



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

SEP 24 1992

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② Paul Lohaus
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MEMORANDUM FOR: C. J. Heltemes, Jr., Deputy Director
for Generic Issues and Rulemaking
Office of Nuclear Regulatory Research

FROM: Patricia G. Norry, Director
Office of Administration

SUBJECT: OFFICE CONCURRENCE ON FINAL RULE ENTITLED,
"ANNUAL PHYSICAL FITNESS PERFORMANCE TESTING AND
UPDATED DAY FIRING QUALIFICATIONS FOR ARMED
SECURITY FORCE PERSONNEL AT CATEGORY I FUEL
CYCLE FACILITIES"

The Office of Administration (ADM) concurs, subject to the comments provided, on the final rule regarding armed security force personnel at fuel cycle facilities possessing formula quantities of strategic special nuclear material (Category I licensees). We have attached a marked copy of the final rule package that presents our comments.

We have forwarded a copy of the final rule to the Information and Records Management Branch, IRM, for their review concerning the paperwork management aspects of this final rule. We have requested that they respond directly to you.

In order to assist you in preparing the list of documents centrally relevant to this final rule that is required by NRC's regulatory history procedures, you should place the designator "AD30-2" in the upper right-hand corner of each document concerning the rule that you forward to the Nuclear Document System.

If you have any questions regarding our comments, please have a member of your staff contact Betty K. Golden, Rules and Directives Review Branch, ADM (492-4268) or Michael T. Lesar, Chief, Rules Review Section, Rules and Directives Review Branch, ADM (492-7758).

Patricia G. Norry
Patricia G. Norry, Director
Office of Administration

Attachment: As stated

For: The Commissioners

From: James M. Taylor, Executive Director for Operations

Subject: FINAL AMENDMENTS TO 10 CFR PART 73, TO REQUIRE ANNUAL PHYSICAL FITNESS PERFORMANCE TESTING AND UPDATED DAY FIRING QUALIFICATIONS FOR ARMED SECURITY FORCE PERSONNEL AT FUEL CYCLE FACILITIES POSSESSING FORMULA QUANTITIES OF SPECIAL NUCLEAR MATERIAL

Purpose: To obtain Commission approval to publish a notice of final rulemaking.

Issue: Whether the safeguards requirements set forth in Enclosure A should be imposed on NRC fuel cycle licensees who possess formula quantities of Special Nuclear Material (referred to as Category I).

Background: On December 13, 1992, the NRC published in the Federal Register proposed requirements for annual physical fitness testing, a continuing physical fitness training program, and revised day firing qualifications for armed security force personnel at Category I facilities (56 FR 65024). This proposed regulation was developed to ensure that such ² ~~such~~ ^{above} personnel have the appropriate physical capabilities and are sufficiently proficient in the use of their assigned weapons so that they may be able to perform their assigned duties in the event of a strenuous tactical engagement.

Discussion: The comment period for the proposed rule expired on March 13, 1992. Three comment letters were received. Two of the commenters did not express opposition to the rule but provided constructive suggestions for NRC's consideration. The third commenter also recommended changes to the rule but stated an opinion that the NRC has not adequately justified

CONTACT:
H. Tovmassian, RES
492-3634

He

either the more stringent day firing qualification course requirements or the requirement for physical fitness training programs and annual performance testing. This commenter also stated that the new requirements are too costly and unwarranted.

A summary and analysis of the comments, including identification of specific modifications made by staff to the proposed rule in response to public comments, is contained on pages 6-21 of the Federal Register Notice (Enclosure A). Based on the comments received, the staff's analysis of comments, and the specific modifications made by staff to the text of the proposed rule, the staff recommends Commission approval of the final rule.

Coordination:

Resources to implement this final rulemaking (about 3 staff weeks and \$300,000) are included in the draft FY 1992-1996 Five-Year Plan and no additional resources will be required for its implementation. The Office of the General Counsel has reviewed this paper and has no legal objections.

Recommendation:

That the Commission:

1. Approve publication of the final amendments in the Federal Register.

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Note that:

- b.a. An Environmental Assessment (Enclosure B) will be placed in the NRC Public Document Room.
- c.b. A Regulatory Analysis (Enclosure C) will be placed in the NRC Public Document Room.
- d.g. The appropriate Congressional Committees will be informed of the Commission's action (Enclosure D).
- e.d. A public announcement (Enclosure E) will be issued.
- f.f. The Federal Register Notice will be distributed to licensees and other interested parties.

Handwritten: a. The amendments to Part 73 will be published in the Federal Register and will become effective 3 days after date of publication.

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f.

The Chief Counsel for Advocacy of the Small Business Administration will be informed of the regulatory flexibility certification and the reason for it as required by the Regulatory Flexibility Act.

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James M. Taylor
Executive Director
for Operations

Enclosures:

- A. Federal Register Notice of
Final Rulemaking
- B. Environmental Assessment
- C. Regulatory Analysis
- D. Congressional Letters
- E. Public Announcement

INSERT 1

2. Certify that this rule will not have a significant economic impact on a substantial number of small entities, in order to satisfy requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).

INSERT 2

Scheduling:

If scheduled on the Commission agenda, recommend this paper be considered at an open meeting. No specific circumstance is known to staff which would require Commission action by any particular date in the near term.

- f. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the regulatory flexibility certification and the reason for it as required by the Regulatory Flexibility Act.

James M. Taylor
 Executive Director
 for Operations

Enclosures:

- A. Federal Register Notice of Final Rulemaking
- B. Environmental Assessment
- C. Regulatory Analysis
- D. Congressional Letters
- E. Public Announcement

*See previous concurrences

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ENCLOSURE A
FEDERAL REGISTER NOTICE

NUCLEAR REGULATORY COMMISSION

10 CFR PART 73

RIN:3150-AD30

Annual Physical Fitness Performance Testing and Updated Day
Firing Qualifications for Armed Security Force Personnel
at Fuel Cycle Facilities Possessing Formula Quantities
of Special Nuclear Material
Category I

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations for armed security force personnel at fuel cycle facilities possessing formula quantities of strategic special nuclear material (Category I licensees).

Armed security force personnel at these facilities will be required to participate in a continuing physical fitness program and pass, according to new criteria, an annual performance test. In addition, these individuals will be required to qualify and annually requalify, according to new criteria, for day firing using their assigned weapons. This action is necessary to ensure that these personnel are able to perform their assigned duties under conditions of strenuous tactical engagements.

EFFECTIVE DATE: [Insert date 360 days following date of publication.]

FOR FURTHER INFORMATION CONTACT: Harry S. Tovmassian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3634.

SUPPLEMENTARY INFORMATION:

Background

(52 - R 45447)

On November 10, 1988, the ^{NRC} Commission published amendments to 10 CFR 73.46 ^{that} which requires ^a fuel-cycle facility licensees who possess ^{as} formula quantities of strategic special nuclear material (Category 1 licensee) to establish and train Tactical Response Teams (TRT)¹, conduct periodic tactical exercises, and make available a force of guards² or armed response personnel³ to provide assistance to the TRT, as necessary. These amendments also required that TRT members, armed response personnel, and guards qualify and annually requalify for night firing with assigned weapons by meeting minimum qualification criteria specified in Appendix H to 10 CFR Part 73.

At the time of the 1988 rulemaking, no need for specific physical fitness performance testing criteria was identified. However,

¹"Tactical Response Team" means the primary response force for each shift which can be identified by a distinctive item of uniform, armed with specified weapons, and whose other duties permit immediate response.

²"Guard" means a uniformed individual armed with a firearm whose primary duty is the protection of special nuclear material against theft, the protection of a plant against radiological sabotage, or both.

³"Armed Response Personnel" means persons, not necessarily uniformed, whose primary duty in the event of attempted theft of special nuclear material or radiological sabotage shall be to respond, armed and equipped, to prevent or delay such actions.

observations of licensee guard performance during a 1988 DOE Central Training Academy course prompted the NRC to examine, through the California State University at Hayward (CSUH), the physical fitness levels of security force personnel of licensees who possess formula quantities of strategic special nuclear material. In the subsequent study, CSUH noted that in an emergency situation that may be encountered by a TRT member, these individuals need a cardiovascular reserve to perform effectively. However, CSUH found that of 77 subjects tested, 26 percent had a poor level of cardiovascular fitness and an additional 29 percent were below average. Further, high body fat levels were noted (e.g., 26 percent ^{of the individuals tested} were classified as obese). Overall, the CSUH test results indicated that a potentially significant number of guards may not have a sufficient cardiovascular reserve for a TRT response situation, particularly if they must exert themselves at a high intensity in order to reach the scene of an incident or their designated post during a critical situation. Therefore, the NRC has concluded that criteria for physical performance testing of TRT members, armed response personnel, and guards and the specification of a minimum continuing physical fitness training program are needed to ensure the needed level of fitness. Accordingly, on December 13, 1991, the Commission ^(published) proposed ^{amendments to 10 CFR Part 73 that contain} additional requirements relative to the physical fitness qualifications of security force personnel (56 FR 65024).

Under these proposed regulations, TRT members, armed response personnel, and guards would be required to participate in annual physical fitness performance testing and in a continuing physical fitness training program. Individuals would be required to be certified as medically fit

by a licensed physician prior to participation in the performance tests or in the training program designed to ensure that the individuals achieve and maintain the required fitness level. In addition, licensees would be required to assess the general fitness of each participant every 4 months and to make modifications to the individual's training regime, as necessary.

In the original rule,
The minimum physical fitness training program needed to achieve the necessary fitness levels ^{NECC} has been separated into two elements. The first element includes the training of individuals through cardiovascular training activities such as running, bicycling, rowing, swimming, or cross-country skiing. Individuals will be tested prior to assignment as a TRT member and each year thereafter using the performance criteria of a 1-mile run in 8.5 minutes or less and a 40-yard dash starting from a prone position in 8.0 seconds or less. Likewise, individuals to be assigned as armed response personnel and guards will be required to participate in the physical fitness training program. However, the performance criteria for these individuals will be a 1/2 mile run in 4 minutes and 40 seconds or less and a 40-yard dash starting from a prone position in 8.5 seconds or less. The former criteria ^{applicable to TRT members} have been validated to test the fitness levels required of individuals whose duties are to perform offensive combative tasks, such as those required of TRT members. The latter criteria ^{applicable to} have been validated to test the fitness levels required of individuals whose duties are to perform defensive combative tasks, such as armed response personnel and support guards.

*TRT members
elements x
- 1/2 mile
- 40 yard*

⁴ Telfair, W. D., et al., United States Department of Energy Physical Standards Validation Study, Professional Management Associates, Inc., September 30, 1982.

The second element of the physical fitness training program involves musculoskeletal training (i.e., exercises ^{that} ~~which~~ develop strength, flexibility, and endurance in the major muscle groups). Although musculoskeletal training will be an integral part of the physical fitness training program, performance criteria have not been specified because to date there have been no validated studies ^{that} ~~which~~ establish the levels of strength, flexibility, and endurance required of TRT members, armed response personnel, and guards under conditions of strenuous tactical engagement. However, the effectiveness of the musculoskeletal training will be included in ^{the} ~~the~~ licensee's assessment program and the results will be used to make appropriate modifications to ^{each} individual's training regime.

