U. S. ATOMIC ENERGY COMMISSION DIRECTORATE FOR REGULATORY OPERATIONS

REGION III

RO Inspection Report No. 050-263/73-09

Northern States Power Company Licensee: 414 Nicollet Mall Minneapolis, Minnesota 55401

> Monticello Nuclear Generating Plant Monticello, Minnesota

License No. DPR-22 Category: C

Type of Licensee:

BWR (GE) 545 Mwe

Type of Inspection:

Routine Physical Security Inspection

Date of Inspection:

June 27, 1973

Date of Previous Inspection; None

Principal Inspector: 7 . F. Donahue Investigation Specialist

Accompanying Inspector: None

Other Accompanying Personnel: None

Reviewed By:

Da Hund Materials and Plant Protection Branch

8/22/73

Attachment: (Exempt from Disclosure)

9102080369 730823 ADOCK 05000263 PDR PDR

6 1 1

10.0

73

EXEMPT FROM DISCLOSURE

SUMMARY OF FINDINGS

FOR OFFICIAL COL

Th initial physical security inspection was conducted on June 27, 1973 to ascertain the actions taken to complete or implement the Monticello Nuclear Plant Industrial Security Plan and Security Procedures dated November 30, 1972.

Although this plant has been operational since July 5, 1971, completion of final physical barriers, installation of intrusion alarms, utilization of a closed circuit television system and upgrading of protective lighting, as described in the Security Plan, has not been realized. While protective personnel are effectively controlling access to the plant and are performing periodic patrols, the protective measures would be enhanced by full implementation of the written security plan. During outages for reloading or maintenance, additional protective personnel are assigned to posts within the plant to restrict the mobility of non-plant workers.

Agreements were reached that the findings disclosed by this inspection will be implemented to assure conformance with the Security Plan.

FINDINGS

- The Gate House, which serves as the sole point of ingress-egress for the protected area, is currently a small structure and does not provide adequate space to serve as a "pass-through" for employees and visitors. When enlarged to accommodate protective personnel, a proposed alarm system console and closed circuit television monitors will be installed to provide better security protection.
- 72. At certain points along the physical barrier, (Security Fence), the base of the fence had gaps caused by erosion. Also, vegetation capable of concealing intruders had not been removed and equipment and miscellaneous material was noted stored in immediate proximity to the fence. The east section of the fence is of insufficient distance from a warehouse to provide a wide buffer zone.
 - 3. The plant lacks an intrusion alarm system to detect penetration at ground level portals. Certain portals, to be included in the proposed alarm system, have glass panels which are not barred or screened to preclude entry or introduction of foreign objects.
 - 4. The security plan addresses itself to the utilization of a closed circuit television (CCTV) system for surveillance of certain "blind" areas within the protected area. This system while planned, has not been installed. When installed, monitor screens will be located in the Gate House.

EOR OFFICIAL LOE CTUT

EXEMPT FROM DISCLOSURE

- 2-

EXEMPT FROM DISCLOSURE

FOR OFFICIAL DEL COLL

Chine and the

 In the event of power failure from the primary source, there is no alternate source of power for the protective lighting system and the proposed alarm and CCTV systems.

These matters were discussed with Willard Anderson, Superintendant for Operations & Maintenance for the Monticello Plant; Gordon Ortler, Superintendent of Security; and Al Johnson, Electrical Engineer, the latter two from NSP Corporate Headquarters.

- 3-

EXEMPT FROM DISCLOSURE

EXEMPT FROM DISCLOSURE

TOR OFFICIAL UNE COLD

REPORT DETAILS

Introduction

The initial physical security inspection of the Monticello Nuclear Generating Plant was conducted on June 27, 1973. The inspection was conducted to determine whether the licensee is implementing the Industrial Security Plan dated November 30, 1972. Requirements contained in 10 CFR 73 are not applicable to this site. Used as guidance in conducting the inspection were Regulatory Guide 1.17 and Draft No. 5 of ANSI Standard 3.3.

The site of the Monticello Plant is situated about three miles northwest of the village of Monticello, Minnesota, on the south bank of the Mississippi River located generally in Wright County, Minnesota. Northern States Power Company (NSP) owns approximately 1,325 acres of land, much of which is not fenced. The immediate reactor plant area, including major portions of the intake, is enclosed by security fencing. The area surrounding the site is used mainly for agricultural purposes. The site is bisected by a State Highway 152 which lies approximately a half a mile southeast of the Reactor Building. A railroad spur of the Great Northern Railroad leads from a trunk line to the site. The Monticello Plant is approximately 40 miles northwest of Minneapolis - St. Paul and approximately 22 miles southeast of St. Cloud Minnesot3.

