NJ.12

326/68A5-85
Bx1/Fldr.2-4

Baker Co -

DE:WEH

February 18, 1949

Dr. E. F. Rosenblatt
Baker and Company
113 Astor Street
Newark, New Jersey

Subject: PRECAUTIONS FOR PLATINUM PROCESSING

Dear Dr. Rosenblatt:

As a result of the conference that was held in your office, we are able to present the following basic items which would required before our Medical Division would consider an extraction process to be safe. It is understood that these are necessarily sketchy but we feel that after our conversations they should be adequately clear:

1. The platinum should be introduced into the reaction vessel through an opening which may be readily sealed.

2. After the introduction of the platinum, the reaction vessel should be completely sealed and not again opened until the next charge of metal.

3. Any material which must be added to or taken out from the reactor, other than the metallic platinum, should be handled in a closed system.

4. The aqueous material which is evaporated after solution should be run through a suitable condenser. The effluent from this condenser should be collected in a carboy for ultimate disposal by the AEC.

5. The active precipitate suspension should be run into a filter of such design that those portions which may contact the active material may be completely disposable. The transfer of material from the reactor to the filter can best be accomplished by a bottom tapping reaction kettle. Should further precipitation and filtration of active material be necessary, this should be accomplished through the same filter unit.

B/6

6. We believe it would be desirable to apply the above precautions to all steps in the initial purification. However, it is contemplated that a test run will be performed in the next week or

DISPATCHED
FEB 21 1949

OFFICE→	Ind. Hyg.	Health & Safe	Licensing			
SURNAME→	Harris	Eisenbud	Burman			
DATE→	2-18	2-18	2-24			

ENERGY COMMISSION
NEW YORK

so, at which time measurements will determine the point in the process beyond which ordinary processing methods will be satisfactory.

7. All of the equipment necessary to carry out these operations should be laid out in such a manner that all of the materials in process will be behind a wall of pressed board or similar material with openings for the introduction of platinum and ample glass area for internal visibility. If a bottom tapping reactor is used with the filter unit beneath, a doorway may be provided of ample size to allow removal of the contaminated filter head. The building in which the operation is housed should have a smooth, cleanable, concrete floor with a curbing around the area designated for equipment, pressed wood or similar walls, and be of stud construction with asbestos board or other similar exterior.

8. Drains should be provided in the building and behind the curbing, each of which empties into a disposable container.

9. A safety deluge shower should be provided outside of the enclosure.

10. The entire enclosure should be placed under negative pressure with a small quantity of ventilation which will be determined by the available openings. The air from this exhaust system will be run through a filter of a type which we will supply. No air shall be allowed to discharge from the building except through this filter.

We believe that this delineates the items of precaution which should be considered before plans are drawn. We feel that your engineers are in a better position to prepare drawings of equipment layout than we are, but we will be happy to supply any advice or assistance that you would request.

Very truly

Lawrence C
Office of

cc: Mr. Burman