SLP SOCIETY of LOSS PREVENTION news
In the Oil, Chemical & Process Industries (Singapore)
APRIL 2007
MITA NO.: MICA (P) 151/08/2006

SECURITY VULNERABILITY ASSESSMENT FOR THE CHEMICAL INDUSTRY

On February 13, 2007, Steven Vandermolen, Global Security Advisor of Chevron Phillips Chemical Company based in Houston, Texas, gave a talk on Security Vulnerability Assessment (SVA) to a group of about 30 SHE and security practitioners from JTC, Dupont, Shell, MSD, SUT Sakra, Vopak, Pfizer and other companies.

The objective of this event was to provide an overview on SVA and the methodology used to evaluate the security vulnerability of chemical facilities.

To help his audience understand the subject, Vandermolen defined the following terms.

Steven Vandermolen fully engaging his audience.

Security Vulnerability Assessment is the process of determining the likelihood of an adversary successfully exploiting vulnerability, and the resulting degree of damage or impact on an asset. The SVA is a:

– "tool" for conducting an assessment and communicating the results of that assessment

– formal and documented process that is "transparent," tractable, and replicable

Vulnerabilities: Any weaknesses that can be exploited by an adversary to gain access to an asset. Vulnerabilities can include but are not limited to:

- perimeter and building characteristics,
- equipment or process properties and locations,
- personnel behaviors,
- operational and personnel practices.

Steve pointed out the **Common Vulnerabilities,**

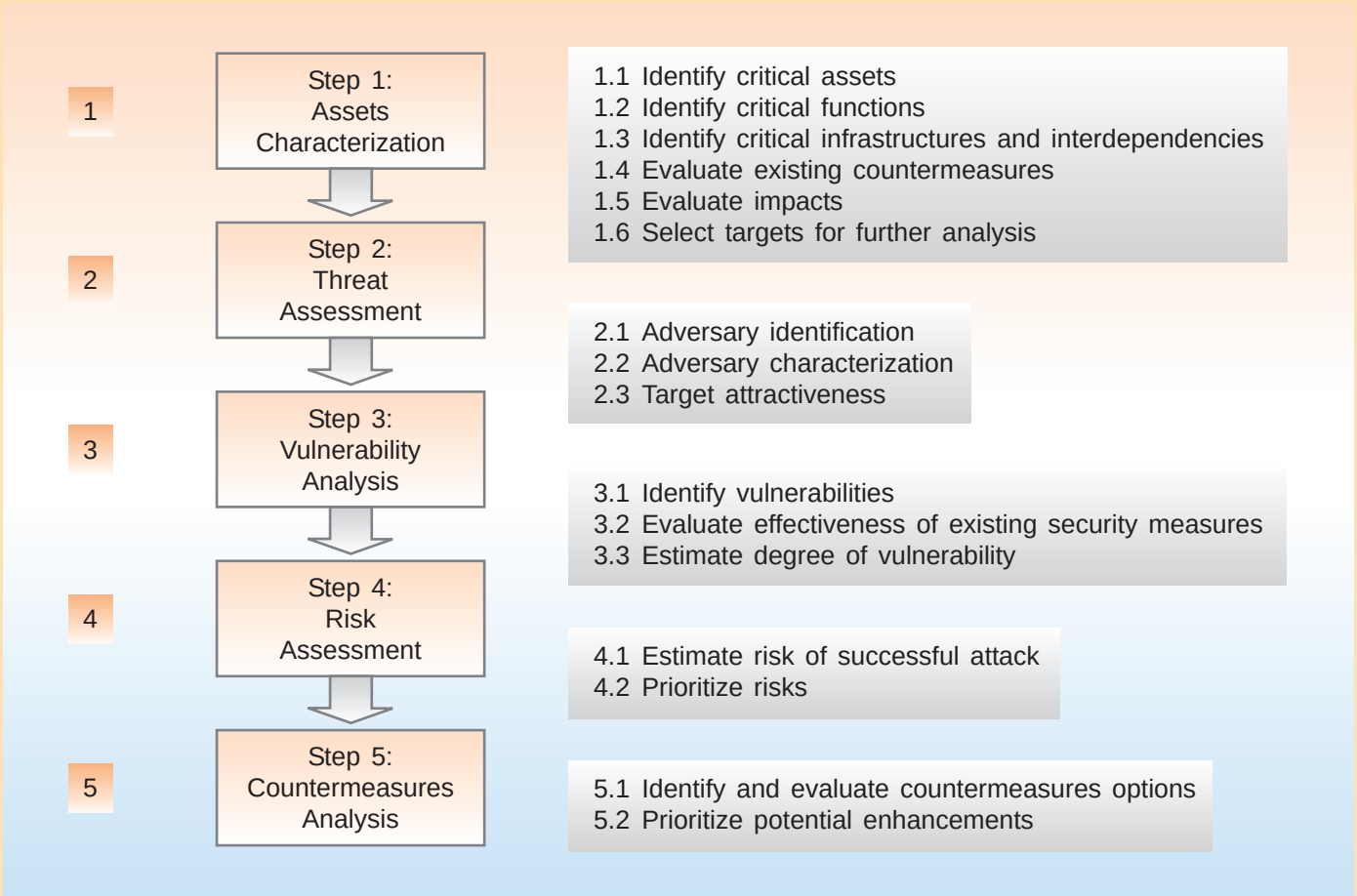
- Inadequate perimeter and other physical security measures
- Inadequate technical security infrastructure or integration
- Inadequate administrative security policies or procedures
- *Insufficient cyber security measures*

Security Risk is a function of the:

- Consequences of a successful attack against an asset; coupled with the
- Likelihood of a successful attack against that asset.

Risk = f (Consequence, Likelihood)

He then proceeded to discuss the following API/NPRA SVA Process:



Vandermolen concluded the session by sharing the four basic strategies to manage security risks

- Deter
- Detect
- Delay
- Respond

A lively discussion took place after the presentation and during the dinner that followed. Many participants were interested in the software tool for SVA. Companies and organization that wish to learn more about this important subject are encouraged to consult API/NPRA or other providers of SVA methodologies

By Tay Cheng Pheng