



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

May 11, 1987

TO ALL POWER REACTOR LICENSEES

Gentlemen:

Subject: IMPLEMENTATION OF 10 CFR 73.55 MISCELLANEOUS AMENDMENTS AND  
SEARCH REQUIREMENTS (GENERIC LETTER 87-08)

A number of questions have been received from power reactor licensees concerning implementation of the 10 CFR 73.55 Miscellaneous Amendments and Search Requirements published on August 4, 1986 (51 FR 27817 and 51 FR 27822).

Because these questions are generic in nature, it is believed that the answers to these questions may be informative to all concerned. Accordingly, enclosed are the generic questions received on these two new rules along with the answers. Any additional questions should be directed to your project manager.

Sincerely,

Frank J. Miraglia, Jr.  
Associate Director for Projects  
Office of Nuclear Reactor Regulation

Enclosure: Computer Printout: See jacket  
Generic Questions  
and Answers

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## QUESTIONS AND ANSWERS

### Question 1.

How should the "Miscellaneous Amendments Concerning Physical Protection of Nuclear Power Plants" and amendments concerning "Searches of Individuals at Power Reactor Facilities" be submitted?

### Answer.

Plan amendments should be submitted to NRC Headquarters (Director, Office of Nuclear Reactor Regulation, ATTN: Document Control Desk) as amendments in response to the new rules. They should not be submitted under the provisions of §50.54(p) or §50.90. Six copies of the plan amendments should be submitted.

Reference: §73.55 - Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage, as printed in the Federal Register on August 4, 1986 (51 FR 27817 and 51 FR 27822).

### Question 2.

What is meant by the statement that, "Certain access controls may be suspended during emergency or abnormal plant conditions,..."?

### Answer.

10 CFR 50.54(x) states that a licensee may take reasonable action that departs from a license condition or a technical specification in an emergency when this action is immediately needed to protect the public health and safety, and no action consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent. This same authority also applies to physical security and safeguards contingency plans and plant procedures relating to security matters.

Reference: Regulatory Guide 5.65, Section 3 - Control of Access to Vital Areas Under Routine Conditions, Subsection 3.1 - Access List.

### Question 3.

May access controls for a vital area be suspended when a life threatening emergency has occurred to an on-site person?

### Answer.

10 CFR 73.55(d)(4) permits emergency vehicles to enter the protected area without the normal search functions being performed. There are no provisions in the regulations for suspending any vital area safeguards requirements. However, the emergency team would be escorted by site security personnel to the location of the emergency and accordingly it would not be necessary to suspend any requirements.

Reference: 10 CFR 73.55(d)(4).

Question 4.

What individuals are included in the term "operating personnel" as used in Section 4.1 of Regulatory Guide 5.65?

Answer.

The term "operating personnel" means any individual (licensed operator) who is authorized to manipulate any reactor controls in order to mitigate or attempt to mitigate an emergency or abnormal condition. The term also includes any other individual who is needed to aid in the mitigation of an emergency or abnormal condition (e.g., emergency response team, security personnel, etc.).

Reference: Regulatory Guide 5.65, Section 4 - Emergency Access to Vital Areas, Subsection 4.1 - Access Keys.

Question 5.

What individuals are included in the term "necessary personnel" as used in Section 4.3 of Regulatory Guide 5.65.

Answer.

The term "necessary personnel" means the same as the term "operating personnel" discussed in Item 4 above.

Reference: Regulatory Guide 5.65, Section 4 - Emergency Access to Vital Areas, Subsection 4.3 - Loss of Electric Power.

Question 6.

When should vital area hard keys which override vital area access systems be issued to personnel?

Answer.

Vital area hard keys should be issued at the beginning of each shift and properly accounted for at the end of each shift or as currently specified in a licensee's approved security plan. The use of any such keys to enter vital areas, however, must cause a vital area alarm to be generated and a response must occur when the door is opened.

Reference: Regulatory Guide 5.65, Section 4 - Emergency Access to Vital Areas, Subsection 4.1 - Access Keys.

Question 7.

Is a key card considered to be "a related access control device" subject to the requirement to be changed or rotated at least once every twelve months?

Answer.

No. However, whenever there is evidence or suspicion of compromise, or whenever an individual is terminated for cause, the individual's access authorization should be immediately removed from the key card system.