Two documents have been prepared which may be used by licensees in developing physical fitness training programs and by physicians responsible for the required medical examinations of personnel participating in the programs. The first, "Physical Fitness Training Reference Manual for Security Force Personnel at Fuel Cycle Facilities Possessing Formula Quantities of Strategic Special Nuclear Material," NUREG/CR-5690⁵, provides information on designing and conducting a physical fitness training program. The second, "Medical Screening Reference Manual for Security Personnel at Category I Fuel Cycle Facilities Possessing Formula Quantities of Strategic Special Nuclear

⁵Copies of NUREGs may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013-7082. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is also available for inspection or copying at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

Material," NUREG/CR-5689³, is intended for use by the examining physicians. These documents have been placed in the Public Document Room and are available for public inspection and copying.

In this same action, the Commission ^{is} also proposed amending its day firing qualification criteria to ensure that armed security force personnel are able to perform their assigned duties under conditions of strenuous tactical engagements. Although the day firing criteria are more stringent than those ~~which are currently~~ ^{proposed} specified in the regulations, each individual TRT member, armed response person, and guard ^{required to be} is ^{currently} qualifying using both the night firing criteria contained in 10 CFR Part 73 and day firing criteria contained in the licensee's Weapon Qualification Plan that are very similar to the ~~proposed~~ ^{being adopted} criteria. Based on this fact and the results of quarterly physical protection inspections of Tactical Response Teams for all assigned weapons, the NRC believes that these individuals ^{are} should be able to qualify readily using the new, day-firing criteria.

Summary of Public Comments

The comment period for the proposed rule ^{published December 13, 1991} (56 FR 65024) expired on March 13, 1992. Three letters addressing the proposed rule were received. The following comment summary and resolution has been divided ^{left margin underlined} into those comments addressing the physical fitness training program and those relating to the day-firing qualification criteria. However, one ^{General Comment} commenter had a general comment concerning the implementation schedule.

^{to be} This commenter stated that the amount of time allowed for implementation

should be increased from 180 days to 1 year. The NRC believes that a 1-year implementation period is reasonable, because licensees may need to purchase facilities and equipment and acquire trained personnel to administer the programs. Therefore, the final rule has been amended to incorporate this comment.

Physical Fitness Training

3. Comment
1. ✓ One commenter stated, without providing any rationale, that the aerobic exercise requirement seems excessive, so either the frequency or intensity of the training sessions required in 10 CFR 73.46(b)(10)(i)(A) should be reduced.

FR in sec The NRC disagrees with the commenter's contention. The ~~proposed~~ rule specifies that the aerobic portion of the physical fitness training sessions be at least 20 minutes in duration at 75% of maximum heart rate three times per week. The physical fitness training program is designed to follow the recommendations of the American College of Sports Medicine to achieve a level of fitness ^{that} which helps to equip armed security force personnel to maintain the requisite physical fitness for effective job performance and enable them to pass the applicable annual physical fitness requalification tests. Therefore, neither the intensity nor the frequency of the aerobic requirement ^{has} have been modified in the final rule.

3. Comment
2. ✓ One commenter stated that individuals that served in "static response positions" such as central alarm station operators ^{of} secondary alarm station operators ^{or} or guards ^{at} who man the exit and entry portals,

should be exempted from the performance testing criteria because the rule states that the exercise program must be consistent with the environment in which individuals must perform their duties.

~~Response~~ ¹⁰ The NRC agrees that individuals whose assignments do not include strenuous response duties should not be required to participate in the physical fitness training program or annual performance testing.

Therefore, the ^{is} final rule has been modified to include an exemption for ^{these} such employees, provided that these individuals are not assigned to response guard duties ^{under} under any circumstances.

43. ^{led} The same commenter recommends, without providing his ^{own} rationale, that different training regimes be specified for each type of position (i.e., TRT member, armed response person, and guard).

~~Response~~ ^{NRC} The Commission did not specify a training regime ^{to} which would be followed by participants in the continuing physical fitness training program. Rather, the rule provides the elements that must be part of the program in 10 CFR 73.46 (b)(10)(i). These elements ^{merely} require that the program have an aerobic portion with sufficient duration, frequency, and intensity, a portion devoted to the continuous and rhythmic exercise of large muscle groups, and a musculoskeletal exercise portion. ^{It is} ^{NRC} expected that the ^{its} licensee ^{to} will develop, and modify as necessary, ^{the} a training regime ^{for} of each participant, depending upon a number of factors, ^{that may} which could include fitness level, recent medical history, and security responsibilities. The NRC believes that the ^{rule} language ^{is} of this provision sufficiently flexible to allow different training regimes for each type of position as well as for different individuals within each position.

In fact, 10 CFR 73.46(b)(10)(ii) states that "Individual exercise

^{the revised text of}

^{included in this rule}
8

programs must be modified consistent with the needs of each participating Tactical Response Team member, armed response person, and guard and consistent with the environments in which they must be prepared to perform their duties." The NRC ^{believes} feels that no further clarification of ~~the rule language~~ is needed in this area.

4. Three comments addressing the physical fitness assessment requirements in 10 CFR 73.46(b)(10)(ii) were received.

5. ^{Comment} One commenter stated that the proposed requirement in 10 CFR 73.46 (10)(b)(ii) for a fitness assessment ^{every} each 4 months should be modified to read "assessments three times each year" to allow for individuals who are on vacation, sick leave, etc. when the 4 months elapses. ^{However,}

^{the} The NRC believes that this is a valid concern, but the recommended modification is sufficiently vague to allow abuse of the rule.

Therefore, the following sentence has been added to 10 CFR 73.46 (10)(b)(ii) in ^{is} the final rule: "Individuals who exceed 4 months without being assessed for general fitness, due to excused time off from work, must be assessed within 15 calendar days of returning to duty."

6. ^{Comment} Another commenter stated that neither the methods for performing the assessment, nor any ^{on} criteria for determining the acceptability of the results of the assessment, ^{is} are specified. With regard to the methods used, this commenter ^{questioned the requirement for} speculated whether a physical assessment by medical personnel ^{and suggested that} is required, or ^{examination} is a questionnaire-type documentation of ^{an} the individual's recent medical history and fitness-related activities may be sufficient? ^{be} If the former is intended, This commenter stated that ^{it frequent} it would ^{be} result in unnecessarily repetitive medical evaluations.

Footnote
In regard to the commenter's first question dealing with the methods used for the trimester assessments, the rule does not require a "physical assessment by medical personnel." What is required is a recent health history, measures of cardiovascular fitness, percent of body fat, flexibility, muscular strength, and endurance. Specific measures ~~were~~ ^{are} not required so that licensees ~~would~~ ^{be able to} have the flexibility to develop their own programs. The NRC ~~feels~~ ^{believes} that the trimester assessments are important because they will identify deficiencies in individual training regimes and provide a timely mechanism for modification. Concerning the commenter's assertion that no criteria are provided for the acceptability of the assessment results, neither the existence nor absence of acceptance criteria relieves the licensee from the responsibility to assess the effectiveness of his program and make necessary modifications to individual training regimes, as necessary. Nonetheless, the NRC has initiated a project ~~which will~~ ^{to} develop acceptance criteria for the trimester assessments, ~~which will~~ ^{This} provide one way in which licensees may evaluate assessment results.

Comment
This commenter provided a second related comment on the trimester assessment requirement. This comment ~~states~~ ^{states} that the requirement in proposed § 73.46(b)(10)(ii) for an assessment to determine the effectiveness of the continuing physical fitness training program implies the existence of some acceptance criteria and corrective actions. Since ~~no such~~ ^{no} criteria or corrective actions are provided, the requirement should be deleted. Barring sudden changes in an individual's medical status, the annual physical examination should be sufficient to ensure the capability of security force personnel to perform their duties.

As noted in the previous comment response, the NRC is currently developing acceptance criteria for the trimester assessments. Corrective actions for individuals whose fitness level is deemed to be unacceptable will vary depending upon the individual and the degree to which physical fitness has degenerated. These measures might include reclassifying the individual from a minimally supervised regime to a directly supervised or individually monitored regime. In other cases, the training regime itself might be modified to address specific deficiencies discovered. In any event, the corrective action taken is the responsibility of the licensee, who should rely upon a qualified program director to plan the action and obtain the appropriate medical advice when necessary. With respect to the comment that the yearly physical examination is sufficient to ensure that the continuing physical fitness program has been effective, it should be noted that the yearly physical examination serves a different purpose and is not relied upon to assess the adequacy of the program. The purpose of the annual physical is to assure that armed security force personnel are healthy enough to participate in the continuing physical fitness training program and to be tested against the performance criteria without undue hazard to themselves.

8.5. ^{Comment} One commenter states, without providing his rationale, that the NRC has not adequately established the need for the continuing physical fitness training program and the annual performance testing.

^{Response} The NRC disagrees with this comment and reiterates that observations of licensee guard performance at Central Training Academy exercises alerted the NRC to the fact that guards may not be physically fit to perform their duties in spite of the existing requirement that they "shall have no physical weakness or abnormality that would adversely

affect their performance of assigned security job duties." Subsequent studies confirmed this finding. Seventy-seven volunteer guards, at three licensed facilities were screened for current physical status. For those tested, the results indicated that 81.2% have body fat higher than recommended⁶, 14% were measured as potentially hypertensive⁷, 54% were ranked as below average in aerobic capacity (compared to Canadian Standardized Tests of Fitness (CSTF) norms), 53.5% ranked as below average in grip strength (compared to CSTF), 44% ranked as below average in abdominal strength, 51% ranked below average in abdominal endurance (compared to CSTF), and 48 % ranked below average in forward flexion (compared to CSTF). ^{FF} Based upon the ^{results of these tests} unacceptable consequences of the failure to adequately respond to security related emergencies, the NRC believes that criteria ^{are needed to} which objectively determine that security force personnel are sufficiently physically fit to perform their duties and ^{to complete} a physical fitness training ^{program} are needed.

⁹ ⁸ ^{Comment} One commenter states ^d that the costs of a supervised or monitored physical fitness training program are excessive and unwarranted ^{because} since the improvement in security guard performance is not quantifiable.

^{FF} ^{Response} The physical fitness performance criteria were developed as a result of the DOE Physical Standards Validation Study. The criteria developed have been validated to test the fitness levels required of individuals whose duties are to perform both offensive and defensive combative tasks associated with security related emergencies. The NRC

⁶Brooks, G. A. and T. D. Fahey, Fundamentals of Human Performance, Macmillan Pub., New York, NY, 1987, p225.

⁷WHO Expert Committee, "Arterial Hypertension," World Health Organization Technical Report Series, Geneva, Switzerland, 1978, p628.

combative tasks associated with security related emergencies. The NRC specifies the elements that should be part of the physical fitness training program and not the program itself. These elements, when taken together, are considered the minimum required to allow security force personnel to achieve and maintain the fitness level required to successfully perform the physical fitness performance test each year and are necessary to ensure that licensee security force personnel can perform their emergency duties. The costs associated with implementing the elements can vary depending upon how the licensee designs the program, but the NRC believes that ^{this} such a program is needed to ^{en} assure that armed security force personnel in Category I licensed facilities are sufficiently fit to perform their assigned duties under conditions of strenuous tactical engagement.

107. ^{Con} One commenter recommends that licensee responsibility be limited to employing only those personnel who are capable of meeting or exceeding the physical fitness performance testing criteria.

^R ^{Responsibility} The NRC believes that it is the licensee's responsibility to administer the physical fitness training program and the annual performance testing. The licensee may choose to raise the physical fitness levels of existing security force personnel so that they are able to meet or exceed the performance criteria, ^{or} it may comply with the rule by employing individuals who can meet the physical fitness performance criteria and training them so that they stay at that level. The NRC ^{believes} feels that this choice is appropriately the licensee's and that no limit to the licensee's responsibility should be specified in this area.

