

JUN 27 1974

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Isomedix, Incorporated
ATTN: Mr. George R. Dietz
President
P. O. Box 177
Parsippany, New Jersey 07054

Gentlemen:

This refers to your letter dated June 24, 1974 concerning changes in your facility at Parsippany, New Jersey.

The summary of major changes does not, in all respects, characterize the safety features of your revised safety system. For example, there is nothing in the summary which indicates that the doors to the cells may not be opened if the sources are in the "up" position. The summary should be revised to clearly indicate the features of the safety system.

With respect to hot cell window visibility, we need to know the criteria which will be followed for determining adequate visibility throughout the cell window and the criteria for modification or change of the window should visibility be decreased to an unacceptable level.

In our discussion on June 21, 1974, we indicated that an ion chamber instrument should be used for the performance of surveys prior to entering the cell. We need confirmation that an ion chamber survey monitor will be used for such surveys.

The following comments refer to specific sections of the document entitled, "Supplemental Information for Isomedix, Inc., Facility License, June 1974."

1. Section 11.6 and 14.3.2.3.d. indicate that instruments and area monitors will be calibrated by an independent qualified company. We need to know the name of the company which will perform calibrations and specific procedures which will be followed for calibration including the type of source which will be used.

2. Section 13.2.4 contains references to the pool. We need to know the safeguards or restrictions around the pool to prevent any person from accidentally falling into the pool.
3. Section 13.2.5.a. indicates that the ropes used to restrict access routes may be temporarily removed for certain operations. We need to know the steps which will be taken to immediately replace the ropes after persons have removed them for entry into the operation and service areas.
4. Section 13.2.5 makes reference to periscope ports which indicates that there may be periscopes in the facility. Please describe the periscopes and their use.
5. The significance of the calculated dose rate at the surface of the pool when cobalt 60 sources are raised to within 8 feet of the surface is not clear since it appears that no individual could be in the cell when the sources are not in other than the completely down position.
6. With respect to exterior surveys, we need to know the acceptable limits for such surveys and action which will be taken if the acceptable limits are exceeded. Subsection d. refers to establishment of area controls, if necessary. Specific instructions should be included in the procedures for establishing area controls and the circumstances under which such controls should be established. Specific instructions for transfer of a cask to the hot cell area should be included in the procedures.
7. Section 13.9.5 concerns loading of sources into manufactured products and requires a physical count to determine that all sources are accounted for. We need to know the kind of record that will be maintained of such operations so that strict accountability will be kept of sources.

Subsection h. should indicate the acceptable radiation level limits for the survey and Subsection i. should contain specific instructions for establishment of area controls and conditions for establishment of such controls.

8. The document does not contain a page 40. Please clarify whether this is an inadvertent numbering of pages or whether a page is missing. In the document which we have, the last item on page 39 is 13.9.8.17 which states, "Enter cell using normal service irradiation procedures, except that RPO will be present."

Page 41 starts with Section 13.9.9, "PROCEDURES TO MOVE SMALL SOURCE CONFIGURATIONS BETWEEN CELLS."

9. Section 13.9.10 appears to have a typographical error in that the word "roof" should be "room".
10. Section 14.3.2.2.c. indicates that the test sample should be checked with a G-M survey meter to determine that a large quantity of radioactive material has not been inadvertently removed from the cell. Specific limits should be indicated and the immediate steps which must be taken if the limit is exceeded with respect to counting of the swab or filter. We need to know the specific instrument which will be used and your procedures for performing the count and your calculations for conversion of the count rate to a quantitative number.
11. Section 14.3.2.3.b.3 includes instructions for defeating of the alarm system. We need clarification of this since the summary of changes indicates that the alarm system cannot be defeated.
12. The weekly operation check specified in Section 14.3.2.3.e. should be a two-man operation.
13. Section 14.4.2 refers to the area radiation monitor detectors. We need a sketch of your facilities which shows the location of the area monitors. We note in the section a reference to the alarm defeat switch. Please clarify this reference.
14. Section 14.4.4 concerning water monitors does not specify by whom the analysis will be made or a description of the procedure for performing the analysis.
15. Section 14.6.1 concerning training does not describe in specific detail the scope and extent of the training program. We need to know the time which will be spent on each topic, the scope of instruction in each topic and how understanding of the subject matter will be determined. This section indicates that extensive on-the-job training is given by the Hot Cell Manager. The organization chart does not include a Hot Cell Manager. We need to know by whom on-the-job training will be conducted, the minimum time that will be spent in on-the-job training, and the scope and extent of such training.

16. Section 14.6.1 contains a reference to a committee composed of Messrs. Dietz, Owens, Karl, and Perrin. There is no reference in the organization chart to Messrs. Owens and Perrin. We need clarification of the makeup of the committee. We note a reference in Section 14.7 to these individuals.
17. Section 14.7.1 deals with defeating of the alarm system. It appears that this section needs revision since you have indicated that the alarm system cannot be defeated.
18. Section 14.7.6.2 concerns steps to be taken if there appears to be source leakage. We need to know whether the pump can become contaminated and, if so, the steps which will be taken to decontaminate the pump. With respect to the water purification system pump, we need to know its location in your facility.
19. Section 14.7.6.3 deals with the makeup of the water supply in the pool. We need to know if there is a mechanism by which there could be a siphoning effect which would permit water to back up into the city water system.

Drawing SK 42374 shows Hot Cell 1 and Hot Cell 2. We assume that the cell identified as Hot Cell 2 in the drawing is Hot Cell 2-3 referenced throughout your procedures. We need confirmation of this.

We shall continue review upon receipt of the revised supplemental information document and the other information requested above.

Sincerely,

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Nathan Bassin
Materials Branch
Directorate of Licensing

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