

DIFFERING PROFESSIONAL OPINION

**INSTRUCTIONS:** Prepare this form legibly and submit three copies to the address provided in Block 14 below.

1. DPO CASE NUMBER

2005-001

2. DATE RECEIVED

1/6/2005

3. NAME OF SUBMITTER

James H. Taylor

4. POSITION TITLE

Senior Security Specialist

5. GRADE

15

6. OFFICE/DIVISION/BRANCH/SECTION

NSIR/DNS/SPES

7. BUILDING

TWF

8. MAIL STOP

T4 D8

9. SUPERVISOR

Ron Albert

10. DESCRIBE THE PRESENT SITUATION, CONDITION, METHOD, ETC., WHICH YOU BELIEVE SHOULD BE CHANGED OR IMPROVED.  
(Continue on Page 2 or 3 as necessary.)

This information is attached on a separate paper

11. DESCRIBE YOUR DIFFERING OPINION IN ACCORDANCE WITH THE GUIDANCE PRESENTED IN NRC MANAGEMENT DIRECTIVE 10.159.  
(Continue on Page 2 or 3 as necessary.)

This information is attached on a separate paper

12. Check (a) or (b) as appropriate:

- ☒ a. Thorough discussions of the issue(s) raised in item 11 have taken place within my management chain; or  
☐ b. The reasons why I cannot approach my immediate chain of command are:

SIGNATURE OF SUBMITTER

DATE

1/06/05

SIGNATURE OF CO-SUBMITTER (if any)

DATE

13. PROPOSED PANEL MEMBERS ARE (in priority order):

1. Dennis Vernon

2.

3.

14. Submit this form to:

Differing Professional Opinions Program Manager

Office of:

Mail Stop:

15. ACKNOWLEDGMENT

THANK YOU FOR YOUR DIFFERING PROFESSIONAL OPINION. It will be carefully considered by a panel of experts in accordance with the provisions of NRCMD 10.159, and you will be advised of any action taken. Your interest in improving NRC operations is appreciated.

SIGNATURE OF DIFFERING PROFESSIONAL OPINIONS PROGRAM MANAGER (DPOPM)

René M. Pedersen

PRE-CONDITIONS MET

☒ YES

☐ NO

DATE OF ACKNOWLEDGMENT

1/12/2005

## FORCE-ON-FORCE EVALUATION CRITERIA CONCERN

### Background

It is recognized by the Office of Nuclear Security and Incident Response that one of the best means available to evaluate a licensee's overall capability to effectively protect their vital equipment, including essential safety shutdown components, from being disabled and/or destroyed by an overt outside adversary is through the conduct of Force-on-Force exercises. If conducted and evaluated properly these exercises provide information essential to determining the effectiveness of the protection elements provided by the licensee to protect vital equipment.

These Force-on-Force exercises are commonly used as a tool by security and military organizations around the globe to train armed combatants on the ability to effectively implement protection strategies, tactics (team and individual), command and control practices/procedures, communications, proper utilization of equipment, etc. and to assess the effectiveness of these capabilities. Now that the potential benefit of these exercises have been stated it is necessary to point out that there are some real concerns pertaining to the manner in which the Office of Nuclear Security and Incident Response currently employs this Force-on-Force exercise evaluation tool and this paper will address those concerns.

There are two prevailing evaluation criteria that are used to evaluate Force-on-Force exercises. The first is performance based and evaluates the effectiveness of the protection systems/elements (i.e., overall protection strategy, command and control, tactics, communications, equipment, etc.) that are essential to the protection capabilities provided to protect specific assets. The second criteria is the Win/Lose concept which is based upon who wins or loses the exercise. This paper will address both criteria and will emphasize the fact that there are numerous and complex artificialities that are always present during these exercises and that these artificialities can and do affect the bottom line results (Win/Lose).

The term "evaluator" as used in this paper refers to a member of the NRC evaluation team that is responsible for assessing the effectiveness of the protection capabilities provided by the licensee and the ability of the licensee to conduct effective Force-on-Force exercises.

"Controller" refers to an individual representing the licensee that is assigned the responsibility to ensure a safe and adequately controlled exercise is conducted based on rules of engagement previously agreed upon by the NRC and the licensee.

It is recognized that this background section is rather extensive. However, it is essential that the reader be provided with sufficient information pertaining to Force-on-Force exercise artificialities to enable them to form an educated opinion on the concerns noted below.

