

SPECIFICATION FOR FUEL COST ADJUSTMENTS

160. 1 SCOPE 2
1.1 Fuel Cost Adjustment Price Index 2

160. 2 FUEL COST ADJUSTMENT FOR BID ITEMS 2
2.1 Application..... 2
2.2 Fuel Consumption Rates for Bid Items 2
2.2.1 Aggregate Crushing 3
2.3 Payment..... 3

160. 3 FUEL COST ADJUSTMENT FOR HOURLY EQUIPMENT RATES..... 4
3.1 Application..... 4
3.2 Classification of Hourly Equipment 4
3.3 Payment..... 6

SPECIFICATION FOR FUEL COST ADJUSTMENTS

160. 1 SCOPE

This specification is intended to cover fuel cost changes for certain contract activities where the activity has a high fuel consumption component as identified in this specification. The fuel cost adjustment specification shall apply to either increases or decreases in fuel prices.

1.1 Fuel Cost Adjustment Price Index

Manitoba will establish a “Set Price” for the fuel cost of the contract based on Manitoba’s Monthly Diesel Fuel Price Index on the date of tender **closing**. This index is based on the second issue of the month of the Oil Price Information Service (OPIS) rack price for bulk low sulphur diesel fuel. The Canadian unbranded rack price referenced is the average price listed for Winnipeg. The “Actual Price” for diesel fuel will be established monthly based on the above index.

160. 2 FUEL COST ADJUSTMENT FOR BID ITEMS

2.1 Application

This fuel cost adjustment calculation will be based on fuel consumption rates and contract quantities for Bid Items with the exception of hourly equipment rates. Hourly equipment rates will be addressed in Section 160.3 (Fuel Cost Adjustment for Hourly Equipment Rates). The adjustment(s) will be calculated monthly based on actual work performed using quantities reported on the progress payments.

Payment for fuel cost adjustment, in any given month, will be calculated using the following formula:

$$\text{Monthly Adjustment per Bid Item} = (\text{Actual Price} - \text{Set Price}) \times \text{Bid Item Monthly Quantity} \times \text{Fuel Consumption Rate}$$

2.2 Fuel Consumption Rates for Bid Items

The amount of fuel consumed will be represented by the consumption rates listed in Table 2.1. Fuel cost adjustments will not be considered for any other activity or bid item with the exception of crushing which is addressed in Section 160.2.2.1 (Crushing). The Fuel Consumption Rates cover all of the activities as defined in the applicable specification for that bid item.

Table 2.1 Bid Items and Corresponding Fuel Consumption Rates

Bid Item	Fuel Consumption Rate
Chip Seal	0.04 L/m²
Cold Central Plant Recycling	2.0 L/t
Cold In Place Recycling	0.6 L/m²
Concrete Paving	3.5 L/m ²
Bituminous Paving	3.5 L/t

Gravel Road Surface Maintenance	2.0 L/pass-km
Granular Course	2.0 L/t
Excavation (all types)	1.0 L/m ³
Micro Surfacing	2.0 L/t
Milling/Reclamation/Pulverization of Bituminous Pavement (Any depth, mm)²	(0.0024 x Depth of Cut) L/m² or 1.0 L/t
Plowing	1.0 L/pass-km
Rubblizing Concrete	1.2 L/m²
Stockpiling Aggregates (including Rip Rap)	1.0 L/t
Supply and Place Crushed Rock	2.0 L/t
Supply and Deposit Aggregates	1.0 L/t
Supply and Place Rip Rap	1.0 L/t

Notes:

- 1) Where a conversion factor is required, one cubic meter of aggregate will be considered to have a mass of 1.78t.
- 2) Depth will be provided in the special provisions.

2.2.1 Aggregate Crushing

If a bid item requires aggregate crushing, the fuel consumption rate for aggregate crushing will be 1.0 L/t and the fuel cost adjustment shall be calculated and applied separately to the bid item. The net fuel cost adjustment for the bid items listed in Table 2.1 will then be calculated and paid for based on the difference between the fuel consumption rate for the bid item and the fuel consumption rate for crushing.

Fuel consumption rate for crushing will not apply to:

- Concrete Paving
- Screened aggregates

Fuel cost adjustments for aggregate crushing will be calculated monthly, based on estimated crushed quantities, up to the contract quantity for aggregate produced for Granular Course, Bituminous Paving and Micro Surfacing. The fuel cost adjustment for crushing will be further adjusted based on the final audited contract quantities.

2.3 Payment

Net fuel cost adjustments will be accounted for no later than the last progressive payment in each fiscal year with the final adjustment made on the Pre-Final Payment based on the above monthly calculations. The final audited contract quantities will be used to calculate the final fuel cost adjustment. For fuel price increases, the fuel cost adjustment amount will be paid for on the basis of Extra Work. For fuel price decreases, the fuel cost adjustment amount will be a deduction on the next payment to the Contractor.

Fuel cost adjustments are applicable to eligible activities throughout the Contract, including work performed after the expiration of the subcompletion or completion date(s).

Example 1 – Bituminous Paving

The bid item is Bituminous Paving. When the aggregate for bituminous paving is crushed, an estimated monthly fuel cost adjustment for crushing will be calculated at 1.0 L/t for the bituminous pavement contract quantity and applied to regular progressive payments. A second fuel cost adjustment will then be calculated on the quantity of bituminous pavement placed and applied to regular progressive payments using a net fuel consumption rate of 2.5 litres/tonne. The final fuel cost adjustment calculation will be based on the final audited contract quantities and paid for on the pre-final payment.

