

ChemRisk Document No. 2566

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David R. Hamm
Technical Information Officer
ORNL Site
2/16/95

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2566 R.Z. Morgan

Intra-Laboratory Correspondence
OAK RIDGE NATIONAL LABORATORY

MAR 13 1950

To: Dr. K. Z. Morgan

Date: March 10, 1950

From: Mr. L. B. Emlet

Subject: Disposal of Gaseous Wastes

- Reference: (1) Letter from K. Z. Morgan to C. E. Larson, dated February 28, 1950;
 subj: Air Activity.
 (2) Letter from K. Z. Morgan to C. E. Larson, dated March 1, 1950;
 subj: Air Activity.

It has been realized for a long while that the facilities for the disposal of gaseous wastes from the 706-C and D Buildings were inadequate. A 250-foot stack plus the necessary movers has been provided in the 900 Area for handling off-gases and exhaust air.

At the present time the 706-C and D cell ventilation air is being passed through a filter box and into the 900 Area stack. Two Tricon units have been installed and their efficiency will be tested during the next 706-D run. If they prove effective in removing contamination from the exhaust air, additional units will be provided. I trust that now that this portion of the facilities is in operation that very little air activity will result from the cell exhaust system.

At the present time the 706-C and D off-gas lines discharge into the 200 Area stack. In order to carry the radioactive gases 800-odd feet with inadequate movers the lines are operated under a positive pressure. A review of the status of the new off-gas facilities indicates that they will be ready for operation by approximately May 1, 1950. At that time the off-gases from the 706-C and D Buildings will be passed through a filter tank and then into the stack. An electrostatic precipitator will be installed in this off-gas system and should be ready for operation by about the middle of July, 1950.

The hood ventilation from both the 706-C and D Buildings at the present time discharges through the short stacks located on the roofs of these buildings. By July 1, 1950, this hood exhaust air will be tied into the 706-C and D cell exhaust air line and thus discharged up the 900 Area stack.

The off-gases from the Radioisotope Area are now being discharged through the 900 Area stack without first being filtered. The installation of the filter to handle this air is the same that will handle the 706-C and D off-gases; therefore, by May 1, 1950, all off-gases originating in the Radioisotope Area will also be filtered.

The hood ventilation air from the Radioisotope Area is also being exhausted in the 900 Area stack. At the present time it is not planned to filter this air, since it is believed that its contribution to the activity discharge to the 900 Area stack will be negligible. If later tests indicate that this is not so, the filter units can be installed at a minimum expense.

Disposal of Gaseous Wastes
Emlet to Morgan

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March 10, 1950

I have urged the persons handling the radioactive processes in our division to use all possible precautions to prevent further air activities. Until such time as the off-gas lines from the iodine processing cell are tied into the 900 Area stack, we will use slugs which have decayed at least twenty-eight hours.

We will be happy to discuss with you at any time the handling of gaseous wastes or any other active materials. In the past we have felt that the occasional air contamination was due to inadequate facilities and I believe that this has been the major reason for the frequency of such incidents. So long as we are handling large quantities of radioactive materials, I feel that there will be occasions when the work areas will be contaminated above tolerance limits. We will do our utmost, however, to keep such incidents at a minimum.



L. B. Emlet

LBE:wp

cc: C. E. Larson
E. J. Witkowski
M. E. Ramsey
W. G. Stockdale
D. W. Cardwell