PART I - LICENSE CONDITIONS	REV. 36

shall be permitted provided a personnel survey is performed first.

Additional step-off areas may be established for maintenance work, temporary situations or conditions, or to accommodate personnel entry and exit not requiring the use of change room facilities. Personnel survey requirements shall be adhered to at all step-off areas.

3.2.1.4 Protective Clothing

Protective clothing shall be provided for personnel entering contamination controlled areas. The type(s) of clothing required shall be consistent with the individual's work assignment and is dependent upon the type and level of contamination anticipated.

Used protective clothing shall be removed prior to entering clean areas from contaminated areas, with the exception of emergency evacuations or if specifically authorized by a Radiation Work Procedure.

3.2.1.5 Personnel Surveys

Personnel survey instruments shall be provided in change rooms and at step off pads for use by personnel leaving contaminated areas. Personnel exiting contaminated areas shall be required to survey themselves after removing their protective clothing prior to leaving the step-off area. An exception to survey requirements is exiting during emergency evacuations.

3.2.2 Ventilation

General ventilation systems shall be designed and maintained to limit the spread of airborne contamination by maintaining air pressure gradients and airflows from general areas of low potential airborne contamination to general areas of higher potential contamination. Where ventilation barriers exist between areas, these systems shall be balanced so that the air pressure differentials between clean and contaminated areas are maintained at a minimum of 0.05 inch of water.

Air locks shall be installed, where necessary, to insure maintenance of proper air pressure differentials. Installed differential air pressure measuring instrument readings shall be recorded at least monthly.

Monthly smoke tests shall be conducted to visually demonstrate that the airflows are from general areas of low contamination potential to general areas of higher contamination potential.

General recirculating air systems shall recirculate air only from room areas (not from

PART I - LICENSE CONDITIONS | REV.

process enclosures) and pass it through fire retardant HEPA filters, which have installed efficiencies of at least 99.95% for 0.8 micron particles, before returning it to the room.

In addition to general ventilation systems, SPC may employ local ventilation units designed to recirculate room air through HEPA filters, and then discharge room air at low velocities, to minimize the airborne concentrations in breathing zones.

Recirculated air, excluding that from the local ventilation units described above, shall be continuously monitored prior to the final stage of HEPA filtration. An indication that airborne levels are such that a 40 DAC-hour (derived air concentration-hour) exposure could be realized in a week from the recirculated air shall automatically divert the air from the recirculation mode to the respective facility exhaust air system. Manual diversion shall be allowed during maintenance on the system.

A minimum of seven air changes an hour shall be maintained in contaminated areas.

Unless safety concerns override, the average air velocity through openings in uranium handling hoods, with exception of laboratory hoods, and equipment containing readily dispersible uranium shall be average of 125 LFPM (linear feet/min) ±15%. The average flow through laboratory hoods shall be 80 LFPM ±15%. These velocities shall be checked at least monthly.

Both general recirculation and exhaust air system HEPA filter installations shall be equipped with continuous pressure differential measuring and indicating systems whose readings shall be recorded at least monthly. The differential pressure across the final HEPA filters shall not exceed four inches of water gauge. The final HEPA filter installations shall also be checked prior to first use for efficiency against 0.8 micron particles and must meet or exceed a removal efficiency of 99.95 percent.

3.2.3 Work Area Air Sampling

In areas where unencapsulated radioactive materials are handled, processed, and/or air concentrations are likely to exceed 10 percent of DAC, air shall be routinely monitored. Fixed air sampling heads may be used for calculating DAC-hours in areas where internal dose monitoring is required. Air sample concentrations determined by fixed samplers may be modified by correction factors.

Specialized air sampling or monitoring equipment, such as continuous air monitors, portable, high volume, and/or lapel air samplers, shall be available to supplement the normal air sampling system, and for use in studies or work on special problems.