NUCLEAR ENERGY INSTITUTE

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Mr. Eric W. Weiss
Chief, Licensing and Inspection Branch
Division of Preparedness and Response
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: *"Methodology for Development of Emergency Action Levels"*, NEI 99-01, Revision 5, February 2007 - Additional Information

Project Number: 689

Dear Mr. Weiss:

NEI submitted *"Methodology for Development of Emergency Action Levels"*, NEI 99-01, Revision 5, February 2007 for review and endorsement in Regulatory Guide 1.101, *"Emergency Planning and Preparedness for Nuclear Power Reactors"*, on February 28th.

The NEI Emergency Action Level Issue Task Force believes additional information (Enclosures 1 and 2) pertaining to the ATWS and Security Emergency Action Level changes would assist the NRC in their review.

The Task Force would like to present and discuss our position during the May 11 NRC public meeting.

The industry appreciates the priority and progress that the staff has made in their review of NEI 99-01, Rev. 5 to date supporting our request for a September 2007 endorsement.

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If you have any questions, please contact me at (202) 739-8110; apn@nei.org or Martin Hug at (202) 739-8129; mth@nei.org.

Sincerely,

Alan P. Nelson

Enclosures

c: Mr. Nader L. Mamish, NRC
NRC Document Control Desk

Justification For ATWS Changes

	UE	**Alert**	**SAE**	**General Emergency**
Rev 4	No UE for ATWS in Revision 4	IC Failure of the Reactor Protection System Instrumentation to complete or initiate an automatic reactor scram once a reactor protection system setpoint has been exceeded and manual scram was successful. EAL Indication(s) exist that indicate that reactor protection system setpoint was exceeded and automatic scram did not occur, and successful manual scram occurred.	IC Failure of the Reactor Protection System Instrumentation to complete or initiate an automatic reactor scram once a reactor protection system setpoint has been exceeded and manual scram was not successful. EAL Indication(s) exist that indicate that automatic and manual scram were not successful.	IC Failure of the Reactor Protection System Instrumentation to complete or initiate an automatic reactor scram and manual scram was not successful and there is indication of an extreme challenge to the ability to cool the core. EAL Indication(s) exist that indicate that automatic and manual scram were not successful. And Either of the following: (a or b)

				a. Indication(s) exists that the core cooling is extremely challenged. b. Indication(s) exists that heat removal is extremely challenged.
Rev 5	IC Failure of the Reactor Protection System, Automatic OR Manual, and Subcriticality Was Achieved EAL 1. An Automatic Reactor Protection System setpoint was exceeded and an automatic actuation was not successful and a successful {site specific} manual actuation resulted in the reactor being subcritical below {site specific POINT OF ADDING HEAT}. 2. All manual {site specific trip pushbuttons/scram switches} were actuated	IC Failure of Reactor Protection System, Automatic AND Manual, to establish reactor subcritical EAL 1. An Automatic Reactor Protection System setpoint was exceeded OR a Manual reactor trip/scram was initiated. AND 2. Following the trip/scram actuation, the reactor is critical with reactor power greater than {site specific POINT OF ADDING HEAT}.	IC Failure Of Reactor Protection System, Automatic AND Manual, To Reduce Power Below Safety System Design Limit. EAL An Automatic Reactor Protection System setpoint was exceeded OR a Manual reactor trip/scram was initiated. AND Following the trip/scram initiation, reactor power is NOT below the {site specific Safety System Design Limit}.	IC Failure of the Reactor Protection System, Automatic AND Manual and Indication of an Extreme Challenge to the Ability to Cool the Core. EAL An Automatic Reactor Protection System setpoint was exceeded OR a Manual reactor trip/scram was initiated. AND Following the trip/scram initiation, reactor power is NOT below the {site specific Safety System Design Limit}.

	and a actuation was not successful and either an Automatic actuation OR other {site specific manual means} from the Control Room control panels subsequently resulted in the reactor being subcritical below {site specific POINT OF ADDING HEAT}.			AND Either of the following exist or have occurred due to continued power generation: a. Indication(s) exists that {site specific} core cooling is extremely challenged. OR b. Indication(s) exists that {site specific} heat removal is extremely challenged.
Justification[1]	The NOUE condition represents a potential degradation of the level of the safety of the plant in that there is a performance anomaly with the Reactor	The Alert condition represents a potential substantial degradation of the level of the safety of the plant in that there is a significant performance	The Site Area Emergency condition represents a major failure of a plant function needed for protection of the public in that there is a failure of the	Clarifying information was added as to what indications constitute "an extreme challenge," is provided as an improvement to the EAL.

