

## **STANDARD PROTOCOL REQUIREMENTS: PHOSPHORUS-32 (P-32)**

1. A whole body film badge will be worn by individuals using greater than 4100 mCi-minutes/year of P-32; an extremity badge (ring badge) will be worn by individuals handling greater than 1800 mCi-minutes/year.
2. Tongs, forceps, and other remote handling devices will be used when opening or otherwise manipulating source vials of P-32.
3. Lucite (or plexiglass) bench shields at least 3/8 inch thick will be used as much as possible when working with P-32.
4. Glass source vials will be shielded with 3/8 inch thick lucite vial shields.
5. Items such as petri dishes or eppendorf tubes which contain greater than 0.5 mCi of P-32 will be shielded with 3/8 inch lucite.
6. Researchers will avoid direct exposure to the eyes as much as possible when working with P-32.
7. Radioactive waste pickups will be scheduled frequently so that high activity waste does not accumulate in the laboratory.
8. For the purpose of radioactive waste segregation, P-32 is considered short-lived and should be disposed with other radionuclides which have half-lives of less than 100 days.
9. Following work with P-32, hands, arms, clothing, shoes, and work area (including the floor in the vicinity of the work area) will be monitored for contamination using a geiger counter with a pancake probe. Any contaminated areas will be decontaminated immediately.
10. Up to one month before using protocol quantities of P-32 for the first time, each researcher shall collect a urine specimen to be used as a baseline bioassay. Between 6 and 12 hours after the initial protocol work, each researcher will collect another urine specimen. These urine specimens will be submitted promptly to the Radiation Safety Branch for analysis. Thereafter, protocol users will submit bioassay specimens promptly upon request by the Radiation Safety Branch.
11. Any spill or personnel contamination resulting from protocol work will be reported to the Radiation Safety Branch as soon as possible.
12. Between 6 and 12 hours following a spill or personnel contamination incident associated with the protocol work, each individual involved will collect a urine specimen and submit it promptly to the Radiation Safety Branch.
13. All radioactive materials in use or storage, including waste, must be secured from unauthorized removal or access when unattended.