

# **INSPECTION SERVICES**

HMT's Inspection offers a complete line of NDE services and engineering evaluations per API Standard 653, API Standard 570, API Standard 510, STI Standard SP001 and AWWA D100.

Our certified inspectors and engineers work as a team to provide quality, comprehensive inspections and recommendations in a safe, reliable, efficient manner. HMT's Inspection group will provide reliable, expedient, and cost effective services in a timely professional manner.

## **EQUIPMENT**

HMT uses the latest in NDE equipment for tank inspections and all HMT Inspectors are certified per ASNT SNT TC-1-A (Level I, II, and III), for a large array of NDE techniques including but not limited to:

- Ultrasonic Thickness (UT)
- Magnetic Particle Testing (MT)
- Liquid Penetrant (LP) Inspection
- Visual Inspection (VT)
- Alternating Current Field Measurement (ACFM) Inspection
- Low Pressure Storage Spheres/ Pressure Vessels
- Vacuum Box Testing
- Helium Testing / Mass Spectrometer Leak Testing (MSLT)
- Piping Inspection
- B-scan
- C-scan
- SLOFEC™ Inspections
- 3D MFL Mapping



## **CERTIFIED INSPECTORS**

HMT Inspection provides certified inspectors that meet API or STI Standard SPOO1 (for Shop Built Tanks) inspection standards. Certified inspectors perform tank evaluations, report on inspection findings, offer repair recommendations and post repair services in a safe, reliable and efficient manner. HMT's Inspection group also specializes in SPCC for tank integrity testing.

Inspection Locations: Houston, TX;
Beaumont, TX; Corpus Christi, TX; Baton
Rouge, LA; Warren, OH; Philadelphia,
PA; Anaheim, CA; Benicia, CA (Bay Area);
Greensboro, NC, Savannah, GA; Tulsa, OK;
St. Croix (U.S. Virgin Islands)

### **INSPECTION METHODS / TECHNIQUES**

- Alternating Current Field Measurement
   (ACFM) Inspection a non-contact technique to
   detect and size surface breaking crack-like defects
   through coatings up to a thickness of 0.200 inch.
   HMT uses this method to detect crack-like defects
   in tank shell-to-bottom welds, tank bottom lap
   welds, sumps, nozzle and appurtenance welds,
   and Stress Corrosion Cracking (SCC) in ethanol
   service. A benefit to the ACFM method is that
   surface preparation is reduced compared to other
   NDE techniques.
- Helium Testing/Mass Spectrometer Leak Testing (MSLT) - HMT's Helium leak testing program is a proven, effective method used to detect leaks in petrochemical applications, including tank bottoms, roof pontoons, roof drain systems and heat exchangers.
- Piping Inspection this program includes MFL
  Pipe Scan services, which provides near 100% inspection coverage for aboveground un-insulated
  straight runs of piping and vessels up to 0.750
  inch wall thickness. HMT's API 570 inspections and
  engineering evaluations provide NDE data, visual
  inspection, and engineering assessments that
  include Maximum Allowable Working Pressure
  (MAWP) and remaining service/life calculations.
- B-scan a data presentation method applied to pulse echo techniques. It produces a twodimensional view of a cross-sectional plane through the test object. The horizontal sweep is proportional to the distance along the test object and the vertical sweep is proportional to depth, showing the front and back surfaces and discontinuities between.
- C-scan a data presentation method applied to pulse echo and transmission techniques. It yields a two-dimensional plan view of the object. No indication of depth is given unless special gating procedures are used.
- Low Pressure Storage Spheres/Pressure
  Vessels this inspection program includes
  a full line of NDE inspection services for low
  pressure storage spheres, pressure vessels and
  bullet tanks, including a staff of experienced API
  510 inspectors. HMT's offers inspections with
  automated ultrasonic crawlers and MFL wallscans.

#### **REPORTING**

The HMT's Inspection group understands the importance of accurate, quality reporting. All field inspection data, engineering analysis and evaluation of work performed is translated into the proper report format and delivered in a timely manner. HMT inspection reports are user friendly and Include a Management Summary with concise data presented in an organized, understandable manner. In addition to standard inspection reports, HMT prepares reports for specific needs and projects. These reports address topics such as:

- · Integrity testing
- · Suitability-for-service evaluation
- Verticality studies
- · Seal inspections
- Foundation settlement
- · Seismic evaluations
- Repair recommendations
- · Post repair inspections

#### **ENGINEERING SERVICES**

HMT provides engineering services for aboveground storage tank evaluations and calculations including:

- · Settlement evaluations
- · Corrosion rate calculations
- · Safe fill height calculations
- · Seismic evaluation
- · Brittle fracture evaluations
- Maximum working pressure
- Fitness for service evaluations
- State specific environmental inspections
- Inspections
- Out of roundness surveys
- · Verticality evaluations
- Additional evaluations referenced in the API & STI standards

#### **ABOUT HMT**

HMT is the global leader in aboveground storage tank solutions. HMT providies advanced solutions to reduce emissions, optimize tank capacity, reduce stranded inventory and engineer a tank system that exceeds safety standards and extends maintenance intervals.

**HMT's full suite of tank products includes:** Internal/External Seal Systems - Internal/External Floating Roofs - Drain and Floating Suction Systems - Aluminum Domes - Emissions Reduction Devices.

**HMT's quality services include:** Tank Repair & Maintenance - Floating Roof & Seal Repair/Replacement - Installation Services - Fabrication Services - Project Management/Turnkey - Inspection, Calibration, Verticality & Roundness Studies - New Tank Construction - Painting, Coating & Lining - Engineering Services.

**HMT LLC** | 19241 David Memorial Dr., Suite 150, The Woodlands, Texas 77385 Ph: +1.281.681.7000 | Fax: +1.281.419.7689 | Locations worldwide



www.hmttank.com