

VERIFY (A THREAT-LEVEL NEMP SIMULATOR WITH A 1 NS RISE TIME)

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The Swiss Government has procured a new Nuclear Electromagnetic Pulse (NEMP) simulator that meets VG 95371-10:1995-11 standard. This unclassified standard specifies a peak electric field of 65 kV/m, risetime of 0.9 ns and a FWHM of 24.1 ns. This system shown in figure 1, has been called VERIFY and is installed in a large hall with wooden walls and roof, at the HPE Laboratory in Spiez, Switzerland.

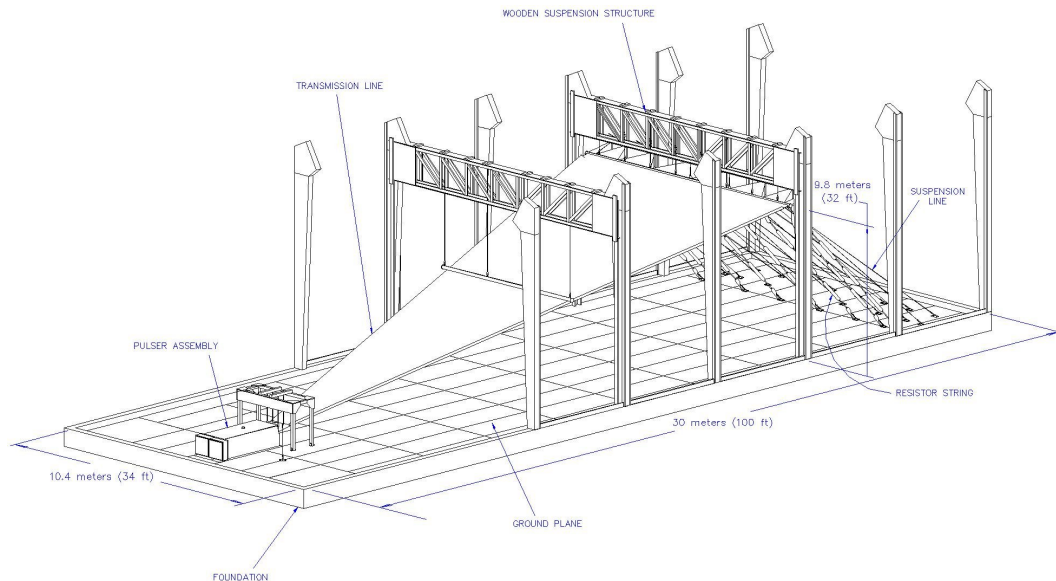


Figure 1. Schematic drawing of the VERIFY simulator

Some novel features of VERIFY are: a) the pulse generator is computer-controlled, b) the pulser components are in a transparent box filled with SF₆ and c) the electromagnetic design ensures a TEM launch from the pulser and distortion-free propagation of the transient pulse from the pulser to the working volume. In this presentation, we will examine the evolution of unclassified NEMP standards and present the design considerations and performance characteristics of this simulator.