

U.S. DEPARTMENT OF LABOR
Office of the Solicitor
Division of Occupational
Safety and Health
Washington, D.C. 20210

TELEFAX MESSAGE

DATE: December 21, 1994

PLEASE HAND DELIVER THE FOLLOWING MESSAGE TO:

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TOTAL PAGES (INCLUDING COVER SHEET): 20

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DESCRIPTION OF DOCUMENT TRANSMITTED:

Review of NIOSH Report on
Worker Home Contamination

COMMENTS:

None

December 21, 1994

MEMORANDUM FOR ROBERT W. MASON

FROM:

BOB BIERSNER *BB*

SUBJECT:

Comments on the NIOSH Draft Report entitled
"Workers' Home Contamination: Report of a Study
Conducted under the Workers' Family Protection Act
(29 U.S.C. 671a)

The subject report is thorough and is written in a comprehensible, straightforward manner. Nevertheless, the following major and minor editorial recommendations would improve this report.

My major editorial recommendations are: An Executive Summary (noted in the Table of Contents) is much needed, especially for busy members of Congress and their staffers who are inexperienced in toxicology and will not be trained to interpret the plethora of scientific data contained in this report; and a technical editor should review the document to bring uniformity to the text, correct awkward passages and occasional grammatical errors, and perhaps shorten and reorganize the overall presentation. Additionally, the legal material on pages 67-70 generally is accurate, but needs some rewriting; I've attached my revisions to these pages with this memo.

The minor editorial revisions that I would recommend are listed below.

1. Page 3, lines 2 and 3: A citation should be provided to support the conclusion that reproductive effects are not related to worker home contamination. This conclusion is, in some ways, a major conclusion of the report.

2. Page 4, 4th line from the bottom: "1994" should be "1993."

3. Page 6, line 4: You state that beryllium-induced lung disease has been recognized for "over" 50 years, yet the oldest reference is 46 years old; "nearly" should be substituted for "over."

4. Page 7, 2nd paragraph,¹ lines 8-11: It is unclear (to

¹Only complete paragraphs on a page are counted; paragraphs that are continued from the previous page are counted as part of the previous page.

a non-physician) why chronic beryllium disease would be misclassified as granulomatous lung disease.

5. Page 12, 2nd paragraph, lines 7-9: The statistic $p=0.08$ is not significant: "nearly significant" or a similar modifier should be used.

6. Page 15, 1st paragraph, lines 11 and 12: As this case is being discussed in terms of the mother and father, the reader expects their children to have been contaminated; therefore, should "one sister" be "one daughter"?

7. Page 15, 2nd paragraph: It is unclear why genetic factors are being discussed. If genetic predisposition is interacting with asbestos exposure, this interaction should be clarified. Even then, this discussion is weak and distracting.

8. Page 19, line 2: Are you referring to "OSHA" vice "NIOSH" acceptable limits? If these limits are RELs, then this fact should be stated.

9. Page 20, line 2: I'd use the term "employer-supplied" vice "work supplied."

10. Page 20, last paragraph, lines 2 and 3: I'd drop these two lines--irrelevant.

11. Page 20, last paragraph, lines 6 and 7: What is meant by "changing and nonspecific regulations," especially as a "problem"?

12. Page 21, 2nd paragraph, lines 5 and 6: Mention of the subject of the paper should be made earlier in this paragraph.

13. Page 22, 1st paragraph, lines 10 and 11: The phrase beginning "assembled series" is confusing; are these studies, cases, or family members?

14. Page 23, 1st paragraph, line 7: The finding that the highest BLLs were found in the youngest children needs to be explained.

15. Page 25, 1st paragraph, lines 2-4: Some explanation should be provided regarding the high BLLs in the control group of children; the high BLLs among the control children seem to be more of a problem than worker home contamination.

16. Page 31, last paragraph: This case is marginal if no family members were contaminated; the conclusion borders on the ludicrous.

17. Page 32, lines 4-6 and 8-10: Information is repeated in

these lines.

18. Page 36, line 11: The term "habits" should be replaced with "practices."

19. Page 40, 1st paragraph, line 13: What are "fomites"? I don't want to consult a medical dictionary while I'm reading this report.

20. Page 41: Why are the top and bottom paragraphs indented--are these passages being quoted directly from the references?

