

Job Description for: Inspector I

Jobcode	Selection Dt	Review Date	Job Suffix	O/T Class	Job Grade
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9000 Basic Function
GIVE BRIEF SUMMARY OF THE PRIMARY PURPOSE(S) OF THE JOB.

Performs the full inspection job, completes the requirements of the Job Training Standard and may assist with inspections of coatings, relief valves, cathodic protection(>,<)> and vendor inspections.

9001 Scope
INDICATE AS APPROPRIATE SIZE, GEOGRAPHIC AREA, PLANT EQUIPMENT THROUGHPUT, ORGANIZATIONS SERVED, FINANCIAL RESPONSIBILITY, AUTHORITY, AND SUPERVISION RECEIVED, WHICH RELATE TO THE JOB.

At this level the incumbent will perform inspections, for which he is qualified, in one or more of the following disciplines: Civil/Plumbing, Electrical/Instrumentation, Plant and Equipment/Welding, Coatings, Relief Valves, Telecommunications, Vendor Quality Control, Non-Destructive Testing, or Cathodic Protection. He will also assist higher qualified inspectors while receiving on-the-job training. Typical work responsibility involves conducting and/or participating in on-site inspections, witnessing and/or recording the results of the tests and preparing work sheets, records and reports on inspection assignment. In addition, the incumbent will be expected to help train lesser qualified inspection personnel. Work will require physical exertion such as climbing, be primarily outdoors, dirty and could require travel to remote areas or offshore. The incumbent will report to the applicable Supervisor and receive day-to-day work direction and technical guidance from higher classified inspectors. Supervision will be minimal. Typical new or existing facilities in which the inspector will be working may be valued as high as \$500,000,000.00 (not including loss of product or revenue due to construction delays or damage caused by failure). Inspection equipment used may be valued at \$50,000-\$100,000.

9002 Principal Contacts
INCLUDE PURPOSE, FREQUENCY AND SIGNIFICANCE TO SAUDI ARAMCO.

INTERNAL: Frequent direct contacts include those within the assigned function with higher qualified inspectors and the supervisor in conducting the duties related to the specific discipline and with Saudi Aramco foremen, supervisors, operators, construction engineers and maintenance personnel to exchange information.
EXTERNAL: Frequent contacts are made with construction personnel and/or construction supervisors or vendors to exchange information.

9003 Principal Duties
DESCRIBE CONCISELY EACH PRINCIPAL WORK ACTIVITY LISTED IN

A LOGICAL ORDER; NORMALLY, THE ORDER WILL BE TO LIST THE MOST IMPORTANT DUTY FIRST. INCLUDE IMPORTANT DECISIONS AND RECOMMENDATIONS MADE, IF APPLICABLE. FOR SINGLE APPLICATION JOBS INDICATE APPROXIMATE PERCENT OF TIME SPENT ACCOUNTING FOR AT LEAST 75% OF TOTAL TIME. START SENTENCES WITH ACTION VERBS. PLEASE INDICATE THE PERCENTAGE OF TIME AGAINST EACH PRINCIPAL DUTY.

GENERAL: (For all disciplines)

- A. Performs applicable duties required of an Inspector I, within the limits of the incumbent's certifications.
- B. Inspects materials and equipment to assure they are within tolerances, grade and quality specified; that they are properly stored and handled, and that they have not been damaged.
- C. Drafts inspection reports, pre & post T&I reports, work sheets, non-compliance reports, and makes log book entries of on-site inspection findings. Maintains and updates databases and hardcopies for inspection records and correspondence files.
- D. Inspects each job site for unsafe conditions that could cause injury, death or financial loss to the Company. Reports findings to appropriate parties.
- E. Assists in the development and training of lesser qualified inspectors.
- F. Completes on-the-job training as required by the Job Training Standard for grade code 11 position entry, as well as classroom training, prescribed by the supervisor and employee's IDP as part of the Inspector Training Program.
- G. Performs other miscellaneous related duties as directed by the supervisor.

CIVIL/PLUMBING:

- A. Must demonstrate knowledge of Uniform Building Code and other applicable Saudi Aramco standards and industry codes.
- B. Performs inspection of all phases of asphalt concrete placement including sub-base/base preparation, laying methods and procedures and compaction operations.
- C. Performs inspection of all phases of structural steel erection and bolt torquing operations.
- D. Performs inspection of wood and metal frame structures to assure that materials and construction meet design and Saudi Aramco specifications.
- E. Assists in the inspection of relief vales, coatings, cathodic protection installations and vendors' manufacturing operations.
- F. Assists in the inspection of offshore pile driving operations.
- G. Performs inspections of the installation of above ground utility distribution systems assuring that correct materials, tolerances, support and construction practices are used.
- H. Witnesses and accepts hydrostatic tests for utility piping systems.
- I. Performs inspections of fixtures and their installation assuring they are properly roughed in and that material and construction meet design and Saudi Aramco specifications.