The plant is a five level structure (including basement) and consists of interconnected buildings, namely, the Office and Control Building, Reactor Building, Turbine Building, Diesel Emergency Generating Building, Machine Shop, and Radwaste Building. The main plant plus the Intake Structure are located within the security fence. Also enclosed by fencing are twin cooling towers to the east of the plant and the off-gas stack which is southeast of the plant.

Physical Barriers

The Monticello Nuclear Plant has a complement of 75 employees and operates three 8 hour shifts, seven days each week. The three shifts are from 7 a.m. to 3 p.m., 3 p.m. to 11 p.m. and 11 p.m. to 7 a.m. Normally each shift has an average of five operating and maintenance personnel with the heaviest presence of employees on the site being the executive, administrative, engineering and clerical during the hours from 8 a.m. to 4:30 p.m., Monday thru Friday. Weekend and holidays schedules call for a minimum of five operating and maintenance personnel on the site, exclusive of the plant protection force.

-4-

FOR OFFICIAL LOS COM

FOR OFFICIAL COL COLY

11.

TXTTPT FROM DISCLOSU

The plant and off-gas stack are surrounded by a physical barrier (security fence) consisting of an eight foot high eleven gauge steel wire mesh fencing material topped by three strands of barbed wire inverted at a 45 degree angle outward. In addition, fencing is also provided surrounding the cooling towers which lie to the east of the plant. This fence butts against the security fence.

The fence gate of the off-gas stack is padlocked with keys limited to authorized personnel. The seven gates on the perimeter of the physical barrier are also padlocked with restricted key control. When these gates are open, a member of the plant protection force is in attendance. The main entry to the plant is adjacent to a gate house leading from the parking lot. This Gate House is continuously manned by protective personnel who register employees on entry and sign them out on departure. The Gate watchman also identifies visitors, notifies intended visitees, obtains prior approval for admission, and issues a visitor badge and provides direction to the office of the visitee. The main entry of the plant is through the Office and Control Building lobby which is within the visual range of the Gate House watchman.

Messrs, Ortler and Johnson acknowledged that while the Monticello Industrial Security Plan describes the Gate House as a "pass-through" type, it is merely a very small structure not permitting this pass-through feature. It is planned, however, that the Gate House will be enlarged considerably and be comparable in size to that provided at the NSP Prairie Island Site. Also, plans were discussed for changes in the configuration of the feace line to provide a wider **buffer zone between existing structures, the clearing of vegetation** around the fence line, Substation and the Intake Structure, the installation of closed circuit television (CCTV) and an intrusion alarm system, and the clearing the inside and outside of the fence of any material and equipment capable of concealing an intruder (See Findings No. 1 and No. 2).

When the CCTV and intrusion alarm systems are installed, monitor screens and alarm console will be placed in the yet-to-be-erected Gate House. Further, with the change in the configuration of the perimeter fence, light poles for protective lighting will be changed to provide adequate illumination 10 feet on either side of the protected area fence. On-site roads for the patrol vehicle will be graded for all purpose weather conditions.

A comprehensive key control system has been instituted to assure close control and issuance of keys for portals within the protected area, particularly portals of vital areas. Responsibility for key issurance is vested with respective shift supervisors operating in the shift supervisor's office which has a key locked cabinet and charge-out log. During the conduct of interior surveillance tours conducted by operating personnel, portals are checked to assure adequate locking.

FOR OFFICIAL USE COM

- 5-

Lindian & Leiver Liburo 2013

FOR OFFICIAL USE LALY

EXEMPT FROM DISCLOSURE

Personnel Identification and Control

The Monticello Plant utilizes an identification badge system. Badges are required to be worn while within the protected area. Site employees have been issued plastic laminated photo identification badges with a yellow and green insert with a tritium logo. These badges are fabricated at NSP Corporate Headquarters and inserts and records of badge issuance are maintained there. NSP Corporate employees, not assigned to the station, have yellow and green photo identification badges with no logo. Service and contractor personnel are issued picture badges containing their names and assigned serial number and are color coded green, pink or red to designate the area to which access is to be authorized. General visitors not working on the site are issued a serial number plastic laminated visitor pass which requires an escort during the length of their visit.