Handwritten: A. Commenter
B. ^{ed} One commenter questions why the requirement for a medical examination 30 days prior to performance testing, which was previously in Appendix B to Part 73, was deleted in 1988, ^{was} but restored in this rule. The commenter does not state whether or not the requirement should be modified or deleted.

Handwritten: B. Response
Previous requirements for timing of physical examinations are unrelated to the requirement in 10 CFR 73.46(b)(11)(iii), which requires that each guard undergo a physical examination within 30 days of participating in the physical performance testing. The underlying reason for this requirement is the well-being of the individual being tested. It is prudent to obtain a minimum level of assurance that an individual has no medical contraindications to physical performance testing, which may require a maximum effort on the part of the individual being tested. The 30-day limit is a common industry practice and is equivalent to the requirement in 10 CFR 1046 which applies to DOE security force personnel.

Day-Firing Qualification *Handwritten: CR*

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I. ^{CR} One commenter requested that Appendix H specify how head shots are to be scored for stage 2 of the handgun course.

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The B-27 target is accompanied by qualification scoring rings for shots aimed at the center target mass and shots aimed at the head. For center target mass shots, hits within the center are scored 5 points, hits slightly outside the center (approximately a 2-inch annulus) are scored 4 points, and other hits on the silhouette are scored 3 points. For head shots, hits aimed at the center of the head are scored 5 points

and hits on the remainder of the silhouette are scored 3 points. This scoring scheme is described in Appendix A of the Department of Energy's "Firearms Qualification Courses." The NRC does not believe that further description of this scoring technique in Appendix H of 10 CFR ^{Part} 73.46 is necessary. However, the NRC recognizes that other targets in which the scoring technique may be more explicit exist (such as the TQ-15 target). Therefore, Appendix H ^{of 10 CFR Part 73} has been amended in the final rule to allow the use of ^{these} such targets as an alternative to the B-27 provided that these targets are at least as difficult as the B-27 target.

13. ^{Comments} Two commenters noted an error in that the handgun course contained distances of both 14 and 15 yards. ^{Appendix H} Appendix H has been amended to correct this error.

14. ^{Comments} One commenter suggested allowing single or double action at the 50-yard line for stage 7 of the handgun course (Note: the commenter identified stage 6 of the handgun course but the 50-yard distance is only found in stage 7).

15. ^{Comments} Stage 7 of the handgun qualification course does not specify either single or double action. Thus the licensee is at liberty to use either for the purpose of qualification. Therefore, the NRC does not believe that the suggested modification is necessary.

16. ^{Comments} One commenter noted that stages 5 and 6 of the rifle course was to be used for .30 caliber weapons for TRT qualifications only. The commenter stated that this limits the maximum score for the standard rifle (i.e., stages 1 through 4) to 110 points and suggested that 70% of this maximum score (77 points) be specified as the minimum qualifying score for the standard rifle instead of 70% of 150 points.

P. Response

A The NRC agrees that maximum and minimum qualifying scores should be specified separately for standard and larger caliber rifles because there may be times that a security officer may need to qualify for one, but not the other. Therefore, the final Appendix H specifies maximum and minimum qualifying scores for standard rifle qualification as 110 and 77, respectively, and for .30 caliber rifles as 40 and 28, respectively.

16. ~~Commenter~~ One commenter suggested that failure to qualify should result in a 3-day suspension from armed duty rather than the ~~7-day~~ ^(proposed) suspension. The commenter stated that the 7-day suspension may cause the individual to be out of a job for seven days before he could requalify. The commenter noted that nonqualified personnel would usually be utilized in an unarmed position, however, ^{because} since few of those existed, the 7-day waiting period could cause layoffs. Another commenter stated that the 7-day and 12-month suspensions are potentially the most significant and costly impacts of the rule ~~change~~. This commenter stated that extending the waiting periods beyond the time required to retrain the officer appears to be punitive, does not enhance the security program's effectiveness, and induces unnecessary costs. The commenter suggested that the rule be amended to require that an officer who fails to achieve the minimum qualifying score be removed from armed officer duty and complete a documented period of retraining prior to any subsequent attempt to qualify or requalify. The commenter further suggested that the NRC consider requiring that officers may not fire for record more than ^{the} once on the same calendar day. Additionally, if an officer fails to qualify on two successive attempts, that individual would be required to

receive additional training and fire two consecutive qualifying scores prior to being reassigned to armed officer duties.

~~Revised~~
^ The NRC agrees that retraining an individual to the point of qualifying or requalifying can be accomplished in less time than *the period* specified in the ^{proposed} rule. Therefore, the NRC has adopted the suggestion of the second commenter and believes that the amended rule ~~language will~~ satisfy ^{lies} the concerns of both commenters.

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6. ^{commenter} One commenter suggested that the same rationale for allowing multiple physical fitness qualifications be used in the development of weapons qualifications. The commenter stated that these qualifications, like the physical fitness qualifications, would reflect consistency with the environments in which individuals must perform their duties. The commenter further suggested that the weapons qualification requirements are appropriate for TRT members but are excessive for armed response personnel and for "static response positions" (e.g., ^{operators of} central and secondary alarm station operators and security force personnel ~~which~~ ^{who} control entry or exit portals).

The NRC recognizes that physical capabilities required for security force personnel to satisfactorily perform their duties vary depending upon job tasks. In fact, this is the reason that the physical fitness testing program was developed to require more stringent qualification criteria for TRT members as opposed to armed response persons or guards. However, the NRC believes that this rationale does not apply to weapons training and qualification. All armed officers on site, regardless of their level of physical fitness or duty station, could potentially be involved in a violent confrontation, especially in an area such as the

access control facility. This was ^{the} reason that the 3-yard distance was included in the rule for weapon qualification for handguns. Therefore, the NRC has decided not to adopt this commenter's suggestion.

18. ^{Commenter} One commenter suggested that handgun qualification be limited to 25 yards or less because they have long guns available for shots of greater distance.

19. ^{Response} The NRC recognizes that the 50-yard line is near the maximum distance at which a handgun is effective for the average shooter. However, the NRC believes that security officers should be familiarized with handgun performance at greater distances because an adversary could penetrate the protected area in such a short period of time that the security officer may not be able to retrieve his shoulder fired weapon and respond effectively. Therefore, ^{the} NRC believes that the distance prescribed in the handgun qualification course is needed to ensure that the officers understand the limitations of the handgun at distances exceeding 25 yards. Therefore, the NRC has decided to retain the 50-yard stage 7 for handguns in the course. However, recognizing that handgun shots from the 50-yard line are very difficult and the six shots from that distance make handgun qualification much more challenging, the NRC has decided that the six shots in stage 7 for handguns will not be counted for handgun qualification purposes. Accordingly, Appendix H has been modified in the final rule to add a footnote stating this exception and modifying the maximum number of points possible and the minimum needed for qualification to 270 points and 189 points, respectively.

19. ^{8.} One commenter suggested that the position description in the handgun course be amended from "reload with six rounds" to "reload"

because the automatic pistol will reload in a different manner than the revolver.

7 *Response*
A The NRC agrees with this comment and Appendix H *of 10 CFR Part 73* has been modified to reflect this suggested change in the final rule.

20 *Comment*
9. A One commenter stated, without providing the rationale, that the timing for qualifying with handguns (stage 1 and 4, string 3) and for rifles (stage 2 at 25 yards) are unrealistic and additional time should be considered.

8 *Response*
A The NRC believes that the times prescribed in the qualification course are justified. Although law enforcement statistics show that police officers seldom fire, reload, and continue a confrontation, the NRC Design Basis Threat ascribes greater capabilities to adversaries engaged in malevolent activities against Category I facilities than those encountered during law enforcement type engagements. The security officers must be able to manipulate their weapons skillfully and precisely. Being able to draw and reload quickly and efficiently while maintaining a continuity of fire under realistic time constraints is important for defense of a facility undergoing attack. Therefore, the NRC has retained the timing requirement for the reload position in the day firing qualification course.

21 *Comment*
10. A One commenter suggested that the shotgun course allow the use of either double 0 buckshot or rifled slugs because some facilities do not use rifled slugs.

22 *Response*
A The NRC agrees with this comment and Appendix H has been modified, accordingly.

22
11. One commenter suggested that footnote 4 of Appendix H be amended to indicate that stages 5 and 6 of the rifle qualification course are to be used for .30 caliber or larger rifles. As it stands, only .30 caliber rifles would use Stages 5 and 6.

11
12. The NRC agrees that clarification is needed and footnote 4 of Appendix H has been modified to indicate that stages 5 and 6 pertain to .30 caliber rifles and larger.

23
12. One commenter requested the position column of the rifle course, which requires safety ^{to be in the on position} at the beginning of each string, be amended to allow the weapon to be uncocked with the magazine inserted. The weapon used by this commenter, the Colt AR-15, requires cocking in order to use the safety selector.

13. The NRC agrees with this comment and has amended the final rule to delete the requirement that the safety be in the on position at the beginning of each string in the rifle qualification course.

24
13. One commenter stated that the need has not been clearly established for the more stringent firearms qualifications regulations.

14. As stated in the background of the proposed rule notice, the more stringent day-firing qualification criteria were to make them consistent as to the level of specificity and proficiency with the night-firing requirement published in 1988. Because existing licensees' Weapons Qualifications Plans were judged similar to the criteria being proposed, the rule notice stated the opinion that codifying the criteria in regulation would add no new burden to the existing licensees.

15. Nevertheless, as a result of this comment, the NRC reviewed whether the benefits to the public health and safety or to the national defense and

security justify more stringent firearms qualification criteria than those allowed by the existing regulation?

This review determined that the more stringent criteria are necessary because the existing criteria in Appendix B, (which are being exceeded by current licensees) are no longer adequate to ensure a security force able to protect strategic special nuclear material (SSNM) against theft by an adversary with the capabilities defined in 10 CFR 73.1(a)(2)(i). The design basis threat is defined in 10 CFR 73.1. The knowledge that the NRC has concerning the firepower, body armor, tactics, training and equipment which can be ascribed to the design basis threat has broadened since 10 CFR Part 73, Appendix B, was established. Appendix B allows handgun qualification via the national police course, and rifle qualification via a 1976 National Rifle Association rulebook. Experiences of law enforcement agencies, military units, and security forces nationwide have indicated that weapons training suitable for normal police duties are not sufficient for to counter the activities of the design basis threat. The techniques of the newer weapons qualification courses are more oriented toward weapons manipulation skills that could be important in tactical situations to permit defense of SSNM, in addition to marksmanship. These techniques have proven themselves successful, are state of the art, and are being used worldwide. However, there is no qualification course document that incorporates the necessary weapons skills sufficient to counter the design basis threat, so it is necessary to provide this in Appendix H, as was done for night firing. Therefore, the NRC considers that the need

has been established for the more stringent firearms qualifications regulation.

Finding of no Significant Environmental Impact: Availability

The NRC has determined under the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in Subpart A of 10 CFR Part 51, that this rule will not be a major Federal action significantly affecting the quality of the human environment, and therefore, an Environmental Impact Statement is not required. The rule does not adversely affect either the safety of the operations carried out by licensees possessing formula quantities of strategic special nuclear material nor the routine release of, or exposures to, radioactivity. The amendments (1) specify annual performance testing criteria and a minimum physical fitness training program, and ensure that security force personnel can adequately perform their duties under conditions of strenuous tactical engagement; and (2) specify new minimum day-firing qualification criteria for armed security force personnel use of assigned weapons to ensure that such personnel are able to perform their assigned duties.

