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Docket No. 50-461

Mr. J. B. Martin  
Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Subject: Response to Concerns About Radiation  
Protection and Physical Security

Dear Mr. Martin:

Illinois Power (IP) has reviewed the concerns contained in the NRC letter to IP from W. L. Axelson dated October 6, 1994, regarding certain radiation protection (RP) and physical security incidents. The investigation of these incidents was assigned to an independent (private) investigator to assure an unbiased review and evaluation of the circumstances of the issues.

The investigation identified that, although some of the incidents did occur, there was no intent to prevent employees from recording actual dose or to retaliate against employees for recording actual dose. Further, there was no intent to determine if employees had discussions with the NRC. The independent investigation did not identify any adverse safety or security implications. Recent trend reports indicate that security force performance has improved for the most part. The investigation did not identify any violations of plant procedures. It is not IP policy or practice to terminate employment for minor/unintentional radiological control violations. A summary of the investigation results is provided below.

NRC Concern A.1:

"During a security briefing, believed to have been conducted during September 1994, the Illinois Power Site Security Supervisor implied that security officers are not to report radiation dose received while in the Radiation Control Area (RCA)."

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IP Response:

In the months since the fourth refueling outage, Radiological Operations (Rad Ops) had been scrutinizing significant doses (greater than five millirems) logged onto Access Control Permits (ACPs) to assure that workers are properly logging onto the appropriate radiation work permits (RWPs) for radiologically significant work. ACPs are used for general passage through the RCA and for performing radiological work which has no radiological consequences and is not controlled in any way by Radiation Protection.

On or about September 12, 1994, Rad Ops noted that an unusually high amount of radiation dose had been recorded in the Personnel Radiation Exposure Management System (PREMS) under ACPs for the week ending September 11, 1994. Rad Ops performed an investigation of the unusually high dose and identified instances of dose recorded when an individual had been in the RCA for a relatively short time (three to twelve minutes). Rad Ops selected five of the instances for further investigation. Four of the instances selected were recorded dose for security force members (SFM) and one instance was recorded dose for an NRC inspector. Rad Ops had previously done similar investigations of doses received on ACPs.

The Rad Ops investigation identified that SFMs had recorded 122 millirems of the accumulated dose recorded in the PREMS for the week ending September 11, 1994. The security force presence in the RCA had been increased effective September 7, 1994, to improve the tactical response program and better utilize personnel; however, neither Security supervision nor Rad Ops had expected the increased presence to result in any significant increase in dose to SFMs.

On September 12, 1994, the supervisor of Rad Ops informed the supervisor of Security about the dramatic increase in accumulated dose recorded by the SFMs for the week ending September 11, 1994. The supervisor of Security thought the SFMs were entering dose without receiving any in order to attract management attention to the increased patrols in the RCA, expecting a reversal of the decision to implement these patrols. So, in response to the radiological concern, on September 13, 1994, the supervisor of Security briefed the day shift and the swing shift, and a Burns training instructor briefed the midnight shift about the increase in recorded dose. The supervisor of Security did not tell the SFMs that they should not report dose, rather he told them that if they read dose on their pocket dosimeters, they should report it, and if they do not read any dose, they should not report any dose.

Twelve SFMs were interviewed during the independent investigation of this issue. Six of these SFMs attended one of the two briefings given by the supervisor of Security about the increase in recorded dose. Two of the six SFMs interviewed indicated they perceived that the supervisor of Security implied SFMs should not record actual dose readings from pocket dosimeters. These two SFMs, as well as others, represented that

other SFMs perceived the supervisor's comments in the briefing to imply that SFMs should not record actual dose readings from pocket dosimeters, and that some SFMs may have been intimidated or influenced by the comments the supervisor made in the briefing.

None of the SFMs interviewed admitted to intentionally recording either a higher or lower dose than an actual reading. However, some SFMs suspect that other SFMs may have recorded higher than actual dose prior to the supervisor's briefing because of being disturbed about the increased patrols in the RCA. Some SFMs suspect that other SFMs may have recorded lower than actual pocket dosimeter readings as a result of being intimidated or influenced by the supervisor's comments in the briefing. Some SFMs theorize that the increase in dose during the week ending September 11 was, in part, due to SFMs having a heightened awareness to radiological exposure and paying more attention to dosimeter readings as a result of having to spend more time in the RCA.

A review of PREMS data for the thirteen weeks prior to the week ending September 11, 1994, identified that accumulated dose readings for SFMs had ranged from 10 millirems to 42 millirems per week. After the briefing given by the supervisor of Security on September 13, the accumulated dose readings for SFMs returned to the normal range.

On September 16, 1994, in response to an NRC inspector discussion with the supervisor of Rad Ops about possible deliberate acts of management instructing SFMs to not record dose in PREMS, the issue of recording dose was readdressed with SFMs during the shift briefings to clear up any confusion about recording dose. The briefing advised SFMs that they need to record any dose received.

