Mean Adjustment Points calculated for the portion of the deviation exceeding this tolerance shall be doubled.

Effective Date

November 1, 2008

Contact

Sharla Griffiths, Highway Operations Engineer
780-415-1057

References

[Spreadsheets for calculating the adjustment](#) – fill in the cells with blue letters/numbers. The spreadsheets are set to the above sand specifications. Contact Sharla Griffiths to get them changed to your specification, if necessary.

Approved:

*Original signed
by Moh Lali*

Moh Lali
Director, Highway Operations
Technical Standards Branch