

Technical Circular T-7/95
June 15, 1995

To: All H.Q. Directors: Prof. Services, Planning and Major Projects
All Regional Managers: Engineering, Prof. Services, Planning and Operations
All District Highways Managers

Subject: Hiring of Blasters and Purchase of Explosives for Day Labour Works

Purpose:

To provide guidance for hiring blasters and purchasing of explosives for Day Labour works. This will supersede T-Circular T-5/92.

Background:

Currently, there are no clear guidelines for hiring blasting contractors and the purchase of blasting materials for Day Labour projects. The hiring of a particular blasting company would normally be undertaken using price as the hiring criteria but the company/blaster may have a blasting product or supplier preference for materials which may result in an overall cost increase to the Ministry. To obtain the best overall price for blasting work which would include the cost of the blasting company and the purchase of the blasting materials, the following procedures for Day Labour projects have been developed. It is considered however, that the majority of blasting work should be undertaken by contract if possible, particularly for all jobs estimated at over \$50,000. Please see attached Ministry Policy, Drilling and Blasting Projects.

Procedures:

1. Project Supervisors will develop criteria to be used to hire the blaster for a specific project. Criteria shall include requirements for blaster's experience, blaster's qualifications and blaster's suitability to perform the job. The criteria must be developed with the specifics of the works in mind (i.e. if blasting around buildings, gas line facilities or in urban environments is required, the blaster would require previous experience in these situations plus the appropriate qualifications). Criteria used must be documented by the Project Supervisor.

2. The Project Supervisor may consult with the District for information regarding local blasting companies. The Project Supervisor will obtain three quotes for blasting works from companies meeting the criteria established for the project. The quotes shall document personnel to be used on the project, blasting tickets held, list of recent Highway rock work experience, preferred blasting materials/supplier and alternate blasting/materials supplier acceptable for use by the company. Services of the blasting company will be hired using the "Drilling and Blasting Hire Agreement" (copy attached), following established procedures for this instrument. In some areas, it is recognized that obtaining three quotes from blasting companies may not be possible. If this occurs, additional quotes from outside the District shall be obtained.

3. The Ministry will purchase the blasting materials for use on the project. The following procedures shall be used:

- The project Supervisor, with assistance from Geotechnical and Materials Engineering and, if required, blasting supplier representatives, will determine the approximate quantities of explosives required for the project for each explosive type.
- The project supervisor will ask the Purchasing Commission to review Ministry Standing Offers (MSO list) for blasting product suppliers and to obtain discount prices from the MSO price list for the quantities and explosive types as approximated for this specific project. Quotes will include the supply of blast materials F.O.B. the suppliers magazine in the local area and subsequent delivery charge to and from the blast site. The project supervisor shall also ask the blasting company for a quote to supply explosives for the project as well.
- The intent is to choose the low quote for the supply of materials for the project. However, if the blasting company chosen will not use the blasting product/supplier associated with the low quote, then the product supplier of the blaster's choice may be considered if the product price differential does not exceed 5%. Use of more expensive materials will only be considered for safety reasons and may be permitted providing the safety reasons are documented by the blasting company and filed with the Project Supervisor. The blasting company must justify the use of the more expensive products. If justification is considered by the Project Supervisor to be insufficient and /or the price difference is higher than 5%, then the Project Supervisor will hire the second low quote blasting company.

Contact: District Highway Managers, where the work is to be performed.



Jon Buckle, P. Eng.
A/Chief Highway Engineer

Attachments

MINISTRY POLICY
DRILLING AND BLASTING PROJECTS

There are two methods established for completion of Drilling and Blasting operations, tendered contracts and hourly hired equipment. A value for the Drilling and Blasting phase of the project of \$50,000. has been set as the upper limit for completion of the work by Hired Equipment, with some flexibility depending on the degree of risk to nearby buildings, structures or utilities. The dividing value is to be set lower if high risk is involved and may be higher if there is low risk. If more cost effective, purchase of explosives separately by the Ministry is required.

Hired Equipment Method

A standard hire agreement, form H246A, is printed to facilitate work on an hourly basis and is limited to smaller projects as outlined above.

Tendered Contract Method

For larger projects and /or high risk Drilling and Blasting projects, the work is to be completed by tendered contract on an all found basis, to include all labour, materials, explosives, equipment and other expenses to complete the work. The contract can be called either as a lump sum tender or on a per cubic metre of rock basis, depending on which would be most practical for the job conditions.

In the contract documents, special consideration is to be placed on the liability coverage involved with the blasting phase of the work. Clauses similar to those used in the H246A form may be used in the contract documentation but should be modified if the degree of risk requires additional liability coverage.

All companies tendering shall identify a crew member that holds a blasting certificate suitable for the work to be done.

All work related to the handling of explosives and completion of the loading and blasting phase of the work shall be completed by or under the close supervision of the holder of the certificate.

The handling and transport of explosives and detonating devices and the on-site storage in a powder magazine or day box shall be as required by WCB and federal regulations.