These Force-on-Force exercises simulate an armed adversary force attacking a nuclear power plant in an attempt to sufficiently disrupt essential equipment to cause catastrophic damage to the plant. Even this simplified depiction of Force-on-Force exercises makes it readily apparent that the preparation and conduct of these exercises require the simulation and assumption of many factors. Recognizing that the safety of personnel and plant equipment is paramount during these exercises it is understandable that these mock armed engagements that simulate individuals using firearms and explosives to "kill" opposing exercise participants and to destroy barriers and essential equipment require numerous artificialities and assumptions to accomplish these efforts. It is important to note that each and every exercise action that is comprised of one or more simulated/assumed activities has the potential to artificially and significantly affect the final outcome of the exercise.

There are activities that would occur during an actual attack that would be immediately obvious to the protective force and adversaries but when these activities are assumed during an exercise would not be noticeable to exercise participants without appropriate data input provided by controllers pertaining to these simulations/assumptions. These activities require that predetermined data pertaining to these assumed activities be verbally injected by controllers at specified times to alert participants about these "activities that have just occurred or are occurring." Examples of these types of activities include:

- Noise and/or visual cues that are routinely associated with the actual use of explosives and firearms must be artificially introduced during exercises. This is accomplished verbally by controllers to alert exercise participants of simulated explosive detonations and to provide information to exercise participants about "incoming rounds" from firearms that are striking surfaces in their immediate vicinity.
- Actions associated with actual explosive detonations create a noise and visual signature that are readily identifiable. Additionally, subsequent to explosive breaching/destruction activities visual cues remain in the form of obviously damaged/destroyed barriers and/or equipment. However, during exercises these prompts must be artificially injected to provide exercise participants information pertaining to the "status" of their surroundings.
- Once a barrier has been "breached" then a means to "pass through" the imaginary breach point must also be accomplished. This may require a "time-out" (defined below) in which exercise participants cease all activities while the appropriate personnel are administratively moved from the point that they "breached the barrier" to the area that would have been accessed in the event of an actual breach.
- The movement of subsequent exercise participants through the "breached" barrier after the initial group "passes through" the breach is not normally scheduled due to "free-play" on the part of exercise participants. In reality the breach point would be immediately available to members of the protective force and/or other members of the adversary team for bypassing the delay associated with the barrier during the remainder of the attack. Therefore these subsequent potential actions can be even more disruptive to the exercise flow when an unanticipated "time-out" may be required.
- Subsequent to actually disabling/destroying significant equipment there would be immediate and positive visual and/or audible indicators denoting the status of the equipment at the location of the affected equipment and/or at the control room and/or at one or more of the security alarm stations.
  - Controllers provide verbal input pertaining to noise and/or visual cues to alert exercise participants of simulated destroyed or disabled equipment at these locations.
- Information pertaining to suppressive fire targeting exercise participants within bullet resistant enclosures or behind other barriers must be provided to the participants that are "receiving these incoming rounds" due to the lack of obvious visual and noise cues that would realistically accompany the rounds striking the barriers.

- This artificiality affects many routine activities during an exercise including attempts by the adversary to create potential diversions by firing at opposing force members from an angle opposite from where the planned attack will occur.
- There are always locations within the exercise play area where access is either denied to exercise participants or exercise activities are significantly curtailed while within these locations. This is usually necessary due to operational and/or safety considerations.
  - There are "out-of-bound" areas that are inaccessible to exercise participants during the conduct of the exercise. However, in reality these areas may contain the most advantageous routes that could be used by the protective force or by the adversary in their respective efforts to be successful. Additionally, these areas may contain the intended adversary targets which would require even more simulated or assumed activities.
- There are also areas that may be entered during an exercise however specific activities are restricted while exercise participants are within these areas. These restrictions could preclude the use of specific components of exercise weapons (i.e., laser capabilities associated with the Multiple Integrated Laser Engagement Systems [MILES] equipment and/or blank ammunition) and/or radios, etc. Other restrictions could include the manner in which these areas may be traversed. While running, climbing, or jumping may be the most advantageous means of movement while within these areas participants may be restricted to nothing more than a fast walking pace.

