

In order to assist owners and users of aerial devices train individuals in the ASTM test standards relating to aerial devices, ASTM is considering developing a certification program that focuses on its three existing aerial lift standards. These standards are under the jurisdiction ASTM subcommittee F18.55 on Inspection and Non-Destructive Test Methods for Aerial Devices. The three standards are:

- F914/F914M-10 Standard Test Method for Acoustic Emission for Aerial Personnel Devices Without Supplemental Load Handling Attachments
- F1430/F1430M-10 Standard Test Method for Acoustic Emission Testing of Insulated and Non-Insulated Aerial Personnel Devices with Supplemental Load Handling Attachments
- F1797-09e1 Standard Test Method for Acoustic Emission Testing of Insulated and Non-Insulated Digger Derricks

One of the first tasks is to gauge interest within the industry for such a program. If users and inspection agencies agree that a limited certification program would assist their efforts to develop qualified individuals in aerial lift inspection and would be interested in having their personnel attend ASTM training programs, we could then move forward to create a program specific to the ASTM aerial lift standards. This will not replace the basic ASNT AE certification. In fact, the ASNT AE certification would be a prerequisite for attendance in the proposed training. ASTM would provide both classroom and hands-on field training, with both general and specific examinations, and a certificate of successful completion that could be used through your quality assurance procedure to create a limited certification in aerial device inspection.

The following is a summary of discussions that the F18.55 has had regarding this topic and why the subcommittee believes that this would be an excellent program that could benefit the industry. Generally utility fleet, utility contractor groups, and inspection service agencies, have the ability to hire and maintain personnel certified for acoustic emission inspection. ASNT (American Society for Non-destructive Testing) has a personnel certification program developed for employer-based certification in the recognized NDE (non-destructive examination) classifications for Level 1 and 2. This program, known in the industry as ASNT TC-1-A, contains minimum recommended requirements for each level of certification and a certificate of completion, furnished when all requirements are met. The actual certification level is administered through the employer as part of their quality assurance program. However, a “certified” individual using this process may not necessarily be a “qualified” individual. Verification that employees are qualified for specific NDE inspections still rests with the employer.

Acoustic Emission, better known as AE, has always been recognized as an inspection discipline that is extremely operator dependent, especially as it relates to aerial lift inspection. Because of the inherent design of an aerial device, which includes internal cables, sheaves, pulleys, hoses, pins, hydraulics, and a host of noise inducing equipment, it is difficult for the inspector to filter out non-relevant acoustic signals and focus only on relevant ones. Also, baseline acoustic signatures of one manufacturer’s device compared to another may be different. These factors cause aerial device AE inspection to be more

subjective and dependent on an operator's experience as he interprets the test data, more so than in other types of AE inspection.

The ASNT personnel certification process in TC-1-A for AE touches on all of the possible AE inspection methods. These methods include inspecting pressure vessels, underground piping, tank cars, and above ground storage tanks, etc. Because classroom instruction hours and length of examinations must be limited, this certification process lacks specific focus and detail on any one method. An individual is given an overview of how AE can be used, knowledge of the basic principles and theories, and it touches on data interpretation for various methods. The current certification process does not necessarily "qualify" an individual to inspect aerial lifts or interpret the type of test data received from such inspections. Developing qualified inspectors still remains an employer responsibility. I point this out not as a criticism of the ASNT process, but to identify the possible limitations as it relates to aerial lifts and demonstrate the need for the proposed ASTM effort

Your response, comments, and suggestions are critical to our ability to our ability to move this idea forward in timely fashion. It will take time to develop an ASTM aerial lift certification program. The sooner we receive your comments, the sooner we can proceed. Please direct your responses to the following individuals as well as any questions you may have on this effort:

William C. Veal, Chairman ASTM F18.55 <mailto:werveal@gmail.com>
Cell, 478-957-2250

Jeff Adkins, Staff Manager, ASTM International <mailto:jadkins@astm.org>
610-969-8377

Nick Matarangas, Project Manager ASTM Certification Programs, cert@astm.org
610-832-9765