Reference: §73.55(d)(9) - Access Controls.

Question 8.

Must licensees rotate or change keys, locks, etc., if an individual's unescorted access authorization is temporarily suspended as opposed to "revoked"?

Answer.

If an individual's unescorted access authorization is temporarily suspended pending a review, at the licensee's discretion, locking devices do not have to be rotated or changed as long as access control devices possessed by the individual are returned to management and the individual is escorted while on-site. If the individual's unescorted access authorization is permanently revoked for cause at the end of the review, locking devices must be changed or rotated.

Reference: §73.55(d)(9) - Access Requirements.

Question 9.

May all vital area doors fail open during an emergency or power outage?

Answer.

Yes. From a safety standpoint it is preferable that doors fail open during emergencies or power outages although the regulation is silent on this matter. However, regardless of whether doors fail open or closed, in an emergency involving plant safety, i.e., threats to public/worker health and safety, vital area access controls may be suspended without compensatory measures in accordance with 10 CFR 50.54(x).

The issue of whether vital area doors should fail open or closed was studied by the Committee to Review Safeguards Requirements at Power Reactors in 1983. The Committee's findings (documented in NUREG-0992, "Report of the Committee to Review Safeguards Requirements at Power Reactors,") emphasized the importance of licensees considering a balanced safety/safeguards approach in the design of access control systems. This consideration helps assure adequate safeguards response while maintaining adequate safety precautions.

Question 9. (Continued)

It has been NRC's policy that when vital area doors are configured to "fail open" during a power outage and the situation does not involve public/worker health and safety, the condition must be addressed in the site security/contingency plan.

However, recognizing the potential problem of security force availability coupled with the need for heightened security force awareness in such situations, the staff is at present considering other options which may be acceptable compensation for this condition. In the interim, a licensee wishing to implement alternative compensatory measures should receive approval of the measures by appropriate NRC staff prior to implementation.

In those instances where vital area doors are configured to "fail shut," the doors should be provided with mechanisms for emergency egress and procedures should be implemented to assure prompt access by operational personnel.

Reference: Regulatory Guide 5.65, Section 4 - Emergency Access to Vital Areas, Subsection 4.3 - Loss of Electric Power.

Question 10.

Can logging of individuals granted access to vital areas be suspended during emergencies and power outages due to loss of offsite power?

Answer.

Yes.

Reference: §73.70(d).

Question 11.

Do the revised search requirements mean that every time a member of the security force leaves the protected area (PA) to perform official duties that he or she must be equipment searched for weapons, explosives, and incendiary devices prior to re-entry to the PA?

Answer.

Members of the security force must be equipment searched on their initial entry to the PA at the beginning of their work shift. If these individuals leave the PA to perform official duties subsequent to this initial search, they need not be searched prior to re-entry into the PA if they have been under the direct observation or accompaniment of a member of the security organization while outside the PA. Security force individuals who do not meet this criterion must be equipment searched prior to their re-entry to the PA.

Reference: Past licensing policy.

Question 12.

If walk-through detection equipment alarms upon the search of an individual, must the individual be immediately "pat-down" searched or may the individual be more stringently searched by hand-held detection equipment to determine whether "pat-down" is necessary?

Answer.

If an alarm is received when an individual passes through a walk-through detector it is acceptable to conduct a search using hand-held equipment to assist in determining if a "pat-down" search is needed.

Reference: §73.55(d)(1) - Access Requirements.

Question 13.

What does a security plan commitment to detect explosives at the entry point to the protected area mean?

Answer.

Such a commitment means that a licensee has procured and is maintaining explosives detection equipment as set forth in Review Guideline Number 20, Revision 1, dated April 18, 1978, attached.

Reference: §73.55(d)(1) - Access Requirements and Review Guidelines Number 20, Rev. 1, dated April 18, 1978.

Question 14.

Is the central alarm station (CAS) required to be protected as vital?

Answer.

The requirement to consider the central alarm station (CAS) a vital area was inadvertently deleted under the Miscellaneous Amendments. A final rule correction was published in the Federal Register on April 16, 1987 (52 FR 12364) to again require the CAS to be considered vital.

Reference: §73.55(e)(1) - Detection Aids.

Question 15.