Mr. Anderson stated that seldom are group tours conducted, such tours are permitted only with the prior approval of NSP Corporate Headquarters. These rarely conducted tours involve professional or engineering personnel from other operating or preoperational nuclear sites, students of nuclear engineering, or members of the news media. Group tours are invariably conducted by plant staff to preclude unauthorized entry to vital areas or high radiation areas.

Drivers of NSP vehicles or service and delivery trucks are registered in as visitors and are badged. A magnetic plaque is attached to the vehicle doors showing "authorized vehicle" before a vehicle is permitted on site. Authority for its entry must be solicited from the person who is the recipient of a delivery or service. The driver is directed to the appropriate receiving door to assure escort by the responsible staff member.

Visitors register in a log which contains their name, company affiliation, purpose of visit, person contacted, time in and time out. Badges issued in the Gate House are recovered on the visitors departure from the site.

A challenge procedure is in effect and if an employee should note a person not wearing an identification badge while within the protected area, he is asked to identify himself and, if not authorized, will be requested to leave. Assistance, if necessary will be solicited from the Plant Protection Force or Sheriff's Office.

Protective Alarms

The Monticello Industrial Security Plan speaks to the use of intrusion alarms on all ground floor portals except the main personnel entry doors of the Office andControl Building which are within the visual range of the Gate House watchman. At the time of this inspection, the facility lacked an intrusion alarm system. It was pointed out, however, by Mr. Ortler and Mr. Johnson, that NSP

-6-

FOR OFFICIAL USE CITY

FOR OFFICIAL USE CITY

EXEMPT FROM DISCLCSURE

EXLIPT FROM DISCLOSULT

Corporate Headquarters is currently in the process of selecting a supplier and installer for the intrusion alarm system. NSP has been provided with a copy of Interim Federal Specification W-A-00450B(GSA-FSS) dated February 16, 1973. Mr. Johnson stated that the successful contractor will be provided with the specifications to assure the adequacy and effectiveness of the intrusion alarm system.

Alarm consoles will be located in the Control Room as well as the Gate House. After the alarm system has been installed and tested, procedures will be developed covering response responsibilities to alarm activations. Also, procedures will incorporate the conduct of periodic cests to assure effective ness, efficiency, sensitivity, operability of the intrusion alarm system.

Certain of the ground floor portals to be protected by the intrusion alarm system have glass panels in the upper portion. It was agreed that these particular portals would be barred or screened from the inside to preclude forced entry or the introduction of foreign objects into the plant. (See Finding No. 3)

Also incorporated in the Monticello Industrial Security Plan is the utilization of a closed circuit television (CCTV) system for surveillance of certain "blind" areas within the protected area. This system, while planned, has not been installed. Mr. Johnson stated that low light level cameras are to be installed on the Warehouse roof to cover and scan the east perimeter fence, on the southwest and northeast corners of the Reactor Building to cover the fence line and riverbanks and on the roof of the Intake Structure to permit scanning of the roadway and fence line adjacent to it. Monitor screens will be installed in the Gate House operated by the Plant Protection Force. The CCTV system will not eliminate the need for protective patrols but will enhance surveillance of the protected area during periods when the grounds are not being patrolled. (See Finding No. 4)

It was disclosed that the proposed alarm and CCTV systems, as well as the protective lighting system illuminating the perimeter of the protected area, would have no alternate power source should the primary source of power fail. It was agreed that an alternate source of power would be provided to assure continuity of operation for protective equipment and lighting. (See Finding No. 5)

Protective Personnel

aid in a

NSP contracts with Pinkerton of Minneapolis for the services of uniformed plant protection personnel. A total of nine Pinkerton employees are assigned to provide around-the-clock protection for the Monticello Plant. At least two watchmen are assigned to each shift, one manning the Gate House, the other on roving patrol within the protected area fence line and conducting additional patrols to the cooling towers, Intake Structure, off-gas stack,

-7-

FOR OFFICIAL USE CHILY

TOR OFFICIAL USE ONLY

(a) per

EXEMPT FROM DISCLOSURE

Switch Yard and access roads leading to the site.

While on duty, protective personnel are under the supervision of Mr. Anderson. Additional supervision is provided by a Pinkerton Sargeant, a Lieutenant Field Supervisor and Pinkerton nonuniformed Field Supervisor. Assignment of protective force members of the Monticello site is negotiated with Pinkerton. Mr. Ortler screens Pinkerton employees prior to their assignment. Mr. Ortler indicated that a higher caliber contract-type watchman is assured through this selection process.

