



Hydrostatic Test Exemptions

PEMY employs all the current engineering methods to evaluate a tank for hydrotest exemption. Furthermore PEMY can advise you on technically complex projects and guide you through the decision making process. PEMY understands the responsibilities and risks that owners face.

Background: Tanks and other pressure containing equipment such as pressure vessels and pipelines have risk of brittle fracture with cold operating temperatures or with brittle, usually older materials. Riveted tanks and tanks with old steel especially may be at heightened risk if their materials are indeed brittle at low operating temperatures. Although a tank may have operated for years without incident, performing a major repair presents an immediate opportunity for brittle fracture. Traditionally, a hydrostatic test is performed after a major repair as a proof test. Standards API 653 and API 579 provide alternate means to test the tank including improved design details, welding, and inspection.



Does your company take advantage of the hydrostatic test exemption process? Any time a major repair is performed on a tank, API 653 requires the tank be hydrostatically tested, or alternatively the repair may be exempted you satisfy a certain set of requirements. The goal is to reduce the chance of an in-service brittle failure. Many times a hydrotest demands a disproportionate amount of effort to test a relatively small repair, such as installation of a new manway. The exemption process judiciously applies material controls, improved welding, and extra NDE where it is needed to keep the risk at an acceptable level.



Do your facilities follow standard company practice when executing a tank hydrotest exemption? PEMY can develop standard corporate procedures so your company can take control and manage this risk. PEMY can develop company best practices and define the mechanics of the exemption process. Flowcharts and checklists not only help the tank engineer address each necessary step, they also provide an audit trail to show that your company complied with all requirements. The suite of documents help operating companies plan, execute, and audit hydrotest exemptions.

