



DEPARTMENT OF THE AIR FORCE
LEGACY TANKER DIVISION (AFLCMC)
TINKER AIR FORCE BASE OKLAHOMA

AUG 28 2013

MEMORANDUM FOR AMC/SGR

FROM: AFLCMC/WKDE
3001 Staff Dr Ste 2AH190B
Tinker AFB OK 73145-3019

SUBJECT: Safe-To-Fly (STF) Certification for Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120

References: a. AFLCMC/WNUP report, 9 May 13, Technical Report of the Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120
b. AFLCMC/WNUP memo, 12 Jul 13, Safe-To-Fly (STF) Recommendation for the Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120

1. The Legacy Tanker Division, AFLCMC/WKD, reviewed whether the subject Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120 is safe for use on C/KC-135 aircraft.
2. The STF review focuses on whether use of the system introduces a potential ignition source into the pressurized cabin and whether the device may be a source of electromagnetic interference (EMI) for the navigation/communication equipment used by aircraft flight crew. The relevant test procedure for explosive atmosphere testing is MIL-STD-810F, Method 511.4; and the relevant test procedure for radiated emissions is MIL-STD-461F (RE102).
3. Report provided to the Legacy Tanker Division documents the Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120 passed the relevant testing described above. Based on these facts, the Legacy Tanker Division concurs with the use of this system during all phases of flight and operations on C/KC-135 aircraft.
4. The test results indicate the wireless communication system will not cause adverse effects to the patient, aircrew, or aircraft when used in accordance with manufacturer guidelines and the risks, limitations and recommendations provided in references a. report and b. memo. These include the following:
 - a. The Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120 cannot operate outside the limitations of the fluid itself. The device cannot heat the fluid to $\pm 2^{\circ}\text{C}$ range if the IV fluid is below the manufacturer's recommended temperature of 20°C .

b. The Vital Signs EnFlow IV Fluid Blood Warmer, Model 100 with the AC Power Supply, Model 120 has the potential to cause thermal injuries if the device is used outside the manufacturer's recommended guidance for use.

c. Night Vision Goggle (NVG) compatibility testing of the Model 100 Vital Signs EnFlow IV Fluid Blood Warmer with the Model 120 AC Power Supply Testing revealed that the green indicator lights were compatible with NVG devices, but the red and yellow indicator lights were not. The visual indicators may be concealed with opaque tape if necessary.

