

1992

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Recommended Citation

William H. Rodgers, Jr., *A Superfund Trivia Test: A Comment on the Complexity of Environmental Laws*, 22 ENVTL. L. 417 (1992), <https://digitalcommons.law.uw.edu/faculty-articles/261>

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A SUPERFUND TRIVIA TEST: A COMMENT ON THE COMPLEXITY OF THE ENVIRONMENTAL LAWS

BY
WILLIAM H. RODGERS, JR.*

Professor Rodgers examines the reasons for the American obsession with trivia. While unable to determine the cause of the obsession, he does provide some insight on the usefulness and need for the information in the study of environmental law.

I. INTRODUCTION: THE APPEAL OF TRIVIA

Trivia can be defined as insignificant, useless, or unnecessary information, and trivia-seekers are those who relish the pursuit of this junk of the information world. Let me affirm, at the outset, that trivia appears to hold a special place in the hearts of late-twentieth century Americans. It has given rise to a number of popular games, such as *Trivial Pursuit* and *Balderdash*. There is a broad and receptive audience for a long list of obscure facts, details, and circumstances.¹ Do you know, for example, how many trees are consumed to produce the Sunday edition of the New York Times? About 4,000. How many cattle are slaughtered each day in the United States? About 90,000. How many hamburgers have been served at McDonald's? About thirty billion. How many cigarettes are smoked each day in the United States? About two billion. How many cigarette butts end up as litter? Would you guess one billion per day? How many cells are there in the human body? About sixty or seventy trillion.

* Bloedel Professor of Law, University of Washington, Seattle, Washington. Appreciation is expressed to the students of Northwestern School of Law of Lewis & Clark College, and the University of Wyoming School of Law, to whom these remarks were first addressed during visiting lectures in 1991.

1. See, e.g., Donna J. McKinnon, *Games People Play*, TORONTO STAR, Feb. 17, 1991, at E1 (*Trivial Pursuit* game sold 20 million copies in 1985 alone, *Balderdash* has sold 21.5 million copies to date). The following examples are borrowed from DOUGLAS R. HOPSTADTER, *METAMAGICAL THEMAS: QUESTING FOR THE ESSENCE OF MIND AND PATTERN* 115-35 (1985) ("On Number Numbness").

The pursuit of trivia can be carried to the farthest corners of the culture.² What school does Spiderman attend in his civilian identity? Empire State University. What television show brought fame to Annette Funicello? The Mickey Mouse Club. What's the name of Cinderella's dog in Walt Disney's version of the story? Bruno. What is the world's tallest grass? Bamboo. How many men are members of the rock group *Kiss*? Four. How many ear-phone holes does a Sony *Walkman* DD have? Two. What are the names of the children who adopted Paddington Bear, and where do they live? Judy and Jonathon Brown, 32 Windsor Gardens.

II. A THEORY OF TRIVIA AND TRIVIA-SEEKERS

Accepting for the moment that the humans we know have a taste for trivia, can we account for the disposition in a convincing way? I can think of three distinctive evolutionary theories, although I'm inclined to reject all three. Theory One is that trivia detection and enjoyment has such a central value to the survival of the individual that the trait is acted upon by natural selection. That is, those with a taste for trivia will survive and reproduce, and this attention to the small detail will be passed on to future generations. Those who are unreceptive to the prospects of the useless detail will go the way of the Dodo bird. Now there are several problems with this theory, not the least of which is the constraining nature of the definition of trivia. One can certainly imagine survival value being associated with the ability to remember or recall a little-noticed and seemingly unimportant detail—for example, the wily tribesman who is able to identify the last waterhole during the time of drought. But don't forget the definition of trivia, which celebrates not useful but *useless* information. If this wily tribesman were a true trivia buff, he might remember the size of the waterhole, the taste of the water, the lay of the land—anything but the crucial circumstance of where this treasure might be.