21. Page 42, line 7: The phrase "direct contact from anus to mouth" is confusing; are poor toilet habits among children being discussed (e.g., making finger contact with the anus while cleaning after defecation, and then transferring the eggs to the mouth while eating), or is this sentence describing some sort of deviant activity?

22. Page 45, second paragraph: Were mites the vector for the Mycobacterium avium infection? Describing the patient as HIV infected distracts the reader; is it necessary to mention this condition? What were the family members infected with--mites, M. avium, or AIDS? Was AIDS a risk in this situation?

23. Page 47, last paragraph, line 8: Is "emotional upset" the best term to use in describing the effects of mercury poisoning in this case? Some of the symptoms appear to be related to neurotoxicity. Perhaps neurological impairment impeded family care which, in turn, resulted in emotional disturbance, but this effect is secondary to the neurological effects.

24. Page 49, lines 5 and 6: This sentence is confusing, and appears out of place. This information has to be related more directly to home contamination.

25. Pages 47-52, section 2(a) and (b): The purpose of these sections is unclear; is this summary information? Section 2(b) is especially disorganized--cluttered with references, and the statements are not integrated in a meaningful way.

26. Pages 52 and 53, section (c), first paragraph: This paragraph is confusing. The source of contamination appears not to be related to worker home contamination (i.e., environmental), and the controls implemented are not described; the implication is that the controls were used only on new smelting fixtures. The relationship of ZPP and protoporphyrin levels to zinc contamination should be explained (for the novice reader); also, some readers are unlikely to understand the relationship of lead emissions to zinc contamination. The most confusing statement,

even to a statistician, was the failure to show a reduction in zinc levels among children with above-normal levels of zinc when reductions were demonstrated among children with moderately high and extremely high zinc burdens. The reader assumes a statistical game is being played or that sampling error is involved (e.g., children with moderately high and extremely high zinc levels lived near facilities for which controls were implemented). These effects are not integrated with the concluding sentence regarding current and preexisting sources of exposure. A total rewrite is needed if this paragraph is kept (i.e., truly involves a case of worker home contamination).

27. Page 54, first and second paragraphs, page 55 first paragraph: None of these paragraphs is related to the topic of this section (i.e., they don't explain the effectiveness of the measures taken).

28. Page 55, second paragraph: No data are presented to support the conclusion that "present procedures" are ineffective; even the technique used is unknown. Unless more information is available, this paragraph should be dropped.

29. Page 55, last paragraph: Again, the effectiveness of these techniques is not demonstrated.

30. Page 58, last paragraph, lines 5-7: It is unclear whether these clothes are work clothes or nonwork clothes contaminated by fiberglass-impregnated work clothes.

31. Page 62, first paragraph, line 8: Should there be a separate reference for antitoxic chemicals?

32. Page 62, last paragraph: Recommend that this paragraph be entitled "Summary and Recommendations."

33. Pages 63 and 64: Key references should be provided after each of the paragraphs.

34. Pages 65 and 66: List key references after each paragraph.

35. Page 65, fifth paragraph: This paragraph is poorly written (e.g., do "some" recommend two washes for less than significant contamination).

36. Page 67, third paragraph ("Occupational Safety..."): The purpose of the OSH Act should be quoted from the Act. (Note that the present tense should be used when discussing this purpose.) The first and second sentences could be read to imply that the Act specifies these limitations when, in fact, these limitations have been defined by case law (i.e., Frank Diehl Farms v. Secretary of Labor). My recommendation would be to

discuss this court-defined limitation in a separate paragraph. Also, the second sentence in this paragraph is not totally correct: The court found that OSHA's authority extended to employee housing not only when such housing was a condition of employment, but "whenever there is no reasonable alternative, in view of the distance of the work from residential facilities or the lack of availability of accommodations elsewhere." Additionally, I've checked subsequent court citations for this case (i.e., "shepardized" the case), and found that this decision is still valid law and, in fact, has been adopted by several other federal appellate courts.

The statement in the last sentence, regarding OSHA's indirect authority over worker housing, needs elaboration. The standards cited in the first paragraph of page 68 should be introduced as examples of this indirect authority; note that the cadmium standard contains decontamination provisions similar to the asbestos and lead standards.

37. Page 68, first paragraph, line 5: This sentence appears to be incomplete; does "Appendix B" refer to the lead standard?

