

Emergency Preparedness Program Frequently Asked Question (EPFAQ)

EPFAQ Number: 2016-001

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Originator: David Young

Organization: NUCLEAR ENERGY INSTITUTE

Relevant Guidance: NUMARC/NESP-007 (ML041120174)

NEI 99-01, Revision 4, (ML030230250)

NEI 99-01, Revision 5, (ML080450149)

NEI 99-01, Revision 6, (ML12326A805)

NEI 07-01, Revision 0, (ML092030210)

Applicable Section(s): Definitions of HOSTILE ACTION and/or PROJECTILE NEI 99-01, Revisions 5 and 6

Definitions of HOSTILE ACTION and/or PROJECTILE in NEI 07-01, Revision 0

Technical basis discussions for NUMARC/NESP-007 and NEI 99-01, Revision 4

Status: Available for Public Comment

QUESTION OR COMMENT:

Initiating Condition (IC) HS4 addresses a “HOSTILE ACTION within the PROTECTED AREA.” The associated example emergency action level (EAL) is aligned with the IC wording and states, “A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site security shift supervision).” How should this IC and EAL be interpreted during an attack where projectiles fired from outside the PROTECTED AREA boundary have impacted structures or personnel within the PROTECTED AREA, but the attackers have not breached the PROTECTED AREA boundary?

PROPOSED SOLUTION:

If an attack occurs during which projectiles fired from outside the PROTECTED AREA boundary impact structures or personnel within the PROTECTED AREA, and the attackers have not breached the PROTECTED AREA boundary, then IC HS4 should be considered met and a Site Area Emergency should be declared. The basis for this answer is provided below.

A HOSTILE ACTION is defined as:

An act toward a nuclear power plant (NPP) or its personnel that includes the use of violent force to destroy equipment, take HOSTAGES, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, PROJECTILES, vehicles, or other devices used to deliver destructive force. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the owner controlled area).

Considering this definition in light of the event described by the question above, it can be determined that “PROJECTILES” are a “violent force” directed “toward a NPP or its personnel,”

therefore, if the “PROJECTILES” have impacted anywhere within the PROTECTED AREA, then there has been a HOSTILE ACTION within the PROTECTED AREA and a Site Area Emergency declaration is required based on IC HS4.

The first paragraph of the basis for IC HS4 states:

This condition represents an escalated threat to plant safety above that contained in the Alert in that a HOSTILE FORCE has progressed from the OWNER CONTROLLED AREA to the PROTECTED AREA.

This sentence was intended to help the reader understand the logic for escalating the emergency classification vis-à-vis IC HA4, “HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat.” For the condition described, it is an accurate statement (i.e., the HOSTILE FORCE first enters the OWNER CONTROLLED AREA and then the PROTECTED AREA); however, it was not intended to override the HS4 IC and EAL in the case where the HOSTILE FORCE has not breached the PROTECTED AREA boundary, but a HOSTILE ACTION has occurred within the PROTECTED AREA boundary. In such a case, the Site Area Emergency must be declared.

To avoid potential confusion on the part of emergency classification decision-makers, it is recommended that the first paragraph of the HS4 Basis be changed to read,

This condition represents an escalated threat to plant safety above that contained in the Alert in that a HOSTILE FORCE has progressed from the OWNER CONTROLLED AREA to the PROTECTED AREA, or any HOSTILE ACTION has taken place within the PROTECTED AREA (e.g., a PROJECTILE fired by a HOSTILE FORCE has impacted within the PROTECTED AREA). [New text underlined for clarity]

The HS4 Basis paragraph cited above first appeared in NRC Bulletin 2005-02, *Emergency Preparedness and Response Actions for Security-Based Events*, dated July 18, 2005. The suggested change to this paragraph, also shown above, is fully consistent with the information presented in the bulletin (i.e., the change does not alter the intent of the bulletin guidance), and serves to clarify the basis to help better inform the application of the IC and EAL by end users.

The information provided in NRC Bulletin 2005-02 prompted licensees to assess potential changes to their emergency classification schemes and to make changes where necessary to align their schemes with the bulletin guidance. For this reason, the basis paragraph shown above may appear in licensee emergency classification schemes based on NUMARC/NESP-007, *Methodology for Development of Emergency Action Levels*, Revision 2 (dated January 1992) as well as NEI 99-01, Revision 4 (dated January 2003). Licensees using an emergency classification scheme based on NUMARC/NESP-007 or NEI 99-01, Revision 4, and that has this paragraph in the basis section for IC HS4, should also consider making the suggested change.