The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC. Single copies of the environmental assessment and finding of no significant impact are available from Mr. Harry Tovmassian, Office of

Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission,
Washington, DC 20555, (301) 492-3634.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). The requirements were approved by the Office of Management and Budget approval number 3150-0002.

Public reporting burden for this collection of information is estimated to average 44 hours per licensee response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information and Records Management Branch (MNBB-7714), U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; and to the Desk Officer, Office of Information and Regulatory Affairs, NE0B-3019, (3150-0002), Office of Management and Budget, Washington, D.C. 20503.

Regulatory Analysis

The NRC has prepared a regulatory analysis on this regulation. The analysis examines the costs and benefits of the alternatives considered by the NRC. The analysis is available for inspection in the NRC Public

Document Room, 2120 L Street, NW. (Lower Level), Washington, DC. Single copies of the analysis may be obtained from Ms. Carrie Brown, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, (301) 504-2382.

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the NRC certifies that this rulemaking will not have a significant economic impact upon a substantial number of small entities. The rule affects two licensees who operate fuel facilities possessing formula quantities of strategic special nuclear material licensed in accordance with 10 CFR Parts 70 and 73. The companies that own these plants do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the Small Business Standards set out in regulations issued by the Small Business Administration in 13 CFR Part 121. Thus, this rule does not fall within the purview of the act.

Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this rule because these amendments do not impose requirements on existing 10 CFR Part 50 licensees. Therefore, the NRC has determined that a backfit analysis is not required for this rule.

List of Subjects in 10 CFR Part 73

Part 73 - Criminal Penalty, Hazardous materials⁵³-transportation, Incorporation by reference, Nuclear materials, Nuclear power plants and reactors, Penalty, Reporting and recordkeeping requirements, Security measures.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 553, the NRC is adopting the following amendments to 10 CFR Part 73. 552 200

PART 73--PHYSICAL PROTECTION OF PLANTS AND MATERIALS

1. The authority citation for 10 CFR Part 73 continues to read as follows:

AUTHORITY: Secs. 53, 161, 68 Stat. 930, 948, as amended, sec. 147, 94 Stat. 780 (42 U.S.C. 2073, 2167, 2201); sec. 201, as amended, 204, 88 Stat. 1242, as amended, 1245 (42 U.S.C. 5841, 5844).

Section 73.1 also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161). Section 73.37(f) also issued under sec. 301, Pub. L. 96-295, 94 Stat. 789 (42 U.S.C. 5841 note). Section 73.57 is issued under sec. 606, Pub. L. 99-399, 100 Stat. 876 (42 U.S.C. 2169).

For the purposes of sec. 223, 68 Stat. 958, as amended, (42 U.S.C. 2273); §§ 73.21, 73.37(g), and 73.55 are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§ 73.20, 73.24, 73.25, 73.26, 73.27, 73.37, 73.40, 73.45, 73.46, 73.50, 73.55, and 73.67 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§

88
73.20(c)(1), 73.24(b)(1), 73.26(b)(3), (h)(6), and (k)(4), 73.27(a) and (b), 73.37(f), 73.40(b) and (d), 73.46(g)(6) and (h)(2), 73.50(g)(2), (3)(iii)(B), and (h), 73.55(h)(2) and (4)(iii)(B), 73.57, 73.70, 73.71, and 73.72 are issued under sec. 1610, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. in § 73.46 paragraphs (b)(4), (b)(7), and (i) are revised and new paragraphs (b)(10) and (b)(11) are added to read as follows:

§ 73.46 Fixed site physical protection systems, subsystems, components, and procedures.

(b) * * *

(4) The licensee may not permit an individual to act as a Tactical Response Team member, armed response person, or guard unless the individual has been trained, equipped, and qualified to perform each assigned security duty in accordance with Appendix B of this part, "General Criteria for Security Personnel." In addition, Tactical Response Team members, armed response personnel, and guards shall be trained, equipped, and qualified in accordance with paragraphs (b)(6), (b)(7), (b)(10), and (b)(11) of this section. Upon the request of an authorized representative of the NRC, the licensee shall demonstrate the ability of the physical security personnel, whether licensee or contractor employees, to carry out their assigned duties and responsibilities. Each Tactical Response Team member, armed response person, and guard, whether a licensee or contractor employee, shall

requalify in accordance with Appendix B of this part. Tactical Response Team members, armed response personnel, and guards shall also requalify in accordance with paragraph (b)(7) of this section at least every twelve (12) months. The licensee shall document the results of the qualification and requalification. The licensee shall retain the documentation of each qualification and requalification as a record for 3 years after each qualification and requalification.

* * * * *

(7) In addition to the weapons qualification and requalification criteria of Appendix B of this part, Tactical Response Team members, armed response personnel, and guards shall qualify and requalify, at least every twelve (12) months, for day and night firing with assigned weapons in accordance with Appendix H of this part. Tactical Response Team members, armed response personnel, and guards shall be permitted to practice fire prior to qualification and requalification but shall be given only one opportunity to fire for record on the same calendar day. If a Tactical Response Team member, armed response person, or guard fails to qualify, the licensee shall remove the individual from security duties which require the use of firearms and retrain the individual prior to any subsequent attempt to qualify or requalify. Subsequently, if the individual fails to qualify or requalify on two successive attempts, he or she shall be required to receive additional retraining and fire two consecutive qualifying scores prior to being reassigned to armed security duties.

(i) In addition, Tactical Response Team members, armed response personnel, and guards shall be prepared to demonstrate their day and night firing qualification with their assigned weapons at any time upon request by an authorized representative of the NRC.

(ii) The licensee or the licensee's agent shall document the results of weapons qualification and requalification for day and night firing. The licensee shall retain the documentation of each qualification and requalification as a record for 3 years after each qualification and requalification.

* * * * *

(10) In addition to the physical fitness qualifications of paragraph I.C of Appendix B of this part, each Tactical Response Team member, armed response person, and guard, except as provided in paragraph (b)(10)(v) of this section, shall participate in a physical fitness training program on a continuing basis.

(i) The elements of the physical fitness training program must include, but not necessarily be limited to, the following:

(A) Training sessions of sufficient frequency, duration, and intensity to be of aerobic benefit, e.g., normally a frequency of three times per week, maintaining an intensity of approximately 75% of maximum heart rate for twenty minutes;

(B) Activities that use large muscle groups, that can be maintained continuously, and that are rhythmical and aerobic in nature, e.g., running, bicycling, rowing, swimming, or cross-country skiing; and

(C) Musculoskeletal training exercises that develop strength, flexibility, and endurance in the major muscle groups, e.g., legs, arms, and shoulders.

(ii) The licensee shall assess Tactical Response Team members, armed response personnel, and guards for general fitness once every 4 months to determine the continued effectiveness of the continuing physical fitness training program. Assessments must include a recent health history, measures of cardiovascular fitness, percent of body fat, flexibility, muscular strength, and endurance. Individual exercise programs must be modified consistent with the needs of each participant. Tactical Response Team member, armed response person, and guard and consistent with the environments in which they must be prepared to perform their duties. Individuals who exceed 4 months without being assessed for general fitness, due to excused time off from work, must be assessed within 15 calendar days of returning to duty.

(iii) Within thirty (30) days prior to participation in the physical fitness training program, the licensee shall give Tactical Response Team members, armed response personnel, and guards a medical examination including a determination and written certification by a licensed physician that there are no medical contraindications, as disclosed by the medical examination, to participation in the physical fitness training program.

(iv) Licensees may temporarily waive an individual's participation in the physical fitness training program on the advice of the licensee's examining physician, during which time the individual may not be assigned duties as a Tactical Response Team member.

(v) Security force personnel whose duties are to ^{staff} man the central or secondary alarm station and those who control exit or entry portals are exempt from the physical fitness training program specified in ^{paragraph} 73.46(b)(10) of this section, provided that they are not assigned to response guard duties, under any circumstances.

(11) In addition to the physical fitness demonstration contained in paragraph I.C of Appendix B of this part, Tactical Response Team members, armed response personnel, and guards, except as provided in paragraph (b)(10)(vi) of this section, shall meet or exceed qualification criteria as defined in paragraphs (b)(11)(i) through (b)(11)(v) of this section, initially and at least every twelve (12) months thereafter.

(i) For Tactical Response Team members, the criteria are a 1-mile run in 8 minutes and 30 seconds or less, and a 40-yard dash starting from a prone position in 8 seconds or less. For armed response personnel and guards that are not members of the Tactical Response Team the criteria are a one-half mile run in 4 minutes and 40 seconds or less and a 40-yard dash starting from a prone position in 8.5 seconds or less. The test may be taken in ordinary athletic attire under the supervision of licensee designated personnel. The licensee shall retain a record of each individual's performance for 3 years.

(ii) Incumbent Tactical Response Team members, armed response personnel, and guards shall meet or exceed the qualification criteria within six (6) months of NRC approval of the licensee's revised Fixed Site Physical Protection Plan. New employees hired after the approval date shall meet or exceed the qualification criteria prior to assignment as a Tactical Response Team member, armed response person, or guard.

(iii) Within 30 days prior to participation in the physical performance testing, Tactical Response Team members, armed response personnel, and guards shall be given a medical examination including a determination and written certification by a licensed physician that there are no medical contraindications, as disclosed by the medical examination, to participation in the physical performance testing. This requirement ^{must} shall apply to initial and all subsequent physical performance testing.

(iv) The licensee shall place Tactical Response Team members, armed response persons, and guards who do not meet or exceed the qualification criteria in a monitored remedial physical fitness training program and relieve them of security duties which require the use of firearms. Individuals in the remedial physical fitness training program shall have a maximum of three (3) months to satisfactorily meet or exceed the qualification criteria.

(v) Licensees may temporarily waive the annual qualification testing for an individual on the advice of the licensee's examining physician, during which time the individual shall not be assigned duties as a Tactical Response Team member. *may*

(vi) Security force personnel whose duties are to man the central or secondary alarm station and those who control exit or entry portals are exempt from the annual performance testing specified in paragraph (b)(11) of this section, provided that they are not assigned to response guard duties, under any circumstances.

* * * * *

(i) Implementation schedule for revisions to physical protection plans.

(1) By (Insert a date 90 days after the effective date of these amendments) each licensee shall submit a revised Fixed Site Physical Protection Plan to the NRC for approval. The revised plan must describe how the licensee will comply with the requirements of paragraphs (b)(7), (b)(10), and (b)(11) of this section. Revised plans must be mailed to the Director, Division of Safeguards and Transportation, ^{Office of Nuclear Regulation and Safeguards} U.S. Nuclear Regulatory Commission, Washington, DC 20555.

(2) Each licensee shall implement the approved plan relative to paragraphs (b)(7), (b)(10), and (b)(11) of this section within 1 year after NRC approval of the revised Fixed Site Physical Protection Plan.

