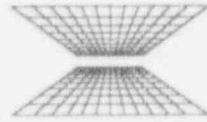


Tm Technologies, Inc.

82 Cummings Park
Woburn, MA 01801



Telephone
(617) 932-9280
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(617) 932-8882

June 7, 1994

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

Dear Sirs:

SUBJECT: Reply to a Notice of Violation

Routine Inspection No. 030-33340/94-001; Docket No.
030-33340; License No. 20-30088-01

We are in receipt of the above Notice of Violation. It is our desire and intent to operate in full and complete compliance with the NRC requirements for our license. In this regard, we have reviewed our procedures and training to insure future compliance.

A radiation safety seminar was given on June 1, 1994, at which the RSO addressed the specific issues of the violations noted, as well as providing a review of radiation safety. A signed attendance sheet for this seminar is on file. Furthermore, we have retained the radiation consulting firm of Bolton & Galanek, Cambridge, MA, for monthly audits of our compliance with all aspects of the license for the next six months.

We contend that, of the twelve violations in the Notice, seven were failures to properly document and record the performance of the required procedures. Three violations involved failure to perform procedures in accordance with the *Radiation Safety Program*. These have been corrected. Of the remaining two violations, one is a generalization of the violations in recordkeeping to the responsibilities of the RSO, to which we admit, while the other involves interpretation of the license, with which we have begun compliance under the NRC's interpretation. We are preparing an amendment application to our license to address the NRC's concerns with respect to the management oversight of activities under the license.

Tm Technologies, Inc. specifically responds to the violations noted in the above referenced correspondence by the following.

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Canadian Office: Suite 906, 101 Richmond Street West, Toronto, Ontario M5H 1T1 (416) 364-9126 fax: (416) 364-2527

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Violation A.1.

States "The RSO is responsible for the monitoring and survey of the laboratories.", and, further, "...the RSO delegated the responsibility for performing these duties to another individual and these duties were not adequately carried out..."

The duties of the current RSO, Dr. Lane, do not permit him to be at our facility more than one to two days per week. Due to this, some of the duties of the RSO have been overlooked.

Corrective steps taken:

The RSO conducted a training seminar for the radiation workers addressing the issues of the Notice of Violation and, more generally, the *Radiation Safety Program*. Plans for amending the license to name a new RSO, Dr. Ted Paner, were also presented.

Corrective steps to be taken:

We are preparing an application for amendment to our license to address the NRC's concerns with respect to the management oversight of the licensed activities by naming Dr. Ted Paner to be on-site RSO.

Date for full compliance:

We are currently in compliance, and the current RSO will devote more time to radiation safety training and awareness for our radiation workers until the amendment is accepted for Dr. Paner to be the on-site RSO.

Violation B.1.

States "...the RSO did not sign the requisitions..." and, further, "...these actions were performed by another individual who is not authorized to perform these duties..."

The RSO did not sign the requisitions for purchase of materials and these actions were performed by another individual. Our interpretation of page 2, item 11.A. of the Materials License Supplementary Sheet was that this entitled Dr. Paner to sign the requisitions with the oral approval of Dr. Lane.

Corrective steps taken:

Dr. Lane, as RSO, is now signing all requisitions for purchase of materials.

Corrective steps to be taken:

We are preparing an application for amendment to our license to address the NRC's concerns with respect to the management oversight of the licensed activities.

Date for full compliance

We are currently in compliance, and the current RSO

will devote more time to radiation safety training and awareness for our radiation workers until the amendment is accepted for Dr. Paner to be the on site RSO.

Violation B.2.

States "...the RSO has not kept records of receipt, training, decay-in-storage and sink disposal"

Procedures for receipt, training, decay-in-storage and sink disposal were carried out, but the records were not kept appropriately for these activities.

Corrective steps taken:

Documentation and recordkeeping procedures have been reviewed at the training seminar for radiation workers.

Corrective steps to be taken:

Procedures and recordkeeping will be monitored to insure ongoing compliance.

Date for full compliance

Immediate.

Violation B.3.

States "...the Statement of Training forms... ..were not completed and returned to the RSO..."

Initial training was provided by Dr. Lane on November 24, 1993, and followup training was provided by Mitch Galanek on April 8, 1994, however training forms were not signed.

Corrective steps taken:

Statement of Training forms for the *Radiation Safety Program* have been completed and are now on file. A training seminar was given on June 1, 1994, at which questions were encouraged and answered, and for which a signed attendance sheet is on file.

Corrective steps to be taken:

Appropriate sign-in forms for training seminars will be used and kept for all future radiation safety seminars.

Date for full compliance:

Immediate.

Violation B.4.

States "...the radioactive waster containers in storage were only labelled with "Caution radioactive Material" tape. These containers were not labelled with all the required information."

The containers were not labelled with all the required information.