The average age of the protective force is approximately 35 years old. The criteria for their selection is identical with NSP policy for selection of protective personnel at other sites, particularly the Prairie Island Generating Station. Personnel are required to have a minimum of a high school education, meet rigid physical standards and possess sound judgement and discretion.

Training of the force is provided initially by Pinkerton and this training is augmented by the NSP Corporate Security Office in conjunction with Monticello Site Personnel. All assigned watchmen are given formal training in the Plant Protection Orders tailored to the needs of the Monticello Site. Additional training is provided to them with respect to radiation hazards, fire and safety. Plant protection orders are reviewed and approved by the NSP Corporate Security Office. In addition to written orders, verbal or special orders are issued as the need arises. Whenever the plant is in an outage for refueling or maintenance, additional Pinkerton personnel are assigned to man internal control points within the plant to limit the mobility of construction and maintenance contractors. Specific orders are issued for these particular internal posts.

Specific orders have been written covering the duties of the Gate House man and the patrolman. The Gate House man is responsible for controlling ingress and egress in the protected area while the patrolman conducts walking and vehicular patrols on an hourly basis. To assure the conduct of required patrols, Detex clock stations have been placed at the Inlet Station, to be punched every half hour, 24 hours everyday; the Substation to be punched hourly, 24 hours a day; the Outlet Station near the cooling towers to be punched every hour, 24 hours a day; the north side of the Warehouse area to be punched every hour, 24 hours a day; and the south fence line also to be punched every hour, 24 hours a day. Patrol areas include the parking lot, the fence line area, intake area, cooling towers, warehouse, temporary construction area, exclusion fence line area on the property, the substation, the construction area, the riverbank, and the main highway entrance.

The protective force has communication capability between the patrolman and the Gate House and between the Gate House and the control room. Two-way radios and telephones are available. The only keys controlled by the Gate House are the

-- 8-

FOR OFFICEL USE ONLY

FOR OFFICIAL USE CALY

EXEMPT FROM DISCLOSURE

keys for padlocks on fence gates. No building keys are in their possession. The Gate House man is responsible for conducting selective searches of incoming and outgoing material or packages.

At the time the security plan was written, Pinkerton personnel were armed with .38 caliber revolvers. However, effective January 20, 1973, Pinkerton guards working at NSP facilities discontinued carrying firearms based upon NSP consideration of the legal responsibility of the individual guards and to NSP, as well as the serious result from the firing of an weapon. As a substitute measure, it was felt by NSP that it would be wiser to request professional law enforcement agencies to assist should an incident occur which would require the use of a weapon. Mr. Ortler stated that NSP has no plans to assign armed personnel for their nuclear generating plants unless compelled to do so. The decision to disarm the guard force was not a "spur of the moment decision but one which was reached after months of discussion and study from all standpoints," according to Mr. Ortler.

The turnover rate of protective personnel has not been appreciable. The only turnover realized to date has been self imposed to upgrade the caliber of protective personnel by eliminating some of the older men with those possessing better physical conditions and qualifications. Mr. Ortler stated that good relationships exist between the protective force and the Wright County Sheriff's Office. In the event of an emergency requiring response by local law enforcement personnel, such response would be within approximately five minutes and not exceeding fifteen minutes in adverse weather conditions.

Personnel Selection

The majority of Monticello site personnel were recruited from other NSP constituent facilities, particularly executive, operating and engineering personnel. Maintenance, administrative and clerical personnel have been recruited from local environs. Applicants for employment are screened initially by the chief clerk who conducts pre-employment checks to verify employment and educational claims and who contacts local police departments for record information. Based upon qualifications possessed and personal attributes, applicants are hired after their acceptance by the responsible supervisor.

All new employees are placed on a six month probationary period. If conduct and services are not satisfactory within this period employees may be dismissed. Those employees who become union members do not receive personnel evaluations after completion of their probationary period. Nonunion employees, however, are subject to an annual merit review and these evaluations form the basis for periodic pay increases or possible dismissel.

Mr. Anderson stated that NSP has strict rules governing conduct of employees, including union members. Records of instances of misconduct are kept and if continuing rule infractions occur, negotiations are entered into with the union to discipline or discharge the employee. Mr. Anderson stated that the relationship at this site with the union are exceptionally good. It is clearly understood that any serious violations of safety rules or misconduct result in

-9-

FOR OFFICIAL USE CALV

FOR OFFICIAL USE ONLY

EXELATT FROM DISCLOSURE

immediate corrective action. Supervisory employees at all levels have been instructed to be alert for any changes in employees behavior patterns or if they reported for work under the influence of intoxicants or drugs.