NRC RESPONSE:

The above proposed solution has the potential for a Site Area Emergency (SAE) to be declared when a projectile fired over the Protected Area (PA) fence enters the PA but does not affect the licensee’s ability to safely operate, shut down, or cool down the facility. EALs are expected to be consistent with the applicable emergency classification level (ECL) definitions. Therefore, the NRC staff proposes a modification of the above proposed solution as discussed below.

All of the endorsed ICs/EALs align with the intent of the definitions for the ECLs, i.e., (Notification of) Unusual Event, Alert, SAE, or General Emergency. A literal interpretation of

EALs HA1 and HS1, without consideration of the language contained in the ECL definitions, seems to be the primary concern with this EPFAQ. The primary emphasis for a this EAL set is the risk to site personnel, and/or the risk to site equipment, as a result of a Hostile Action. The escalation from HA1 to HS1 is appropriate as stated in NEI 99-01, Revision 6, (ADAMS Accession No. ML12326A805); however, to clarify the intent of this EAL set, and to ensure that EAL decision-makers understand the distinction between the two EALs, incorporating language from the ECL definition into the actual EALs is a reasonable approach to ensure clarity.

Using the language of the applicable ECL within the actual EAL (as an AND logic, i.e., both conditions must be met to declare the EAL) serves to reinforce the idea that licensees consider the public safety impact (primarily the ability to safely shut down/cool down). While security events are taken seriously at a site, the need to implement the Radiological Emergency Response Plan is based upon EAL declarations, which are based upon events or situations whereby the public is at risk from a radiological event, or as a precursor to such an event. Shots fired from the owner controlled area (OCA), over the fence into the PA, that do not result in damage to, or compromise effective access to, systems needed for the protection of the public (safe shutdown or cooldown systems) should not be considered a SAE. While this is a judgement call between the licensee's security force and the EAL decision-maker, it ensures that this judgement includes consideration of public radiological risk, or the possibility thereof, prior to declaring a SAE. This does not preclude any responsibilities a licensee may have regarding reportability, or to request support of local law enforcement.

Attached are proposed clarifications to EALs HA1 and HS1. Note that EAL HU1, as endorsed in NEI 99-01, Revision 6, does not need modification. Also note that EAL HG1 was suggested to be deleted as discussed in EPFAQ 2015-013. All EAL schemes currently endorsed may consider the NEI 99-01, Revision 6, Security EALs, as modified in approved EPFAQs, for implementation in accordance with 10 CFR 50.54(q) (for individual EAL changes), or Appendix E to 10 CFR 50 (for EAL scheme changes).

Note that since the proposed EALs serve to re-emphasize the intent of the EALs, this is considered a "difference" in accordance with Regulatory Issue Summary (RIS) 2003-18, Supplement 2, *"Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels, Revision 4,"* dated January 2003.

RECOMMENDED FUTURE ACTION(S):

- ☐ INFORMATION ONLY, MAINTAIN EPFAQ
- ☒ UPDATE GUIDANCE DURING NEXT REVISION

Hostile Force that is the issue of concern, per se, it is the risk to site personnel, and/or the risk to site equipment, as a result of the Hostile Action that is the primary emphasis for this EAL set. The escalation from HA1 to HS1 is appropriate as stated in NEI 99-01, Revision 6, (ADAMS Accession No. ML12326A805); however, to clarify the intent of this EAL set, and to ensure that EAL decision-makers understand the distinction between the two EALs, incorporating language from the ECL definition into the actual EALs is a reasonable approach to ensure clarity.

Using the language of the applicable ECL within the actual EAL (as an AND logic, i.e., both conditions must be met to declare the EAL) serves to reinforce the idea that licensees consider the public safety impact (primarily the ability to safely shutdown/cooldown). While security events are taken seriously at a site, the need to implement the Radiological Emergency Response Plan is based upon EAL declarations, which are based upon events or situations whereby the public is at risk from a radiological event, or as a precursor to such an event. Shots fired from the owner controlled area (OCA), over the fence into the PA, that do not result in damage to, or compromise effective access to, systems needed for the protection of the public (safe shutdown or cooldown systems) should not be considered a SAE. While this is a judgement call between the licensee's security force and the EAL decision-maker, it ensures that this judgement includes consideration of public radiological risk, or the possibility thereof, prior to declaring a SAE. This does not preclude any responsibilities a licensee may have regarding reportability, or to request support of local law enforcement.

