

May 14, 1996

FOR: The Commissioners
 FROM: James M. Taylor /s/
 Executive Director for Operations
 SUBJECT: RULEMAKING PLAN FOR AMENDMENTS TO 10 CFR 73.55, CHANGES TO NUCLEAR POWER PLANT SECURITY REQUIREMENTS

- **PURPOSE:**
- **BACKGROUND:**
- **DISCUSSION:**
 - 1. Search Requirements for On-duty Guards (§ 73.55(d)(1))
 - 2. Requirements for Vehicle Escort (73.55(d)(4))
 - 3. Control of Contractor Employee Badges (§ 73.55(d)(5))
 - 4. Maintenance of Access Lists for Each Vital Area (§ 73.55(d)(7)(i)(A))
 - 5. Locking of Vital Area Doors (§ 73.55(d)(7)(i)(D))
 - 6. Key Controls for Vital Areas (§ 73.55(d)(9))
- **RECOMMENDATION:**
- **COORDINATION:**

PURPOSE:

To inform the Commission that the EDO intends to approve the rulemaking plan to amend [10 CFR 73.55](#) relating to changes in nuclear power plant security requirements.

BACKGROUND:

In a memorandum dated September 3, 1991 (COMFR-91-005), the Commission requested the NRC staff to re-examine the security requirements associated with an internal threat to nuclear power plants that are contained in [10 CFR Part 73](#), "Physical Protection of Plants and Materials." The NRC staff completed its re-examination and recommended some changes in Part 73 to the Commission (SECY-92-272, August 4, 1992). In a Staff Requirements Memorandum dated November 5, 1992, the Commission directed the staff to work with the Nuclear Management and Resources Council (NUMARC) to consider the changes. Following three public meetings with NUMARC, the NRC staff recommended to the Commission (SECY-93-326, December 2, 1993) certain changes to Part 73 that would provide significant relief to licensees without compromising the physical security of the plants. In a Staff Requirements Memorandum dated February 18, 1994, the Commission directed the staff to proceed with a rulemaking.

One of the recommended changes, relating to access of personnel and materials into reactor containments during periods of high traffic, has been addressed by a separate rulemaking, published as a final rule on September 7, 1995 (60 FR 46497). The six remaining recommended changes are being addressed in this rulemaking.

DISCUSSION:

The recommended changes are:

1. Search Requirements for On-duty Guards (§ 73.55(d)(1))

Under current regulations, armed security guards who leave the protected area as part of their duties must be searched for firearms, explosives, and incendiary devices upon re-entry into the protected area. The proposed change would allow armed security guards who are on duty and have exited the protected area on official business to reenter the protected area without being searched for firearms (by a metal detector). Unarmed guards and watchpersons would continue to meet all search requirements. All guards would continue to be searched for explosives and incendiary devices because they are not permitted to carry these devices into the plant.

2. Requirements for Vehicle Escort (73.55(d)(4))

The current regulation requires a licensee owned vehicle within the protected area to be escorted by a member of the security organization. This change would eliminate this requirement provided that these vehicles are driven for work-related purposes by licensee employees who have unescorted access.

3. Control of Contractor Employee Badges (§ 73.55(d)(5))

Contractor employees with unescorted access are required to return their badges when leaving the protected area. Contractors and licensees are subject to the same programs required for unescorted access. Current regulatory practice allows licensee employees to leave the protected area with their badges if adequate safeguards are in place to ensure that the security of the badge is not jeopardized. This change would allow contractor employees to take their badges offsite under the same conditions that apply to licensee employees.

4. Maintenance of Access Lists for Each Vital Area (§ 73.55(d)(7)(i)(A))

Current regulations require maintaining separate access lists for each vital area and reapproving these lists on a monthly basis. At many sites, persons granted access to one vital area also have access to most or all vital areas. Reapproving all individuals on the lists at least every 31 days, that is reviewing the lists to validate they have been maintained in an accurate manner, is unnecessarily burdensome. This change would allow the licensee to replace separate access authorization lists for each vital area of the facility with a single listing of all persons who have access to any vital area. The requirement that the list must be maintained remains, but the requirement that the list be reapproved at least once every 31 days would be changed to annually.

5. Locking of Vital Area Doors (§ 73.55(d)(7)(i)(D))

Under current regulation, doors to unoccupied vital areas must be locked and protected by an activated intrusion alarm system. This change would give licensees the option of not locking a door to a vital area provided that the security

of the plant would not be compromised. To use this option, the licensee would have to ensure that these spaces can be locked remotely and have an alarmed access control system, such as an individualized key card, to identify unauthorized entry. Licensees would be expected to continue to maintain a record of personnel access, and licensees not already doing so would have to commit to examine hand-carried packages for explosives with equipment specifically designed for that purpose. Also, licensees would be required to demonstrate a capability to protect against an external adversary. The staff believes that with these additional license commitments, the general performance objective of 10 CFR 73.55(a) could be met.