Example 2 – Granular Course

The bid item is Granular Course and the aggregate for the Granular Course was crushed prior to contract award. In this case, the Actual Price for the crushed material is established in the same month as the month of award. A monthly fuel cost adjustment for crushing will not be calculated for the quantity that was pre-crushed since the Set Price is equal to the Actual Price. A fuel cost adjustment will then be calculated on the quantity of Granular Course placed and applied to regular progressive payments using a net fuel consumption rate of 1.0 litre/tonne. The final fuel cost adjustment calculation will be based on the final audited contract quantities and applied to the pre-final payment.

160. 3 FUEL COST ADJUSTMENT FOR HOURLY EQUIPMENT RATES

3.1 Application

The fuel cost adjustment calculation will be based on established fuel consumption rates and the hourly equipment rates as bid or established by rental agreement. The adjustment will be calculated and applied to the hourly rate for the month the equipment is hired or month the equipment undertakes work and then paid for on actual work performed.

The fuel cost adjustment for the hourly rate, in any given month, will be calculated using the following formula:

$$\text{Fuel Cost Adjustment per Hourly Equipment Rate} = (\text{Actual Price} - \text{Set Price}) \times \text{Fuel Consumption Rate per Equipment Type}$$

This fuel cost adjustment will then be applied to the bid rate or the base rate established by contract or rental agreement for the hourly equipment.

The amount of fuel consumed will be represented by the consumption rates listed in Tables 3.1 and 3.2 below. Fuel cost adjustments will not be considered for any other equipment type not listed in Tables 3.1 and 3.2.

The Fuel Consumption Rate will cover all the activities as defined in the applicable specification, contract or agreement for that type of hourly equipment.

3.2 Classification of Hourly Equipment

Hourly equipment will be classified as either on-road or off-road for the purpose of determining the fuel consumption rate. On-road equipment is equipment licenced for highway travel as per the Highway Traffic Act. Off-road equipment is equipment that is not licenced for highway

travel as per the Highway Traffic Act. The amount of fuel consumed per equipment type will be represented by the consumption rates listed in Tables 3.1 and 3.2. The Fuel Consumption Rate will apply to each hour paid for the tendered hourly equipment. If applicable, payment of attachments for hourly equipment will be made in accordance to the contract or agreement.

Table 3.1 Hourly Equipment Types with Corresponding Fuel Consumption Rates for On-Road Equipment

Hourly Equipment Type (Licenced as per HTA)	Fuel Consumption Rate	
	Medium 11 L/hr	Large 15 L/hr
Trucks	Group 2	Groups 3-6
Rock Truck	Groups 1-3	Groups 4-7
Drill Truck	All	
Water Tank Truck	≤13,650 litres	>13,650 litres
Hydro Vac Truck	Groups 1-2	Group 3
Tractor-Lowbed Trailer		All
Street Sweeper	All	

Table 3.2 Hourly Equipment Types with Corresponding Fuel Consumption Rates for Off-Road Equipment

Hourly Equipment Type	Fuel Consumption Rate			
	Small 12 L/hr	Medium 20 L/hr	Large 40 L/hr	X Large 50 L/hr
Hydraulic Excavator-Tracked	Groups 1-8	Groups 9-12	Groups 13-14	Groups 15-16
Hydraulic Excavator-Wheel	Groups 1-4			
Loader-Backhoe	Groups 1-6			
Loader-Rubber Tire	Groups 1-7	Groups 8-10	Group 11	Groups 12-13
Loader-Skid Steer	Groups 1-7			
Loader-Tracked	Groups 1-3	Groups 4-6		
Motor Grader	Groups 1-3	Groups 4-7		
Crawler Tractor with Dozer	Groups 1-5	Groups 6-8	Groups 9-11	Groups 12-13
Tractor-Farm/Industrial-Belted		Groups 1-3	Groups 4-6	Group 7
Tractor-Farm/Industrial-Wheeled	Groups 1-3	Groups 4-6	Groups 7-9	Group 10

Forestry Mulcher		Group 1	Group 2	Groups 3-4
Sweeper-Self Propelled	All			
Self Propelled Pneumatic Steel Combination Compactor	All			
Self Propelled Vibratory Steel-Rubber (Padfoot) Compactor	All			
Self Propelled Vibratory Steel-Rubber (Smooth Drum) Compactor	All			

3.3 Payment

The fuel cost adjustment will be applied to the hourly bid rate or the hourly base rate for each piece of equipment. The adjusted hourly rate will be used to calculate the total amount to be paid based on actual hours of work. Payment for hourly equipment will be made on regular progressive payments or as agreed to when the equipment is hired. For fuel price increases, the fuel cost adjustment will result in a net increase to the hourly equipment rate. For fuel price decreases, the fuel cost adjustment will result in a reduction to the hourly equipment rate.

Fuel cost adjustments are applicable to eligible hourly equipment activities throughout the Contract, including work performed after the expiration of the subcompletion or completion date(s).

Example 1

The fuel cost adjustment for a Large On-Road Bid Hourly Equipment Type that worked in the month of February is as follows:

Tenders for Bid hourly closed on January 20, 2022 – establishes month of Set Price
Set Price (January 2022 OPIS Index) = \$1.023
Fuel Consumption Rate for Equipment Type = 15 litres/hour (Table 3.1)

To establish Fuel Cost Adjustment for the month of February (month work was undertaken in)
Actual Price (February 2022 OPIS Index) = \$1.121

$$\begin{aligned} \text{Fuel Cost Adjustment per Hourly Equipment Rate} &= (1.121 - 1.023) \times 15 \\ &= \$1.47/\text{hr} \end{aligned}$$

The base rate per hour for this equipment type will increase by \$1.47/hr to pay for Fuel Cost Adjustment.