Mr. Ortler stated that to assure a high caliber of protective personnel and their reliability, he personally selects Pinkerton personnel for assignment to the Monticello site. Prior to such assignment, Pinkerton provides Mr. Ortler with a report on their background check of the applicant which includes appropriate Police checks. Pinkerton field supervisors, as well as members of the NSP Corporate Security Department, make periodic unannounced visits to the site to check on the activities of the protective force. Any misconduct or failure to perform duties and carry out responsibilities to the satisfaction of NSP give rise to removal from the plant protection force.

Personnel Training

According to Mr. Anderson, a comprehensive and continuing personnel training program exists at Monticello. Newly-hired employees are given an initial indoctrination by Mr. Anderson covering work rules, group safety and plant security. Employees are instructed on their safeguarding responsibilities and are requested to report to him any unusual or suspicious incidents which may have a bearing on the plant security program.

During the course of employment, employees attend periodic safety, fire and security meetings and participate in drills for evacuation and/or their responsibilities during all classes of emergencies. According to Mr. Anderson, training and conducting of drills is wholeheartedly supported by site management.

Protective personnel likewise participate in periodic drills and training to assure their competency in the event of an emergency. Periodic tests are conducted by both Pinkerton and NSP to assure that protective personnel are familiar with the Monticello Industrial Security Plan, their duties and responsibilities, and the actions to be taken by them during emergencies.

Visitor Control

All persons desiring admittance to the protected area, including drivers of delivery of service vehicles are treated as general visitors. Employees are permitted entry on the basis of personal recognition and display of their employee photo identification badge. All persons entering the protected area sign a log showing time of entry and departure. Visitors must produce some form of personal identification and have a legitimate need for entry. Before issuance of a visitor badge and registration, prior approval for the entry of visitors is solicited from a responsible member of the staff. On the basis of areas to which access is to be afforded, an appropriate color coded badge is issued to the visitor and escort is provided by the visitee.

- 10-

FOR OFFICIAL USE CHLY

FOR OFFICIAL USE ONLY

Questionable packages and brief cases are subject to search if carried into the protected area. Also deliveryor service vehicles entering through the Gate House control access point are subject to cursory search. No personal vehicles are admitted within the protected area and all employees and visitors must park outside the perimeter fence.

General

The Monticello site emergency plans and implementing procedures have been inspected by RO:III and are currently in the process of revision based upon certain noted deficiencies. The emergency plans will include actions to be taken to cope with civil disturbances, overt threats and bomb threats. The plans are essentially compatabile with developed security plans. Liaison has been established with local law enforcement agencies to provide backup in the event of security threats. The plant manager and respective shift supervisors beering on the security program will be appropriately investigated and corrective and protective measures instituted accordingly.

Comments

RO:III informed the licensee by letter of the results of the initial security inspection and was advised that the security program will be inspected by RO:III during subsequent visits to the plant. Discussed during the management close out were Regulatory Guide 1.17, and proposed 10 CFR 50 and ANS 3.3 (ANSI-N18.17). It was pointed out that some backfitting to meet proposed rules and standards may be necess; v in the future.

FOR OFFICIAL USE ONLY

Learning & has soid in



UNITED STATES ATOMIC ENERGY COMMISSION DIVISION OF COMPLIANCE REGION III 799 ROO EVELS ROAD GLEN ELLYN, ILLINOIS 60137

TELEPHONE (312) 858-2660

A. RO Inspection Report No. 050-263/73-09

Transmittal Date : August 23, 1973

Distribution: RO Chief, FS&EB, w/encl RO: HQ (5) DR Central Files, w/encl Regulatory Standards (3) Licensing (13) RO Files, w/encl

Distribution: RO Chief, FS&EB RO: HQ (4) L:D/D for Fuel & Materials DR Central Files RO Files

B. RO Inquiry Report No.

Transmittal Date : _____

Distribution: RO Chief, FS&EB RO:HQ (5) DR Central Files Regulatory Standards (3) Licensing (13) RO Files

Distribution: RO Chief, FS&EB RO:HQ DR Central Files RO Files

C. Incident Notification From:

(Licensee & Docket No. (or License No.)

Transmittal Date

Distribution: RO Chief, FS&EB RO: HQ (4) Licensing (4) DR Central Files RO Files

Distribution: RO chief, FS&EB RO: HQ (4) L:D/D for Fuel & Materials DR Central Files RO Files