

18-GP-6
6 January 1955
CANCELLATION
October 1969

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

COAL: BITUMINOUS, AMERICAN

This standard is cancelled as of October 1969 and is
superseded by CGSB 18-GP-7, May 1969.



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

SPECIFICATION

FOR

COAL; BITUMINOUS, AMERICAN

18-GP-6

6 JANUARY 1955

SUPERSEDES 18-GP-1A (IN PART)

18 AUGUST 1950

THIS SPECIFICATION APPLIES TO BITUMINOUS COAL TO BE USED
FOR GENERAL HEATING OR STEAM RAISING PURPOSES.

NATIONAL RESEARCH COUNCIL, OTTAWA, CANADA

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CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

COAL; BITUMINOUS, AMERICAN

1. DEFINITION

This specification applies to bituminous coal to be used for general heating or steam raising purposes.

2. CLASSIFICATION

Bituminous coals are available in any of the three following types, according to volatile matter content on the dry, mineral-matter-free basis. (See Para. 3.2)

	Type	Volatile Matter (Percent)
2.1	Low Volatile Bituminous	14 - 22
2.2	Medium Volatile Bituminous	22 - 31
2.3	High Volatile Bituminous	Over 31

3. DETAIL REQUIREMENTS

3.1 Sizes - Bituminous coals shall conform to the size designations and screen limits given in Table I, subject to the tolerances specified in Para. 3.1.1. However, the purchaser or the vendor may specify other top and bottom screen sizes than those shown in Table I provided they come within the overall range of sizes defined in Table I for each size designation. In any event the vendor must specify on his tender the top and bottom screen sizes of the coal being offered and the final contract must define the coal sizes by both the size designation and by the top and bottom screen sizes as tendered by the vendor.

The specification for each size is based upon the size as delivered to the consumer and prior to stock piling or other handling at destination. Therefore the sizes or types of the limiting screens used in the original preparation are not necessarily relevant but are acceptable only providing the coal as delivered to the consumer conforms to the size requirements as specified in the tender or contract and as governed by this specification.

TABLE I*

Sizes for Bituminous CoalPermissible Size Ranges - Round Hole Screen (Inches)

Designation	Top Size Limit (inches)	Bottom Size Limit (inches)
Mine Run	Variable	0
Large Lump	Variable	4
Lump	Variable	1
Egg or Stove	6	2
Nut	2	3/4
Prepared Stoker Large	From 2 to and including 1	1/4
Prepared Stoker Intermediate	From 1 to and including 1/2	1/8
Prepared Stoker Small	From 3/4 to & including 1/4	1/16
Nut Slack	From 2 to and including 1 1/4	0
Slack	From 1 to and including 1/2	0
Fines	From 1/2 to and including 1/4	0

* Note: See Appendix A for complete information on coal sizes and tolerances.

3.1.1 Size Tolerances

(a) Not more than 5% by weight of the coal as delivered shall be retained on the screen defining the top size as specified in the contract.

** (b) For all coals except mine run, nut slack and slack, not more than 15% by weight of the coal as delivered shall pass through the screen defining the bottom size as specified in the contract.

(c) For mine run, slack, and nut slack coals, not more than 15% by weight of the coal as delivered shall pass through the screens specified below:

Mine Run ----- 1/8
 Nut Slack ----- 1/16
 Slack ----- 1/32

(d) For mine run, slack, and nut slack coals, at least 40% by weight of the coal shall be retained on the intermediate screens specified below, according to coal type.

	<u>Low Volatile</u>	<u>Medium Volatile</u>	<u>High Volatile</u>
Mine Run	1/2	3/4	3/4
Nut Slack	1/4	3/8	1/2
Slack	1/8	1/4	1/4

** Note: No bottom size tolerance specified for fines.

3.2 Volatile Matter - on the dry, mineral-matter-free basis shall meet the following requirements, according to type. (ASTM Designation D388-38)

<u>Type</u>	<u>Volatile Matter (Percent)</u>
Low Volatile	14 - 22
Medium Volatile	22 - 31
High Volatile	over 31

3.3 Caking Properties - Low Volatile and Medium Volatile coals shall be caking coals. High Volatile coals may be caking or non-caking as indicated by residue of the Standard Volatile Matter Test (ASTM Designation D271-48) and the purchaser may specify which is to be supplied.