38. Page 68, third paragraph, lines 9 and 10: The last sentence of this paragraph should be dropped. Under Frank Diehl Farms, OSHA may well have authority to inform employees about worker home contamination under some conditions, and this authority would be consistent with the 11th Circuit's interpretation of the OSH Act.

39. Page 68, last paragraph: This paragraph should be introduced by mentioning that NIOSH's authority is specified under the OSH Act. The first sentence in this paragraph should end with the phrase "new and emerging safety and health problems." The second sentence of this paragraph should read that NIOSH has interpreted its authority under the OSH Act to include research on worker home contamination.

40. Page 69, first paragraph: It will be unclear to most reader what the significance of the term "owner-operator" is with regard to worker home contamination. Is NIOSH's authority in these matters derived from the MSH Act?

41. Page 69, last paragraph, line 3: The phrase "authority for" should be revised to "authority to regulate." Also, the relevance of this paragraph to worker home contamination is unclear: Is this authority also indirect?

42. Page 70, second paragraph: What is the relevance of the Lead-Based Hazard Reduction Act to worker home contamination?

43. Page 70, third paragraph: Examples should in which specified provisions of the FIFRA have been applied to prevent/control worker home contamination.

44. Page 70, last paragraph: A transition is need between sections 3 and 4. Section 4 implies that the statutory authority described in section 3 is used by the agencies listed in section 4 to investigate incidents of, and enforce regulation pertaining to, worker home contamination. Note, however, that the discussion of statutes in section 3 do not mention many of the agencies listed mentioned in section 4. This introductory paragraph should outline the succeeding presentation (e.g., major agencies will be described first, followed by a discussion of the activities of their component agencies in terms of specific worker home contaminants studies/regulated by these components). The component agencies should be mentioned in the paragraphs describing the major agencies, while the specific worker home contaminants studied/regulated by these component agencies should be listed in the paragraphs describing these component agencies.

45. Page 72, lines 1 and 2, and the first paragraph, line 2: References need to be cited for the FBI Academy study and the Bolivian smelter study.

46. Page 73, first paragraph, lines 6 and 7: The phrase "possibility of lead brought home from the workplace by workers contaminating workers' homes" is poorly worded. Also, these studies should not be cited unless they definitely involve worker home contamination, not just a "possibility" of such contamination.

47. Page 74, last paragraph, lines 2 and 3: The phrase "showing a connection with the affected wives washing their husbands' clothes" is awkward; the sentence should be reworded to indicate that the study found that wives of kepone workers were contaminated with kepone while washing their husbands' clothes.

48. Page 79, first paragraph: The last clause of the first sentence is awkwardly worded. The third sentence is too long, and the phrase in this sentence beginning "most likely explanation this was a false positive" is ambiguous.

49. Page 80, last paragraph: This discussion of uranium acetate ingestion is too cryptic.

50. Page 81, first paragraph: If worker home contamination was not proven, then this incident should be dropped from discussion.

51. Page 82, third paragraph: What is the relevance of this incident to worker home contamination? If worker home contamination is conjectural, this incident should be dropped from consideration.

52. Page 85, first paragraph, last sentence: Did the Minnesota Department of Health find evidence of worker home

contamination? If not, drop this incident from the presentation.

53. Page 87, line 3: Were farmers the object of this education?

54. Pages 212-219 (Table 16): This table is, generally, quite informative and should be retained to provide the reader with knowledge of the language contained in pertinent statutes and cases so they can determine if the text of the report accurately represents this language. I've included a marked copy of this table with this memo on which I've made editorial corrections and indicated entries that I believe are of questionable relevance to the issue of worker home contamination; also, Notes 16 and 86, page 212, could be combined and Note 16 should be corrected per my comment #36 above;

If you have any questions or comments regarding this review, please telephone me at 202-219-7732.

The following Federal laws were reviewed to determine statutory measures pertaining to prevention of contamination of workers' homes, protection of workers' families, and remedial actions:

- (1) The Occupational Safety and Health Act of 1970, Public Law 91-596, 29 U.S.C., Chapter 15.
- (2) The Federal Mine Safety and Health Act of 1977, 30 U.S.C., Chapter 22.
- (3) The Toxic Substances Control Act, Public Law 94-469, 15 U.S.C., Chapter 53, §2601 ^{et} ~~and~~ ^{sequenti}, including the Asbestos Hazard Emergency Response Act of 1986 (Public Law 99-519) and the Residential Lead-Based Paint Hazard Reduction Act of 1992 (PL 102-550, Title X).
- (4) The Federal Insecticide, Fungicide, and Rodenticide Act, Public Law 92-516, U.S.C., Chapter 6.

