

Quality Assurance/Quality Control Plan

General requirements

The quality system within Industrial X-ray & Allied Radiographers (I) Pvt. Ltd. conforming to ISO 9001:2000 assures that all Company operations for Non Destructive Testing, Services are effectively controlled in accordance with documented procedures.

The quality system is maintained as an effective control on all Company operations through documented procedures consistent with the requirements of ISO 9001:2000.

System Audits are routinely carried out to support, improve and ensure implementation of the quality system procedures.

The company has established and implemented a documented quality management system, with an aim for continual improvement. The system includes:

- a) Identification of processes required for establishing quality management system (refer Appendix O for Organization chart)
- b) Sequence and interaction of these processes
- c) Effectiveness of process Control
- d) Availability of resources as described below:

Human Resources

Provision of Resources:

Industrial X-Ray & Allied-Radiographers (I) Pvt. Ltd. Mumbai is determined to provide resources for

- a) Implementation and maintenance of QMS
- b) Enhancement of customer satisfaction by meeting customer requirement. Competence, Awareness and Training

Personnel performing work affecting product quality are made competent on the basis of appropriate education, training, skills and experience.

Competence, awareness and training needs are determined by organization. Competence for personnel is determined by

- (a) Providing training or by other actions to satisfy these needs.
- (b) By evaluating the effectiveness of the actions taken (by job assessment)
- (c) By ensuring that people are aware of the relevance and importance of the other activities and how they may contribute in the achievement of the quality objectives
- (d) By maintaining appropriate records of education, training & experience.

List of personnel with their educational qualification, experience in the relevant work field is maintained by the organization Training needs have been identified and converted into training need identification record .Work based training has been given to operators. ISO awareness

training has been given to each employee of the organization in the Head Office and some of the site in charges . The quality policy is well understood by the employees who has undergone ISO AWARENESS TRAINING. Adequate information is given about the filing of form. Training records are also maintained

Infrastructure

The company has an excellent infrastructure which has been mentioned in company profile. The office premises consists of Accounts room wherein all matter related to the accounts / Project/contracts & purchases & record keeping are taken care to ensure the delivery for the same. For different types of films which affect the customer related product has been handled effectively by Darkroom which has all accessories such as Digital timer, Chemicals , Air conditioning etc... Viewing room has been made available in our premises for the interpretation of work related product (i.e Radiography Testing) & also for third party inspection.

Work Environment

Necessary work environment has been provided by organization. Each employee has been motivated to contribute for the betterment of the Quality control system in the Organization. All the operations are carried out at suitable work environment (ambient temperature/humidity, adequate ventilation, suitable lighting), support. services like transport & communication services like telephone and courier are made available by the organization. Email facilities has been utilized for faster mode of communication.

- e) Monitoring, measuring and analysis of the processes
- f) Implementation of actions necessary to achieve planned results
- g) Continual improvement

Safety Manual/HSE Plan

Safe Work Practices :

Regardless of your job, there are some basic safe work practices that should be observed by everyone working on the job site. The Objective of the Principal Contractor safety program is to prevent injuries and to allow you to do your job efficiently and safely.

0.0 Review :

All persons must follow safe practices giving every possible aid to enable safe operations and be part of the Safety program by reporting all unsafe conditions or practices to supervisor or Safety Rep. The vast majority of the work related injuries are the result of unsafe acts of workers. That means, when you take shortcuts, you violate safety regulations or simply don't take safety seriously, injuries are more likely to occur. The principal Contractor has a responsibility and obligation to make sure that all employees and contractors observe and obey all applicable rules, procedures or other instruction as is necessary to ensure the safe conduct of the work and must take such action as necessary to obtain compliance.

1.0 Safety Training :

In the construction industry, and more specifically our Projects, frequent accident prevention Toolbox talks or training is provided regularly on an ongoing basis. However, it is the responsibility of each employee and contractor to work and act safety every day on every job. Training is simply making you more aware of safety & safety rules and it's your job to work safe and act safety every day.

2.0 Alcohol & Drugs :

Anyone known to be under the influence of drugs or intoxicating substances that impair his/her ability to safely perform the assigned duties shall not be allowed on the job while in the condition.

You are taking medication prescribed by a physician or taking over-the-counter medication, tell your supervisor before you begin work.

Some medication may impair your ability to work or operate equipment safely. No one shall knowingly be permitted or required to work while his/her or alertness is so impaired by fatigue, illness. Or other causes that they might unnecessarily expose the employee or others to injury.

3.0 Planning & Supervision :

Work shall be planned and supervised to prevent injuries when handling materials and when working with equipment.

4.0 Confined Spaces:

Employees shall not enter manholes, underground chambers, tanks or other similar places that receive little or no ventilation unless it has been determined that it is safe to enter. Confined spaces can be hazardous due to build up of toxic fumes, gas, lack of oxygen, ingress of unwanted process material and other hazards that can gather in the spaces creating an extremely dangerous hazard.