4. SAMPLING AND ANALYSIS

4.1 Sampling - Samples from shipments or storage shall be taken in accordance with Canadian Government Specifications Board publication 18-GP-4; entitled "Methods of Sampling Coal Deliveries".

As specified in 18-GP-4, the sample taken shall be split into two parts, one for laboratory analytical purposes and the other to be retained as a referee sample, should any dispute arise with regard to the adjustment of coal accounts, or should the first sample be mislaid in shipment. If the vendor's representative desires it, one-half of the laboratory sample, prepared by further coning and quartering, shall be made available to him.

4.2 Analysis - Laboratory preparation and analysis of coal samples shall be carried out in accordance with the procedure described in ASTM Designation: D271-48: "Laboratory Sampling and Analysis of Coal and Coke", or suitable modifications as followed by the Fuels Division, Mines Branch, Department of Mines and Technical Surveys.

5. NOTES

5.1 For information concerning items such as those listed below, please refer to Canadian Government Specifications Board publication 18-GP-5: "Memorandum for Use with Specifications for Coal, Coke and Briquettes."

- (a) General Uses of Solid Fuels
- (b) Basis for Comparison of Quotations
- (c) Causes for Rejection of Tenders
- (d) Basis for Rejection or Acceptance of Delivered Fuel.
- (e) Price Adjustment.

Correspondence regarding this specification should be addressed to the Secretary, Canadian Government Specifications Board, National Research Council, Ottawa, Canada.

SIZE LIMITS AND TOLERANCES FOR BITUMINOUS COALS
ACCORDING TO SIZE DESIGNATION

MINE RUN

Size Range

Top Size - Variable
Bottom Size - 0

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through a 1/8 inch screen.
At least 40% by weight shall be retained on an intermediate screen as follows:

Low Volatile	- 1/2" screen
Medium Volatile	- 3/4" screen
High Volatile	- 3/4" screen

LARGE LUMP

Size Range

Top Size - Variable
Bottom Size - 4"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

LUMP

Size Range

Top Size - Variable
Bottom Size - 1"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

EGG OR STOVE

Size Range

Top Size - 6"
Bottom Size - 2"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

NUT

Size Range

Top Size - 2"
Bottom Size - 3/4"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

PREPARED STOKER, LARGE

Size Range

Top Size - From 2" to and including 1"
Bottom Size - 1/4"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

PREPARED STOKER, INTERMEDIATE

Size Range

Top Size - From 1" to and including 1/2"
Bottom Size - 1/8 "

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

PREPARED STOKER, SMALL

Size Range

Top Size - From 3/4" to and including 1/4"
Bottom Size - 1/16"

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through the screen defining the bottom size.

NUT SLACK

Size Range

Top Size - From 2" to and including 1-1/4"
Bottom Size - 0

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through a 1/16 inch screen.
At least 40% by weight shall be retained on an intermediate screen as follows:

Low Volatile - 1/4" screen
Medium Volatile - 3/8" screen
High Volatile - 1/2" screen

SLACK

Size Range

Top Size - From 1" to and including 1/2"
Bottom Size - 0

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.
Not more than 15% by weight shall pass through a 1/32 inch screen.
At least 40% by weight shall be retained on an intermediate screen as follows:

Low Volatile - 1/8" screen
Medium Volatile - 1/4" screen
High Volatile - 1/4" screen

FINES

Size Range

Top Size - From 1/2" to and including 1/4"
Bottom Size - 0

Tolerances

Not more than 5% by weight shall be retained on the screen defining the top size.