Does an on site secondary power supply system for a privately owned telephone system have to be located within a vital area?

Answer.

No.

Reference: §73.55(e)(1) - Detection Aids and §73.55(f) - Communications.

Question 16.

Does the requirement to locate "on-site secondary power supply systems for alarm annunciator equipment and non-portable communications equipment" within vital areas mean that: (a) the alarm annunciator equipment and the on site secondary power supply system for non-portable communications equipment must be located within a vital area or (b) the on site secondary power supply systems associated with alarm annunciator equipment and non-portable communications equipment must be located within a vital area?

Answer.

This requirement means that the on-site secondary power supply systems for both the alarm annunciator and the non-portable communications equipment must be located within a vital area.

Reference: §73.55(e)(1) - Detection Aids.

Question 17.

Does the secondary alarm stations (SAS) secondary power supply systems for alarm annunciator equipment and non-portable communications equipment have to be protected as vital equipment?

Answer.

No.

Question 18.

What components of the secondary power supply systems for the alarm annunciator and non-portable communications equipment have to be protected as vital equipment?

Answer.

The objective of secondary power supply systems (SPSS) is to provide auxiliary power during power interruptions or outages. The duration of such interruptions or outages should be determined on a site-specific basis under station blackout criteria. It is necessary to protect all components of a SPSS needed to provide this site-specific period of stand-by power. Such components may include, but are not necessarily limited to, the following:

- a. Batteries
- b. Battery chargers
- c. Inverters
- d. AC alternators
- e. DC generators
- f. Emergency buses
- g. Control panels

Question 18. (Continued)

- h. Switch gear
- i. Main fuel tanks or day tanks and associated plumbing/piping

Reference: §73.55(e)(1) - Detection Aids and Regulatory Guide 5.65, Section 7  
(Protection of Security Equipment).

Question 19.

Can the secondary power supply systems for alarm annunciator equipment and non-portable communications equipment consist of "interruptible power systems (IPS)" or do they have to be "uninterruptible power systems (UPS)"?

Answer.

The secondary power supply systems may consist of either an IPS or UPS. However, an UPS is preferable.

Reference: §73.55(e)(1) - Detection Aids and Regulatory Guide 5.65, Section 7 - Protection of Security Equipment.

Attachment:  
Review Guideline No. 20, Revision 1

LIST OF RECENTLY ISSUED GENERIC LETTERS

Generic Letter No.	Subject	Date of Issuance	Issued To
GL 87-07	INFORMATION TRANSMITTAL OF FINAL RULEMAKING FOR REVISIONS TO OPERATOR LICENSING-10CFR55 AND CONFORMING AMENDMENTS	03/19/87	ALL FACILITY LICENSEES
GL 87-06	TESTING OF PRESSURE ISOLATION VALVES	03/13/87	ALL OPERATING REACTOR LICENSEES
GL 87-05	REQUEST FOR ADDITIONAL INFORMATION-ASSESSMENT OF LICENSEE MEASURES TO MITIGATE AND/OR IDENTIFY POTENTIAL DEGRADATION MKI	03/12/87	LICENSEES OF DR'S, APPLICANTS FOR OL'S, AND HOLDERS OF CP'S FOR BWR MARK I CONTAINMENTS
GL 87-04	TEMPORARY EXEMPTION FROM PROVISIONS OF THE FBI CRIMINAL HISTORY RULE FOR TEMPORARY WORKERS	03/06/87	ALL POWER REACTOR LICENCES
GL 87-03	VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, USI A-46	02/26/87	ALL LICENSEES NOT SUBJECT TO USI A-46 REQUIREMENTS
GL 87-02	VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS (USI A-46)	02/19/87	ALL HOLDERS OF OPERATING LICENSES NOT REVIEWED TO CURRENT LICENSING CRITERIA ON SEISMIC QUALIFICATION OF EQUIPMENT
GL 87-01	PUBLIC AVAILABILITY OF THE NRC OPERATOR LICENSING EXAMINATION QUESTION BANK	01/08/87	ALL POWER REACTOR LICENSEES AND APPLICANTS FOR AN OPERATING LICENSE
GL 86-17	AVAILABILITY OF NUREG-1169, "TECHNICAL FINDINGS RELATED TO GENERIC ISSUE C-8 BWR MSIC LEAKAGE AND LEAKAGE CONTROL SYSTEM	10/17/86	ALL LICENSEES OF BOILING WATER REACTORS