In addition to the above noted simulated/assumed activities there are other artificialities that are inherent to the Force-on-Force exercise process and will always impact these exercises to varying but unknown degrees. These factors include the following:

- The element of surprise is lacking due the need to provide adequate safety, logistics and time required to prepare for these exercises. The most important and readily recognizable factor that directly affects the absence of surprise involves the need for participants to use inert weapons and to ensure live weapons and ammunition are not introduced during the conduct of exercises. Additionally, these exercises require extensive logistical support and time for adversary scenario planning.
  - The lack of surprise is among the most recognizable and controversial artificialities associated with the conduct of Force-on-Force exercises.
    - The probability of an adversary success is significantly decreased due to the fact that the response force is aware on an imminent attack.
- There is also a total lack of the psychology of violence. There are no actual casualties and there are no visible signs of carnage normally associated with an armed conflict.
  - These factors would have a high probability of influencing the actions of a protective force during an actual attack. However, during these exercises exercise participants know that their lives are not in jeopardy and that at the termination of the exercise that they will return to their normal routines.

- "Time-outs" are required to administratively address specific simulated actions and/or resolve questions/concerns related to exercise conduct. An example is provided above that pertains to the use of a time-out to administratively move exercise participants to the opposite side of a barrier that was "breached." Time-outs are also used by evaluators and controllers to address inappropriate or questionable activities and to reset exercise parameters prior to restarting an exercise. These time-outs significantly affect the flow of the exercise. Even though exercise participants are instructed that they cannot move or communicate during a time-out they have significantly more time to decide what they will do next. In reality during an actual attack they may have only seconds to make these decisions, that could determine life or death, but in the event of an exercise time-out they could have many minutes to make those same decisions. Additionally, during time-outs participants have the ability to gather intelligence about what is occurring in their immediate vicinity by merely looking around knowing that they will not be engaged by an opposing exercise participant until the exercise is resumed.

Exercise controllers constitute another factor that has the potential to adversely impact the conduct/results. Controllers that are responsible for the enforcement of the real-time conduct of these exercises possess varying levels of experience, skills, and knowledge pertaining to Force-on-Force exercises.

- Even the most skilled controller having vast Force-on-Force exercise experience and knowledge cannot be totally aware of everything occurring around him/her during the entire exercise. Therefore, one or more activities could occur without being observed by a controller, and therefore not considered, which could significantly impact the outcome of the exercise. The following is but one example of a situation that if not adequately observed and considered could completely skew the bottom-line results (Win/Lose) of an exercise:
- Something as simple and quickly completed as the deployment of a fragmentation grenade during an exercise could completely alter the results if not properly observed, assessed, and acted-on by a controller. In the event a controller is with an exercise participant that throws a grenade at an opposing force member(s) but fails to see that it immediately bounced back into the vicinity of the individual that threw the grenade the wrong exercise participant(s) could be "neutralized." This could totally skew the bottom line results (Win/Lose) of the exercise. It is important to recognize that the controller with the individual throwing the grenade is not always in position to constantly observe the grenade after it leaves the thrower's hand.

#### Summary of the prevailing staff view

The Office of Nuclear Security and Incident Response currently employs the "Win/Lose" criteria for evaluating Force-on-Force exercises. This concept is based on who wins or loses an exercise and not on the effectiveness of the performance elements associated with the protection capabilities provided by the licensee. The definition of losing in this context equates to the adversary successfully achieving target set destruction while conversely the protective force wins when the adversary is precluded from achieving destruction of a target set. The current evaluation process is based on these criteria and does not necessarily attempt to assess the adequacy of the protective forces' capabilities which include protection strategy, command and control, tactics, communications, equipment, etc. However, in the event the protective force loses an exercise the current evaluation process requires the evaluation team

to determine and to document the cause(s) that resulted in that loss. Conversely, when the protective force wins an exercise by defeating the adversary the evaluation team makes little or no effort in determining why the protective force was successful. More importantly there is no ongoing effort to assess the effectiveness of the attributes necessary for the licensee's protective systems to be successful during an overt attack on the facility.

The concept of determining the cause(s) of an exercise loss by a licensee but not to determine the effectiveness of the performance elements when a licensee wins or loses an exercise is an indicator of the overall concern put forth in this paper.