The relevant sections of these laws extracted from the U.S. Code are presented in Table 16 ^{are} and discussed below.

Occupational Safety and Health Act of 1970

The purpose of this Act ^{is} ~~was~~ to protect workers on employ^{ers'} premises. ^{present} ~~it~~ applies to housing only if the housing is a condition of employment. It does not apply to housing which is otherwise work related. In general, it seems that OSHA has ^{direct} no authority to promulgate a standard for ~~the purpose~~ purpose of protecting ~~the~~ workers' families. Indirectly, some OSHA standards may serve to protect the workers' families as well as the workers by . . .

The asbestos standard (29 CFR 1910.1001) requires employers to provide workers exposed above the exposure limit with clothing, to launder the clothing, and to provide showers; however, this standard does not require informing workers of potential contamination of the home. The lead standard (29 CFR 1910.1025) has similar requirements ~~to~~ Appendix B *By of the OSHA B lead standard.*

(see) "Employee Standard Summary" advises "Contaminated work clothing or equipment must be removed in change rooms and not worn home or you will extend your exposure and expose your family since lead from your clothing can accumulate in your house, car, etc."

29 CFR 1910.120 (*Hazardous waste operations and emergency response*) has requirements for wearing protective clothing, for decontaminating all employees, and for decontaminating or disposing of all contaminated clothing and equipment before leaving the site. This standard contains no advisory information about contaminating the workers' automobiles or home.

The Hazard Communication Standard (29 CFR 1910.1200) has no requirement that employees be advised about possible home contamination, although it is conceivable that this information could be included in Material Safety Data Sheets and in employee training. However, under *the* OSHA *the* employer *has* no *direct* duty to do this and OSHA has no authority to require it. *be etc!*

Don't have authority

NIOSH has authority to conduct health hazard evaluations in the workplace and additional authority to conduct research on new and emerging *occupational H&S* problems.

NIOSH has utilized these authorities to conduct a number of studies of home contamination and to make recommendations for its prevention. NIOSH

indicate authority

has additional author. develop and establish recommended occupational safety and health standards. In three of its recommended standards (i.e., asbestos, beryllium and me-) NIOSH had information on home contamination, ^{but} its recommendat. s did not consider family protection. In a later recommended standard for manufacture and formulation of pesticides, ^{NIOSH} ~~it~~ was stated "Protective clothing should not be worn or taken home to be laundered. Cleaning should be done at work or by a professional laundry. This prevents workers from carrying residual chemicals home on their clothing and thereby possibly exposing their families."

Federal Mine Safety and Health Act of 1977

^{appears to be}
 There ~~is~~ more authority in the MSHA Act to prevent home contamination than in OSHA Act. The definition of a miner includes an owner-operator; ~~and~~ if that person is engaged in mining for commercial purposes, MSHA may have authority to enforce its regulations on that person. NIOSH also has authority to conduct health hazard evaluations in connection with mining, and to conduct research into the health effects of persons who work with products of mines.

Vague
 SO?

Toxic Substances Control Act

Except for pesticides, tobacco and tobacco products, materials subject to the Atomic Energy Act of 1954, and foods, drugs and cosmetics, EPA has extensive regulatory authority ^{to regulate} ~~for~~ chemicals and mixtures. Among the relevant sections are §2605(a)(7) ^{(which} ~~to~~ require manufacturers or processors to give notice of unreasonable risk of injury), §2607(c) (requiring

manufacturers, processors and distributors to maintain records of significant adverse reactions to health) and §2607(e) (requiring manufacturers, processors and distributors to report immediately information that a substance or mixture presents unreasonable risk of injury to health or the environment).

*Discuss
to fabricator
profession
injury
and health*

Asbestos Hazard Emergency Response Act of 1986

This act specifically requires that state plans for accrediting asbestos removal contractors contain procedures to prevent asbestos exposure to an employee's family.

Residential Lead - Based Paint Hazard Reduction Act of 1992

This Act has several requirements that could be relevant to protection of workers' families from lead-contaminated dust in their homes. These include definition of lead-contaminated dust, development of a comprehensive lead-exposure abatement program, studies of sources of lead exposure in children (including occupational contributions)

How relate to fabricator?