6. Key Controls for Vital Areas (§ 73.55(d)(9))

Currently, licensees must change or rotate all keys, locks, combinations, and related access control devices at least once every 12 months as well as for cause. This rulemaking would remove the requirement for change every 12 months while retaining the requirement to change for cause.

The rulemaking plan for these proposed changes has been developed using the guidance in NRC Management Directive 6.3, "The Rulemaking Process."

RECOMMENDATION:

I intend to proceed with the development of the rule as described in the attached Rulemaking Plan unless otherwise directed by the Commission within 10 days from the date of this paper.

COORDINATION:

The Offices of Nuclear Reactor Regulation and of Enforcement have concurred in the Rulemaking Plan and the Offices of the Controller and the Inspector General have been informed. The Office of the General Counsel has no legal objection.

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Executive Director for Operations

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Attachment: [Rulemaking Plan](#)

ATTACHMENT

RULEMAKING PLAN

CHANGES TO NUCLEAR POWER PLANT SECURITY REQUIREMENTS (PART 73)

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 - Current Rule Requirements
 - Preliminary Regulatory Analysis
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 - Regulatory Issue
 - Current Rule Requirements
 - Preliminary Regulatory Analysis
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 - Regulatory Issue
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- III. Common Elements for Items 1 through 6
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I. Background

In a memorandum of September 3, 1991 (COMFR-91-005), the Commission requested the NRC staff to re-examine the security requirements associated with an internal threat to nuclear power plants that are contained in 10 CFR Part 73, "Physical Protection of Plants and Materials." The NRC staff completed its re-examination and recommended some changes in Part 73 to the Commission (SECY-92-272, August 4, 1992). In a Staff Requirements Memorandum dated November 5, 1992, the Commission directed the staff to work with the Nuclear Management and Resources Council (NUMARC). Following three public meetings with NUMARC, the NRC staff recommended to the Commission (SECY-93-326, December 2, 1993) additional changes to Part 73 that would provide significant relief to licensees without compromising the physical security of the plants. In a Staff Requirements Memorandum dated February 18, 1994, the Commission directed the staff to proceed with a rulemaking.

In a user needs memorandum from W. T. Russell to E. S. Beckjord dated March 24, 1994, the Office of Nuclear Reactor Regulation recommended rulemaking changes to seven areas in Part 73. One of the recommended changes, relating to access of personnel and materials into reactor containments during periods of high traffic, has been addressed by a separate rulemaking. It was published as a final rule on September 7, 1995 (60 FR 46497).

The six remaining recommended changes are being addressed in this rulemaking:

1. Search requirements for on-duty guards, § 73.55(d)(1);
2. Requirements for vehicle escort, § 73.55(d)(4);
3. Control of contractor employee badges, § 73.55(d)(5);
4. Maintenance of access lists for each vital area, § 73.55(d)(7)(i)(A);
5. Locking of vital area doors, § 73.55(d)(7)(i)(D); and
6. Key controls for vital areas, § 73.55(d)(9).

Certain main elements of the plan are discussed individually in Section II. The remaining elements of the plan are discussed as a whole for all six changes in Section III.

II. Proposed Changes

Item 1 -- Search Requirements for On-duty Guards (§ 73.55(d)(1))

Regulatory Issue

Under current regulations, armed security guards who leave the protected area as part of their duties must be searched for firearms, explosives, and incendiary devices upon re-entry into the protected area. Having a guard go through an explosives detector or searching packages carried by the guard protects against the introduction of contraband. Since an armed guard carries a weapon on site, passage of the guard through the metal detector, the principal purpose of which is to detect firearms, serves little purpose. The guard has to either remove the weapon while passing through the detector or be subject to a hand search. Either approach makes little sense for the guard who is authorized to carry a weapon on site. Further, removing and handling the guard's weapon could present a personnel safety risk.

Armed security guards who are on duty and have exited the protected area on official business would be allowed to reenter the protected area without being searched for firearms (by a metal detector). Unarmed guards and watchpersons would continue to meet all search requirements. All guards would continue to be searched for explosives and incendiary devices because they are not permitted to carry these devices into the plant.