### Submitter's Views

It appears that the most logical starting point in this section would be to address the last comment in the previous section. As previously stated the evaluation team is required to determine why a licensee "loses" a particular exercise but not when they "win." This practice which is driven by the Win/Lose criteria is irrational and imprudent. Due to ever-present exercise artificialities that could and do skew exercise bottom line results it is possible that one or more of these factors could adversely affect any given exercise. Therefore a licensee providing less than adequate protection capabilities could "win" exercises while a licensee that routinely provides a high level of protection could just as easily "lose" exercises. Moreover, evaluators may not recognize that the exercise bottom line results have been artificially influenced and are therefore not valid in the given situation. The decisions and/or consequences based on these potential inaccurate results can be counterproductive to the interests of NRC and to the nuclear industry.

It has been my privilege to have worked in the headquarters based Force-on-Force exercise evaluation programs at NRC and at the Department of Energy (DOE). While employed in these positions it has been my responsibility to lead teams that evaluate the protection capabilities at both of these agencies' high-security facilities through the conduct of Force-on-Force exercises. The NRC and DOE evaluation programs' objectives for conducting Force-on-Force exercises are similar in that the exercises are used as tools to assist in determining the ability of the inspected facility to protect specific assets. However, there are significant process differences between the two programs. While the NRC program evaluates to the Win/Lose criteria the DOE Force-on-Force program, which is a much more mature program, has evolved past this concept years ago. The DOE evaluation program recognized that the Win/Lose concept was flawed to the point that the process lacked credibility. It was also acknowledged by DOE that there was a high degree of probability that at times the flawed process was actually counterproductive to the effort of providing effective security to the facilities being inspected. The DOE Force-on-Force program currently employs a performance based criteria that evaluates protection elements that include command and control, tactics, communications, equipment, and planning/response.

It is important to note that if the NRC believes, for whatever reason, that they must evaluate to the Win/Lose criteria the evaluator force needs to be of sufficient size to be able to observe every exercise participant throughout the conduct of the exercise to enable the determination of each participant's impact on the exercise's bottom line. Without this capability it is possible that unobserved participants are effecting the exercise outcome unbeknownst to the evaluators. Without sufficient credible knowledge about these potential unobserved activities the exercise process credibility suffers. However, when using the aforementioned performance based criteria it is not necessary to observe every action by every participant during the entirety of the

exercise. Therefore a lesser number of evaluators are required which is more in line with the number of evaluators that is used in the current process (usually 4 or 5). The performance based criteria assesses the effectiveness of the capabilities associated with the licensee provided protective systems, including the protective force. The effectiveness of the protective force capabilities is determined by evaluating a portion of the force during an exercise to determine whether there are either gross inadequacies and/or acceptable or unacceptable trends in the implementation of the protection systems.

The use of the Win/Lose criteria cannot be rationally justified however in the event the NRC deems it absolutely necessary to use this criteria more evaluators are required to participate during the exercises as noted in the previous paragraph.

It cannot be overstated that the planning and conduct phases of these exercises are rife with artificialities that will always influence, sometimes significantly, the bottom-line results (Win/Lose). Therefore, there is a reasonable probability to believe that exercise conclusions (bottom-line results) derived from criteria based on the Win/Lose concept are not consistently valid and may actually be providing counterproductive information. This is due to the impact, sometimes significant, of the numerous and complex artificialities that are always present in these exercises (refer to *Background* section). It is also important to understand that there is a reasonable probability that evaluators will not always be knowledgeable about the total impact associated with these artificialities. Moreover, at times evaluators and controllers might not even be aware of whether a particular artificiality was used as planned in a given exercise until after the termination of the exercise. One of the factors that can and does effect whether evaluators receive adequate and timely information pertaining to a simulated/assumed activity is the effectiveness of the responsible controller's communication of that information. If the responsible controller fails to provide pertinent information pertaining to the conduct/completion of a simulated/assumed activity then exercise participants, other controllers and the evaluators will be unaware that the activity in question ever occurred. Additionally, if this type of information is provided but the communication of the information is delayed, the results of the delay can be as detrimental to the conduct of the exercise as not providing the information at all. In either of these situations it is possible that the error pertaining to the simulated/assumed activity will not be identified until after the exercise is terminated and even then the error may not be revealed. These types of communication issues can and do have a significant affect on the outcome of exercise results.