Attached is a markup of EALs HA1 and HS1. Note that EAL HU1, as endorsed in NEI 99-01, Revision 6, does not need modification. Also note that EAL HG1 was suggested to be deleted as discussed in EPFAQ 2015-013. All EAL schemes currently endorsed may consider the NEI 99-01, Revision 6, Security EALs, as modified in approved EPFAQs, for implementation in accordance with 10 CFR 50.54(q) (for individual EAL changes), or Appendix E to 10 CFR 50 (for EAL scheme changes).

Note that since the proposed EALs serve to re-emphasize the intent of the EALs, this is considered a "difference" in accordance with Regulatory Issue Summary (RIS) 2003-18, Supplement 2, *"Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels, Revision 4,"* dated January 2003.

RECOMMENDED FUTURE ACTION(S):

- ☐ INFORMATION ONLY, MAINTAIN EPFAQ
- ☒ UPDATE GUIDANCE DURING NEXT REVISION

ADAMS Accession No. ML16354B598

NSIR/DPR	NSIR/DPR	NSIR/DPR	OGC	NSIR/DPR	NSIR/DPR
D. Johnson	M. Norris	J. Anderson		R. Kahler	S. Coffin
2/2/17	12/29/16	1/4/17	2/7/17	2/7/17	2/9/17

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HA1

Initiating Condition: HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes.

Operating Mode Applicability: All

Example Emergency Action Levels: (1 or 2)

- (1) A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the (site-specific security shift supervision),

AND

The HOSTILE ACTION involves probable life threatening risk to site personnel or probable damage to site equipment.

- (2) A validated notification from NRC of an aircraft attack threat within 30 minutes of the site.

Basis:

This IC addresses the occurrence of a HOSTILE ACTION within the OWNER CONTROLLED AREA (OCA) or notification of an aircraft attack threat. This event will require rapid response and assistance due to the possibility of the attack progressing to the PROTECTED AREA, or the need to prepare the plant and staff for a potential aircraft impact. However, in order to be considered an ALERT as defined in Appendix B, "Definitions," the HOSTILE ACTION needs to involve probable life threatening risk to site personnel or probable damage to site equipment.

Timely and accurate communications between Security Shift Supervision and the Control Room is essential for proper classification of a security-related event.

Security plans and terminology are based on the guidance provided by NEI 03-12, *Template for the Security Plan, Training and Qualification Plan, Safeguards Contingency Plan [and Independent Spent Fuel Storage Installation Security Program]*.

As time and conditions allow, these events require a heightened state of readiness by the plant staff and implementation of onsite protective measures (e.g., evacuation, dispersal or sheltering). The Alert declaration will also heighten the awareness of Offsite Response Organizations, allowing them to be better prepared should it be necessary to consider further actions.

This IC does not apply to incidents that are accidental events, acts of civil disobedience, or otherwise are not a HOSTILE ACTION perpetrated by a HOSTILE FORCE. Examples include the crash of a small aircraft, shots from hunters, physical disputes between employees, etc. Reporting of these types of events is adequately addressed by other EALs, or the requirements of 10 CFR § 73.71 or 10 CFR § 50.72.

EAL #1 is applicable for any HOSTILE ACTION occurring, or that has occurred, in the OWNER CONTROLLED AREA. This includes any action directed against an ISFSI that is located outside the plant PROTECTED AREA.

EAL #2 addresses the threat from the impact of an aircraft on the plant, and the anticipated arrival time is within 30 minutes. The intent of this EAL is to ensure that threat-related notifications are made in a timely manner so that plant personnel and OROs are in a heightened state of readiness. This EAL is met when the threat-related information has been validated in accordance with (site-specific procedure).

The NRC Headquarters Operations Officer (HOO) will communicate to the licensee if the threat involves an aircraft. The status and size of the plane may be provided by NORAD through the NRC.

In some cases, it may not be readily apparent if an aircraft impact within the OWNER CONTROLLED AREA was intentional (i.e., a HOSTILE ACTION). It is expected, although not certain, that notification by an appropriate Federal agency to the site would clarify this point. In this case, the appropriate federal agency is intended to be NORAD, FBI, FAA or NRC. The emergency declaration, including one based on other ICs/EALs, should not be unduly delayed while awaiting notification by a Federal agency.

