CETC

CANMET Energy Technology Centre

Our Power is Innovation

Cokemaking Research and Testing Services

Canada's coking coal trade and coke consumers rely heavily on the CANMET Energy Technology Centre's (CETC) internationally recognized test facilities for the assessment of coal and coke quality. These facilities, utilized for developing improvements in the quality of cokes by the formulation of coal blends for cokemaking, are complemented by experienced research staff.

Discharging of metallurgical coke from CETC moveable-wall pilot oven

Industrial clients and external organizations work with CETC for:

- Determination of coal expansion and coking pressure for steelmaking companies;
- evaluation of single coals, multi-component coal blends, binders, additives, and coke oven operation on coke quality;
- correlation of technical and full-scale coke-oven data;
- analysis of coal for chemistry, petrography, thermal rheological and degree of oxidation, for predictive modelling;
- use of two dimensional computer models to evaluate carbonization of coals and variables of coking operations;
- porosity, microscopic and textural evaluations of coke; and
- use of in-house facilities by steelmaking companies to evaluate strength, reactivity and high temperature properties of cokes for blast furnace operation.

The specialized facilities available at CETC are:

- pilot-scale coal handling facilities;
- complete petrographic, microscopic and image analysis systems for coal and coke;
- pilot-scale, pressure measuring moveable wall coke ovens and sole heated coke ovens;

Energy Technologies for High Temperature Processes

- standard methods and facilities for evaluating coal and coke (ISO, JIS, ASTM);
- high temperature facilities for determining strength, reactivity and high temperature properties of cokes;
- pilot-scale coal injection facilities to evaluate coals and replacement fuels for coke; and
- advanced analytical/microstructural instrumentation and techniques such as XRD and SEM/EDAX for chemical analysis.

Microscopic Analyses

For further information, please contact:

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