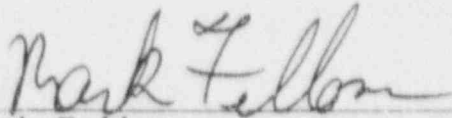


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EASTERN TECHNOLOGIES, INC.
MONITORING AND/OR SURVEY REQUIREMENTS
FOR

- I. LIQUID RELEASES TO UNRESTRICTED AREAS
- II. AIR RELEASES TO UNRESTRICTED AREAS
- III. OWNER CONTROLLED AREA
- IV. UNRESTRICTED AREAS

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I. LIQUID RELEASES TO UNRESTRICTED AREAS

1. Minimum Requirements For Release

If a liquid release from the RCA to an unrestricted area is required, it must be performed in the following manner.

- A. Obtain required sample.
- B. Analyze sample to determine types and quantities of radioactive material present.
- C. Evaluate against applicable NRC regulations.

Note: If quantities of material present exceed 75% of allowable NRC limits, release can only be authorized by President, Vice-President, Plant Manager or RSO. Under no circumstances can a release in excess of NRC limits be authorized.

- D. Receive proper permission.

Note: If quantities of material present are < 75% of allowable NRC limits Assistant Plant Manager or HP Supervisor can authorize release.

- E. If directed by supervision (e.g.: President, Vice-President, or Plant Manager) implement proper methods to reduce quantities of material present to < 75% of allowable NRC limits.

- F. Ensure all documentation is in order.

- G. Make release.

2. Laboratory Procedures For Analysis Of Liquid Sample

The following guidelines should be followed for analyzing liquid samples. The information obtained can then be used to determine processing techniques and disposal methodology.

- A. Gross Activity Analysis via GM Tube and Scaler/Counter.

1. Collect sample in appropriate container.

Note: Ensure large liquid sample is thoroughly mixed in container prior to transferring liquid to smaller receptacle.
2. Transport sample to lab area in accordance with proper practices and procedures.
3. Transfer 100 ml of sample to proper container for evaporation.

Note: Ensure sample is thoroughly mixed before and during transfer.

4. Evaporate (boil) sample to provide "residue" in planchette for counting.

Note: During evaporation process other non-contaminated liquid may be added to the mix to wash down container surfaces so that all residual materials (radioactive material) will be located in planchette.

5. After complete evaporation, count sample using end window G-M counter connected to a scaler-counter as per appropriate procedure.
6. Properly document results of sample analysis.
7. Ensure that all laboratory and sampling containers are properly cleaned.

B. Activity Analysis Via Gamma Spectroscopy

1. Obtain required sample.

NOTE: Ensure large liquid sample is thoroughly mixed in container prior to transferring to subsequent container or analysis apparatus.

2. Transport sample to lab area in accordance with proper practices and procedures.

3. If appropriate, transfer liquid into proper container for analysis.

Note: If appropriate analysis container is utilized for transport of sample to lab area subsequent transfer of liquid is not required.

4. Analyze sample as per appropriate procedure.
5. Properly document results of sample analysis.
6. Ensure that all laboratory and sampling containers are properly cleaned.

II. AIR RELEASES TO UNRESTRICTED AREAS

If air releases from the RCA are required the following guidelines and minimum requirements must be followed.

- A. Insure release point has proper monitoring equipment installed (i.e.: alarming air monitor and/or regulated air sampler).

Note: If an alarming air monitor is utilized, insure that it is within its calibration period.

- B. If utilizing an alarming air monitor ensure alarm levels do not exceed allowable NRC limits for release of air to unrestricted areas.

III. OWNER CONTROLLED AREA

1. Area Dose Rate Monitoring

Owner Controlled Area around Radiologically Controlled Areas will be monitored via Thermo Luminescent Dosimeters (TLD's). Locations and minimum quantities of TLD's are to be as follows:

<u>LOCATION</u>	<u>QUANTITY</u>
Northern Boundry	1

Eastern Boundry	1 Southern
Boundry	1 Western Boundry
1 Loading Dock	1

NOTE: TLD's will be exchanged quarterly. Results will be documented and filed.

2. Area Contamination Survey

A. Surface Surveys

Surveys of the outside surfaces of the facility are to be taken on a monthly basis. The results of the related analysis will be documented on the appropriate survey map.

Note: Periods of non-operation > survey interval negates requirement for survey.

B. Soil Samples

Soil samples of the owner controlled area are to be taken and analyzed monthly. Samples are to be representative of the four (4) sides of the facility (i.e.: North, South, East, West) and must be taken from or near the same location each time. Samples are to be analyzed for gross activity. Results are to be compared with initial baseline sample. Increases in differential activity of more than 50% will require investigation to determine if additional and/or more accurate analysis is required. All results must be documented and filed.

Note: Periods of non-operation > survey interval negates requirement for survey.

IV. UNRESTRICTED AREAS

1. Area Dose Rate Monitoring

Unrestricted areas surrounding Owner Controlled Area will not be monitored for associated dose rates unless required by ETI management and/or appropriate licensing agencies.

2. Area Contamination Survey

A. Surface Surveys

Surveys of the outside surfaces of buildings and items located in unrestricted areas will not be performed unless required by ETI management and/or appropriate licensing agencies.

B. Soil Samples

Soil samples of the unrestricted areas surrounding the owner controlled area are to be taken within 100 meters of the Owner Controlled Area boundary and represent the four (4) sides of the facility (i.e., North, East, South, West). One background sample shall also be taken. Soil samples are to be analyzed via Gamma Spectroscopy, and the results documented.

Note: The results of this analysis are required for preparation of ETI's annual report.