auto-scan

THE NEWS LETTER

MARCH 2024, VOLUME-7

INSIDE

Director's Message,

Dear Team Members,

Throughout my career, I have always placed great importance on communicating closely with others. Regular communication with clients gives you a better understanding of their needs and helps you provide better solutions. Internally as well, taking the time to understand your colleagues by placing yourself in their shoes will boost motivation and collaboration, leading to better teamwork.

We need to ensure we look closely at everyone's skills and experience, give everyone a fair chance, and help them build their careers at AutoScan India Private Limited.

Since then, we have followed a consistent strategy and taken the necessary steps to implement it. We have been moving forward with the organizational structure needed to create change and built out our platform. We will continue our efforts to steadily progress our business and deliver results as a group.

Everyone at AutoScan India Private Limited will continue to work harder to deliver sustainable growth.

-Shreehari Kalakeri.

Corporate News:

The primary focus of AutoScan India Private Limited is to meet customer requirements and to strive to exceed customer expectations. Sustained success is achieved only when an organization attracts and retains the confidence of customers and other interested parties. Every aspect of customer interaction provides an opportunity to create more value for the customer. Understanding current and future needs of customers and other interested parties contributes to the sustained success of the organization.

To achieve the new heights, we are working on the action like:

1. Communicate the organization's mission, vision, strategy, policies, and processes throughout the organization.
2. Establish a culture of trust and integrity.
3. Encourage an organization-wide commitment to quality.
4. Ensure that leaders at all levels are positive examples to people in the organization.
5. Provide people with the required resources, training, and authority to act with accountability.
6. Inspire, encourage, and recognize people's contribution.

The best part of once happy life is to balance to work life and personal life. To balance this, we need to enjoy the work we do and encourage new talents, work tense free, and start each day with a positive thought and grateful heart. In short, if you want to go fast go alone and if you want to go far go together.

Last month or NCR team have organized a get together for the team where they have shared their thoughts positive thought, concerns which arose during the operational activities and also organized some games to come closer to the new talents. A glimpse of the event is given below:

auto-scan

Location wise Team Members Welcomed in February 2024 & Members Celebrating the Work Anniversary with AutoScan.

Name	Location
Rahul Thakur	Faridabad
Vishnu Sharma	Faridabad
Raju kumar	Faridabad
Ankit Soni	Faridabad
Ajay	Faridabad
Manoj kumar	Faridabad
Pankaj Aggarwal	Faridabad
Shatadal Mitra	Faridabad
Sandeep Kumar	Faridabad
Jatin	Faridabad
Rakesh Chaudhary	Faridabad
Ashok Chauhan	Faridabad
Rahul Verma	Faridabad
Ravinder Singh	Faridabad
Shyam Sunder	Faridabad
Akash Tiwari	Faridabad
Tejveer Singh	Faridabad
Shyam Sharma	Faridabad
Aman Upadhyay	Faridabad

Name	Location
Suraj Kesarwani	Noida
MANOJ MISHRA	Noida
Niraj	Noida

Name	Location
Sunit Kumar	Jaipur
Nisha Parihar	Jaipur

Name	Location
Rushikesh Bhalerao	Halol
JAYKUMAR UPADHYAY	Halol
GunjanKumar Gandhi	Halol1
Roshan Kumar Patel	Halol

Name	Location
VIVEK MAHATO	Pune
Aniket Ingole	Pune
Prashant Satpute	Pune
Anuj Shinde	Pune
Deepak Girgune	Pune
Darshan Deora	Pune
Rahul Jadhav	Pune
Pravin Kangne	Pune
Sagar Gawade	Pune
Soham Shukla	Pune
Shubham Sharma	Pune
Shubham Malge	Pune

Name	Location
Ashrafkhan Pathan	Dharwad
Samapth Devalatti	Dharwad

Name	Location
Veeramanikandan	Chennai
Neeraj Kumar Prajapati	Chennai

Work Anniversary - Mar 24

Sr.No	Employee Name	Branch
1	Hanamant Waghmode	Lonawala,Pune
2	Jaihind Kushawaha	Faridabad
3	Ashish Jaitly	Faridabad
4	Kamal Sharma	Faridabad
5	Hariom Pathak	Faridabad
6	Gopinath Lakak	Lonawala,Pune
7	Mohit Sharma	Faridabad
8	Krishan Kumar	Faridabad
9	ROHTASH GOLA	Faridabad
10	Rushikesh Waje	Pune
11	Nishu Pal	Noida
12	Naveen Chaudhary	Noida
13	Manoj Kumar	Faridabad
14	Vinod Rawat	Faridabad
15	YOGESH KUMAR PAL	Faridabad
16	Sonu Kumar	Faridabad
17	Vijendra Sahani	Faridabad
18	Ravi Kumar	Faridabad
19	Kunal Shinde	Pune
20	Vishal Jangid	Halol
21	Kiran Shukla	Halol
22	Gouspak Shanwad	Dharwad
23	Vishal Aher	Lonawala,Pune
24	Yuvraj Vibhute-Patil	Lonawala,Pune
25	Ganesh Gujar	Lonawala,Pune
26	Umesh Singh	Lonawala,Pune
27	Sopan Khawade	Pune
28	ANIL KUMAR	Faridabad
29	Bishnu Kumar	Halol
30	Aakash kumar	Noida
31	Ankit Bagherwal	Indore
32	Munesh Kumar	Noida

auto-scan

Knowledge Sharing:

Topic: Liquid Penetrant Testing

Liquid penetrant examination is one of the most popular Nondestructive Examination (NDE) methods in the industry. It is economical, versatile, and requires minimal training when compared to other NDE methods. Liquid penetrant exams check for material flaws open to the surface by flowing very thin liquid into the flaw and then drawing the liquid out with a chalk-like developer. Welds are the most common item inspected, but plate, bars, pipes, castings, and forgings are also commonly inspected using liquid penetrant examination.