Federal Insecticide Fungicide, Rodenticide Act

Requirements in this Act ^{for the} on storage and disposal of pesticide containers, and the subsequent regulation (40 CFR 165), are particularly relevant to protection of workers' families, especially in agriculture where cases of childhood poisoning from improper disposal has been a problem.

Developed from this Act

*Expanded
from
transition*

(4) Responses of Federal Agencies to Incidences of Home Contamination

The purpose of this section is to review documented investigations and

Table 16. Continued Federal Laws Relevant to Title-House Exposure

Popular Name	Public Law	U.S. Code	Sections Relevant to Workers' Family Protection
Federal Mine Safety and Health Act of 1977	Public Law 95-173 Public Law 95-164	30 U.S.C. 801 & Seq.	<p>§802 Definitions</p> <p>(g) "Miner" means any individual working in a coal or other mine;</p> <p>(h)(1) "coal or other mine" means (A) an area of land from which minerals are extracted in nonliquid form or, if in liquid form, are extracted with workers underground, (B) private ways and roads appurtenant to such area, and (C) lands, excavations, underground passageways, shafts, slopes, tunnels and workings, structures, facilities, equipment, machines, tools, or other property including impoundments, retention dams, and tailings ponds, on the surface or underground, used in, or to be used in, or resulting from, the work of extracting such minerals from their natural deposits in nonliquid form, or if in liquid form, with workers underground, or used in, or to be used in, the milling of such minerals, or the work of preparing coal or other minerals, and includes custom coal preparation facilities. In making a determination of what constitutes mineral milling for purposes of this chapter, the Secretary shall give due consideration to the convenience of administration resulting from the delegation to one Assistant Secretary of all authority with respect to the health and safety of miners employed at one physical establishment;</p> <p>Note 3. Coal or other mine Definition of "coal mine" under subsection (h) of this section includes a commercial purpose requirement. C.A. 3, 1984, 746P. 20176</p> <p>Note 5. Miner Owner operators who work the mines are "miners" within this chapter and fall within the category of persons whose safety Congress desired to protect. D.C. PA. 1980, 491P Supp. 1123. This chapter's broad definition of "miner" as any individual working in a coal mine rebuts any inference that a miner cannot also be an owner or operator. D.C. PA. 1978, 465P. Supp. 838.</p> <p>§803 Mines subject to coverage Each coal or other mine, the products of which enters commerce, or the operations or products of which affect commerce, and each operator of such mine and every miner in such mine shall be subject to provisions of this chapter.</p> <p>Note 5. One man, owner operated coal mine the products of which were sold totally intra state, was not subject to requirements of this chapter. D.C. PA. 1973, 373P. Supp. 797.</p> <p>Note 7. This chapter applied to small coal mine even though only miners working therein were four brothers who owned and operated the mine. C.A. PA. 1979, 604P/24231.</p> <p>Provisions of this chapter are applicable even though owner operators work the mine. D.C. PA. 1980, 491P/Supp. 1123.</p> <p>Owner-operated mine is not outside provisions of this chapter. D.C. PA. 1980, 487P/Supp. 1376.</p> <p>This chapter covers mines that are totally owned and operated by the same persons, that is, those mines where the only persons working therein are the owners themselves. D.C. PA. 1978, 465P. Supp. 838.</p>