3. Appendix H is revised to read as follows:

APPENDIX H - WEAPONS QUALIFICATION CRITERIA

The B-27 Target or a target of equivalent difficulty will be used for all weapon qualification testing

Table H-1 Minimum Daily Firing Criteria¹
(see footnotes at end of Table H-1)

Weapon	Stage	String ²	Distance	Number of rounds	Timing ³	Position	Scoring
Handgun ⁴	1	1	3 yards	5	9 seconds	Draw and fire 2 rounds (repeat 2 times) 3 seconds each string	70% = qualified, maximum possible = 270 points, minimum required = 189 points
		2					
		3					
	2	1	7 yards	6	10 seconds	Draw and fire 2 rounds at center mass and 1 round at the head (repeat once) 5 seconds each string	
		2					
		3					
	3	1	7 yards	6	12 seconds (4 seconds each string)	Using weaker hand only, from the low ready position, fire 2 rounds (repeat twice)	
		2					
		3					
	4	1	10 yards	2	4 seconds	Draw and fire 2 rounds, come to low ready position	
			2	2	3 seconds	Fire 2 rounds from low ready position and holster	
		3	10 yards	4	12 seconds (revolver)	Draw and fire 2 rounds, reload, fire 2 rounds and holster	
10 seconds (semi-automatic)							
4		10 yards	2	4 seconds	Draw and fire 2 rounds, come to low ready position		
						5	10 yards
5	1	15 yards	2	5 seconds	Standing, draw weapon, go to kneeling position, then fire 2 rounds and holster		
	2					2	5 seconds

↓
 Table H-1 Minimum Day-Firing Criteria¹ - Continued
 (see footnotes at end of Table H-1)

Weapon	Stage	String ²	Distance	Number of rounds	Timing ³	Position	Scoring
Handgun ² (Cont'd)	5	3	15 yards	4	14 seconds (revolver) 12 seconds (semi-automatic)	Standing, draw weapon, fire 2 rounds, move to kneeling position and fire 2 rounds, reload and reholster	70% = qualified, (Maximum possible = 270 points, minimum required = 189 points)
		4	15 yards	2	5 seconds	Draw weapon and fire 2 rounds standing, come to low ready position and...	
		5	15 yards	2	3 seconds	Fire 2 rounds from low ready	
	6	1	25 yards	2	5 seconds	Draw and fire 2 rounds, standing, left side of barricade	
		2	25 yards	2	5 seconds	Draw and fire 2 rounds, right side of barricade (standing)	
		3	25 yards	4	15 seconds (revolver) 12 seconds (semi-automatic)	Draw weapon and from standing to kneeling position, fire 2 rounds, left side of barricade, reload, and from the kneeling position, fire 2 rounds, right side of barricade	
		4	25 yards	2	10 seconds	Draw weapon and go from standing to prone, fire 2 rounds	
		5	25 yards	2	10 seconds	Draw weapon and go from standing to prone, fire 2 rounds	
	7 ⁴	1	50 yards	2	8 seconds	Draw weapon and fire 2 rounds from a standing barricade position (right or left side, shooter's option)	
		2	50 yards	2	10 seconds	Draw weapon and fire 2 rounds from a kneeling barricade position (right or left side, shooter's option)	
		3	50 yards	2	12 seconds	Draw weapon and fire 2 rounds from prone position	

Table H-1 Minimum Day-Firing Criteria¹ - Continued
 (see footnotes at end of Table H-1)

Weapon	Stage	String ^a	Distance	Number of rounds	Timing ²	Position	Scoring
Shotgun	1	1	7 yards	2 Double 0 buck-shot	4 seconds	At low ready position fire 2 rounds standing	70% = qualifies (Maximum=94, Minimum=65) (each pellet in black target area equals 1 point)
	2	1 2	15 yards	4 Double 0 buck-shot	15 seconds	At low ready position fire 2 rounds standing, reload and fire 2 rounds	
	3	1 2	25 yards	4 rifled slugs or 00 buck-shot	20 seconds	On command, load 4 rifled slugs and fire 2 rounds standing and 2 rounds kneeling	(10, 9, 8, 7 points are available for each hit as indicated)
Rifle ³	1	1 2 3	15 yards	6	17 seconds (4 seconds for 1st string, 3 seconds for each of 2nd and 3rd string)	Standing in low ready position, to standing point shoulder (1 magazine loaded with 6 rounds, weapon in half-load configuration), fire 2 rounds per string	70% = qualifies (Maximum = 110 points, Minimum = 77 points)
	2	1 2 3	25 yards	6	17 seconds (5 seconds for 1st string, 3 seconds for each of 2nd and 3rd string)	Standing in low ready position, to standing point shoulder (1 magazine loaded with 6 rounds, weapon in half-load configuration), fire 2 rounds per string	
	3	1 2 3	25 yards	6	17 seconds (7 seconds for 1st string, 5 seconds for each of 2nd and 3rd string)	Standing in low ready position, to kneeling point shoulder (1 magazine loaded with 6 rounds, weapon in half-load configuration), fire 2 rounds per string	

↓
 Table H-1 Minimum Day-Firing Criteria¹ - Continued
 (see footnotes at end of Table H-1)

Weapon	Stage	String ²	Distance	Number of rounds	Timing ³	Position	Scoring
Rifle (Cont'd)	4	1 2	50 yards	4	16 seconds (9 seconds for 1st string, 7 second for 2nd string)	Standing in low ready position, to kneeling point shoulder (1 magazine loaded with 4 rounds, weapon in half-load configuration), fire 2 rounds per string	
	5 ⁴	1	50 yards	4	20 seconds	Standing in low ready position, go to prone (weapon in half-load configuration) with two magazines each loaded with 2 rounds, fire 2 rounds, reload with 2nd magazine and fire 2 rounds	70% = qualifies (Maximum = 40 points, Minimum = 28 points)
	6 ⁴	1	100 yards	4	25 seconds	Standing in low ready position, go to prone (weapon in half-load configuration) two magazines each loaded with 2 rounds, fire 2 rounds, reload with 2nd magazine and fire 2 rounds	

Footnotes

1. This day-firing qualifications course is to be used by all TRT members, armed response personnel, and guards.
2. A string is one of the different phases within a single stage.
3. Security force personnel will be timed as shown.
4. Stage 7 for handguns is not scored for qualification purposes.
5. Stages 5 and 6 are to be used for .30 caliber or larger rifles.

Table H-2 Minimum Night Firing Criteria

Weapon	Stage	Distance	No. of Rounds	Timing	Position	Scoring	Lighting
Handgun (Rev.)	1	7 yds	12	35 seconds	Standing-no artificial support	Minimum qualifying = 70%	For all courses 0.2 foot-candles at center mass of target area
	2	15 yds	12	45 seconds			
Handgun (Semi-)	1	7 yds	2 + clip	30 seconds	Standing-no artificial support		
	2	15 yds	2 + clip	40 seconds			
Shotgun	1	25 yds	2 rifled slugs	30 seconds (Load 2 slugs - chamber empty - Time starts - Commence firing)	Standing-strong shoulder	Rifled slug hits = strike area on target (10, 9, 7)	
	1	15 yds	5 Double 0 buckshot	10 seconds (Load 5rds Buckshot - chamber empty - Time starts - Commence firing)	Standing-strong shoulder	Double 0 Buckshot: Hits in black= 2 pts (5rds x 9 pellets/rd x 2 pts=90) Minimum qualifying = 70%	
Rifle	1	25 yds	1-5rd mag.	45 sec.	Standing-Barricade	Minimum qualifying =70%	
	2	25 yds	1-5rd mag.	45 sec.	Standing		
	3	25 yds	1-5rd mag.	45 sec.	Kneeling		
	4	25 yds	1-5rd mag.	45 sec.	Prone		

Note. - All firing is to be done only at night. Use of night simulation equipment during daylight is not allowable. Use of site specific devices (i.e., laser, etc.) should be included in the licensee amended security plan for NRC approval.

Dated at Rockville, Maryland, this _____ day of _____, 1991.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,
Secretary of the Commission.

DOC. FILE NAME: FRN-RULE.TOV

LONG DISPLAY: Phys Fit/Day Fire Qual Rule

CREATED:

AUTHOR: Harry Tovmassian

REVISED:	8/15,19/91	08/22/91	08/29/91	
TYPIST:	LCrossland	STaylor	S.Taylor	
TIME:	7:50 a.m.	3:45 p.m.	9:30 a.m.	

REVISED:	08/29/91	08/30/91	9/3,5	
TYPIST:	S.Taylor	S.Taylor	LCrossland	
TIME:	4:15 p.m.	4:30 pm	2:20 pm	

REVISED:	09/16/91	09/17/91	09/19/91	9/23/91
TYPIST:	S.Taylor	S.Taylor	S.Taylor	LCrossland
TIME:	4:30 p.m.	2 p.m.	1:50 pm	4:30 pm

REVISED:	11/7/91			
TYPIST:	LCrossland			
TIME:	10:35 am			

EXCERPT:

ENCLOSURE A
 FEDERAL REGISTER NOTICE

[7590-01]

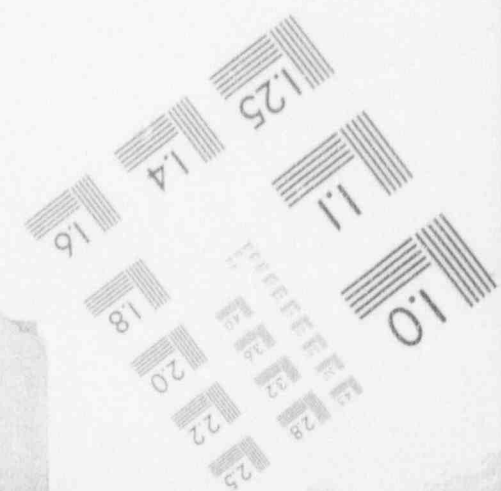
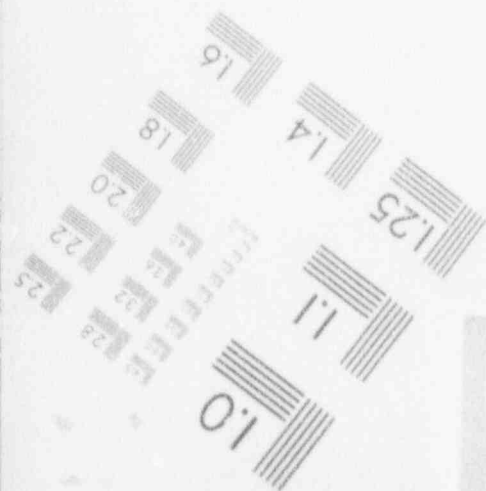
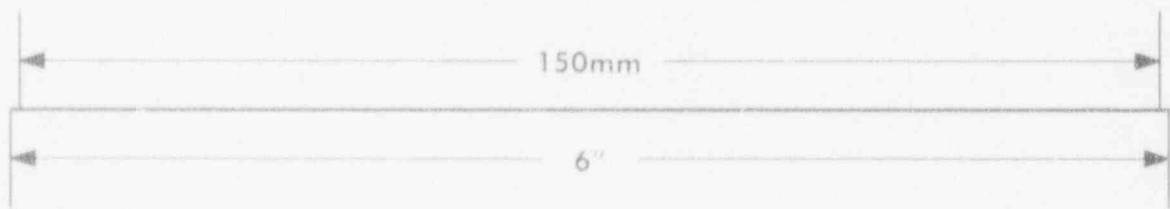
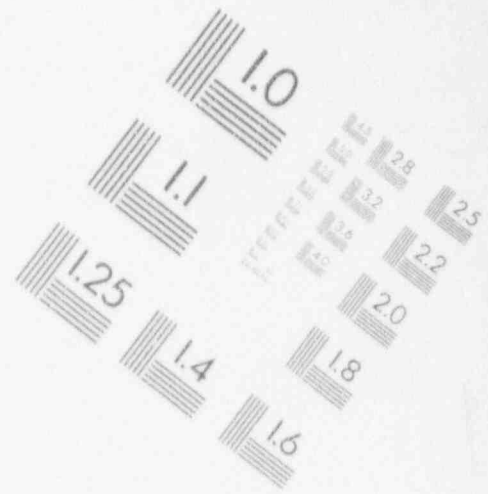
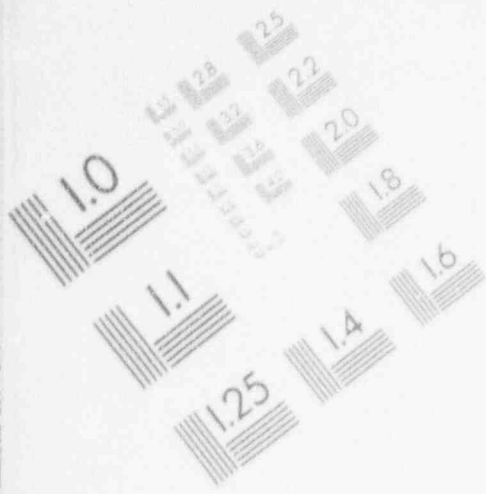
NUCLEAR REGULATORY COMMISSION