5.0 Utilities :

Employees or Contractors must not handle or tamper with any electrical, equipment, machinery, or air or water lines in a manner outside of the scope of their duties unless they have received instructions and authorization from their supervisor. If you are injured on the job, report the injury immediately. Report the injury when it occurs even if you believe that medical treatment is not necessary. If medical treatment is required, it will be provided. Remember - We all believe in the NO BLAME culture - to enable the root cause to be identified and prevention of a recurrence.

6.0 Manual Handling :

When lifting any thing, use the power of your legs and not your back. If you keep your back in its natural curvature by bending your legs, it's difficult to suffer a back injury.

7.0 PPE :

Inappropriate footwear or shoes must not be worn. Wear proper Footwear, hard hat, Hi Vis clothing and Safety glasses on the job.

8.0 Dropped Object :

Materials, tools and other objects shall not be thrown from Structure until proper precaution are taken to protect from the falling objects.

9.0 House Keeping :

House keeping is important to everyone's safety to take time to keep your work area clean. If you see hazard, correct it, if you can't correct the hazard yourself, report it to either your supervisor or your safety Representative so that it can be corrected.

10.0 Chemical handling :

When handling chemicals or hazardous substances be sure to use personal protective equipment as necessary and follow the instruction provided on the chemical label/MSDS.

11.0 Ladder & Scaffolds :

When using ladder, inspect the ladder before using it to make sure it is in good condition and will carry the load. Using proper ladder on the job is equally important. Never stand on the top two steps of a ladder, and when using straight ladders, make sure the ladder extends at least 1.2 meters above landing , or where the ladder is positioned on the structure. Any damage to scaffolds, false work, or other supporting structures shall be immediately reported to your supervisors and repaired before use.

12.0 Working at Heights :

In some areas it is not always practicable to provide safe access when working at height (over 2 meters)

In these cases you will be provided with a safety harness and lanyard. Check to ensure you are wearing the harness correctly, Check the harness inspection tag, to see that it has been inspected in the last 6 months. Check for any sign of wear & tear
Locate a sound anchor point once at the work face to clip the lanyard onto-if none-stop the task and inform, your Supervisor.

13.0 Ignition Sources :

No source of Ignition shall be applied to any enclosed tank or vessel , even if there are some openings, until it has been first determined that no possibility of explosion exists.

14.0 Tools & Equipments:

When using tools and equipment , maintain these tools and equipment in good serviceable condition. Damaged tool or equipment must be removed from the service and tagged "defective"

Only appropriate tools shall be used for specific job. Portable electric tool shall not be lifted or loaded by means of power of cable. Use ropes, not to power cable for lifting or lowering electrical tools. Before electrical tools are used, they must be inspected to make sure power cable and plugs are in good condition. Damaged or frayed power cables must be replaced before use.

15.0 Isolations:

Where appropriate, physical isolation procedures must be used. If you see a piece of equipment or a machine that is locked off and tagged, do not attempt to operate the equipment.

A lock and tag or just a tag means that someone is working on that machine and could possibly be injured if the equipment were to be inadvertently started.

16.0 Trapping :

Employees shall not work under vehicles or other equipment supported by jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail

Teamwork everyone's co-operation and a special effort can result in a safe and helpful work environment. If you take safety seriously, you'll have a much better attitude about yourself and your job.

Take time for safety, because safety really does make a difference.

Safety Procedure

- While driving inside the complex all traffic rules should be strictly followed such as :
No over speeding, Wrong overtaking, over loading, rash and negligent Driving/riding endangering human life, Driving without License, two wheeler driving including pillion ride without helmet, Driving without safety belt.
- Loss of property such as loss of smart Card, Vehicle Assessment Permit, Pass/Punch Card, etc. to be strictly avoided.
- Job should not be carried out without **work permit**.
- Wearing of Safety Appliances like Safety Helmet, Safety shoes, Safety Goggles, Safety hand Gloves, Chin Strap etc... are to be followed strictly.
- Any workers should not carry objectionable articles like Bidi, Match box, lighters or any inflammable materials inside the complex. Smoking inside the complex is prohibited.

- While working at heights, use of safety belt is must.
- The requirements for radiation safety of persons handling industrial gamma radiography exposure devices in order to ensure that radiography workers and members of the public are not exposed to radiation in excess of the limits specified by the competent authority.
- Field radiography shall not be carried out without the use of the collimator except in case where it is not physically possible.
- The immediate surroundings of a radiation source shall be cordoned off with a placard displayed at boundary to warn against unauthorized presence inside or near the radiography site.
- The radiation symbol shall be posted at the Cordon along with placard with the legend 'RADIATION HAZARD --KEEP AWAY' and its equivalent in Hindi as well as in local language if necessary .
- Radiographer shall always wear the chest badge on the shirt near the chest while working in the radiation field.
- Radiographer shall make sure that all the materials such as radiation survey meters, radiation warning sign boards etc. are available for radiation protection before starting the exposure.
- Radiographer shall ensure that the radiography exposure devices are duly brought back to the storage room after use and stored inside the storage room.
- Radiographer shall maintain cordial relations with other workers of the company at the site and to follow any specific instruction issued by the site-in-charge or R.S.O. scrupulously in respect of safe handling of radiography source at the site and not to leave the site without obtaining prior permission from the site-in-charge.