The contract documentation shall contain descriptions and distances from the blast site to any buildings, structures or utilities that could be affected by the blasting operation. The contractor shall submit a blasting plan prior to the start of drilling work and shall control the blasting operation to minimize damage to the buildings, structures and utilities.

All unused, damaged or deteriorated explosives and detonating devices shall be removed by the contractor upon completion of the work.



Province of
British Columbia

Ministry of
Transportation
and Highways

DRILLING AND BLASTING HIRE AGREEMENT



DRILLING AND BLASTING HIRE AGREEMENT

This Agreement is to be used for Drilling and Blasting projects with estimated cost under \$50,000 and projects not subject to special high risk considerations. If beyond these limitations, the work is to be tendered as outlined in Ministry Policy.

This agreement applies to Project _____ for an estimated time period of _____ commencing _____ 199. _____.

1. Drilling and Associated Equipment

A standard H-246 Equipment Rental Agreement is to be completed for the drilling equipment associated with this work, and attached to this agreement.

Equipment Description:

All found Rental Rate _____ per hour.

Additional "helper or security" labour may be included in this rate and/or in the blaster rate but there shall be no duplication of hours charged for the same crew member.

2. Explosives and Detonators

Consumable materials shall be supplied as specified in Circular T7/95. This agreement requires the removal of all unused, damaged or deteriorated explosives or detonating devices, and the cleanup of any undetonated explosives from the blast site, upon completion of the work.

3. Licensed Blaster (with appropriate Blasting Certificate)

A licensed blaster with experience suitable for this project is to be supplied at the Hourly All Found rate of _____ per hour. The specified rate shall include all labour related overhead costs, including but not limited to, labour plus benefits, transportation, transportation of explosives and detonators, powder magazine and/or day box, blasting mats, signs, warning signal horns, tools, blasting machine, and miscellaneous items required in the loading and blasting phase of the work. A blasting diagram and other documentation shall be delivered to the project supervisor, as required by Regulations and/or Ministry procedures.

4. Additional requirements / conditions of the agreement are as follows:

- a) The contractor shall at the Contractor's expense, obtain and maintain in force during the term of this agreement, Comprehensive (Commercial) General Liability insurance including non-owned automobile and contractual liability insurance. Her Majesty the Queen in Right of the Province of British Columbia, as represented by the Minister of Transportation and Highways together with any employees, agents or servants of the Minister, shall be added as an Additional Named Insured. Such liability insurance shall have inclusive limits of not less than TWO MILLION DOLLARS (\$2,000,000) per occurrence for bodily injury, death and property damage, including loss of use thereof, which may arise directly or indirectly out of the acts or omissions of the Contractor, the Ministry or any of them under this agreement. In addition, Automobile liability insurance is required with inclusive limits of not less than TWO MILLION DOLLARS (\$2,000,000) on a Standard Owner's Form Automobile Policy providing

DRILLING AND BLASTING HIRE AGREEMENT (CONT'D)

third party liability and accident benefits insurance for all licensed vehicles owned, leased, rented or used in the performance of this contract. The insurance coverage shall be Issued with insurers acceptable to the Minister, and Issued by companies duly licensed to transact business in the Province of British Columbia. Certification that the insurance requirements have been met, by way of a duly completed Ministry Certificate of Insurance shall be filed with an authorized Ministry Representative upon execution of this agreement.

- b) The contractor shall indemnify and save harmless the Ministry from and against any and all losses, claims, damages, actions causes of actions, costs and expenses the Ministry may sustain, incur, suffer or be put to at any time or times (whether before or after completion date or termination of this agreement) where the same or any of them are based upon, arise out of, or occur by reason of any act or omission of the Contractor or of any employee, agent, servant, officer, director, shareholder or subcontractor of the contractor pursuant to this agreement.
- c) All equipment and operations must comply with applicable Motor Vehicle and Motor Carrier Acts and Regulations, and all applicable Federal Regulations.
- d) It is expressly understood that the owner/operator under this Agreement shall comply with all safety requirements and regulations of the Ministry of Transportation and Highways.
- e) All equipment rented and services provided to the Ministry of Transportation and Highways must conform with the regulations of the current Workers' Compensation Board Industrial Health and Safety Regulations, including the maintenance of required log books.
- f) The owner/operator must provide a valid W.C.B. Registration Number, and by signing this form hereby confirms that Workers' Compensation Board Registration is current and not in arrears.

Blaster's Name: _____ Blasting Certificate No.: _____

Class: _____ Valid W.C.B. Registration Number: _____

Dated at: _____ this _____ day of _____ 19 _____ .

Contractor/Owner Name: _____

Address: _____

Contractor/Owner Representative

Ministry Officer

This form is to be completed in triplicate and distributed as noted below. Authorizations and required approvals, as noted below, are to be recorded on the District and Regional copies only.

Authorized by: _____

District: _____

Hired Equipment Approval by: _____

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