10 CFR PART 73
 RIN:3150-AD30

Physical Fitness Programs and Day Firing Qualifications
 For Security Personnel at Category I Fuel Cycle Facilities

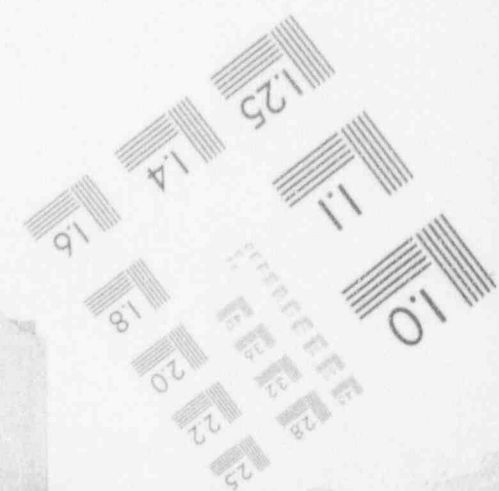
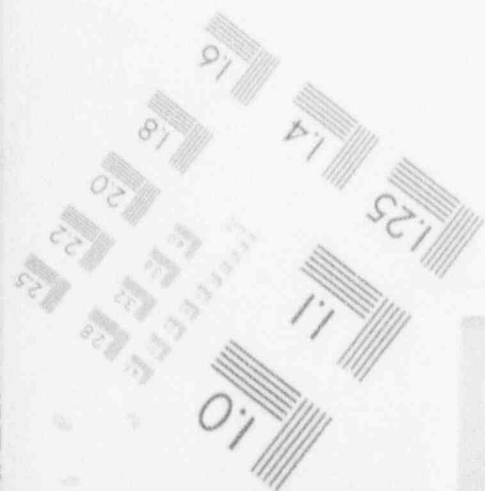
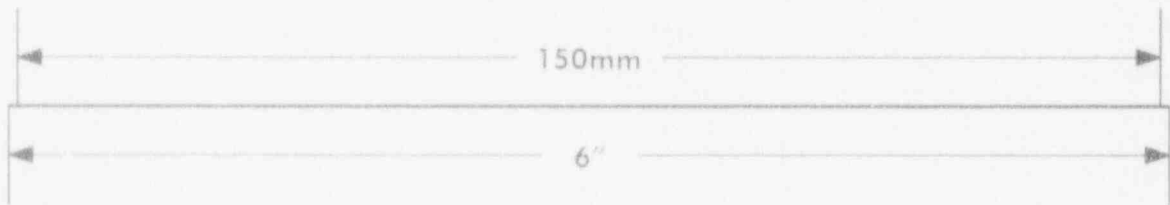
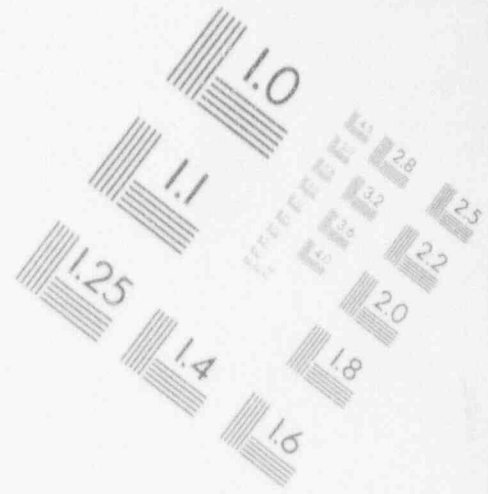
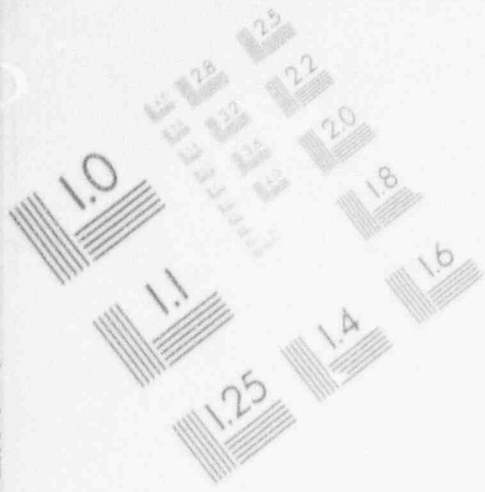
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IMAGE EVALUATION TEST TARGET (MT-3)



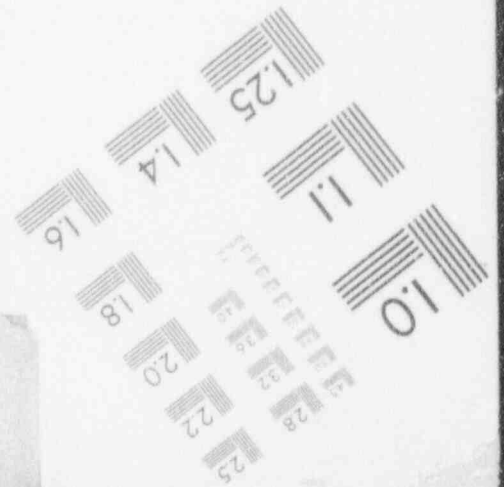
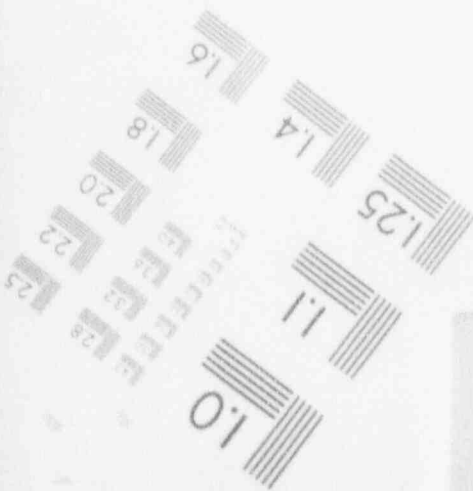
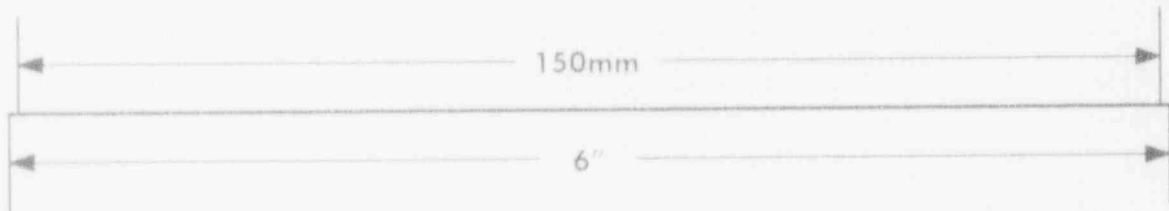
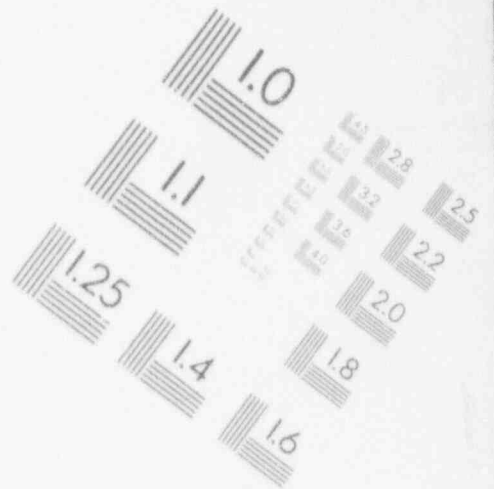
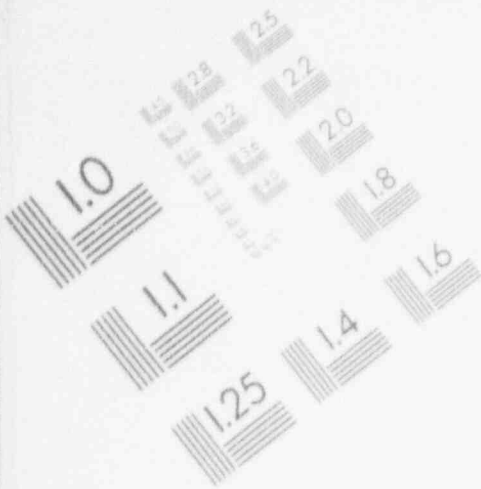
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IMAGE EVALUATION TEST TARGET (MT-3)



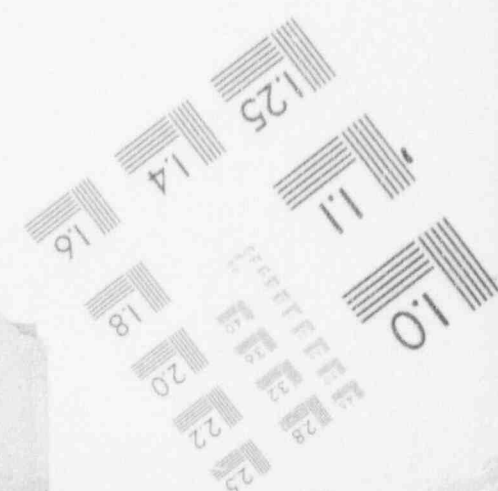
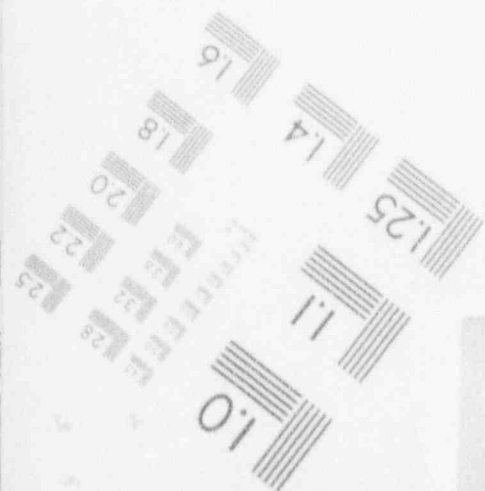
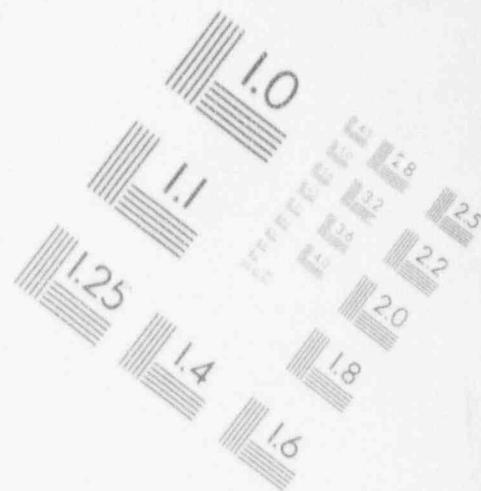
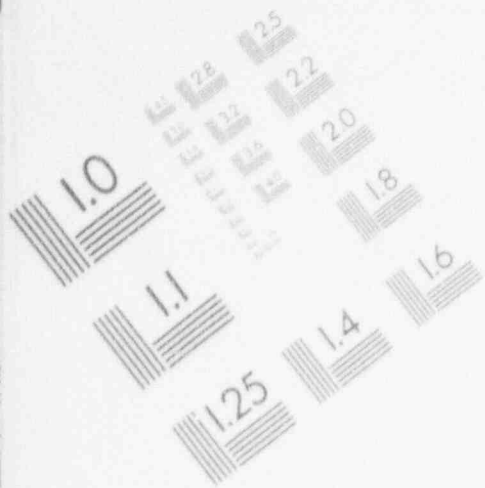
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IMAGE EVALUATION TEST TARGET (MT-3)



