

NON-PUBLIC?: N
ACCESSION #: 8805310201
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Three Mile Island Unit 2 PAGE: 1 of 4

DOCKET NUMBER: 05000320

TITLE: Removal of Trash From a Radiologically Controlled Area Without
Proper Survey
EVENT DATE: 04/21/88 LER #: 88-005-00 REPORT DATE: 05/20/88

OPERATING MODE: N POWER LEVEL: 000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION

20.405(a)(1)(v)

LICENSEE CONTACT FOR THIS LER:
NAME: Edward D. Schrull, TMI-2 Licensing Engineer
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SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: This LER describes two (2) events involving removal of trash containing solid contaminated debris in excess of established limits from a Radiologically Controlled Area (RCA) without proper release surveys. The GPU Nuclear Corporation Radiation Protection Plan, a TMI-2 Licensing Basis Document per the TMI-2 Technical Specifications, established limits for unrestricted release of 1000 dpm/100 cm squared loose surface contamination and 5000 dpm/100 cm squared total (fixed plus removable). Therefore, these events are reportable pursuant to 10 CFR 20.405(a)(1)(v) since the contamination levels discovered at the trash compactor in each case were in excess of ten (10) times the limit set forth in the plan. The earliest event date of this LER is April 21, 1988; thus, the due date of this report is May 21, 1988 (i.e., 30 days from determination of reportability).

In both events, a Radiological Controls Technician was performing a routine survey at the trash compactor and discovered one or more bags of trash contaminated to various levels. The bag(s) was removed to a controlled area and surveyed; the contaminated material was removed and identified. The primary cause for both events is a lack of awareness of survey requirements for material removed from an RCA and/or inattention to requirements posted at all exits to RCAs requiring frisking/survey of such material. The measured contamination levels did not constitute a significant personnel

exposure hazard.

(End of Abstract)

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I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The TMI-2 facility was in a long-term cold shutdown state; the defueling evolution was in progress. The reactor decay heat was being removed via loss to ambient. Throughout this event there was no affect on the Reactor Coolant System or the core.

II. STATUS OF STRUCTURES, COMPONENTS, OR SYSTEMS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

N/A

III. EVENT DESCRIPTION

A. On April 21, 1988, a Radiological Control Technical (Rad Con Tech.) was performing a routine survey at the trash compactor and discovered two (2) bags of trash containing material contaminated to levels of 15,000 dpm by direct frisk and 200,000 dpm by direct frisk, respectively. The bags were removed to a controlled area and surveyed. The material consisted of green herculite, wiping cloths, tape, and miscellaneous dust and debris. A particle reading 4 mrad/hr was removed and analyzed; it was a steel chip originating from the High Integrity Container (HIC) containing Seal Injection Valve Room waste. The herculite was used for contamination control during manual transfer of the HIC. Upon completion of the transfer, a Rad Con Tech. performed a wipe survey of the herculite; then he instructed two (2) Laborers to place the material into plastic bags for disposal as clean trash. However, background radiation levels in the work area were too high to perform a direct frisk of the plastic bags, which were subsequently transferred to the trash compactor.

The root causes of this event were: 1) poor communication between the Rad Con Tech. and the Laborers regarding the release survey required prior to transfer of the material, and 2) personnel errors on the part of the Laborers for a lack of awareness of basic survey requirements. The corrective actions to prevent recurrence were administrative and included memoranda detailing the steps necessary for removal of any material from a

radiologically controlled area (RCA) and personal discussions at staff safety meetings. In addition, potentially contaminated material will now be tagged with a Radioactive Materials Tag (RMT) if it is transported without HP escort from a high background area to a low background area for final release survey.

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B. On April 23, 1988, a Rad Con Tech. was performing a routine survey of the trash compactor and discovered a bag of trash containing material contaminated to a level of 40,000 dpm by direct frisk. The bag was removed to a controlled area and surveyed. The contamination was confined to the dust and dirt that had settled on the bottom of the bag. The source of this material was from housekeeping activities adjacent to and in an RCA in the Unit 1/Unit 2 access corridor. In the past, there had been several process water spills in the area and it is possible that the contamination accumulated over time distributed across a large area. Weekly contamination surveys have been below release limits; however, sweeping this area (the first in approximately one (1) year) apparently concentrated the residual contamination. A posting at the exit to this RCA requires all personnel and materials be frisked prior to exiting. The Laborer who removed this bag of trash did not respond to this posting and was unaware of the requirement for frisking any material taken out of an RCA.

The root cause of this event was a lack of awareness of survey requirements for material originating in RCAs and/or inattentiveness to posted survey requirements. The immediate corrective actions to prevent recurrence were the same as for the previous event; however, they were not performed until after this event occurred. The long-term corrective actions include the dedication of two (2) Laborers to perform trash pickup in RCAs, labelling of the point of origin, and staging of the trash in a locked box located in a low traffic area. In addition, a Rad Con Tech. will survey and label the trash prior to its disposal.

It should be noted that, in both cases, a radiological controls survey has identified the material as contaminated before it left the protected area of the site.

IV. ROOT CAUSE OF THE EVENT

The root cause of each event has been detailed in Section III, "Event Description."

V. CORRECTIVE ACTIONS

Immediate

- o The bags of trash were removed to an RCA and surveyed.
- o The contaminated material was isolated and analyzed.
- o Two (2) memoranda were written which detailed the steps necessary for removal of any material from an RCA.

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Long-Term

- o Discussions were held at various staff safety meetings.
- o Potentially contaminated material will be tagged with a Radioactive Materials Tag if it is transported without HP escort from a high background area to a low background area for final release survey.
- o Established clean trash staging areas.
- o Dedicated two (2) Laborers to perform trash pickup in RCAs.
- o Dedicated a Rad Con Tech., as necessary, to perform release surveys of trash.

VI. COMPONENT FAILURE DATA

N/A

VII. AUTOMATIC OR MANUALLY INITIATED SAFETY SYSTEM RESPONSES

N/A

VIII. ASSESSMENT OF THE SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

These events did not result in excessive exposure to any individual. Therefore, GPU Nuclear has concluded that the reporting requirements of 10 CFR 20.405(b) do not apply to these events.

Routine surveys at the trash compactor located inside the protected area resulted in the discovery of contaminated material. Both occurrences involved the removal of trash from an RCA without proper release surveys. The measured contamination levels did not constitute a significant personnel exposure hazard.

ATTACHMENT # 1 TO ANO # 8805310201 PAGE: 1 of 1

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May 20, 1988
4410-88-L-0078/0387P

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Dear Sirs:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 88-05

Attached is Licensee Event Report 88-05 concerning radiological occurrences on April 21 and April 23, 1988. Both occurrences involved the removal of trash from a Radiologically Controlled Area without proper release surveys.

These events are considered reportable pursuant to Title 10 of the Code of Federal Regulations, Section 20.405(a)(1)(v).

Sincerely,

/s/ F. R. Standerfer
F. R. Standerfer
Director, TMI-2

EDS/emf

Attachment

cc: Senior Resident Inspector, TMI - R. J. Conte
Regional Administrator, Region 1 - W. T. Russell
Director, Plant Directorate IV - J. F. Stolz
Systems Engineer, TMI Site - L. H. Thonus

*** END OF DOCUMENT ***