Darwin himself offers another theory of selection³ that can be put to implausible use in search of an account for the human trivia preference. Let's call Theory Two the theory of sexual se-

2. The following examples are borrowed from *Trivial Pursuit*.

3. CHARLES DARWIN, *THE DESCENT OF MAN, AND SELECTION IN RELATION TO SEX* ch. 8 (1871); see also RICHARD DAWKINS, *THE SELFISH GENE* 156-61 (2d ed. 1989).

lection, based on aesthetic preference. What is the standard account of why male mallards have green heads? Or why peacocks have long tails? Because the females prefer it that way. Now, I ask you, is this ability to recall or recite wildly immaterial factual fragments likely to figure in the reproductive decision in any convincing way? Where is the sex appeal, for example, in being able to recite the number of tire fires recorded by the U.S. Environmental Protection Act (EPA) in 1987?⁴ This theory needs work.

Theory Three is a variant of Theory Two and goes by the name of the liability theory of sexual selection. Using the example of the peacock once again, the argument is that the peahen can get a strong endorsement of character and stamina by watching this fellow lug around fifteen feet of useless tail; that is, if he can avoid predators while carrying his tail about, he must have some offsetting assets. But, alas, this theory fails us too. There is some appeal in describing the trivia appetite as a form of liability—how many law students find themselves unable to state the holding of the case while recalling clearly the middle initial of the trial judge? Or the citation to the *cert. denied*? My clearest recollection of an important case about the wastage of water is that the opinion was written by Chief Justice Waste.⁵ The lust for trivia can limit vision and constrain judgment; but why would others find this appealing?

For the moment at least, we must declare a failure in our quest for a generic account of the appetite for trivia. Our search has yielded no overarching evolutionary basis for the human predilection for trivia.

III. TAKING THE TRIVIA TEST: INTRODUCTION TO COMPLEXITY

Reproduced in the Appendix is the Superfund Trivia Test prepared for students in the course in environmental law for fall quarter 1990 at the University of Washington. Is there anything in this test that might advance our understanding of trivia, as it

4. The number is 46. *R.I. Senator Proposes End to Tire Piles*, UPI, Apr. 30, 1991, available in LEXIS, Nexis Library, UPI file; compare Kieth Schneider, *Worst Tire Inferno Has Put Focus on Disposal Problem*, N.Y. TIMES, Mar. 2, 1990, at A10.

5. *Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist.*, 45 P.2d 972 (1935).

appears in this arcane, complex, but exceedingly important corner of environmental law?

Certainly much of this test would meet the classical standards of trivia—truly useless information with a small or vanishing utility value. This is true of the questions about the species wiped out in the spraying rampage of Mr. Russell Bliss (Question 1) and the hazardous enterprise nicknamed “Dirty Harry” (Question 2). The same is true, perhaps, of the questions about the list of acronyms *not used* by EPA in its hazardous waste programs (Question 12), the number of Superfund sites that bear the term “sanitary” to depict the operation (Question 14), the metaphors invoked by the courts to describe the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Question 19), the name of the site taken over as a “crime scene” (Question 22), and the identity of Evelyn (Question 23).

But in a number of particulars this Trivia Test begins to disclose useful information about the legal system that is the subject of the inquiry. Question 3, which addresses calculation of the Hazardous Ranking System Score, for example, is filled with mathematical nonsense, but it does show that CERCLA’s priority-setting scheme is committed to some version of comprehensive rationality. There is serious number-crunching going on here, and this presages challenges in identifying the methodology, acquiring data, and conducting valuations.

Question 4 introduces the student to the hydra-headed nature of the modern environmental laws. It tells us that EPA made presentations to seven congressional committees in the course of enactment of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Those committees filed seven reports that became part of the legislative history. Anyone who can count can tell that discerning the legislative purpose of SARA will be difficult, even before proceeding to the investigation of the details of contradiction, misstatement, and less than perfect duplication buried in these several reports.