Corrective steps taken:

Labelling of the containers has been revised to reflect all required information in the *Radiation Safety Program*.

Corrective steps to be taken:

Correct labelling will be employed henceforth.

Date for full compliance:

Immediate.

Violation B.5.

States "...all laboratories in which greater than 100 microcuries of radioactivity was handled on a routine basis were not surveyed weekly."

We performed the surveys in compliance with the requirements of the license, but that we failed to document the performance of these surveys and their results.

Corrective steps taken:

Procedures for weekly survey, documentation and identification of the laboratory areas affected were reviewed at the training seminar on June 1, 1994.

Corrective steps to be taken:

Procedures and documentation will be monitored for compliance.

Date for full compliance:

Immediate.

Violation B.6.

States "...all other laboratories were not surveyed on a monthly basis."

We performed the surveys in compliance with the requirements of the license, but that we failed to document the performance of these surveys and their results.

Corrective steps taken:

Procedures for monthly survey, documentation and identification of other laboratories were reviewed at the training seminar on June 1, 1994.

Corrective steps to be taken:

Procedures and documentation will be monitored for compliance.

Date for full compliance:

Immediate.

Violation B.7.

States "...wipe test samples are being analyzed in a liquid scintillation counter in the absence of liquid scintillation cocktail..."

The only radioisotope handled to date was ^{32}P , which we analyzed by Cerenkov radiation analysis. We realize that using scintillation fluid increases our efficiency of detection of ^{32}P . Because our future work may involve low energy beta emitters, we understand that these will require the liquid scintillation fluid.

Corrective steps taken:

Procedures for analysis of wipe test samples in the liquid scintillation counter and the desirability of using liquid scintillation cocktail for analyzing ^{32}P were reviewed at the training seminar on June 1, 1994.

Corrective steps to be taken:

Wipe test samples will be analyzed in the scintillation counter using liquid scintillation fluid henceforth.

Date for full compliance:

Immediate.

Violation B.8.

States "...the licensee did not perform a wipe test on incoming material packages."

Incoming package requirements were misinterpreted to the extent that it was believed no such wipe test was required when the package survey showed background levels only with a G-M survey.

Corrective steps taken:

Procedures for surveying, wipe testing and documentation of incoming material packages were reviewed at the training seminar on June 1, 1994.

Corrective steps to be taken:

Incoming material package procedure will be monitored to insure compliance.

Date for full compliance:

Immediate.

Violation B.9.

States "...low-level radioactive waste is being stored in plastic containers."

We understand we stated in the license that we would use steel drums, but the plastic containers used temporarily caused no radiation safety issues.

Corrective steps taken:

On April 18, 1994, six steel 30 gallon drums were obtained and are now used exclusively for the storage of low-level radioactive waste. The plastic containers have been retired after appropriate survey determined there was no contamination.

Corrective steps to be taken:

Steel containers only will be used henceforth for the storage of low-level radioactive waste.

Date for full compliance:

Immediate.

Violation C.

States "...a technician regularly performs the receipt surveys, but has not documented these surveys."

Corrective steps taken:

Procedures for surveying, wipe testing and documentation of incoming material packages were reviewed at the training seminar on June 1, 1994.

Corrective steps to be taken:

Incoming material package procedure and documentation will be monitored to insure compliance.

Date for full compliance:

Immediate.

Violation D.

States "...the licensee has not quantified the amount of radioactivity being disposed into the sanitary sewer."

Since the amounts of radioactivity being disposed into the sanitary sewer was slight, typically much less than $1\mu\text{Ci}$ because the material so disposed was that resulting from decontamination of glassware and the like, radiation workers thought that such quantification was unnecessary. We note that all waste material other than that resulting from the aforementioned decontamination activities was being absorbed and placed into hold-for-decay storage.

Corrective steps taken:

Procedures for disposal and documentation of radioactivity into the sanitary sewer were reviewed at the training seminar on June 1, 1994. Disposal log is now posted at the disposal sink.

Corrective steps to be taken:

Disposal and documentation will be monitored to insure compliance.

Date for full compliance

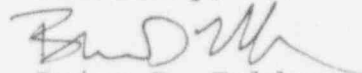
Immediate.

Tm Technologies, Inc.
Reply to a Notice of Violation
License No. 20-30088-01

June 7, 1994
Routine Insp. No. 030-33340/94-001
Docket No. 030-33340

As previously noted, we fully intend to conduct our licensed activities in full compliance with the Commission's regulations and the license conditions. We believe the actions we have taken to date to correct outstanding noncompliant conditions demonstrate our intentions. We are confident that future inspections by the Commission will reveal that we consider radiation safety and license compliance to be a top priority at our organization.

Sincerely,



Brian D. Faldasz
Vice President

cc:
Regional Administrator, Region I