ELECTRICAL/INSTRUMENTATION:

- A. Must demonstrate knowledge of the National Electric Code and other applicable codes and Saudi Aramco standards.
- B. Performs inspections of electrical wiring installations in residential and commercial structures.
- C. Assists in the inspection of cathodic protection systems.
- D. Performs inspections and tests on grounding systems and cables.
- E. Performs inspection of electrical equipment, including lighting and for the suitability of that equipment in hazardous areas.

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- F. Assists inspection of instrumentation installations
 - G. Witnesses inspection or testing of the installed instrumentation systems.
 - H. Witnesses field-testing of installed instrumentation.
 - I. Confirms readings and test values for instrumentation.

PLANT & EQUIPMENT/WELDING:

- A. Studies and becomes familiar with ASME Section VIII, Division I, ASME B31.3, AWS D1.1 and other applicable codes and Saudi Aramco standards.
- B. Performs and/or monitors liquid penetrant, magnetic particle and ultrasonic thickness examinations and assists in the interpretation of results.
- C. Carries out scheduling and selection of welds for nondestructive examinations and tracking welder performance.
- D prepares on-stream inspection survey reports, revisions to (Equipment Inspection Schedules) and T<(>&<)>I (Testing and Inspection) reports.
- E. Determines corrosion rates and remaining life of equipment in corrosive/erosive service.
- F. Monitors heat treatments of piping, vessels and associated equipment.
- G. Witness or monitors tests required for welder certification and welding procedure qualifications.
- H. Witnesses routine hydrostatic tests on piping and service test on utility piping as authorized by Saudi Aramco and industry standards.

COATINGS:

- A. Studies coating inspection, supervised by a senior coatings inspector.
- B. Performs inspections of surface preparations for coatings including taking anchor pattern measurements.
- C. Assists with/performs certification of critical coatings applicators.
- D. Performs inspection of compressors, air/blast hoses and other items necessary to achieve satisfactory blasting nozzle pressures.
- E. Assists with/performs trouble shooting on blasting equipment and blasting operations.
- F. Performs inspection of material preparations, coating application and coating thickness.
- G. Assists with inspection for safe operating conditions.
- H. Performs holiday testing of critical coatings.

RELIEF VALVES:

- A. Studies the relief valve coordination function, supervised by a senior inspector.
- B. Assigns unique control numbers for all new valves and ensures that all records, calculations, and supporting data sheets are maintained for all relief valves in the assigned area.
- C. Suggests changes to improve the relief valve program and make it more cost-effective while maintaining or increasing the overall level of protection and safety of plant facilities.
- D. Assists/performs audits of business line and contractor relief valve programs and facilities.
- E. Identifies and recommends corrective action on program deficiencies as relating to Company system of standards.
- F. Identifies mandatory changes of Company and National standards, e.g. ASME, API, ANSI, etc., as relating to resetting, design, and maintenance of safety valves, and cost effective means to integrate these changes into the existing program.
- G. Initiates computer processing service requests and trouble reports when problems are encountered with production runs. Works closely with the EDP programmers to ensure that any changes are thoroughly tested and working properly prior to release. (Applicable to ID Corporate level

only).

TELECOMMUNICATIONS:

- A. Performs inspection of pedestal installations.
- B. Performs inspection of duct banks.
- C. Carries out reviews of cable & trench layout scopes of work and

drawings.

D. Performs inspection of fiber optic and copper cable splicing operations.

E. Performs inspection of building distribution conduit installations.

F. Witnesses pressure testing of splice cases.

G. Perform inspection of internal wiring and cabling.

H. Witnesses ground rod testing.

I. Performs inspection of grounding systems.

VENDOR QUALITY CONTROL:

A. Assists or performs inspection or monitoring of contract inspectors, assigned to the inspection of Saudi Aramco materials and equipment in vendor shops.

B. Writes or assists in writing reports to the assigned Supervisor.

C. Assists with or performs reviews of purchase requisitions and purchase orders for adequate inspection requirements.

D. Assists with the resolution of inspection related problems, concerning materials and equipment, which arise during the manufacture and inspection processes.

E. Completes off-the-job classroom training as required by the Department, for grade code 10 position entry.

NON-DESTRUCTIVE TESTING:

(For Conventional NDT Personnel)

A. Ensures the safe handling, operations and transportation of ionizing radioactive devices used under incumbent's direction.

B. Ensures that all equipment that is to be used for himself and those under his direction is in good working condition and calibrated, if necessary.

C. Interprets examination results produced by each NDT examination method(s) used and reports accordingly.

D. Ensures that all personnel under this direction, including himself, have in their possession all necessary documentation, specifications, safety equipment and personal dosimeter required during ionizing radiation operations.