Current Rule Requirements

Section 73.55(d)(1) states ". . . The search function for detection of firearms, explosives, and incendiary devices must be accomplished through the use of both firearms and explosive detection equipment capable of detecting those devices. The licensee must subject all persons except bona fide Federal, State, and local law enforcement personnel on official duty to these equipment searches upon entry into a protected area. . . ."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(1) would be revised as follows (new language is underlined):

". . . The search function for detection of firearms, explosives, and incendiary devices must be accomplished through the use of both firearms and explosive detection equipment capable of detecting those devices. The licensee must subject all persons except bona fide Federal, State, and local law enforcement personnel on official duty to these equipment searches upon entry into a protected area. Armed security guards who are on duty and have exited the protected area on official business may reenter the protected area without being searched for firearms. . . ."

2. Impacts on Licensees

The regulatory burden on licensees would be reduced by eliminating unnecessary weapon searches of guards who are already allowed to carry a weapon, which would result in better utilization of licensee resources. There would be no reduction in plant security, since the potential for reduction in security personnel hours does not impact the total size of the security force. Further, the potential safety risk to personnel caused by removing and handling a guard's weapon would be eliminated.

Item 2 -- Requirements for Vehicle Escort (73.55(d)(4))

Regulatory Issue

The present requirement for a searched, licensee owned vehicle within the protected area to be escorted by a member of the security organization, even when the driver is badged for unescorted access, may not contribute significantly to the security of the plant. Under the current regulations, all vehicles must be searched prior to entry into the protected area except under emergency conditions. Further, all vehicles must be escorted by a member of the security organization upon entry into the protected area except for "designated licensee vehicles." Designated licensee vehicles are those vehicles that are limited in their use to onsite plant functions and remain in the protected area except for operational, maintenance, repair, security, and emergency purposes. Under this requirement, those licensee-owned vehicles that are not "designated licensee vehicles" must be escorted at all times while in the protected area even when they are driven by personnel with unescorted access.

The requirement for escort of licensee-owned vehicles entering the protected area for work-related purposes would

be eliminated provided that these vehicles are driven by licensee employees who have unescorted access. (This rule change would still preclude periodic entry without an escort of a delivery truck.) This change would provide burden relief to licensees without significantly increasing the level of risk to the plant.

Current Rule Requirements

Section 73.55(d)(4) currently requires ". . . All vehicles, except designated licensee vehicles, . . . shall be escorted by a member of the security organization while within the protected area . . . Designated licensee vehicles shall be limited in their use to onsite plant functions and . . ."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(4) would be revised as follows (new language is underlined):

". . . All vehicles, except as indicated below, requiring entry into the protected area shall be escorted by a member of the security organization while within the protected area and . . . Escort is not required for (i) designated licensee vehicles or (ii) licensee-owned vehicles entering the protected area and driven by licensee employees having unescorted access. Designated licensee vehicles shall be limited in their use to onsite plant functions and . . ."

2. Impacts on Licensees

The regulatory burden on licensees would be reduced by requiring fewer vehicle escorts, which would allow personnel to be utilized more effectively. Resources could be redirected to areas in which they would be more cost effective. The decrease in security would be marginal, since unescorted access would be restricted to vehicles owned by the licensee and driven by licensee employees with unescorted access.

Assuming the number of entries by licensee-owned vehicles driven by personnel having unescorted access is 10 per day per site, the average time needed for escort is 3 hours, and the cost per hour for security personnel is \$30 (loaded), a rough estimate of the potential savings per site per year is about \$330,000 (10 escorts/day/site x 365 days/year x 3 hrs/escort x \$30/hr). With 75 sites, the savings to the industry per year would be approximately \$24,000,000.

Item 3 -- Control of Contractor Employee Badges (§ 73.55(d)(5))

Regulatory Issue

Contractor employees with unescorted access are required to return their badges when leaving the protected area. Current regulatory practice allows licensee employees to leave the protected area with their badges if adequate safeguards are in place to ensure that the security of the badge is not jeopardized. Since contractors and licensees are subject to the same programs required for unescorted access, there is no reason to employ more stringent badge control requirements for contractor employees.

Contractor employees would be allowed to take their badges offsite under the same conditions that apply to licensee employees.

Current Rule Requirements

Section 73.55(d)(5) states ". . . An individual not employed by the licensee but who requires frequent and extended access to protected and vital areas may be authorized access to such areas without escort provided that he receives a picture badge upon entrance into the protected area which must be returned upon exit from the protected area. . ."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(5) would be revised as follows (new language underlined):

"A numbered picture badge identification system shall be used for all individuals who are authorized access to protected areas without escort. An individual not employed by the licensee but who requires frequent and extended access to protected and vital areas may be authorized access to such areas without escort provided that he or she displays [receives] a licensee issued picture badge upon entrance into the protected area [~~which must be returned upon exit from the protected area and~~] which indicates: (i) Non-employee-no escort required, (ii) areas to which access is authorized, and (iii) the period for which access has been authorized. Badges shall be displayed by all individuals while inside the protected area."

