

ASME Pressure Equipment Codes and Standards for Over 140 Years, and Now Implementation of ASNE/ANDE-1 NDE/QC Personnel Certification Standard

Michael L. Turnbow¹

¹ASME Personnel Certification, LLC and Codes and Standards, ASME, USA

ABSTRACT Keynote Address Special Session/ANDE Workshop ASME Pressure Equipment Codes and Standards for Over 140 Years, and Now Implementation of ASME Nondestructive Evaluation and Quality Control Central Qualification and Certification Standard--ANDE-1 Michael L. Turnbow Special Session/Workshop Co-Chairman ANDE Nuclear Specific Industry Sector Chairman ASME for over 140 years has developed codes and standards to assure safe and reliable pressure equipment around the world. During the Industrial Revolution (late 1800s to early 1900s) the horror of the early issues facing the young steam/pressure equipment industry and history of how ASME rallied engineers to find solutions will be briefly discussed. Now, once again ASME takes the initiative by introducing the ASME/ANDE-1 Standard for the improved performance of nondestructive evaluation and quality control personnel. Data over the past 30 years provides the basis to re-evaluate the effectiveness of the processes currently used to qualify and certify personnel. The data shows NDE continues to demonstrate considerable inconsistent performance in both round robin studies and operating experience. The initiative (ANDE Project) was established with industry experts assembled to develop a new ASME standard addressing a Central Qualification and Certification Program for Nondestructive Examination (NDE) and Quality Control (QC) personnel performance. This new Standard was formed around performance-based concepts that serve as the program core for qualification and certification activities to meet the needs of nuclear and many other industries that require reliable NDE and QC. The use of a performance-based approach, with a Systematic Approach to Training (SAT) process along with developing Job Task Analyses (JTAs), and Qualification Cards (Qual Cards) for NDE and QC personnel makes this Standard unique and is a total departure from current "TIME" based qualification processes. SAT is a proven process and has been around for over 50 years in all branches of the military and many fortune 500 companies. As a result of nuclear power plant operator performance issues, the Institute of Nuclear Power Plant Operations (INPO) implemented the SAT process in the early 1980's. Since then, operators and other power plant workers have realized significant performance improvements. However, NDE and QC were not included. It is expected that with the implementation of this Standard the performance issues will be improved and that a larger pool of personnel will become available to support any Industry or Specific Industry Sector (SIS) that either requires or chooses to use this Standard. The workshop is designed to present the details of each of the ANDE-1 Standard's performance-based features, global implementation plan for Certifying Body (CB), Authorized Qualifying Bodies (AQB), and Designation Test Organization (DTO), including advantages of the transition process and provisional certification for a limited time. Also, the NDE industry has been anxiously waiting for a "single" transportable globally recognized certification. Accordingly, an efficient cost effective one-stop-shop dual certification to both ANDE-1 and ISO 9712 will be presented.