E. Performs NDT site audits, Kingdom-wide, when so directed.

F. Performs NDT within the limits of the incumbents' certifications, as directed.

(For Advanced NDT Personnel)

A. Performs NDT using at least one advanced NDT method.

B. Assists/performs data analyses and reports accordingly, using engineering software programs.

C. Liaises with digital equipment repair personnel and vendor engineers in diagnosing and correcting equipment faults and errors.

CATHODIC PROTECTION:

A. Studies the cathodic protection inspection function, supervised by a senior inspector.

B. Inspects CAD welds for soundness and subsequent coating and holiday testing.

C. Verifies installation of electrical bonding and assists system continuity inspection.

D. Performs holiday testing of CP cables.

E. Verifies rectifier output meets the CP system specification requirements.

F. Inspects cable installations and backfill.

9004 Minimum Requirements

A- EDUCATION - DEGREES AND/OR LICENSES REQUIRED; B- PREREQUISITE

WORK EXPERIENCE IN ADDITION TO EDUCATION; C- OTHER.

A. Completion of ITC: English, ERW; Math, MT; Science, ST. and (NOTE: To offer the individual the best chance of success in Academic training it is advantageous to provide the opportunity for him to complete all ITC requirements as soon as possible including those required in higher grade codes).

B. Experience Required: Eight (8) years minimum. Must have 4 years experience as a Saudi Aramco Inspector II or 6 years work experience including 2 years experience and/or training in one or more of the inspection disciplines.

C. Must have successfully completed job tasks, ITC/JSTC courses and other requirements specified in the Department's Job Training Standard for grade code 10 position entry or demonstrated proficiency in these areas through practical examination.

D. Must read, write and speak English fluently.

E. Must have a valid Saudi drivers license.

F. Must have good vision (20/20 normal or corrected) and be in good physical condition.

G. Must be willing to work at high elevations and in confined spaces.

H. Must be willing to work in assigned areas.

I. Must be computer literate with competence in Microsoft Office products (i.e. MS Word, Excel and PowerPoint) and knowledge of other SA systems utilized within the specific discipline and required by the individual Depts.

J. Must meet one of the inspection discipline specific requirements given below.

CIVIL/PLUMBING/HVAC:

Must meet the prerequisites for current grade code.

ELECTRICAL/INSTRUMENTATION:

Must successfully complete the SA JSTC Phase IV Electrical Technician Program or equivalent.

PLANT AND EQUIPMENT/ WELDING:

a) Must have NDT Level II certificates in VT, MT, UT Thickness Gauging (UTT), and PT.

b) Must be Saudi Aramco Level II, Certified Coatings Inspector.

c) Must be AWS CAWI or CSWIP 3.0 Certified

d) The individual should develop experience of in-service inspection of the applicable stationary equipment; boilers, pressure vessels, piping, storage tanks, valves and safety appurtenances.

e) Should develop a working knowledge of the following applicable industry standards NBIC, API 510, 570, RP 571, 653, 650, 1104, ASME VIII Div 1, V, IX, B31.1, B31.3, B31.4, and B31.8.

COATINGS:

a) Must successfully complete the Plant and Equipment/Welding requirements for GC-10 position entry.

b) Must be Saudi Aramco Level II, Certified Coatings Inspector.

RELIEF VALVES:

Must successfully complete the Plant and Equipment/Welding requirements for GC-10 position entry.

TELECOMMUNICATIONS:

Must be able to demonstrate a working knowledge of North American or

international outside plant telecommunication standards such as (GTE, NEC Sec. 800), Building Industry Consulting Services International Methods (BICSI) and applicable Saudi Aramco Engineering Standards or equivalent.

VENDOR QUALITY CONTROL:

Must successfully complete the Plant and Equipment/Welding or Electrical requirements for GC-10 position entry.

NON-DESTRUCTIVE TESTING:

Certifications Required: (Conventional NDT & Advanced NDT Personnel)

A. NDT discipline inspectors must hold the following certifications:

a) RTFI, RT-II, UTTG, VT-II and MT-II or PT-II,,OR

b) UT-II, VT-II and MT-II or PT-II,,

OR

c) MT-II or PT-II, VT-II, plus one other method at Level II

OR

d) Have previously held requirements a), b) or c) above for a minimum period of 3 years. In no case will the incumbent currently hold less than three (3) Level II certifications.

B. Must have a minimum of three (3) years of NDT Level II training and/or work experience.

C. Completion of recognized training in NDT operations auditing.

D. Completion of recognized training in ionizing radiation safety (for radiographers only).

E. Completion of intermediate microcomputer courses - Word and Excel, or equivalent.

F. Must have passed the Department's radiation safety examinations.

G. Must have passed the work permit course.

CATHODIC PROTECTION:

Must successfully complete the JSTC Electrical Core Program or equivalent. (If necessary)