

P. M. Laabs
Plant Manager
Delaware City Refinery



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October 9, 1996

CMRRR# P 098 775 184

Mr. F. M. Costello, Chief
Nuclear Regulatory Commission
Nuclear Materials Safety Branch 3
Division of Nuclear Materials Safety
475 Allendale Road
King of Prussia PA 19406-1415

Subject: ***Reply to a Notice of Violation***
Inspection Nos. 030-30920/96-001 and 99990001/96-006
Star Enterprise Delaware City Plant, General License No. 07-28320-01

Dear Mr. Costello:

This letter responds to your September 13, 1996 letter, that I received on September 16, 1996, concerning the above-captioned inspections at Star Enterprise's Delaware City Plant ("DCP"). Thank you for the opportunity to respond to your letter concerning the two alleged violations. We prepared our response in the format requested in your letter. We have not included any personal privacy, proprietary or safeguards information in our response. We contest both of the alleged violations for the reasons discussed below.

Item A:

"...[L]icensee did not test each gauge for the proper operation of the on-off mechanism and indicator, if any, at no longer than six-month intervals...."

- 1) DCP contests this alleged violation for the following reasons: We request the NRC to reduce the classification of this item to a non-cited recordkeeping item. DCP visually inspected the sources in October, 1995. During the inspection the Radiation Safety Officer (RSO) observed that the on-off mechanisms were in the "off" position, and that the hoppers where the sources are mounted were opened for maintenance personnel entry. The six-month inspection date was due to expire during the maintenance work (which was unrelated to the sources) so a visual inspection had to be performed due to personnel safety concerns. Because the on-off mechanisms are normally in the "on" position, the RSO's inspection indicated that the on-off mechanisms were operating

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properly. At the time of the next inspection, the on-off mechanisms were in the "on" position, which confirmed the mechanisms continued to function properly. The RSO also operated the on-off mechanisms and found them to be fully functional.

- 2) Actions Taken and Results: The RSO operated and inspected the on-off mechanisms on May 15, 1996, and found them to move freely during the inspection. The test results are attached for your information. The RSO also plans on conducting this same test again on or before November 15, 1996, the expiration of the next six-month period.
- 3) Future Actions: The operation of the on-off mechanism was confirmed during the October 1995 inspection, but inadvertently the results of the inspection were not recorded. Typically the RSO notes the results of his inspections, but the notes were not recorded in this particular instance.
- 4) Compliance with NRC Inspection Item A: The RSO tested the mechanisms on 5/15/96 as discussed above and found that they were functioning properly. The RSO will test the mechanisms on or before November 15, 1996, which is the expiration of the current six-month testing period, to confirm the mechanisms are fully operational. The RSO will record his findings accordingly. Unless the NRC advises us otherwise we assume these actions achieve full compliance with this NRC inspection Item A.

Item B:

"...Licensee did not assure that the [used byproduct material in] the device was tested for leakage of radioactive material at no longer than six-month intervals and another interval was not specified on the label. Specifically...a Texas Nuclear Model 9266 [portable alloy analyzer] was tested on 4/89 and 11/89, 9/91 and 5/92, and 8/93 and 3/94.

- 1) DCP contests this alleged violation. We request the NRC to reduce the classification of this item to a non-cited item. DCP performed the wipe test during the six-month testing period, even though we didn't receive the analysis results from our contractor until the month after our RSO performed the wipe test.

In March 1992, DCP returned the alloy analyzer in question to the manufacturer, TN Technologies (formerly Texas Nuclear). TN Technologies serviced and leak tested the analyzer before returning it to Star in May 1992 (see attached facsimile from TN Technologies to DCP). It is our understanding that this alleged violation is based on the dates

when TN Technologies' prepared their analysis reports, not the date of the wipe test.