Emergency plans and implementing procedures are public documents; therefore, EALs should not incorporate Security-sensitive information. This includes information that may be advantageous to a potential adversary, such as the particulars concerning a specific threat or threat location. Security-sensitive information should be contained in non-public documents such as the Security Plan.

Escalation of the emergency classification level would be via IC HS1.

Developer Notes:

The (site-specific security shift supervision) is the title of the on-shift individual responsible for supervision of the on-shift security force.

Emergency plans and implementing procedures are public documents; therefore, EALs should not incorporate Security-sensitive information. This includes information that may be advantageous to a potential adversary, such as the particulars concerning a specific threat or threat location. Security-sensitive information should be contained in non-public documents such as the Security Plan.

With due consideration given to the above developer note, EALs may contain alpha or numbered references to selected events described in the Security Plan and associated implementing procedures. Such references should not contain a recognizable description of the event. For example, an EAL may be worded as "Security event #2, #5 or #9 is reported by the (site-specific security shift supervision)."

See the related Developer Note in Appendix B, Definitions, for guidance on the development of a scheme definition for the OWNER CONTROLLED AREA.

ECL Assignment Attributes: 3.1.2.D

HS1

Initiating Condition: HOSTILE ACTION within the PROTECTED AREA.

Operating Mode Applicability: All

Example Emergency Action Levels:

- (1) A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site-specific security shift supervision)

AND

Effective access to systems needed for safe shutdown or cooldown is compromised, or these systems are damaged as a result of the HOSTILE ACTION.

Basis:

This IC addresses the occurrence of a HOSTILE ACTION within the PROTECTED AREA. This event will require rapid response and assistance due to the possibility for damage to plant equipment. However, in order to be considered a SITE AREA EMERGENCY as defined in Appendix B, "Definitions," the HOSTILE ACTION needs to damage, or compromise effective access to, systems needed for the protection of the public (safe shutdown or cooldown systems).

Timely and accurate communications between Security Shift Supervision and the Control Room is essential for proper classification of a security-related event.

Security plans and terminology are based on the guidance provided by NEI 03-12, *Template for the Security Plan, Training and Qualification Plan, Safeguards Contingency Plan [and Independent Spent Fuel Storage Installation Security Program]*.

As time and conditions allow, these events require a heightened state of readiness by the plant staff and implementation of onsite protective measures (e.g., evacuation, dispersal or sheltering). The Site Area Emergency declaration will mobilize ORO resources and have them available to develop and implement public protective actions in the unlikely event that the attack is successful in impairing multiple safety functions.

This IC does not apply to a HOSTILE ACTION directed at an ISFSI PROTECTED AREA located outside the plant PROTECTED AREA; such an attack should be assessed using IC HA1. It also does not apply to incidents that are accidental events, acts of civil disobedience, or otherwise are not a HOSTILE ACTION perpetrated by a HOSTILE FORCE. Examples include the crash of a small aircraft, shots from hunters, physical disputes between employees, etc. Reporting of these types of events is adequately addressed by other EALs, or the requirements of 10 CFR § 73.71 or 10 CFR § 50.72.

Emergency plans and implementing procedures are public documents; therefore, EALs should not incorporate Security-sensitive information. This includes information that may be advantageous to a potential adversary, such as the particulars concerning a specific threat or threat location. Security-sensitive information should be contained in non-public documents such as the Security Plan.

Escalation of the emergency classification level would be via IC HG1.

Developer Notes:

The (site-specific security shift supervision) is the title of the on-shift individual responsible for supervision of the on-shift security force.

Emergency plans and implementing procedures are public documents; therefore, EALs should not incorporate Security-sensitive information. This includes information that may be advantageous to a potential adversary, such as the particulars concerning a specific threat or threat location. Security-sensitive information should be contained in non-public documents such as the Security Plan.

With due consideration given to the above developer note, EALs may contain alpha or numbered references to selected events described in the Security Plan and associated implementing procedures. Such references should not contain a recognizable description of the event. For example, an EAL may be worded as "Security event #2, #5 or #9 is reported by the (site-specific security shift supervision)."

See the related Developer Note in Appendix B, Definitions, for guidance on the development of a scheme definition for the PROTECTED AREA.

ECL Assignment Attributes: 3.1.3.D