These inadvertent or intentional situations that are caused by controllers or protective force members have the possibility of adversely influencing exercise results and these situations will not always be identified by evaluators. This is due in part to the number of evaluators involved in these exercises. There are very few evaluators involved in the assessment of the capabilities/actions of a superior number of protective force members and licensee controllers. Moreover, these greater numbers of licensee personnel that are being evaluated are routinely dispersed widely throughout the plant. Consequently there are a number of controllers and protective force exercise participants that are never seen by evaluators during the conduct of a given exercise. Therefore there is no "first hand" knowledge about the actions and more importantly the potential effect that these unseen exercise participants might have had on the exercise results.

As noted above the number of available evaluators evaluating a particular exercise becomes less important when using the performance based criteria. These evaluators are attempting to assess the effectiveness of protection capabilities and to determine whether there are trends associated with the observed activities therefore not every exercise participant needs to be

observed. Evaluators using the Win/Lose criteria should be attempting to observe all exercise participants that could potentially impact the final results of the exercise. This requires the presence of a larger evaluation team.

A wrap-up of the submitter's view must reiterate the fact that conclusions based on the Win/Lose criteria are indefensible, potentially counterproductive and the use of these criteria could bring into question the credibility of the NRC Force-on-Force exercise evaluation program.

#### Submitter's Proposal

To effectively evaluate the capabilities of a protective force and other protective elements encountered during these exercises it is necessary to evaluate to criteria that assesses the effectiveness of the licensee's protection capabilities. Therefore, it is essential to assess the adequacy of the protective forces' knowledge, skills and abilities as they pertain to protection strategy, command and control, tactics, communications, equipment, etc. along with other pertinent security features that are provided by the licensee regardless of the outcome (Win/Lose) of the exercise.

In addition to being prudent, logical, and defensible this methodology also provides essential information to enable NRC to more clearly develop an accurate assessment of the security posture provided by the licensee. It also assists the licensee to better understand and to adequately address potential deficiencies identified during exercises.

The NRC Force-on-Force evaluation program would benefit greatly by using criteria similar to the established and credible evaluation criteria used by DOE during their Force-on-Force exercise evaluations (refer to *Attachment A*). Each of the performance factors previously noted is essential to the mission of a protective force and related protection elements. The evaluation of these performance factors provide evaluators with basic information pertaining to the effectiveness of the protection capabilities provided by the licensee regardless of who wins or loses the exercise.

Exercise artificialities remain the same regardless of which of the two evaluation criteria are used however, the affects associated with many of these artificialities are quite different depending on the criteria. When using the performance based evaluation criteria the fact that an exercise bottom line result is affected by artificiality does not preclude the effective evaluation of the licensee's protection capabilities. Performance based criteria focuses on the attributes and capabilities that are essential for providing the required protection capabilities at the nuclear power plants. Without this type of meaningful evaluation criteria that assesses the effectiveness of capabilities that are required of the licensee to provide adequate protection for these essential safety systems the conclusions derived from these exercises will always be questionable.

It is also important to note that the utilization of performance based criteria significantly reduces the perceived need on the part of the inspected facility to employ anything other than straightforward actions during exercises. There is no incentive to function in less than an open legitimate manner when using these criteria. The overall protection strategy, including security equipment, barriers, alarm systems, etc. can be effectively evaluated using these criteria and the protective force will demonstrate that they are either effective or ineffective in the various performance elements (i.e., command and control, tactics, communications, etc.) These actions cannot be faked during an exercise. Conversely the use of Win/Lose criteria actually provides motivation for the inspected facility to use underhanded methods in an effort to "win"



the exercise. Moreover there is a reasonable probability that these undesirable methods would not be recognized by the evaluators.

In summary, the Win/Lose concept is generally accepted as meaning that a particular protective force unit can or cannot effectively protect their assets based on the final outcome of an exercise(s) and not on the performance effectiveness associated with command and control, tactics, communications, protection strategy, equipment, etc. It cannot be overemphasized that Force-on-Force exercises consist of numerous and significant simulated/assumed activities that are interpreted, judged, and "controlled" during real-time by controllers possessing various levels of pertinent experience/skills. Moreover, activities that would be anticipated during an actual attack and simulated during these exercises may be significantly altered by safety, operational, and administrative concerns/requirements. Considering all these factors that have the potential to significantly impact the conduct of exercises it is not reasonable to attempt to make a determination of how effective a protective force unit is based on the outcome (Win/Lose) of an exercise or even a number of exercises. However, capabilities associated with command and control, tactics, communications, protection strategy, and equipment can be meaningfully evaluated during these types of exercises regardless of who wins or loses. Admittedly the artificialities and simulations previously noted along with other considerations affect the evaluation process but those affects are significantly decreased when using the performance based criteria. Moreover, these types of exercises utilizing performance based criteria provide essential data pertaining to specific capabilities associated with the protective force and other protective element's capabilities which include definitively identifying good and bad practices.