reference
HP/OSHA

Table 16. Continued Federal Laws Related to Take-Home Exposure

Popular Name	Public Law	U.S. Code	Sections Related to Worker Family Protection
			<p>§813 Inspections, investigations, and recordkeeping</p> <p>Note 14. Refusal of owner-operators to permit an authorized representative of the Secretary of Labor to enter upon and to conduct an inspection of their mine constituted a continuing threat to the health and safety of miners and interfered with, hindered and delayed the Secretary and his authorized representatives in carrying out the provisions of this chapter. D.C. PA 1980, 491R Supp. 1123.</p> <p>Note 15. Where operator of small, family-owned rock quarry and his wife excavated rock and marketed their product without the assistance of any employees and in view of fact that the excavation of decorative rock was not subject to the type of license and reporting requirements which place same business proprietors on notice of extensive federal oversight, circumstances did not permit conclusion that the operator of the quarry implicitly consented to warrantless inspections of his quarry by representatives of the Secretary of Labor pursuant to this chapter. C.A. Cal. 1980, 628P, 2d1255.</p> <p>§877(i) The Secretary may require any operator to provide adequate facilities for the miners to change from the clothes worn underground, to provide for the storing of such clothes from shift to shift, and to provide sanitary and bathing facilities.</p> <p>§951 Studies and research</p> <p>(a) [The Secretary of Health and Human Services shall conduct studies]</p> <p>(11) to determine upon written request by any operator or authorized representative of miners, specifying with reasonable particularity the grounds upon which such request is made, whether any substance normally found in a coal or other mine . . . has potentially hazardous effects, and shall submit such determinations to both the operators and the miners as soon as possible.]</p> <p>(12) for such other purposes as . . . deem[ed] necessary to carry out the purposes of this chapter.</p> <p>(b) Activities under this section in the field of coal or other mine health shall be carried out by the Secretary of Health and Human Services through the National Institute of Occupational Safety and Health . . .</p> <p>(d) The Secretary of Health and Human Services shall also conduct studies and research into matters involving the protection of life and the prevention of diseases in connection with persons, who although not miners, work with, or around the products of coal or other mines in areas outside of such mines and under conditions which may adversely affect the health and well-being of such persons.</p>

Table 16. Continued Federal Laws Relevant to Take-Home Exposure

Popular Name	Public Law	U.S. Code	Sections Relevant to Workers' Family Protection
Toxic Substances Control Act	Public Law 94-459	15 U.S.C. 2601 & 264	<p>§2602 Definitions</p> <p>(2)(A) Except as provided in subparagraph (B), the term "chemical substance" means any organic or inorganic substance of a particular molecular identity, including —</p> <p>(i) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature and</p> <p>(ii) any element or uncombined radical.</p> <p>(B) Such term does not include—</p> <p>(i) any mixture,</p> <p>(ii) any pesticide (as defined in the Federal Insecticide, Fungicide and Rodenticide Act) when manufactured, processed, or distributed in commerce for use as a pesticide,</p> <p>(iii) tobacco or any tobacco product,</p> <p>(iv) any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 and regulations issued under such Act),</p> <p>(v) any article the sale of which is subject to the tax imposed by section 4181 of Title 26 (determined without regard to any exemptions from such tax provided by section 4182 or 4221 or any other provision of Title 26), and</p> <p>(vi) any food, food additive, drug, cosmetic, or device (as such terms are defined in section 321 of Title 21) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device.</p> <p>(5) The term "environment" includes water, air, and land and the interrelationship which exists among and between water, air, and land and all living things.</p> <p>(7) The term "manufacture" means to import into the customs territory of the United States (as defined in general heading 2 of the Tariff Schedules of the United States), produce, or manufacture.</p> <p>(8) The term "mixture" means any combination of two or more chemical substances if the combination does not occur in nature and is not, in whole or in part, the result of a chemical reaction; except that such term does include any combination which occurs, in whole or in part, as a result of a chemical reaction if none of the chemical substances comprising the combination is a new chemical substance and if the combination could have been manufactured for commercial purposes without a chemical reaction at the time the chemical substances comprising the combination were combined.</p> <p>(10) The term "process" means the preparation of a chemical substance or mixture, after its manufacture, for distribution in commerce—</p> <p>(A) in the same form or physical state as, or in a different form or physical state from, that in which it was received by the person so preparing such substance or mixture, or</p> <p>(B) as part of an article containing the chemical substance or mixture.</p> <p>(11) The term "processor" means any person who processes a chemical substance or mixture</p>