[1] With the ATWS EALs logically aligned with reactor power production and related potential to fuel damage, the EAL TF recognized the importance of addressing failures of the Reactor Protection system to trip/scram the reactor from an equipment failure perspective. Under NEI 99-01 Revision 4, this condition was addressed by the Alert (SA2), but it did not align well with the risk associated with the Alert ECL, it did not align well with the potential for fuel damage from heat generation, and it did not align well with escalation to the Site Area Emergency (SS2) and General Emergency (SG2) EAL. Therefore, the EAL TF determined that it was appropriate to create a new EAL in the NOUE ECL to address this condition. By creating the new NOUE for the ATWS condition at the very low power level (below the POAH) a declaration would be required and the Emergency Plan actions initiated commensurate with the conditions of the reactor (i.e., little to no threat to fuel due to power production, yet the Reactor Protection System did not function as required/designed).

	Protection System but the anomaly did not prevent a prompt shutdown of the reactor (i.e., power level is below the point of adding heat). While the initial demand signal for a reactor trip was unsuccessful, the reactor was promptly and successfully tripped by a subsequent demand signal. The reactor trip was accomplished without assistance by personnel outside of the Control Room. Impact on other systems or components (e.g. fuel) due to the ATWS that would warrant escalation to an Alert or above would be addressed by other Fission Product Barrier EALs. Absent indications exceeding another EAL, the plant is in a safe condition and presents no threat to public health and safety.	anomaly with the Reactor Protection System, and the anomaly has prevented a complete shutdown of the reactor. In this case, reactor power level is above the point of adding heat but below the design limits of the Emergency Core Cooling System (ECCS). Additional actions by Control Room personnel, or assistance by personnel outside of the Control Room, will be required to completely shutdown the reactor (i.e., power level is below the point of adding heat). Although there is no immediate threat to public health and safety, the activation of additional technical and operational resources is warranted.	Reactor Protection System to shutdown the reactor. In this case, reactor power level is above the design limits of the Emergency Core Cooling System (ECCS). Additional immediate actions by Control Room personnel, or assistance by personnel outside of the Control Room, will be required to completely shutdown the reactor (i.e., power level is below the point of adding heat). This condition, if not quickly corrected, could present a threat to public health and safety. Activation of additional technical and operational resources, and mobilization of offsite response agency personnel, is warranted.	Otherwise the EAL intent remains the same.

ENCLOSURE 2

Justification For Security Changes

	UE	**Alert**	**SAE**	**General Emergency**
Security Bulletin	HU4 Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant.	HA 4 Confirmed Security Event in a plant Protected Area HA 8 Notification of a HOSTILE ACTION[2] within the OCA	HS1 Confirmed Security Event in a Plant Vital Area HS 4 Site Attack	HG 1 Security Event Resulting in Loss of Physical control of the facility.
Rev 5	HU4 Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant.	HA4 Deleted HA8 Notification of HOSTILE ACTION within the OCA	HS1 Deleted HS4 Site Attack (Notification of HOSTILE ACTION within the Protected Area)	HG1 HOSTILE Action Resulting in Loss of Physical Control of the Facility
Justification	No change	HA4 may be deleted because any security event	HS1 may be deleted because any security event	No change to the intent of this IC.

[2] HOSTILE ACTION: An act toward a Nuclear Power Plant or its personnel that includes the use of violent force to destroy equipment, take HOSTAGES, and/or intimidates 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 Nuclear Power Plant. Non-terrorism-based EALs should be used to address such activities, (i.e., violent acts between individuals in the OWNER CONTROLLED AREA)

		determined from a plant's Safeguards Contingency Plan that does not involve a Hostile Action should be appropriately classified as an NOUE via HU4. Security events determined from a plant's Safeguards Contingency Plan that do involve a Hostile Action in the OCA would be correctly classified by HA8.	determined from a plant's Safeguards Contingency Plan that does not involve a Hostile Action should be appropriately classified as an NOUE via HU4. Security events determined from a plant's Safeguards Contingency Plan that does involve a Hostile Action in the Protected Area would be correctly classified by HS4.	