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IMAGE EVALUATION TEST TARGET (MT-3)



ENCLOSURE B
ENVIRONMENTAL ASSESSMENT

(2.c)

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
/ For the Final Rule Amending 10 CFR 73 and Appendix H

Annual Physical Fitness Performance Testing and Day Firing
Qualifications for Tactical Response Team Members,
Armed Response Personnel, and Guards

I. Introduction

The Nuclear Regulatory Commission (NRC) is amending 10 CFR Part 73 which contains safeguards requirements affecting licensees authorized to possess formula quantities of Strategic Special Nuclear Material (SSNM). These amendments provide the elements of minimum continuing physical training programs and the criteria for annual physical fitness performance testing for members of their Tactical Response Team (TRT), armed response personnel, and guards. In addition, the NRC is amending Appendix H which specifies the night firing qualification criteria by adding a new, more stringent, day firing qualification course. These requirements have been imposed in order to ensure that guards at such facilities are physically fit to perform their duties under conditions of strenuous tactical engagement and are sufficiently qualified to use their weapons.

II. Need for Action

Currently, NRC licensed fuel fabrication facilities possessing formula quantities of SSNM are required to establish and train Tactical Response Teams and to make available a force of armed response personnel or guards to provide assistance in the event of a hostile engagement. The NRC has concluded that implementation of these requirements may not be completely effective based on observations of the performance of some licensee guards participating in a Department of Energy (DOE) training exercise. After subsequent examination of the DOE guard training and testing program, the NRC has determined that specific criteria for the physical fitness training and testing of TRT members, armed response personnel, and guards are needed.

The NRC is revising Appendix H of 10 CFR Part 73 to include day firing qualification criteria. This amendment would update the day firing qualification criteria for security force personnel by requiring a new, more stringent qualification course be utilized.

III. Environmental Impact of the Proposed Action

These amendments will affect neither the safety of operation nor the routine release of, or exposure to, radioactivity from the fuel facilities possessing formula quantities of SSNM. The following two amendments are being made: (1) annual physical fitness performance testing and (2) day firing qualification criteria for security force personnel using all assigned weapons. Neither of these measures has any identifiable environmental impacts.

IV. Alternative to the Proposed Action.

Section 102(2)(E) of NEPA provides that agencies of the Federal Government shall "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." The objective of these amendments that the NRC is promulgating is to provide greater assurance that the security personnel capabilities at fuel facilities possessing formula quantities of SSNM are maintained at a level commensurate with their responsibilities.

Two alternatives to the amendments were examined. The first was to take no action and leave the physical fitness of TRT members, armed response personnel, and guards to the licensee's discretion and allow licensees to continue to use the weapons qualification criteria in 10 CFR Part 73 Appendix B. This alternative was rejected because based upon the observed performance of some licensee guards, there is not sufficient assurance that the existing requirements are adequate. The second alternative considered was to impose these requirements on fuel fabrication facilities through the issuance of license conditions, or orders, or to provide guidance and criteria in the form of regulatory guides. This alternative was rejected because regulatory guides do not afford the same assurance of enforceability as do regulations, orders, or license conditions, and actions by order or license condition do not provide the benefit of public participation afforded in the rulemaking process.

V. Agencies and Persons Consulted

During the development of these amendments, Mr. Philip Arzino from California State University at Hayward, and cognizant officials and managers at the Department of Energy were consulted. Furthermore, an expert review panel comprised of three members of the American College of Sports Medicine provided independent views and recommendations. The panel members were Dr. D. W. Hill, Ph.D., Dr. T. A. Kaplan, M.D., and Dr. J. E. Young, M.D., Ph.D.

VI. Finding of No Significant Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, that the amendments are not a major Federal action significantly affecting the quality of the human environment, and therefore, an environmental impact statement is not required. The amendments would establish criteria for physical fitness training programs and periodic performance testing. The amendments will also update day firing qualification criteria. Neither of these actions will have a significant impact upon the environment.

ENCLOSURE C
REGULATORY ANALYSIS

REGULATORY ANALYSIS

1. STATEMENT OF THE PROBLEM

The Nuclear Regulatory Commission (NRC) is amending armed security force personnel performance regulations in 10 CFR Part 73 for licensees possessing formula quantities of strategic special nuclear material. The following upgrades in armed security force personnel performance regulations are being imposed.

Physical Fitness Performance Testing

The Commission's regulations are being amended to specify criteria for annual physical fitness performance testing of Tactical Response Team members, armed response personnel, and guards at Category I licensee fuel cycle facilities. Prior to this rulemaking, the NRC's regulations specified that armed security force personnel have no physical weaknesses that would adversely affect the performance of their assigned duties. However, no regulatory criteria existed for assessing whether armed security force personnel are physically fit to perform their duties. Criteria for annual physical fitness performance testing for armed security force personnel will better ensure that armed security force personnel are capable of performing their assigned duties in the event of a strenuous tactical engagement.

Day Firing Qualification and Requalification

The Commission's regulations are being amended to impose on Tactical Response Team members, armed response personnel, and guards specific updated qualification criteria for day firing of all assigned weapons. Prior to this rulemaking, NRC's regulations required day firing qualification and requalification using a national police course or equivalent for handguns and an NRA or nationally recognized course for semi-automatic weapons. Elements, that would better characterize actual engagement, such as firing positions, firing distances, reloading, and firing with the weaker hand, are missing from

the current day firing qualification criteria. This is a serious deficiency considering the capabilities that the NRC ascribes to the design basis threat, as defined in 10 CFR 73.1(a)(2)(i).

1.1 Need for Proposed Amendments

This rulemaking will amend Part 73 of the ^{NRC's} ~~Commission's~~ regulations, "Physical Protection of Plants and Materials." Category I licensee Tactical Response Team members, armed response personnel, and guards are required to participate in periodic exercises to demonstrate armed security force effectiveness (10 CFR 73.46(b)(9)). However, during a 1988 DOE Central Training Academy course, NRC observers detected that some of the NRC licensee armed security force personnel were unable to participate in some of the tactical exercises. This observation led the NRC staff to question whether the current regulations are providing adequate assurance that armed security force personnel are physically fit and able to perform their duties under conditions of strenuous tactical engagements. Upon further study of this question, as discussed in the ^{proposed rule (December 1991) SER 65004} ~~applicable Federal Register Notice~~, the staff concluded that the above tactical exercises did offer a viable representation of the sorts of actions Category I licensee personnel may be required to take and that specific criteria were needed to assure that such personnel would be physically capable of taking such actions.

1.2 Applicable NRC Licensees

These amendments to 10 CFR Part 73 will impact two NRC Category I fuel cycle licensees.

1.3 Relationship to Other Existing or Proposed Regulations

There are no apparent conflicts or overlaps with other NRC regulations or policies nor with other agencies' regulations or policies.

2. OBJECTIVES OF THE RULE

The objectives of these amendments are to provide greater assurance that the armed security force personnel at facilities possessing formula quantities of strategic special nuclear material are (1) capable of performing their duties under conditions of strenuous tactical engagements, and (2) are qualified for day firing of their assigned weapons using a qualification course which is more consistent with the capabilities of the adversaries ascribed to the design basis threat.

3. ALTERNATIVES TO THE RULE

Three options are considered in this regulatory analysis. Summaries of the alternatives are provided in this section.

3.1 Option 1: No Action By the NRC

The following are the results of pursuing this option:

(1) There would continue to be no physical fitness training program or performance testing criteria and, therefore, there would be no confidence that armed security force personnel are able to perform their assigned duties under conditions of strenuous tactical engagement.

(2) An outdated day firing qualification course which will not test armed security force personnel for skills required to protect against an adversary with the capabilities ascribed to the design basis threat.

3.2 Option 2: Non-Rulemaking Approaches

Since the existing regulations in 10 CFR 73.46 Appendix B require that all Tactical Response Team members, armed response personnel, and guards are physically able to perform their duties, the NRC could have imposed these

requirements through issuance of license conditions or an order. Alternatively, the Commission^{NRC} could have issued a regulatory guide containing the criteria to clarify to the licensee what is acceptable qualification. Each of these mechanisms would necessitate that each Category I fuel facility licensee revise current Fixed Site Physical Protection Plans to include:

(1) annual physical fitness performance testing and a minimum continuing physical fitness training program for the facilities armed security force personnel; and

(2) the NRC specified day firing qualification course using all assigned weapons.

3.3 Option 3: Adopt the Amendments Through Formal Rulemaking

The result of following this option is the same as Option 2 for the two licensees in question. However, this option has the advantage of obtaining comments on the issues from the public prior to promulgation of the final rule.

4. CONSEQUENCES

This section discusses the expected costs and benefits of implementing the identified alternatives. The information used to determine the consequences associated with the rule were based on discussions with NRC staff, cognizant personnel and managers from Oak Ridge National Laboratory, Oak Ridge, Tennessee, California State University-Hayward, and discussions with the managers of YMCAs in areas near the applicable Category I fuel facility licensees concerning the cost of using their facilities for training. Sections 4.1, 4.2, and 4.3 discuss the impact on the two facilities listed in Section 1.2 above, the NRC, and others, respectively.

4.1 Impacts on Industry

This section describes the costs that are expected to be incurred by the two licensees. The incremental cost of pursuing Option 1 is zero. The incremental cost of pursuing Options 2 and 3 are essentially identical to one another.

4.1.1 Physical Fitness Performance Training

Armed security force personnel will be required to participate in a continuing physical training program in order to meet the performance criteria specified in the rule. Therefore, the cost of this requirement would be the labor cost for armed security force personnel while they participate in the program and the costs associated with the training facilities. To obtain the estimated incremental costs of this regulation, the cost licensees are incurring to meet existing physical training requirements is subtracted from the cost of this rule.

4.1.1.1 Labor Cost Estimate

In this section of the regulatory analysis, the labor cost will be estimated assuming that the licensee has no physical fitness training program at all. The adjustment required to account for the fact that licensees currently are required to have an annual physical demonstration will be covered in Section 4.1.1.4, where the total incremental cost is addressed.