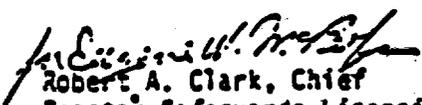
Reactor Safeguards Licensing Branch - 3 -

<u>Model</u>	<u>Manufacture/Distributor</u>
S-201 S-301	Leigh-Marshland Engineering, Ltd. 350 Weber Street, North Waterloo, Ontario, Canada N2J4E3  Contact: Security Products Marketing Office
Pye Dynamics	X-Ray Industrial Distributors, Inc. Representatives for Pye Dynamics 338 Delawanna Avenue Clifton, New Jersey 07014

\*These models have been tested by other agencies for detection of NE on personnel. Additional information may be found in Chapter 6 of Sandia "Entry Control Systems Handbook" SANG77-1033.

These models and others are acceptable if they meet or exceed the above Performance Requirements.

Review Guideline Number 20, dated April 10, 1978, is superseded by this revision.

  
Robert A. Clark, Chief  
Reactor Safeguards Licensing Branch  
Division of Operating Reactors



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20545

APR 16 1977

MEMORANDUM FOR: Reactor Safeguards Licensing Branch

FROM: R. A. Clark, Chief  
Reactor Safeguards Licensing Branch

SUBJECT: SEARCHING FOR EXPLOSIVES -  
REVIEW GUIDELINE NUMBER 20,  
REVISION 1

Background

Paragraph (d)(1) of 10 CFR 73.55 states that "the search for detection of firearms, explosives, and incendiary devices shall be conducted either by physical search or by use of equipment capable of detecting such devices."

The amendment to 73.55(d)(1) published in the September 30, 1977 Federal Register provides interim relief from having to shut-down search regular plant employees entering nuclear power plants provided that equipment designed for detection of weapons and explosive material is utilized to perform the search function on regular plant employees. A copy of the September 30, 1977 Federal Register notice was transmitted as an enclosure to a letter from Edson G. Case to all licensees (11/23/77). Also included was an enclosure "NRR Supplemental Staff Position on Personnel Search Requirements", which further clarified the staff position on personnel searches. This position paper recognized that not all licensees possessed the necessary equipment to conduct the searches on regular employees and therefore provided an alternative (random search procedures) to the use of such equipment. It was never intended however, that these random search procedures be substituted indefinitely for the weapons and explosives detecting equipment. In fact, the staff position paper made it explicitly clear that acceptable metal detectors and explosive searching devices of the types currently available are deemed capable of detecting firearms, explosives and incendiary devices for regular employees of the licensee at the site and that such equipment, if not currently in operation, must be purchased and made operational as soon as possible if the licensee is to be in compliance with the performance requirement of 10 CFR 73.55.

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The staff is not presently aware of any additional information or factors that will result in a change to the position that use of explosive and metal detecting equipment will satisfy the search requirement for regular plant employees.

It is recognized that currently available explosive detection devices (1) are not capable of detecting all types of available explosives and (2) generally operate on principles (vapor detection) that allow for straightforward avoidance techniques by knowledgeable individuals.

Performance Requirements

An explosives detector, or system of components and/or procedures, deemed appropriate for the detection of explosives shall meet or exceed the following performance characteristics:

1. Detection of generally available types of high explosives (i.e., detonatable compositions) of U. S. or foreign manufacture including but not limited to compounds containing: Nitroglycerin, TNT (e.g., 402 dynamite).
2. The device or system provides high assurance of detection (probability of detection of at least 0.95) of high explosives (HE).
3. The minimum quantity of HE for which the required probability must be demonstrated must be no greater than 0.5 kg. The minimum quantity of HE must be detected with required probability when concealed on a person or in hand carried garments or packages.

CURRENTLY AVAILABLE EXPLOSIVE DETECTORS\*

<u>Model</u>	<u>Manufacture/Distributor</u>
EXD-2	Elscint, Inc. 138-160 Johnson Avenue P. O. Box 832 Hackensack, New Jersey 07502
Model-70	Ion Track Instruments, Inc. Three "A" Street Surlington, Massachusetts 01803