Job Class Profile: Welding Inspector

Pay Level: CG-35 Point Band: 766-789

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	5	5	4	6	4	5	5	1	5	
Points	233	83	25	29	120	108	103	21	54	776

JOB SUMMARY

The Welding Inspector performs technical and administrative work in the survey and registration of welding procedures specifications required in the manufacture of steam and high temperature water boilers, unfired pressure vessels, and pressure plants.

Key and Periodic Activities:

- Reviews, evaluates and recommends approval of plans and specifications to ensure that materials comply with the American Society of Mechanical Engineers (ASME) materials specifications, and that the filler metal chemical analysis is compatible with the chemical analysis of the base metal.
- Visits power plants, steam plants and heating plants and conducts complex inspections of piping systems to ensure installations, maintenance and operations are in accordance with the provisions of regulations and safety codes. Meets with engineering and technical personnel to discuss problem areas and to make recommendations.
- Reviews and inspects welding procedures and plant operations for adherence to Occupational Health & Safety Act and Regulations; ensures welding techniques and standards meet demands of the offshore petroleum industry.
- Co-ordinates the welding procedures survey with personnel engaged in surveys of plans and specifications for pressure systems.
- Administers the welding procedure qualification test. This involves prescribing and carrying out welder performance tests in metallic arc, gas welding, and torch brazing processes. Ensures that welded joints carry the welder's symbol number, and manufacturer keeps record of welders' symbols, numbers, and x-ray report. Issues qualification certificates for high pressure welders and braziers.
- Maintains and directs the maintenance of records on welder tests, welder symbols, index numbers, and correspondence concerning welder testing.
- Maintains a computerized system of records on qualified welders, braziers, and welding procedures.
- Compiles periodic reports and correspondence concerning problems encountered by manufacturers and provides advice in the eliminating of deficiencies.
- Provides advice to industry and government regarding welding techniques and quality control practices.
- Conducts investigations, gathers evidence, and prepares detailed documentation to support the Crown's position for litigation in cases of non-compliance.

SKILL

Knowledge

General and Specific Knowledge:

— Considerable knowledge of related legislation, the evaluation of designs and specifications for welding procedures, welding fabrication techniques, non-destrictive examination, quality control practices and pressure welding performance tests.

Formal Education and/or Certification(s):

— Minimum: Post Secondary Diploma from a Welding Technology Program; or completion of a power engineering course sufficient to qualify for a Power Engineer (First Class) certificate of competency; or a Boiler Inspector (Grade 2) certificate.

Years of Experience:

— Minimum: 4-5 years experience

Competencies:

— Coordination of inspections and application of inspection techniques.

Interpersonal Skills

— A range of interpersonal skills used include listening to information from others, asking questions to gather information, providing routine and complex information and direction to others, providing expert advice, gaining the cooperation of others to complete work, and dealing with angry or upset people.

— The most significant contacts are with: (1) peers/coworkers to discuss day to day issues/problems/concerns, (2) customers in the provision of advice and the performance of inspections and investigations, (3) manager regarding concerns or problems.

EFFORT

Physical Effort

— The demands of the job occasionally result in considerable fatigue, requiring periods of rest. Examples of the kinds of physical demands required include lifting and reaching overhead, pulling welding cables and hoses, working in confined spaces to perform inspections or investigations which also includes bending, kneeling, stretching, or climbing for extended periods of time.

— Regularly required to lift or move objects 10 to 25 lbs. Occasionally required to lift or move objects 25 to 50 lbs.

— Required to stand on a constant basis, walk on a regular basis and sit, climb and drive on an occasional basis.

Concentration

— **Visual** concentration is required when performing inspections, approving plans and specifications, and compiling reports.

— **Alertness to the health and safety of others** is required when conducting qualification tests of pressure welders and pressure braziers, and investigations.

— **Repetition** requiring alertness occurs when becoming complacent in completing inspections on the same type of equipment which can cause injury.

— **Lack of control over the work pace** occurs when inspections can be delayed by weather or problems with other building systems and other contractors which delay work.

— **Exact results and precision** is required during inspections, welding procedure qualification test and reports.

Complexity
— Work tasks are different but related. Challenges or problems are generally resolved by following processes and/or regulations. Occasionally problems/challenges may be unique/multi-functional and resolved through analysis and development of new solutions or in a team environment. — When addressing typical challenges or problems may reference applicable legislation, internal policies and procedures, or seek advice/guidance from manager.

RESPONSIBILITY

Accountability and Decision-Making
— Work tasks are generally prescribed and controlled. — Discretion and judgement must be exercised during inspections and investigations. Although work is performed under the general supervision of the Manager, considerable independence, judgement, and initiative is required in daily decisions. Work is reviewed through evaluation of reports and consultation.
Impact
— Generally has the most significant impact within the immediate work area, on clients/customers, and the general public as well as equipment and health and safety. Proper diagnosis and repair of equipment contributes to the health and safety of the equipment operator and the general public. — Mistakes or errors related to inspections or investigations can have an impact on finances, the health and safety of operators and the general public. — Inspection procedures are controlled by the application of codes and standards. Programs are supervised by the Manager.
Development and Leadership of Others
— There is no supervision of staff. — May provide occasional advice and guidance to new staff.

WORKING CONDITIONS

Environmental Working Conditions
— Required to wear safety equipment such as gloves, glasses, hard hats, safety boots, ear protection, dust masks, safety vests, coveralls, welding shield, and respirator. Portable exhaust systems, welding screens and fire extinguishers must also be available, if required. — The likelihood of minor cuts, bruises, abrasions, minor illnesses, fractures, partial disability or total disability are limited given that all health and safety regulations are followed. — May regularly be exposed to unusual/distracting noise; dirt, dust, filth or garbage; glare; fumes; hazardous chemicals; odours; limited ventilation and lighting; toxic or poisonous substances; dangerous heights; wet or slippery surfaces; awkward or confining workspaces; temperature extremes; fire; sharp objects; adverse weather conditions; and travel.