IP requires radiation workers, including SFMs, to wear thermoluminescent dosimeters (TLD) to track dose received. The TLD is read on a quarterly basis and normally provides the legal record of external dose received by radiation workers at Clinton Power Station. The TLD tracks dose independent of the dose recorded in PREMS.

#### NRC Concern A.2:

"The contract security force feels harassed. Remarks made by the Illinois Power Site Security Supervisor during a security briefing, believed to have been conducted in September 1994, indicated that licensee management would retaliate against security personnel if they continue to report their radiation dose."

#### IP Response:

The investigation identified that some SFMs perceive harassment to include changes to the program that they do not like; so, some SFMs feel they have been harassed or punished because some of the security patrols have been reassigned to inside the RCA.

Some SFMs expressed opinions that the cigarette butt patrols are "busy work" and not necessary or productive and that the patrols were established, in part, to justify the increased presence in the RCA.

The supervisor of Security acknowledged telling SFMs that they should not be seeing any increases in dose as a result of the increased presence in the RCA. The supervisor further acknowledged telling the SFMs that if Rad Ops continues to see significant doses from Security they could suspend RCA access of SFMs, make SFMs wear electronic dosimetry, and require additional radiation worker training for SFMs.

Most of the SFMs interviewed for this investigation did not expect any retaliation against SFMs because of recorded dose and did not perceive that the supervisor's comments indicated IP management would retaliate against security personnel.

As discussed in the response to concern A.1, the issue of recording dose was readdressed with SFMs on September 16, 1994. During the briefing, SFMs were told that they need to record any dose received.

#### NRC Concern A.3:

"A contract security employee (Burns) equivalent to a captain, asked several security officers "Been to the NRC lately". This event was believed to have occurred in September 1994."

#### IP Response:

This concern was substantiated during the investigation. Interviews of SFMs identified a Burns employee, a lieutenant, who made such a statement and the SFM to whom the statement was made. The Burns employee, who informed the lieutenant of who went to the NRC on this particular occasion, was also identified.

The SFM to whom the statement was made was one of the individuals interviewed during this investigation. This SFM stated that the lieutenant was letting it be known that he was aware that the SFM had been to the NRC and did so in a kidding manner. The SFM characterized the lieutenant as a "good guy" and said the lieutenant was not challenging, probing or questioning the SFM. The SFM did not take offense to the comment made by the lieutenant.

On December 14, 15, and 16, 1994, the IP policy on employee interaction with the NRC was discussed with SFMs. The briefings emphasized that personnel are free to speak to the NRC at any time and that no effort shall be made to obtain information regarding the discussions.

NRC Concern A.4:

"Security force morale has declined because the licensee Site Security Supervisor has harassed security force personnel and because the security force has a mistrust of the security supervisor."

IP Response:

All of the SFMs interviewed expressed the feeling that morale has declined among SFMs. However, not all of the SFMs feel the decline in morale is a result of harassment as such. Generally, the SFMs feel that moving security patrols inside the RCA caused a decline in morale. Other events were also mentioned to have contributed to the decline in morale.

The interviews indicate that some SFMs mistrust the supervisor of Security. Some SFMs feel that this is the case for most SFMs. Reasons for the mistrust included the supervisor "all but calling SFMs liars" with respect to PREMS recordings of pocket dosimeter readings, and the supervisor misrepresenting that moving security patrols inside the RCA was to improve tactical response, when the real reason was because he did not want SFMs to be seen in smoking areas. SFMs complained about doing cigarette butt checks, saying the checks were being done to justify the increased presence in the RCA. Also mentioned with respect to morale and trust were other events including actions taken by Burns, which SFMs believe illustrate the supervisor's lack of consideration for input from SFMs.

IP Security recognizes that they did not do a good job in implementing the power block patrol program; the resulting changes were not well received by the SFMs. Since implementation of the program, several actions have been taken to improve morale. Some of these actions include increasing IP and Burns management and supervision attendance at shift briefings to listen to SFM concerns and improve communications, improving conditions in the ready room, discontinuing the logging of cigarette butt checks, revising the security shift schedule, and implementing monthly crew meetings so management and crews can communicate individually.

Although there may have been a decline in morale, recent indicators for the third quarter of 1994 indicate improvement in SFM performance. These indicators include attendance, safety, remedial training and de-certifications, procedure violations, minor/unintentional security violations, and minor/unintentional radiological control violations. In addition, a recent Security Program inspection conducted by the NRC from November 1 through November 4, 1994, found that the Clinton Power Station Security force was very knowledgeable of security duties and responsibilities and very effective in implementing the security program.

NRC Concern B.1:

"Radiation Protection (RP) personnel were changing security force personnel's dose upon egress from the RCA, i.e. RP technicians changed some individuals doses from one mrem to 0 mrem."