Table 16. Continued Federal Laws Relevant to Take-Home Exposure

Popular Name	Public Law	U.S. Code	Sections Relevant to Workers' Family Protection
			<p>§ 2605. Regulation of hazardous chemical substances and mixtures</p> <p>(a) Scope of regulation.—If the Administrator finds that there is a reasonable basis to conclude that the manufacture, processing, distribution in commerce, use, or disposal of a chemical substance or mixture, or that any combination of such activities, presents or will present an unreasonable risk of injury to health or the environment, the Administrator shall by rule apply one or more of the following requirements to such substance or mixture to the extent necessary to protect adequately against such risk using the least burdensome requirement:</p> <p>(4)(A) A requirement prohibiting or otherwise regulating any manner or method of disposal of such substance or mixture, or of any article containing such substance or mixture, by its manufacturer or processor or by any other person who uses, or disposes of, it for commercial purposes.</p> <p>(7) A requirement directing manufacturers or processors of such substance or mixture</p> <p>(A) to give notice of such unreasonable risk of injury to distributors in commerce of such substance or mixture and, to the extent reasonably ascertainable, to other persons in possession of such substance or mixture or exposed to such substance or mixture;</p> <p>(B) to give public notice of such risk of injury; and</p> <p>(C) to replace or repurchase such substance or mixture as elected by the person to which the requirement is directed.</p> <p>§ 2607 Reporting and Retention of Information</p> <p>(c) Records.—Any person who manufactures, processes, or distributes in commerce any chemical substance or mixture shall maintain records of significant adverse reactions to health or the environment, as determined by the Administrator by rule, alleged to have been caused by the substance or mixture. Records of such adverse reactions to the health of employees shall be retained for a period of 30 years from the date such reactions were first reported to or known by the person maintaining such records. Any other records of such adverse reactions shall be retained for a period of five years from the date the information contained in the record was first reported to or known by the person maintaining the record. Records required to be maintained under this subsection shall include records of consumer allegations of personal injury or harm to health, reports of occupational disease or injury, and reports or complaints of injury to the environment submitted to the manufacturer, processor, or distributor in commerce from any spouse. Upon request of any duly designated representative of the Administrator such person who is required to maintain records under this subsection shall permit the inspection of such records and shall submit copies of such records.</p> <p>(e) Notice to Administrator of substantial risks.—Any person who manufactures, processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment shall immediately inform the Administrator of such information unless such person has actual knowledge that the Administrator has been adequately informed of such information.</p>

General

Table 16. Continued Federal Laws Relevant to Toxics-Home Exposure

Popular Name	Public Law	U.S. Code	Section Relevant to Workers' Family Protection
Asbestos Hazard Emergency Response Act of 1986	Public Law 99-519	15 U.S.C. §2642 & Seq.	<p>§2646 Contractor and laboratory accreditation</p> <p>(b) Accreditation by State</p> <p>(1) Model plan</p> <p>(B) Plan requirements</p> <p>(vi) Housekeeping and personal hygiene practices, including the necessity of showers, and procedures to prevent asbestos exposure to an employee's family.</p>
Residential Lead-Based Paint Hazard Reduction Act of 1992	PL 102-550 Title X	15 U.S.C. §2681 & Seq.	<p>§2681 Definitions</p> <p>For the purposes of this subchapter:</p> <p>(1) Abatement</p> <p>The term "abatement" means any set of measures designed to permanently eliminate lead-based paint hazards in accordance with standards established by the Administrator under this subchapter. Such term includes:</p> <p>(A) the removal of lead-based paint and lead-contaminated dust, the permanent containment or encapsulation of lead-based paint, the replacement of lead-painted surfaces or fixtures, and the removal or covering of lead-contaminated soil; and</p> <p>(B) all preparation, cleanup, disposal, and postabatement clearance testing activities associated with such measures.</p> <p>(11) Lead-contaminated dust</p> <p>The term "lead-contaminated dust" means surface dust in residential dwellings that contains an area or mass concentration of lead in excess of levels determined by the Administrator under this subchapter to pose a threat of adverse health effects on pregnant women or young children.</p> <p>(12) Lead-contaminated soil</p> <p>The term "lead-contaminated soil" means bare soil on residential real property that contains lead at or in excess of the levels determined to be hazardous to human health by the Administrator under this subchapter.</p> <p>§2683 Identification of dangerous levels of lead</p> <p>Within 18 months after October 28, 1992, the Administrator shall promulgate regulations which shall identify, for purposes of this subchapter, and the Residential Lead-Based Paint Hazard Reduction Act of 1992 [2 U.S.C.A. § 4851 et seq.], lead-based paint hazards, lead-contaminated dust, and lead-contaminated soil.</p>

