# PAPER & PULP INDUSTRY



# AS CLIENTS ACROSS THE PAPER INDUSTRY HAVE DISCOVERED, IT PAYS TO PARTNER WITH IIA.

Papermaking is a time-honored process that has evolved into one of the world's largest industries. Modern papermaking is a complex process that requires high temperatures and high-pressure equipment, which can put equipment at greater risk of corrosion and cracking. The good news? You can stop structural integrity issues in their tracks — and IIA can help.

#### PAPER & PULP SYSTEMS & EQUIPMENT TESTING

We offer a variety of inspection methods to help your plant run more safely and efficiently. Here are just some of the ways IIA can be of assistance.

#### **BOILERS**

IIA is commonly called in to support boiler inspection work scopes during outage maintenance projects. Our specialties include thickness surveys to identify corrosion rates on a variety of boilers (recovery, power, package, etc.) and associated equipment. Our technicians will identify areas that require repair by a welding contractor prior to returning your equipment to operation.

## ABOVE-GROUND STORAGE TANKS

We are equipped and certified to perform API 653-compliant above-ground tank inspections. Our proprietary robotic AIRIS® tool can deploy via most tank manways. With our state-of-the-art equipment, we can even inspect tanks while they are fully operational.

#### PRESSURE VESSELS

Our certified API 510 pressure vessel inspectors perform internal and external inspections in addition to performing non-destructive testing. We have the capability to perform fully automated state-of-the-art PAUT techniques for vessel shell welds, nozzle-to-shell welds, nozzle-to-safe end dissimilar metal (DM) welds, and on safe end-to-pipe, as well as elbow welds.

#### **PAPER MACHINES**

We frequently provide support for paper machine outages. Our technicians are skilled and efficient in providing internal visual inspections and bolt testing on paper machine dryer cans.

#### **PIPING**

From water and gas piping to process and high-energy piping, we provide API 570-compliant piping examinations using a variety of complementary NDE; pulsed eddy current testing, guided wave testing, automated robotic systems, weld examinations, and more.

#### LIFT EQUIPMENT

Our team is also experienced with the mechanical lift devices inside and outside the facility that support your operations. For decades, IIA has provided on-site inspections and certifications to ensure the safety of overhead cranes and other aerial and lift devices. Our crane engineers can also assist with engineered weld repairs.

# BOILER TUBE SAMPLE TESTING

As a full-service provider, IIA's field inspections are backed by laboratory support across North America. Our labs can provide quick turnaround on metallurgical evaluations of tube samples collected during outages.

### OTHER SYSTEMS & EQUIPMENT

- · Digesters & Blow Lines
- Evaporators
- Concentrators
- Fans
- Heat Exchangers
- · Lime Kiln
- Turbine

#### **DID YOU KNOW?**

We are much more than outage experts. With our state-of-the-art equipment, we can inspect your tanks while they are fully operational. No draining required!





#### PAPER MILL INSPECTION AND NDE SERVICES

Our toolkit provides NDE and inspection solutions for the most complex challenges. Using conventional and advanced non-destructive examination (NDE), we pinpoint and analyze cracks, corrosion, erosion and other damage in recovery boilers, piping systems, digesters, kilns – every corner of your plant. It also includes versatile automated robotic systems and equipment for general weld examination, corrosion detection, mapping, pitting and wall-loss, PDI and general weld examinations, and screening and monitoring of casings.

#### **REMOTE VISUAL INSPECTION (RVI)**

Our explosion-proof cameras can navigate tanks, tubes, vessels and pipes with ease — from access points as small as one-quarter inch in diameter. Our toolkit includes pan tilt and zoom cameras that ensure a thorough inspection of tanks, tubes, vessels, and pipes.

- Internal Visual Inspections of anything from ¼" and above
- RVI Equipment Rental

#### **PULSED EDDY CURRENT TESTING**

Pulsed eddy current testing is frequently used to measure the thickness of ducts and piping without the need to remove the lagging and insulation.

#### **GUIDED WAVE TESTING**

Utilized for pinpointing areas of further examination on uninsulated pipe sections, our guided wave testing experts are highly skilled at understanding the data.

#### **ADVANCED NDE**

- Automated Corrosion Mapping (Internal)
- Automated Corrosion Mapping Laser Profilometry (External)
- Phased Array (PAUT) Manual & Automated
- Shear WaveFull Matrix Capture (FMC)
- Time of Flight Diffraction (TOFD)
- Full Matrix Capture (FMC)
- · Guided Wave Testing (GWT)
- In-Line Inspection (ILI Validation)
- · Pulsed Eddy Current
- Weld Quality Inspection

#### TRADITIONAL NDE

- Radiography (RT/CR/X-Ray)
- Magnetic Particle (MT)
- Penetrant Testing (PT)
- Ultrasonic Thickness Testing (UTT)
- Visual Testing (VT)
- Post Weld Heat Treatment
- Corrosion Mapping
- · Ferrite Testing
- · Hardness Testing
- · Positive Material Identification (PMI)
- Program and Procedure Development

#### **SPECIALTY NDE**

- · Proprietary Technologies
- Phased Array Sectorial Scanning PASS® Valve Examinations
- Precision Ultrasonic Testing
- Absolute Recordable Manual Ultrasonic Testing (ARMUT®) & Equipment

#### WHAT CUSTOMERS ARE SAYING

"Great service. We have a new customer that requires MPI/Ultrasound testing and are very happy to see a quick turn around." - SEW EURODRIVE



#### WHY IIA?

IIA is committed to safety and quality, and we instill these values in all of our technicians. We also ensure each team member is knowledgeable about your plant's operational goals and needs. Our reliable service helps you quickly return to operation following an outage — or in some cases, avoid a shutdown altogether.

#### **OUR TECHNICIANS**

We are the premier provider of Advanced NDE services. Our expertise allows us to match the best NDE technicians and technologies required to accomplish your goals. Our inspection teams are led by Level III NDE Professionals who have firsthand experience with the technology, as well as the knowledge of the components under examination. In addition to practical experience, our Level III Professionals are proficient in the interpretation and application of applicable codes and standards. Our certification programs exceed most industry requirements for NDE inspection personnel.

#### **CERTIFICATIONS & GUIDELINES**

- All Certifications Based on Guidelines in SNT-TC-1A and CP189 • Federal OSHA Certified
- In Line Inspection Validation
- American Welding Society
- API 510
- API 570
- API 653
- ASNT Level III NDT
- IRRSP

- ISO/IEC 17020 Accredited
- Cal-OSHA Certified
- Pressure Equipment Directive 2014/68/UE (European Certification)
- Pressure Equipment Regulations
- Washington State Construction Crane Certified



**Corporate Headquarters** 3550 Lenox Road NE,

**Suite 1525** Atlanta, GA 30326

844-982-0747 industrial-ia.com

INDUSTRIAL®