Change is the enduring lesson of the contemporary environmental laws, and this lesson is underscored by Question 9, which recites the rapid-fire amendments that have been made to the National Contingency Plan (NCP). Compliance with the NCP is a precondition to a successful private cost-recovery action.⁶ The fact that there are seven versions of the NCP (1970, 1971, 1973, 1980, 1982, 1985, and 1990) to which the courts must refer, depending upon the timing of the cleanup, shows nicely what a crowded world of moving targets Congress has created under CERCLA.

Complexity in another form is illustrated nicely by Question 13, which asks when an "extremely hazardous substance" listed under the Emergency Planning and Community Right-to-Know Act (EPCRA) will be considered a "hazardous substance" under CERCLA.⁷ The strong possibility that an "extremely hazardous substance" can turn out not to be a "hazardous substance" gives fair warning. This is an arcane world of the flinty-eyed specialist where words mean only what Congress says they mean. This is an outcome not that unusual in law, of course, but the example confirms strongly that hazardous waste law is a cold and forbidding world not at all receptive to casual amateurs.

A number of questions attest to the large numbers, long durations, high costs, and improbable outcomes of Fund-financed cleanups. The number of Potentially Responsible Party (PRP) letters served by the EPA exceeds 15,000, and is climbing (Question 25). An *average* of eight years is consumed by the Remedial Investigation/Feasibility Study (RI/FS) process even before cleanup *begins* at a National Priorities List (NPL) site (Question 8). Cleanup *completion* will take the process well into the second decade (Question 10), even assuming we avoid a catastrophic setback that takes the process back to "go" (Question 27). EPA projects up to 100 years of pumping and treating the groundwater for some sites (Question 28). The cleanup challenge presented by the Burns family alone extends some 210 miles (Question 29). The trivia test tells us that the cost of a single RI/FS can ap-

6. CERCLA § 107(a)(4)(B), 42 U.S.C. § 9607(a)(4)(B) (1988); see also 4 WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW: HAZARDOUS WASTES & SUBSTANCES § 8.13 (forthcoming).

7. Compare EPCRA § 302, 42 U.S.C. § 11002(a)(2) (1988), with CERCLA § 101(14), 42 U.S.C. § 9601(14) (1988).

proach ten million dollars and the cost of a single cleanup can be fifty billion dollars (Questions 7, 15). If the cost of an average cleanup is twenty-four million dollars (Question 6), then we are looking at expenditures approaching thirty billion dollars to take care of the 1,250 sites now on the NPL list. Superfund may have to pay for cleaning up many sites that are not on the list, of course. Cleanups at still other sites (such as the Department of Defense and Department of Energy facilities) will be paid for by sources other than the Superfund.

Question 26 raises the issue of the percentage of expenditures from Superfund that have been recaptured in cost recovery actions. The correct answer (nine percent) raises serious doubts about one of the central assumptions of the Superfund law. As originally conceived,⁸ CERCLA protected the government's option to conduct the cleanup itself, and then sue the responsible parties for the costs of the cleanup. Closing the loop through cost recovery was an indispensable step since it would avoid the inefficiencies inherent in any fee- or tax-funded cleanup scheme. There are understandable reasons, perhaps, for this cost-recovery lag—the government gets stuck with the cleanups where PRPs are in scarce supply; and program staffers avoid getting into the cost-chasing business. But the point that cost recovery is infrequent and imperfect turns out to be not a trivial one but a key empirical insight into the functioning of CERCLA.

The complexity of the environmental laws is revealed in many ways that are more convincing than a Superfund Trivia Test. The reasons for this drift towards statutory complexity are much discussed. Congressional unhappiness with the behavior of the administrative agencies is a strong possibility,⁹ and detailed marching orders are perceived as the only way to keep a balky bureaucracy on the right track. The subject matter itself is subject to rapid redefinition; after all, two of the titles of the Clean Air Act Amendments of 1990 deal with problems that were unrecognized at the time of the Clean Air Act of 1970—acid deposition

8. See Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, § 104, 94 Stat. 2767, 2774 (codified as amended at 42 U.S.C. § 9604 (1988)).