The dye penetrant solvent removable method is most popular because it is low cost and very versatile. It typically comes in three aerosol cans – cleaner, penetrant, and developer. The cans can be purchased from welding supply distributors. You can have all the equipment you need to conduct liquid penetrant examinations. The aerosol cans are very versatile which allow them to be taken up ladders, inside boilers, down into pits, and into very tight places. Most nonporous materials (steel, stainless steel, cast iron, aluminum, brass, bronze, titanium, rubber, plastics, and glass) can be examined using PT. Porous materials (concrete, wood, paper, cloth, and some types of fiberglass if the fibers are exposed to the surface) should not be examined using PT.

There are several advantages and disadvantages to using liquid penetrant examination.

Advantages:

- High sensitivity to small surface discontinuities
- Easy inspection of parts with complex shapes
- Quick and inexpensive inspection of large areas and large volumes of parts/materials
- Few material limitations (metallic and nonmetallic, magnetic, and nonmagnetic, and conductive and nonconductive can all be inspected)
- A visual representation of the flaw is indicated directly on the part surface
- Aerosol spray cans make the process portable, convenient, and inexpensive
- Indications can reveal relative size, shape, and depth of the flaw
- It is easy and requires minimal amount of training

Disadvantages:

- Detects flaws only open to the surface
- Materials with porous surfaces cannot be examined using this process
- Only clean, smooth surfaces can be inspected. (Rust, dirt, paint, oil and grease must be removed.)
- Metal smearing from power wire brushing, shot blasting, or grit blasting must be removed prior to liquid penetrant examination
- Examiner must have direct access to surface being examined
- Surface finish and roughness can affect examination sensitivity. (It may be necessary to grind surfaces before PT.)
- Multiple process steps must be performed and controlled.
- Post cleaning of parts and material is required, especially if welding is to be performed.
- Proper handling and disposal of chemicals is required.
- Fumes can be hazardous and flammable without proper ventilation.

auto-scan

It is important to remember penetrant is a very thin liquid designed to seep into the smallest crack. Consequently, if an assembly has stitch welds or material not sealed by a weld, the penetrant will travel behind the welds and between layers of unfused material. Penetrant can be nearly impossible to remove from these areas. Trapped penetrant will cause defects in welds if further welding is done or will bleed out over time and contaminate paint and process fluids.

There are six basic steps to follow when using the dye penetrant solvent removable method.

1. **Pre-clean part:**
   This can range from grinding and wire brushing to merely wiping the part with a rag moistened with the cleaner/ remover. The surface needs to be free of dirt, rust, scale, paint, oil, and grease, and be smooth enough to wipe off the penetrant without leaving residue.

2. **Apply penetrant:**
   This is generally done by spraying penetrant from the aerosol can or applying it with a brush. A dwell (soak) time needs to be observed to allow for the penetrant to permeate into cracks and voids. This is typically 5 to 30 minutes but should never be long enough for the penetrant to dry. The penetrant manufacturer's recommendations and written procedure should be followed.

3. **Remove penetrant:**
   All penetrant should be removed with clean, dry, lint-free rags until thoroughly clean. The part or material should be rubbed vigorously until the penetrant is not visible on the dry rags.
   Next, cleaner/ remover should be sprayed on another clean, dry, lint-free rag and used to vigorously rub the part again until there is no penetrant visible on the rag.

4. **Apply developer:**
   A thin, light coating of developer should be sprayed on the part being examined. A dwell time needs to be observed to allow time for the dye to exit the flaws and create an indication (flaw) in the developer. The dwell time for developer is typically 10 to 60 minutes. The developer manufacturer's recommendations and written procedure should be followed closely.

auto-scan

5. **Evaluate indications:**
   It is critical to examine the part within the time frame designated in the written procedure. Length of an indication can grow over time as penetrant bleeds out, causing an acceptable indication to be a rejectable defect. Length of indication is measured for evaluation, not length of the flaw. Here, the two linear indications are rejectable defects. The round indication is nonrelevant.

6. **Post-clean part:**
   The part needs to be cleaned to remove all developer after it has been evaluated.

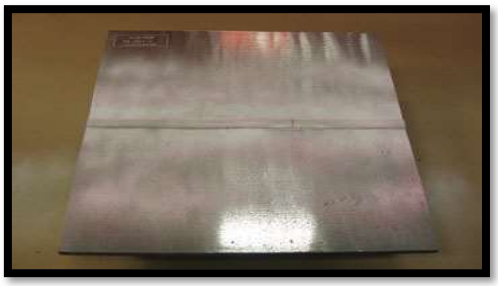

Figure 1.
The inside of a pressure vessel nozzle that has been in service.

Figure 2.
The tubesheet of a boiler that has been in service.

Figure 3.
The knuckle of a stainless steel pressure vessel head that has been in service.

Figure 4.
Head spin hole plug weld after cleaning.

Figure 5.
Head spin hole plug weld after the application of the penetrant.

Figure 6.
Evaluating indications in the spin hole plug weld. Most of the dark red indications are rejectable defects per ASME Section VIII.