The average hourly basic pay rate for armed security force personnel was solicited separately for each site. This analysis assumes that fully loaded labor costs will be double the average hourly rate. This analysis also assumes that each guard is to take three 1-hour training sessions per week with up to 2 hours of travel per week for off-site training and that each facility employs 110 guards. Thus, if each guard has 5 hours per week of training related time, and trains for 50 weeks per year, each facility will require 27,500 hours of armed security force personnel time annually to meet

the physical fitness training requirement in this rule. The estimated annual labor cost for Plant A is \$627,000 and for Plant B is \$467,500. The total estimated annual labor cost for both plants is \$1,094,500. The total estimated lifetime cost, assuming a 30-year period with a 5 percent discount rate, is \$16.9 million. The calculation of these labor cost estimates is summarized in Table 1.

4.1.1.2 Club Membership Estimates

In this section of the regulatory analysis, the club membership cost will be estimated assuming that the licensee has no physical fitness training program at all.

For the purpose of this analysis, the annual corporate cost for a physical fitness training program was obtained from YMCAs near the applicable fuel cycle facilities. Each facility's annual health club (i.e., YMCA) costs were ascertained separately. For each guard, these memberships would cost \$115 and \$50 per year for Plant A and Plant B, respectively. The combined total annual cost is \$18,150. The combined total cost, over a 30-year life cycle assuming a discount rate of 5 percent, is approximately \$.3 million. The estimated health club membership costs are summarized in Table 2.

This rule does not require health club or YMCA membership. Most of the objectives of the annual physical fitness performance testing and the physical fitness training program may be accomplished through use of publicly available facilities without sophisticated equipment. Therefore, the cost estimates in this section may overstate the impact on the industry. However, the club membership costs are small in comparison to the labor costs. Therefore, savings derived from pursuing a less costly approach would not affect the conclusions of this analysis.

4.1.1.3 Other Costs

As part of the physical training program, licensees will be required to perform assessments of the effectiveness of the program for each participant every 4 months. The California State University-Hayward has estimated that

each assessment would take about 20 minutes. ^{BECAUSE} Since these assessments would probably occur during the participant's normal training time and are relatively infrequent, no additional costs were assumed for the assessments.

The cost of obtaining initial and yearly medical examinations was also not considered in this analysis because armed security force personnel are currently required to have such examinations pursuant to 10 CFR Part 73, Appendix B.

4.1.1.4 Total Costs

In this section, the total cost of the upgraded physical fitness requirements will be estimated, then these costs will be adjusted to an incremental cost estimate to reflect the added cost over and above what licensees are currently doing to comply with NRC's regulations.

To obtain the total cost for the physical fitness training program per facility, the club membership costs are combined with the labor costs. Table 3 shows that the annual cost would be about \$1.1 million and the estimated lifetime cost, assuming a 30-year period with a 5 percent discount rate, is approximately \$17.1 million.

In order to assess the incremental costs of this rule, the costs summarized in Table 3 must be adjusted to reflect the fact that licensees are currently required to annually demonstrate that armed security force personnel are physically capable to perform their assigned duties. Although some form of physical fitness training would appear to be needed to pass this demonstration, neither licensee had included an extensive fitness training program in their Fixed Site Physical Protection Plan. The annual demonstrations require 1 hour of each guard's time per year and 1 hour of time for the administrator of the test. Thus, these labor costs are estimated to be a total of 440 hours (110 guards per licensee x 2 hours per guard x 2 licensees) for the industry or \$8756 per year. Therefore, the annual incremental cost of this rule will be \$1,103,894 (\$1,112,650 - \$8756).

Some indirect benefits which could be derived by the licensees are a healthier, more physically fit guard force, which results in potentially fewer on-the-job injuries, decreased sick leave, and health insurance claims.

4.1.2 Day Firing Qualifications

The amendments will require that armed security force personnel qualify and requalify annually using updated day firing qualification criteria for all assigned weapons. The affected Category I licensees are currently required to qualify and annually requalify armed security force personnel using a national police course (for handguns) and an NRA course (for semi-automatic rifles) or an equivalent nationally recognized course. Although the new day firing qualification course is more stringent than previously required courses, each individual TRI member, armed response person, and guard is currently qualifying using both the night firing course of Part 73, and day firing course contained in the licensee's Weapons Qualification Plan that are very similar to the course being required in this rule. Based on this fact and the results of quarterly physical protection inspections of Tactical Response Teams for all assigned weapons, the staff believes that these individuals readily should be able to qualify using the proposed day firing course. Hence, the staff believes that these day firing criteria add no new burden.

4.2 Impacts on NRC

The NRC staff estimates that it will spend approximately \$4020 in travel expenses as a result of this rule. This is based upon the assumption of a 2-day 3-person trip to each facility, costing about \$500 per person, and a total of 12 days per diem at a rate of \$85 per day. To determine the staff labor cost, it was assumed that another 5 days would be required to approve the revised security plans containing the measures licensees commit to taking in order to comply with the additional requirements of the rule, in addition to the 12 days assumed for travel. Thus, staff labor costs for 136 hours (17 days) at \$48 per hour would be \$6528. In addition, contractual support to develop guidance for the proposed rule will be \$300,000. Therefore, total implementation cost to NRC will be approximately \$310,000 and 136 hours of staff time.

4.3 Impacts on Others

The impact on the public is the benefit of increased assurance that armed security force personnel are capable to perform their duties under conditions of strenuous tactical engagement.

TABLE 1

PHYSICAL FITNESS TRAINING COSTS
LABOR COST ESTIMATES

Based on:

1. Three 1-hour training sessions per week and 40 minutes of commuting time per session.
2. Fully loaded labor cost assumed to be twice the basic pay rate.
3. One hundred and ten guards per plant.

ANNUAL LABOR COSTS

Plant A: 5Hrs/wk X 50 Wks/yr X 110 Guards X \$22.80/hr	=	\$627,000
Plant B: 5Hrs/wk X 50 Wks/yr X 110 Guards X \$17.00/hr	=	\$467,500
Total	=	\$1,094,500

TOTAL LABOR COSTS

(Assuming 30 year life cycle costing at a 5% real discount rate)¹

Plant A: 15.4 X \$627,000	=	\$9,655,800
Plant B: 15.4 X \$467,500	=	\$7,199,500
Total	=	\$16,855,300

¹NUREG/CR-3568, PNL-4646, Table C.2, pg. C.5

TABLE 2

PHYSICAL FITNESS TRAINING COSTS
CLUB MEMBERSHIP COST ESTIMATES

Based on:

1. YMCA group membership rates in towns near the licensee facilities.

ANNUAL CLUB MEMBERSHIP COSTS

Plant A: \$115.00 X 110 Guard force members	=	\$12,650
Plant B: \$50.00 X 110 Guard force members	=	\$5,500
Total	=	\$18,150

TOTAL CLUB MEMBERSHIP COSTS

(Assuming 30 year life cycle costing at a 5% real discount rate)²

Plant A: 15.4 X \$12,650	=	\$194,810
Plant B: 15.4 X \$5,500	=	\$84,700
Total	=	\$279,510

²Ibid.

TABLE 3

COMBINED PHYSICAL FITNESS TRAINING COSTS
ANNUAL COST ESTIMATES

Plant A:	\$627,000	+	\$12,650	=	\$639,650
Plant B:	\$467,500	+	\$5,500	=	\$473,000
Total				=	<u>\$1,112,650</u>

TOTAL COSTS

(Assuming 30 year life cycle costing at a 5% real discount rate)³

Plant A:	\$9,655,800	+	\$194,810	=	\$9,850,610
Plant B:	\$7,199,500	+	\$84,700	=	\$7,284,200
Total				=	<u>\$17,134,810</u>

³Ibid.

5. DECISION RATIONALE

While Option 1 would result in no incremental cost, it has been rejected because it will not accomplish NRC's objective of assuring that a security force is in place which has the capability to perform its assigned tasks under conditions of strenuous tactical engagement. Option 2 and Option 3 have no difference in cost. If Option 2 is pursued, the performance criteria and the annual performance testing would be imposed through a regulator guide, an order, or a license condition. This is undesirable because regulatory guides do not afford the same assurance of enforceability as do regulations, orders, or license conditions, and actions by order or license condition do not provide the benefit of public participation afforded in the rulemaking process. Therefore, Option 3, which is fully enforceable and has the benefit of public participation in its development is the desired alternative.

6. IMPLEMENTATION

Within 90 days after the effective date of the final rule, each licensee will be required to submit a revised Fixed Site Physical Protection Plan describing how the licensee will comply with the new requirements. Revised plans must be mailed to the Director, Division of Safeguards and Transportation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Within 1 year of Commission approval, each licensee will implement the revised security plans.

ENCLOSURE D
CONGRESSIONAL LETTERS



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

The Honorable Peter H. Kostmayer, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed amendments to 10 CFR Part 73. These amendments will impose physical fitness testing criteria on guards and other armed response personnel at fuel cycle facilities authorized to possess formula quantities of strategic special nuclear material. In addition, these amendments will require that security force personnel be qualified for use of assigned weapons using new day firing qualification criteria.

These amendments will better ensure that security personnel are able to perform their assigned duties under conditions of strenuous tactical engagement.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure: As stated

cc: Representative John J. Rhodes

The Honorable Peter H. Kostmayer, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
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Enclosure: As stated

cc: Representative John J. Rhodes

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Offc: GPA:CA
Name: DRathbun
Date: / /92

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

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure: As stated

cc: Representative Carlos J. Moorhead

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Committee on Energy and Commerce
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Washington, DC 20515

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Name: DRathbun
Date: / /92

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

The Honorable Bob Graham, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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Sincerely,

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Office of Congressional Affairs

Enclosure: As stated

cc: Senator Alan K. Simpson

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Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

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Name: DRathbun
Date: / /92

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ENCLOSURE E
PUBLIC ANNOUNCEMENT

NRC PUBLISHES ADDITIONAL SAFEGUARDS REQUIREMENTS
FOR FUEL FACILITIES POSSESSING FORMULA
QUANTITIES OF STRATEGIC SPECIAL NUCLEAR MATERIAL

The Nuclear Regulatory Commission (NRC) is amending its regulations for certain nuclear fuel facilities to ensure that the facilities' security guards can adequately perform their duties. The revisions would require the guards to participate in a continuing physical fitness program, pass an annual performance test, and qualify for daytime weapons firing according to new criteria.

The physical fitness program will have to be approved by the NRC and will include aerobic exercises such as running and bicycling, as well as exercises that develop strength, flexibility, and endurance in the major muscle groups. Guards, armed response personnel, and tactical response team members (the primary response team for security protection for each shift) will be evaluated once every 4 months to determine the effectiveness of the fitness training program.

To demonstrate physical fitness, guards, armed response personnel, and tactical response team members will be required to run certain distances within specified times. For tactical response team members, the criteria will be a 1-mile run in 8 minutes and 30 seconds or less and a 40-yard dash starting from a prone position in 8.0 seconds or less. For response guards and armed response personnel who are not members of the tactical response team, the criteria will be a one-half mile run in 4 minutes and 40 seconds or less and a 40-yard dash starting from a prone position in 8.5 seconds or less. Each individual would have to requalify once every 12 months.

The requirements for daytime weapons firing qualification will be updated and made similar to requirements for night firing issued in November 1988.