9. See Craig N. Oren, *Detail and Delegation: A Study in Statutory Specificity*, 15 COLUM. J. ENVTL. L. 143, 146 (1990).

control,¹⁰ and stratospheric ozone protection.¹¹ The solutions, too, are highly experimental in nature, and legislative attempts to tackle problems first this way and then that way account for a proliferation of pages. The nature of the lawmaking process itself (which produces ambiguities, postponements, sleepers, and other instabilities in the statutes)¹² lays the groundwork for later changes and changes upon changes. The result is often a law that is not only complex but transitory and fleeting—a kind of junk law.

IV. TRIVIA REASSESSED: THE LAW OF REVEALED COMPLEXITY

All of the explanations for complexity in the environmental laws emphasize the dynamic world in which they operate. Indeed, a number of exogenous and endogenous mechanisms work to redefine, change, and modify the written words as they appear in the statutory text.

This dynamic view offers a somewhat different perspective of trivia. It is clear, upon reflection, that the Trivia Test is a failure by definition, since it sweeps up in its embrace some useful information along with the truly useless to which it is supposed to be devoted. Perhaps trivia is better defined as obscure rather than useless information.

It may be, then, that the key to the human fixation on trivia is that the functional value of a fact is not itself fixed and stable. What is useless today may be valuable tomorrow; is it possible that an intimate knowledge of the content of McDonald's hamburger signs can contribute to a happier life? Count on a lawyer, of course, to pose the issue in terms of functional value. Biologists might tell us that this trivia business is a product of accident or recreation.¹³ Our capacity to scoop up the trivial may be

10. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, sec. 401, §§ 401-416, 104 Stat. 2399, 2584-631 (codified at 42 U.S.C.A. §§ 7651-7651o (West Supp. 1991)).

11. *Id.* sec. 602, §§ 601-618, 104 Stat. at 2648-70 (codified at 42 U.S.C.A. §§ 7671-7671q).

12. See William H. Rodgers, Jr., *The Lesson of the Red Squirrel: Consensus and Betrayal in the Environmental Statutes*, 5 J. CONTEMP. HEALTH L. & POL'Y 161 (1989).

13. Cf. BEAUTY AND THE BRAIN: BIOLOGICAL ASPECTS OF AESTHETICS (Ingo Rentschler et al. eds., 1988) (collecting scientific papers on the biological basis of

an incidental consequence of the evolutionary forces that encouraged us to seek out and retain useful information. Or perhaps this trivia-seeking bent is just a form of play, without regard to whether it sharpens the skills of recollection and retrieval. Meanwhile, let me close with a trivia question—who was the utility infielder for the 1948 Boston Braves?¹⁴

aesthetics).

14. Sibi Sisti. This is based on general knowledge. You can look it up in a baseball encyclopedia, or just ask your favorite law professor.

APPENDIX A

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Superfund Trivia Test

Fall Quarter 1990
Professor Rodgers

1. Identify the species *not* killed by Mr. Russell Bliss in his hazardous waste spraying episodes in and around the horse arenas of Missouri.
 - a. Horses
 - b. Dogs
 - c. Billy Goats
 - d. Cats
 - e. Armadillos
2. The nickname "Dirty Harry" has been applied to:
 - a. The Fairchild Camera Hazardous Waste Storage Facility in Mountain View, California, near Clint Eastwood's home in Carmel.
 - b. The Harry Yaworski Waste Lagoon in Canterbury, Connecticut.
 - c. Edgewood Arsenal, Aberdeen Proving Grounds, Maryland.
 - d. Robins Air Force Base, Georgia, commanded by Major General Harry "Fighting Horse" Bucknell.
 - e. Shot Harry, the ninth in a series of eleven nuclear devices tests, conducted at the Yucca Flats Nevada Test Site in 1953.
3. The final Hazardous Ranking System score (which is used to evaluate hazard waste sites and place them on the NPL) is:
 - a. The square root of the factors multiplied by a toxicity coefficient divided by the volume numerator.
 - b. The square root of the sum of the squares of the pathway scores divided by the square root of three.
 - c. The sum of the factor scores and the pathway scores multiplied by the circumference of the hypothetical hazard divided by pi (3.14).
 - d. The average of the set of rational numbers derived from the separate calculations of pathway and factor scores after subtracting a population factor as discounted by distance.