General

of asbestos

Table 16. Continued Federal Laws Relevant to Take-Home Exposure

Popular Name	Public Law	U.S. Code	Sections Relevant to Workers' Family Protection
Federal Insecticide Fungicide, Rodenticide Act	Public Law 92-516	7 U.S.C. 136	<p>§2685</p> <p>(a) Program to promote lead exposure abatement. The Administrator, in cooperation with other appropriate Federal departments and agencies, shall conduct a comprehensive program to promote safe, effective, and affordable monitoring, detection, and abatement of lead-based paint and other lead exposure hazards.</p> <p>(c) Exposure studies</p> <p>(1) The Secretary of Health and Human Services (hereafter in this subsection referred to as the "Secretary"), acting through the Director of the Centers for Disease Control (CDC), and the Director of the National Institute of Environmental Health Sciences, shall jointly conduct a study of the sources of lead exposure in children who have elevated blood lead levels (or other indicators of elevated lead body burden), as defined by the Director of the Centers for Disease Control.</p> <p>(2) The studies described in paragraphs (1) and (2) shall, as appropriate, examine the relative contributions to elevated lead body burden from each of the following:</p> <ul style="list-style-type: none"> (A) Drinking water (B) Food (C) Lead-based paint and dust from lead-based paint (D) Exterior sources such as ambient air and lead in soil (E) Occupational exposures, and other exposures that the Secretary determines to be appropriate. <p>§136g. Storage, disposal, transportation, and retail</p> <p>(a) Storage, disposal, and transportation</p> <p>(1) Data requirements and registration of pesticides. The Administrator may require under section 136(e) or 136(d) of this title that—</p> <ul style="list-style-type: none"> (A) the registrant or applicant for registration of a pesticide submit or cite data or information regarding methods for the safe storage and disposal of excess quantities of the pesticide to support the registration or continued registration of a pesticide; (B) the labeling of a pesticide contain requirements and procedures for the transportation, storage, and disposal of the pesticide, any container of the pesticide, any insect containing the pesticide, or any other material used to contain or collect excess or spilled quantities of the pesticide; and <p>(c) Container design</p> <ul style="list-style-type: none"> (1) Procedures (A) Not later than 3 years after the effective date of this subsection, the Administrator shall, in consultation with the heads of other interested Federal agencies, promulgate regulations for the design of pesticide containers that will promote the safe storage and disposal of pesticides. (B) The regulations shall ensure, to the fullest extent practicable, that the containers— <ul style="list-style-type: none"> (i) accommodate procedures used for the removal of pesticides from the containers and the rinsing of the containers; (ii) facilitate the safe use of the containers, including elimination of splash and leakage of pesticides from the containers; (iii) facilitate the safe disposal of the containers; and (iv) facilitate the safe refill and reuse of the containers.

redesignate
effective

reiterate

Table 16. Continued Federal Laws Relevant to Tube-Home Exposure

Popular Name	Public Law	U.S. Code	Sections Relevant to Worker's Family Protection
			<p>(2) Compliance The Administrator shall require compliance with the regulations referred to in paragraph (1) not later than 5 years after the effective date of this subsection.</p> <p>(f) Pesticide residue removal (1) Procedures (A) Not later than 3 years after the effective date of this subsection, the Administrator shall, in consultation with the heads of other interested Federal agencies, promulgate regulations prescribing procedures and standards for the removal of pesticides from containers prior to disposal.</p> <p>(B) The regulations may: (i) specify, for each major type of pesticide container, procedures and standards providing for, at a minimum, triple rinsing or the equivalent degree of pesticide removal; (ii) specify procedures that can be implemented promptly and easily in various circumstances and conditions; (iii) provide for reuse, whenever practicable, or disposal of rinse water and residue; and (iv) be coordinated with requirements for the rinsing of containers imposed under the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).</p> <p>(C) The Administrator may, at the discretion of the Administrator, exempt products intended solely for household use from the requirements of this subsection.</p> <p>(2) Compliance Effective beginning 5 years after the effective date of this subsection, a State may not exercise primary enforcement responsibility under section 136a-1 of this title or certify an applicator under section 136f of this title, unless the Administrator determines that the State is carrying out an adequate program to ensure compliance with this subsection.</p> <p>(3) Solid Waste Disposal Act Nothing in the subsection shall affect the authorities or requirements concerning pesticide containers under the Solid Waste Disposal Act (42 U.S.C. 6901).</p> <p>(4) Pesticide container study (1) Study (A) The Administrator shall conduct a study of options to encourage or require: (i) the return, refill, and reuse of pesticides containers; (ii) the development and use of pesticide formulations that facilitate the removal of pesticide residues from containers; and (iii) the use of bulk storage facilities to reduce the number of pesticide containers requiring disposal. (B) In conducting the study, the Administrator shall: (i) consult with the heads of other interested Federal agencies, State agencies, industry groups, and environmental organizations; and (ii) assess the feasibility, costs, and environmental benefits of encouraging or requiring various measures of actions.</p>