2. Impacts on Licensees

The regulatory burden on licensees would be reduced by more effective use of security personnel, who would no longer be needed to handle badges for contractor personnel who have unescorted access. There would be no reduction in plant security, since adequate safeguards would be in place to ensure that the security of the badge is not jeopardized.

Assuming that one security person per working day (8 hours) is relieved from the duties of controlling contractor employees badges and that the cost per hour for security personnel is \$30 (loaded), a rough estimate of the potential savings per site per year is about \$88,000 (8 hours/day x 365 days/year x \$30 hr). With 75 sites, the savings to the industry per year would be approximately \$6,600,000.

Item 4 -- Maintenance of Access Lists for Each Vital Area (§ 73.55(d)(7)(i)(A))

Regulatory Issue

Maintaining separate access lists for each vital area and reapproval of these lists on a monthly basis may be of marginal value. At many sites, persons granted access to one vital area also have access to most or all vital areas. Therefore, licensees presently derive little additional benefit from maintaining discrete lists of individuals allowed access to each separate vital area in the facility. Also, licensee managers or supervisors must update the access lists at least once every 31 days to add or delete individuals from these lists when appropriate. There is also a requirement to reapprove the list every 31 days. However, reapproval of all individuals on the lists at least every 31 days, that is reviewing the lists to validate they have been maintained in an accurate manner, is unnecessarily burdensome.

Separate access authorization lists for each vital area of the facility would be replaced by a single listing of all persons who have access to any vital area.

The requirement that the list must be reapproved at least once every 31 days would be changed to annually. The reapproval consists of a review to ensure that the list is up to date and that only those individuals requiring routine access to a vital area are included. Given the relatively low turnover of staff at a site and the requirement for a manager or supervisor to update the list at least every 31 days, conducting this comprehensive reapproval every 31 days is of marginal value.

Current Rule Requirements

Section 73.55(d)(7)(i)(A) requires licensees to "Establish current authorization access lists for each vital area. The access lists must be updated and reapproved by the cognizant licensee manager or supervisor at least once every 31 days. . . ."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(7)(i)(A) would be revised as follows (new rule language underlined):

"Establish a current authorization access list for [each] all vital areas. The access list must be updated [and reapproved] by the cognizant licensee manager or supervisor at least once every 31 days and must be reapproved at least annually. . . ."

2. Impacts on Licensees

The regulatory burden on licensees would be reduced since licensees would have to keep only one access list for all vital areas and reapprove it annually, rather than keep individual access lists for each vital area that must be reapproved monthly.

Assuming that the time to reapprove each of the individual lists is 1 hour per month, that a combined list would take 1.5 hours per month, that the average number of vital areas per site is 10, and that the cost of a clerk including overhead is \$30 per hour (loaded), a rough estimate of the potential savings per site per year is about \$3,500 [(1 hr/month x 10 vital areas x 12 months/year) - 1.5 hr/year] x \$30/hr]. With 75 sites, the savings to the industry per year would be approximately \$270,000.

Item 5 -- Locking of Vital Area Doors (§ 73.55(d)(7)(i)(D))

Regulatory Issue

Under current regulation, doors to unoccupied vital areas must be locked and protected by an activated intrusion alarm system. However, the potential exists that locked doors may prevent authorized workers, especially emergency response personnel, from entering a vital area until they obtain a key to open a lock. To address this concern, licensees would be given the option of not locking a door to a vital area provided that the security of the plant would not be compromised. If an unauthorized worker entered an unlocked vital area, an alarm would activate and the licensee would be able to respond and investigate. This approach would strike a better balance between the need for security and the operational and emergency needs for rapid access to vital areas.

To leave a vital area unlocked, the licensee would have to ensure that the area is equipped with an alarmed access control system that will alarm on unauthorized entry, and that the doors to the area can be locked remotely. For example, access to an unlocked vital area would be controlled by means of an individualized key card and reader, configured with a door alarm that will sound if the door is opened without use of an authorized key card. Licensees would be expected to continue to maintain a record of personnel access, and licensees not already doing so would have to commit to examine for explosives, with equipment specifically designed for that purpose, all hand-carried packages entering any protected area within which there is an unlocked vital area. The use of equipment specifically designed for detecting the presence of explosives in hand-carried packages is not currently required by the Commission's regulations. Also, licensees would be required to demonstrate a capability to protect against an external adversary.