It is important to end this paper leaving the correct message and that is conclusions based on the Win/Lose criteria may be baseless, potentially counterproductive and the use of these criteria could bring into question the credibility of the NRC Force-on-Force exercise evaluation program. However, if the proposed performance based criteria is used the resulting conclusions would provide NRC with meaningful data pertaining to the effectiveness of the licensees' protection capabilities and a definitive roadmap to licensees identifying adequate and less than adequate protection attributes. Moreover, results derived from these criteria are logical, prudent and defensible.

## OFFICE OF NUCLEAR SECURITY AND INCIDENT RESPONSE

## Force-on-Force Exercise Evaluation Criteria

The purpose of this document is to assist the evaluator in seeking appropriate information during Force-on-Force exercises. After each exercise, the evaluator will participate in a formal debriefing concerning the results of the test with all other evaluators. Evaluators will be assigned to a protective force element (one or two person) or to a physical location. Those assigned to an element will primarily be expected to observe and evaluate the performance of that element – but will also be expected to observe and evaluate interactions with other elements as well as any other pertinent action that the evaluator is in a position to observe. Those assigned to a location will be responsible for assessing activities observable from that location. Note that not all areas of this evaluation packet will be pertinent to all evaluators

**General Evaluator Demeanor**

- Limit conversation and questioning of the exercise participants to times before the exercise window is open and after it is closed (if possible).
- Always maintain a substantial distance between yourself and exercise participant yet still be in position to observe activity (do not be in a position to give away location of exercise participants).
- Be cognizant of adversary positions and stay out of potential fields of fire.
- If an exercise participant complains of malfunctioning equipment, report it to the NRC team leader and DOE MILES contractor, immediately upon termination of the exercise.
- Be aware of improper controller activity such as prompting the exercise participants, giving away positions, following exercise participants too close, volume too loud on radio, etc.

**General Exercise Information**

- What were the assigned duties of the responders that you were evaluating?
- Did the responders that you were evaluating have command and control duties?
- What was the location/position of the responders that you were evaluating when the attack occurred?
- At what time did the responders that you were evaluating become aware of an attack or other adversary activity?
- Were the responders that you were evaluating affected by the initial attack (neutralized, wounded, stunned, vehicle destroyed, etc.)?
- What actions did the responders that you were evaluating take in response to this adversary activity (weapons/ equipment/movement/communication, etc)?
- At what points (locations and times) did the responders that you were evaluating have adversary contact?
- What were the results of these contacts?

- How did the responders that you were evaluating contribute to target denial and/or adversary neutralization?
- How aware were the responders that you were evaluating of the overall adversary and friendly situations?
- What was the situation (location, mission, casualties, ammo, etc) of the responders that you were evaluating at the end of the exercise?

## **TACTICAL SUBJECT AREAS**

### **Command and Control**

- Was there positive demonstration that someone was in charge of the responders?
- Did that person exercise effective tactical control?
- Was there an individual that was designated as second-in-command?
- Did the responders know who was in charge of the overall situation?
- Did the responders receive any orders from the overall commander?
- If so, did the responders effectively carry out those instructions?
- Did the overall commander appear to have control of the situation?

### **For Tactical Command Elements Only**

(Security Shift Supervisor, Shift Captain, Area Lt./Sgt SRT Lt/Sgt)

- Did the tactical commander develop a clear grasp of the adversary situation?
- Did the tactical commander develop and maintain an understanding of the friendly situation?
- Did the tactical commander know where his people were?
- Did the tactical commander know if he had achieved denial or containment?
- Did the tactical commander know the condition of his people (casualties, etc.)?
- Did the tactical commander communicate appropriate information to subordinate elements?

### **Communications**

- What was the primary method of communication within the responders that you were evaluating?
- Did the responders that you were evaluating communicate effectively amongst its members?
- What was the principal means of communication between the responders that you were evaluating and the rest of the Guard force?
- Was communication with the rest of the guard force effective (could communicate at will)?
- Were other means of communication available?

