

## Greater Vancouver Regional District

**Position Description: Senior Welding Inspector (G739)**

**May 2010**

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**Purpose:** This position is responsible to carry out, under general direction of the Supervisor, Survey and Inspection a variety of welding inspection and testing tasks, to assist in the development and enforcement of Metro Vancouver's welding and quality assurance standards; assure all welding is performed to contract specification as issued by Metro Vancouver for pipeline and other utilities construction; and as called upon from time to time, perform other inspection duties.

**Duties:** *(The duties described hereunder are to be representative of the position and are not to be considered as all-inclusive.)*

Witness and perform visual inspection on weldments constructed on equipment and infrastructure including work performed in Metro Vancouver's welding shop and contract welding shops.

Work under the coordination of Metro Vancouver's site inspectors to perform quality control and assurance for welding operations on pipelines and other various weldments associated with capital and maintenance work including work at Wastewater Treatment Plants.

Inspect welder operator performance with respect to visual integrity and quality of weld in accordance with various welding procedures, codes, standards and specifications.

Inspect and assure welder operators use correct materials for specified work and that their work meets tolerances, specifications and drawings.

Ensure staff and contractors understand and apply the correct methods for weld procedures and performance of work.

Maintain detailed written records concerning welding procedures, materials, quality, instruction to contractors, daily reports and inspection tests made.

Use personal computers for writing memoranda and reports.

Undertake reviews to verify welder operator qualifications.

Ensure staff and contractors adhere to current safety regulations with respect to welding practices.

Recommend when analytical non-destructive examination (NDE) methods such as magnetic particle or liquid penetrant or ultra sound inspection methods are required to supplement visual inspection and perform, as necessary.

Call for additional NDE testing, as required, and interpret radiographic film.

Take a lead role in developing and maintaining welding and welding inspection standards, and inspection forms.

Provide technical guidance to the Level 2 Welding Inspector on an as-required basis throughout the various Metro Vancouver work sites and facilities where welding occurs.

Monitor the work of contract welding inspectors and ensure that they work to Metro Vancouver Non-Destructive Examination Guidelines and Standards.

As per CSA W178.2, provide technical guidance to the Level 2 Welding Inspector who is not endorsed for the codes and standards by which they are to conduct inspection, but for the codes and standards to which the Level 3 Welding Inspector is endorsed to.

Assist the Survey Inspection Supervisor with coordination of lining & coating inspection work on a variety of construction projects.

Perform other related duties.

**Requirements:**

Graduate from an Institute of Technology program such as welding engineering technology, with a focus on welding design and technology, and/or metallurgy and registration as an Applied Science Technologist or Technician in the Province of British Columbia.

Minimum 7 years demonstrated experience as a certified welding inspector and currently certified to CSA W178.2 Level 3 Welding Inspector.

CGSB Level 2 certification in at least one NDT testing method such as magnetic particle, liquid penetrant and ultra sound inspection methods would be an asset.

Demonstrated understanding and application of Canadian Welding Standards CSA Z662, CSA W59 and ASME.

Valid BC drivers license.

Effective verbal and written communication skills.

Ability to deal effectively with Metro Vancouver staff, outside organizations, contractors and the public.

Ability to work independently and be a self-starter.

Considerable knowledge of proper safety procedures and WorkSafe BC requirements.

Excellent organizational skills.

Proficient in use of computers, including experience with Microsoft Word and Excel.

In addition to the above, the CSA W178.2 Level 3 Inspector shall have demonstrated competencies in the following:

- a) the interpretation of specifications and codes, preparation of welding inspection procedures, and implementation of welding inspection aspects of quality programs;
- b) ensuring that non-destructive and other examinations have been performed to the degree specified by contract documents, using qualified personnel, and the results have been duly recorded; and
- c) demonstrating knowledge of
  - (i) welding procedures;
  - (ii) welding metallurgy;
  - (iii) weld defects – their cause and effect;
  - (iv) weld repair;
  - (v) principles of quality assurance (QA) and quality control (QC) (welding inspection aspects of quality programs);
  - (vi) engineering and construction drawings;
  - (vii) preparation of non-destructive testing (NDT) inspection plans from construction drawings;
  - (viii) stress relieving; and
  - (ix) New welding technology.