The staff believes that with these additional license commitments, licensees will be able to leave vital areas unlocked and still meet the general performance objective of 10 CFR 73.55(a) of establishing and maintaining an onsite physical protection system that will provide high assurance that the activities at the site do not pose an unreasonable risk to the public health and safety.

Current Rule Requirements

Section 73.55(d)(7)(i)(D) requires the licensee to "Lock and protect by an activated intrusion alarm system all unoccupied vital areas."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(7)(i)(D) would be revised as follows (new language underlined):

"Lock and protect by an activated intrusion alarm system all unoccupied vital areas. Alternatively, the licensee may keep doors to any or all vital areas unlocked provided that each door can be locked on demand from both the central and secondary alarm station, that the licensee is able to demonstrate a capability to protect against an external adversary, and that the vital area is alarmed at all times such that unauthorized entry can be detected. When using this alternative, the licensee shall search for explosives, with equipment specifically designed for that purpose, all hand-carried packages entering any protected area within which there is an unlocked vital area."

2. Impacts on Licensees

This proposed change gives the licensee an alternative. If the licensee does not choose the proposed alternative, no change is required and there are no required costs to the licensee. It can be assumed that the licensee will choose the alternative that is most cost effective for the specific site.

Item 6 -- Key Controls for Vital Areas (§ 73.55(d)(9))

Regulatory Issue

Currently, licensees must change or rotate all keys, locks, combinations, and related access control devices at least once every twelve months. Since the rule also requires that these be changed whenever there is a possibility of their being compromised, requiring change at least every twelve months has been determined by staff to be only marginal to security. This rulemaking would remove the requirement for change every twelve months while retaining the requirement for changing for cause, that is when an access control device has been compromised or there is a suspicion that it may be compromised.

Current Rule Requirements

Section 73.55(d)(9) requires that "All keys, locks, combinations, and related access control devices used to control access to protected areas and vital areas must be controlled to reduce the probability of compromise. All such keys, locks, combinations, and related access control devices must be changed or rotated at least every 12 months. Whenever there is evidence or suspicion that any key, lock, combination, or related access control devices may have been compromised, it must be changed or rotated..."

Preliminary Regulatory Analysis

1. Draft Rule Language

Section 73.55(d)(9) would be revised as follows:

"All keys, locks, combinations, and related access control devices used to control access to protected areas and vital areas must be controlled to reduce the probability of compromise. ~~All such keys, locks, combinations, and related access control devices must be changed or rotated at least every 12 months.~~ Whenever there is evidence or suspicion that any key, lock, combination, or related access control devices may have been compromised, it must be changed or rotated..."

2. Impacts on Licensees

The regulatory burden on the licensees would be reduced since fewer resources would be needed to maintain the system.

Assuming that of the approximately 60 locks per year, half of them had been changed for cause, leaving 30 locks unchanged which would take a locksmith one day to change at a cost (including overhead) of \$45 per hour, a rough estimate of the potential savings per site per year is about \$360 (8 hrs/year x \$45/hr). With 75 sites, the savings to the industry per year would be approximately \$27,000.

III. Common Elements for Items 1 through 6

OGC Legal Analysis

No known basis exists for a legal objection.

Backfit Analysis

There will be no backfit analysis prepared. Because this proposed amendment would not impose new requirements on existing 10 CFR Part 50 licensees, 10 CFR 50.109 does not apply.

Supporting Documents

A regulatory analysis and an OMB statement will be prepared. Neither an environmental impact statement nor an environmental assessment will be prepared for this proposed rule since this proposed regulation is the type of action described as a categorical exclusion in 10 CFR 51.22(c)(3)(i).

Resources Required

The rulemaking is expect to take 0.5 FTE. There will be no contractor support needed. There will be a small decrease in NRC resources needed for inspection.

Lead Office - Project Management

RES Project Manager: S. Frattali

Technical Support Offices

NRR cognizant staff: R. Dube,

OGC cognizant staff: R. Fonner

Concurring Official

Bill Morris

Dennis M. Crutchfield

Stuart A. Treby

Steering Group/Working Group

No.

Enhanced Public Participation

This rulemaking will use Electronic Bulletin Boards, as appropriate to enhance input from the public.

EDO or Commission Issuance

The proposed and final rule will be approved by the Commission.

Schedule

Proposed rule published:	3 months after EDO approves plan.
Comment period ends:	75 days after proposed rule is published.
Final rule published:	6 months after comment period ends.