- If so, were they used? How effectively?
- Did the responders that you were evaluating report adversary sightings/actions or other significant information to the tactical commander/CAS/SAS?

#### Planning

- Did the responders that you were evaluating understand what actions (initial and subsequent) they were to take in case of attack?
- Did the responders that you were evaluating conduct any ad hoc planning (after the attack) to react to the situation?
- If so, were the resulting plans focused and appropriate to mission accomplishment?

#### Tactics

- Was tactical movement coordinated and did it employ sound techniques?
- Was available cover and concealment appropriately used?
- Were danger areas recognized and crossed/avoided using appropriate techniques?
- Was noise discipline maintained?
- Was light discipline maintained?
- Were night vision devices (if available) employed in a tactically sound manner, and to advantage?
- Did it appear that the responders that you were evaluating considered speed versus security/safety in movements?
- Was key terrain considered? Occupied?
- Did the responders that you were evaluating act in a decisive, aggressive (but not reckless) manner?
- Did the responders that you were evaluating encounter, coordinate with, or support other responders/individuals?
- Did the responders that you were evaluating neutralize any adversaries?
- Were any of the responders that you were evaluating neutralized by an adversary?
- Did the responders that you were evaluating neutralize any friendlies or non-combatants?
- Were any of the responders that you were evaluating neutralized by a friendly?
- Were the responders that you were evaluating alert to booby traps?
- Did the responders that you were evaluating take any action to protect against booby traps?
- Were any of the responders that you were evaluating neutralized by booby traps?
- Were the responders that you were evaluating alert to ambushes?

- If an ambush was encountered, was the reaction to it tactically sound?
- Were any of the responders that you were evaluating neutralized in an ambush?
- If gas/smoke was encountered, did your element take protective measures?
- If the responders that you were evaluating masked, did they function effectively while masked?

#### Response

- Upon attack, did the responders that you were evaluating automatically react and deploy?
- If so, was deployment in accordance with plans?
- Did the responders that you were evaluating receive subsequent orders?
- If so, did they follow them?
- Did the responders that you were evaluating reach its correct response position(s) in a timely manner?
- Did the responders that you were evaluating assume a tactically sound (advantageous) position?
- Were the responders that you were evaluating positioned to support/be supported by other responders?
- If denial failed, did the responders that you were evaluating assault the adversary held position?
- If so, was assault rapid, coordinated, effective?

#### Discipline

- Were the responders that you were evaluating responsive to supervisors?
- Did the responders that you were evaluating behave in a professional manner during pre-test preparations?
- Did the responders that you were evaluating abide by all exercise test rules of conduct, safety, and engagement?
- Did the responders that you were evaluating maintain a positive attitude and professional demeanor throughout?

### Application of Force

- Did the responders that you were evaluating use the minimum necessary level of force?
- Did the actions of the responders that you were evaluating expose friendlies or non-combatants to danger?
- Did conditions justifying deadly force exist before deadly force was used?
- Did the responders that you were evaluating fire at and/or neutralize any friendly personnel?

### Equipment

- Did the responders that you were evaluating have adequate personal and team equipment?
- If in a vehicle, did the responders that you were evaluating take necessary equipment when they dismounted?
- Were the responders that you were evaluating skilled in the use of their equipment? (including protective masks and vests)

### Conduct of Controllers

- Were controllers knowledgeable of their responsibilities?
- Were controllers competent and fair?
- Did controllers ensure that all safety equipment was properly used during the entirety of the exercise by all exercise participants?
- Did controllers limit communications with exercise participants to safety related issues and planned exercise inject information during the "Open Window?"
- Did controllers understand the real world affects associated with the weapons/munitions being simulated and did they adequately control activities related to these affects?
- Did controllers maintain radio/noise discipline?
  - By not providing inadvertent aid to players via inappropriately "loud" controller radio net or;
  - By not divulging player location due to any other inappropriate noise.
- Did controllers allow sufficient distance and/or means of concealment between themselves and exercise participants so that the position of participants would not be compromised?
- Did controllers follow protocols pertaining to the means of controlling planned simulated activities that were briefed prior to the conduct of the exercise?
- Did controllers appropriately don pre-designated identifiers to distinguish themselves as a controller?