



NFPA 1801:2018 OVERVIEW

Addressing changes to NFPA 1801: 2018 edition
Standard on Thermal Imagers for the Fire Service

NFPA 1801, 2018 edition expected to include the following:

CAMERA UPGRADES

Camera upgrades and NFPA compliance upgrades are addressed in this new edition of NFPA 1801. This will allow users to purchase upgrades, such as display upgrades or NFPA compliance upgrades to keep their current TIC's fielded for a longer period of time. Avon Protection intends to have an upgrade program for the currently certified Mi-TIC cameras to be upgraded to NFPA 1801; 2018 edition.

BATTERY LOCKING MECHANISM TESTING

Cameras with batteries requiring physical locking devices to pass intrinsic safety requirements or other testing, must have a positive locking feature that will require the battery to be properly secured before the camera will function. The goal is to have a battery that is securely fastened and not become disconnected from the camera when dropped or in other conditions. The Mi-TIC battery design will not require modification to meet this requirement.

DISPLAY SYMBOLS

Only specified symbols may be displayed at power up. These symbols are limited to NFPA Basic symbols. The Mi-TIC camera range will require software modification to meet this requirement.

SPATIAL TESTING/IMAGE QUALITY

Cameras that have visible light sensors combined with thermal imaging sensors, will be required to have the visible light sensor disabled during the spatial testing (image quality test). This will ensure that firefighters will have thermal imagers capable of providing high quality imagery in situations when smoke impedes visible light. The Mi-TIC camera design will not require modification to meet this requirement.

IMAGE REFRESH RATE

A sensor/image refresh rate of at least 25 hertz will be required, as slower refresh rates have been deemed to offer lower image quality and impede normal interior structural firefighting operations. The Mi-TIC range of cameras have 30 hertz refresh rates and will not require modification to meet this requirement.

BATTERY LIFE

Battery life testing will require cameras to run for at least two hours, as required in the current standard and will additionally require that the camera is tested while capturing video (if available with such options), as video capture has, in some cases, proven to impact battery life. The Mi-TIC camera design will not require modification to meet this requirement.

VIDEO CAPTURE ICON

A new video recording icon has been added to the standard, a red dot inside of a green circle when the video recording function is active will be required. The Mi-TIC video recording icon will require modification.

CAMERA SENSOR AND DISPLAY RESOLUTION

Camera sensor resolution of equal to or greater than 76,800 pixels (320x240). This requirement applies to both the sensor and the display. The resolution requirement will benefit users in that their imager will provide high resolution imaging that will be capable of providing details, display convection (movement of heated particles suspended in smoke), and be an excellent search and rescue tool, providing details needed to effectively conduct interior structural firefighting. The Mi-TIC camera design will not require modification to meet this requirement.