IP Response:

Accumulations of dose rates of 1 or 2 mrem in a few minutes could reflect a number of serious problems and such incidents need to be investigated expeditiously. Such an unexpected high rate of dose accumulation could indicate any of the following:

- High dose rates have occurred unexpectedly in the plant and need to be posted.
- The pocket dosimeter is drifting badly.
- Poor practice in the transport of radioactive material has occurred.
- The worker is using the wrong radiation work permit.
- Other people have inadvertently logged onto this individual's record in PREMS.
- The worker needs additional training in the use of self reading pocket dosimeters.

A computer printout identifying changes to the PREMS records of SFMs confirmed that RP technicians have made changes to PREMS records. These changes include two that were made to SFM dose records from one millirem to zero millirem in September 1994. One of the changes was made on September 13 and one was made on September 15. Both of the changes were made as a result of the Rad Ops investigation of the five selected instances of recorded dose when an individual had been in the RCA on an ACP for a relatively short time (discussed in the response to concern A.1 above). In both cases, Rad Ops had suspended each individual's access to the RCA and issued a minor/unintentional radiological control violation to the individuals, requesting that they report to the RP office for an interview and possible dose investigation.

Rad Ops has no documentation identifying the reasons for the dose changes. The RP technician identified as making the dose change on September 13 had no recollection of the transaction. The SFM said that, when RP questioned him about his dose entry, he responded, after checking his date book, that he had not been in the RCA at the time in question. The SFM said the RP technician advised that he would change the dose record.

The RP technician who made the dose change on September 15 said that he made the change based on a discussion with the SFM which indicated that the SFM had not been in any area where an exposure of one millirem could have been received in the short time. On this basis, the RP technician changed the dose entry in the PREMS.

Only selected RP staff have the password access/knowledge necessary to correct dose entry errors on PREMS. Because pocket dosimeter dose is the basis for "real-time" tracking of individual dose accruals by radiation workers, such corrections are treated as

an important area of "customer service" in assisting workers to keep their dose records as accurate as possible. The dose entries that were changed were considered to be errors and in each case the SFM did not disagree with the change.

The quarterly reading of the TLD normally provides the legal record of dose received. Additionally, it is a procedural practice to investigate significant discrepancies between the record of pocket dosimeter recorded dose and TLD recorded dose.

NRC Concern B.2:

"RP personnel were issuing violations to security force personnel for receiving approximately 1 mrem while in the RCA. In addition, security force personnel were concerned that several of these violations would result in termination of employment."

IP Response:

The Supervisor of Rad Ops and others acknowledged that RP violations had been issued to four SFMs, as well as an NRC inspector, who had recorded dose of one or two millirems while on ACPs in the FCA for a relatively short time. He also indicated that the use of the minor/unintentional radiological control violation program was inappropriate for the four SFM and NRC inspector dose instances and that he did not intend that violations be issued for such incidents. RP personnel had issued the violations as a means to accommodate the dose investigations by suspending the individual's access and having them report to RP.

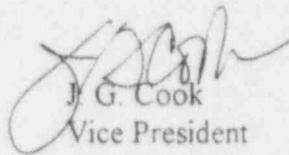
On September 19, 1994, the Supervisor of Rad Ops addressed SFMs at briefings for each security force shift to inform them that the RP violations were the wrong mechanism for an ACP dose investigation and that the violations had been rescinded. The supervisor also addressed the reason why RP performs such investigations and provided the results of RP's radiological surveys completed pursuant to the recorded dose matters. During the briefing, the supervisor addressed pocket dosimeter readings and how drifting of the indicator may be reduced, and emphasized the need to record actual readings.

Clinton Power Station has no policy of terminating the employment of individuals for receiving several minor/unintentional radiological control violations of RP work practices. Rad Ops Group Work Instruction 3.2, "Minor/Unintentional Radiological Control Violations," does indicate that an individual may be denied access for receiving four or more minor/unintentional radiological control violations. The instruction requires that a notice be sent to the individual's director for all violations after the third violation. The Director of Plant Radiation Protection normally signs the notice and assists in determining the corrective action to be taken prior to reauthorizing the individual's access to the RCA. IP has not terminated the employment of individuals for receiving such violations.

Burns tracks minor/unintentional radiological control violations received by SFMs. Violations are typically received as a result of failing to properly log off the PREMS. The Burns disciplinary policy for receiving a fourth minor/unintentional radiological control violation is the SFM receives retraining and a day off without pay. For a fifth violation, the SFM receives retraining and meets with the Burns project manager. The Burns policy makes no reference to employment termination, and no employment terminations have occurred for such violations.

In conclusion, the investigation determined that, although some of the incidents described in the NRC concern did occur, there was no intent to prevent SFMs from recording actual dose, or to retaliate against the SFMs for recording actual dose. The investigation did not identify any intent by a contract security employee to determine if SFMs had discussions with the NRC. Further, no adverse safety or security implications and no violations of plant procedures were noted during the investigation. Recent trend reports indicate that the performance of the security force has improved. The investigation determined that neither IP nor Burns have policies for or practice terminating employees who receive minor/unintentional radiological control violations.

Sincerely yours,



J. G. Cook  
Vice President

RSF/csm

cc: NRC Clinton Licensing Project Manager  
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