

# Risk Assessment Methodology for Transmission (RAM-T<sup>SM</sup>) Course

Fact Sheet

## Brief Description

RAM-T<sup>SM</sup> includes both the methodology itself and a training program that introduces the methodology to new users. The methodology is an adaptation of the security principles, processes, and procedures developed at Sandia National Laboratories to protect nuclear weapons. Because the protection-system goals of a nuclear facility are dramatically different from the security requirements of a non-nuclear facility, the RAM-T<sup>SM</sup> includes new tools developed to address issues that do not occur at nuclear facilities. The nuclear security risk assessment analyzes security systems with the single goal of enhancing protection system effectiveness. For non-nuclear facilities and systems, such as electrical power transmission, additional issues include identifying the mission(s) of the transmission system, the undesired events that would prevent mission(s) success, the critical assets that must be protected to prevent undesired events from occurring, the potential adversary and their characteristics, the credible threats to the transmission system, the level of risk that can be tolerated at a facility, the optimal use of available funds for security upgrades, and a host of other considerations. The new process Sandia developed to address these issues uses the same risk equation applied to nuclear facilities, but treats both consequence and likelihood of attack, which are constants in the risk equation as it is applied to nuclear facilities, as variables. The risk equation is used to assess vulnerabilities in the protection system in both performance-based methodologies, but RAM-T<sup>SM</sup> also considers a relative ranking of consequences and the relative likelihood of an identified and credible adversary attacking specific transmission facilities. This enhanced application of the risk equation, which requires an analysis that defines three variables rather than one, provides a much richer snapshot of the security risk at a particular transmission facility at a particular time.