

representative personal exposure of persons involved in the operation.

(c) *Periodic exposure monitoring.* The monitoring must be repeated each July or August if benzene containing cargoes are carried during those months; monitoring must be conducted under those weather conditions that will maximize benzene exposure, such as low wind, stable air, and high temperature. If benzene containing cargoes are not carried during those months, monitoring must be conducted at the time of carriage nearest those months; monitoring must be conducted under those weather conditions that will maximize benzene exposure, such as low wind, stable air, and high temperature.

(d) *Additional exposure monitoring.* (1) Monitoring in compliance with paragraphs (b) and (c) of this section must be repeated for the operation when there has been a change in the procedure, equipment, or work practices of the operation which may increase personal exposure or whenever the employer or person in charge has any reason to suspect that personal exposure has increased.

(2) Whenever emergencies occur that may increase personal exposure, operations affected by the emergency must be monitored using area or personal sampling after the spill is cleaned up or the leak, rupture, or other breakdown is repaired to determine when personal exposure has returned to the level that existed before the emergency. There must be monitoring equipment aboard each ship.

(3) For those cases in which the benzene exposure can vary significantly over the year, the personnel exposure reduction plan can reflect this variation in time if both initial and periodic exposure monitoring are conducted at those times. There must be sufficient monitoring to quantitatively justify differences in the exposure reduction program over the course of the year. The exposure monitoring must be conducted under those weather conditions that will maximize benzene exposure, such as low wind, stable air, and high temperature.

(4) The Coast Guard may require additional monitoring upon reasonable belief that the PEL's are being exceeded.

(e) *Notification of exposure monitoring results.* (1) Within 60 working days after the receipt of the results of monitoring in compliance with this section, each person involved in the operation monitored must be given written notice of the results, either by separate letter or by notice posted in a location accessible to all persons involved.

(2) If the results indicate that the PELs were exceeded, the written notice required by paragraph (e)(1) of this section must state, or refer to a document available to the persons involved which states, the corrective action to be taken to reduce the personal exposure to or below the PELs.

[CGD 88-040, 56 FR 52135, Oct. 17, 1991; 56 FR 65006, Dec. 13, 1991; CGD 95-028, 62 FR 51221, Sept. 30, 1997]

**§ 197.545 Program to reduce personal exposure.**

(a) When personal exposure for an operation is over the applicable PEL as determined in compliance with § 197.540, the employer shall develop and implement, within 60 working days of the date of that determination, a written program detailing the corrective actions that will be taken to reduce personal exposure to or below the PEL's. The written program must include a timeframe for implementing the corrective actions to be taken.

(b) Corrective actions in compliance with paragraph (a) of this section may include, but are not limited to, one or more of the following:

(1) Engineering controls (e.g. vapor control or recovery systems, closed loading systems, or controlled venting systems);

(2) Revised work practices; or

(3) Respirators in compliance with § 197.550 and personal protective clothing and equipment in compliance with § 197.555.

(c) Whenever the exposure monitoring data show a significant increase in personnel exposure, the program must be revised to reflect the new data.

(d) Each person involved in the operation must be notified that a written program detailing corrective actions is available upon request.

(e) A copy of the written program must be furnished upon request to the Coast Guard.