DCP uses TN Technologies leak test service. TN Technologies sends leak (wipe) test kits to DCP for use in wipe testing the alloy analyzer in question once every six months. The analyzer is wipe tested and the kit returned by mail to TN Technologies for analysis. Various factors can cause Star to receive TN Technologies' analysis report during the next month. TN Technologies dates the analytical results on the date of analysis. This date for analytical results is always different from the date of the wipe test that DCP performs. For example, by the time TN Technologies receives the kit in the mail, conducts the analysis, and prepares and sends DCP the analytical results, DCP may not receive the results until the month after we performed the wipe test. In some cases DCP does not receive the results until after the six-month testing period expired.

- 2 and 3) Actions Taken and the Results Now and in the Future: DCP will continue using TN Technologies' leak test service as provided for in our license. We will record the date when DCP performed the wipe test, the date when the kit was sent to TN Technologies for analysis, and the date of the analytical report. Our review of the relevant regulation indicates the date of concern is the date when the wipe test is performed instead of the date the person testing the source receives the analysis report.
- 4) The actions discussed above, were completed on or before the date of this letter and will be followed in the future as appropriate. Unless the NRC advises otherwise we assume these actions satisfy the noted inspection item B.

In response to the non-cited items included in your letter, the following actions have been taken:

- 1) *Warning labels on some source housings are discolored due to environmental conditions.*

Action: This item concerns some labels that the inspector reviewed while visiting DCP. DCP revised its source inventory checklist to include an item for confirming the radiation symbol is not discolored. A copy of the revised checklist form is attached. DCP will inspect all sources to confirm the labels are not discolored. The RSO will replace any labels that are discolored in accordance with the regulations. It should be noted that the label was still legible, even though the magenta blades on the radiation symbol had faded to a "light magenta orange" color.

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- 2) *Only one individual is trained to supervise the licensed program.*

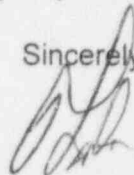
Action: The alternate RSO is scheduled for training at OHMART December 9-13, 1996.

- 3) *The individual responsible for ensuring lock-out procedures are followed was not provided with a master key when new locks were placed on gauges containing radioactive material.*

Action: Keys for all radioactive sources have been requested for the RSO.

If you have any questions regarding this information, please contact Mr. G. D. Silverberg of the Environmental, Health and Safety Department at (302) 834-6383.

Sincerely,



P. M. Laabs

Attachment

cc: U.S. Nuclear Regulatory Commission
ATTN.: Document Control Desk
Washington D.C. 20555

: Office of Radiation Control
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Department of Health and Social Services
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TN Technologies

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Toll Free USA 800-736-0801

512-388-9100

Fax

Attention: Geof Silverberg

From: Sharon Alexander

Company: Star Enterprise

Technical Services

Date: August 19, 1996

Fax: 512/388-9333

Fax: 302-834-6498

Tel: 512/388-9303

☐ **Urgent**

☐ **Requested Information**

☐ **Please Reply**

☐ **FYI**

☐ **Other**

• Comments:

I reviewed the service file on Star Enterprise's Alloy Analyzer, s/n B965.

I was unable to find a time between April, 1989 & November, 1989 nor was I able to find a time between August, 1993 & March, 1994 that the analyzer was at TN Technologies.

However, the analyzer was received by TN Technologies for service in March, 1992. This analyzer was under current leak test when we received it. However, it was not reshipped prior to the expiration date shown in your records. Please be advised a leak test was performed upon return shipment to Star Enterprises in May, 1992.

Put a comment in your file noting the discrepancy in the time required to complete the regulatory requirement of six-months for the May, 1992 test.

Regards,

Sharon Alexander

DCP Radiation Source Inventory List

Source #	Present	Shutter Operable	Radiation Symbol Faded	Lock Present	Sign Present	Comment
1						
2						
3						
4						
5						
6						
7						
7a						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
A						
B						
C						
D						
E						
F						

✓ = YES, ✗ = NO

RSO Signature/Date

Revised 9/23/96