4. In the course of enactment of the Superfund Amendments and Reauthorization Act of 1986, EPA made presentations to _____ Congressional Committees that filed _____ reports that became part of the legislative history:

- a. 14, 11
- b. 4, 2
- c. 7, 7
- d. 2, 2
- e. 12, 1

5. The leading article by Professor Frank Grad on the legislative history of CERCLA (1980 *Columbia Journal of Environmental Law*) has been cited by the courts in how many decisions?

- a. 2
- b. 11
- c. 28
- d. 146
- e. 1,794

6. What is the average cost of cleaning up a Superfund site?

- a. \$24,000
- b. \$240,000
- c. \$2,400,000
- d. \$24,000,000
- e. \$24,000,000,000

7. What is the cost of completing the RI/FS in anticipation of cleanup of the Stringfellow Acid Pits in Riverside, California?

- a. \$24.2 million
- b. \$9.095 million
- c. \$4.32 million
- d. \$1.4 million
- e. \$1.1 million

8. What is the *average* length of time consumed by the RI/FS studies before the chosen remedy is implemented and cleanup begins at an NPL site?

- a. 1 year
- b. 2 years
- c. 4 years
- d. 8 years
- e. 11 years

9. In what year was the National Contingency Plan *not* amended?

- | | |
|---------|---------|
| a. 1968 | e. 1980 |
| b. 1970 | f. 1982 |
| c. 1971 | g. 1985 |
| d. 1973 | h. 1990 |

10. The Tybouts Corner Landfill, Wilmington, Delaware, was listed No. 2 on the NPL in 1981. What are the best current estimates of the year for a completed cleanup?

- 1991
- 1995
- 2030
- 2050 (± 10)
- When hell freezes over

11. At what Superfund site did the state (acting under a cooperative agreement) waste \$492,000 on a noncompetitively bid foam installation contract?

- McColl Superfund Site, California
- Claremont Polychemical, New York
- Cedartown Municipal Landfill, Georgia
- Amnicola Dump, Chattanooga, Tennessee
- Bennett Stone Quarry, Bloomington, Indiana

12. What acronym has *not* been used by EPA in the hazardous waste programs under RCRA and CERCLA?

- | | |
|---------|---------|
| a. RAT | d. LOIS |
| b. CRP | e. CRUD |
| c. LUST | f. SITE |

13. Identify the circumstances under which an "extremely hazardous substance" listed under EPCRA will be considered a "hazardous substance" under CERCLA.

- It can never happen.
- A listing as "extremely" hazardous automatically renders it "hazardous" for purposes of CERCLA.
- It happens only if EPA designates extremely hazardous substances as "hazardous" and completes the necessary procedures.
- Extremely hazardous substances are presumed to be hazardous, but a rebuttal is possible.

14. How many Superfund sites have "sanitary" in the name of the landfill (e.g., Crazy Horse Sanitary Landfill)?

- a. 0
- b. 22
- c. 4
- d. 91

15. Estimate the cost of cleaning up the Superfund sites at the Hanford-100-Area, Hanford-1100-Area, Hanford-200-Area, and the Hanford-300-Area?

- a. \$50 billion
- b. \$50 trillion
- c. \$50 quadrillion
- d. 50⁶ French francs
- e. 15¹⁴ Brazilian crusaros

16. Identify the Superfund site where cleanup costs are expected to exceed those at Hanford.

- a. Love Canal, Niagara, New York
- b. Rocky Flats, Golden, Colorado
- c. Stringfellow Acid Pits, Riverside, California
- d. Rocky Mountain Arsenal, Commerce City, Colorado
- e. Savannah River, Aiken, South Carolina
- f. Nobody really knows

17. Identify the church site that has accumulated the greatest expenditure of Superfund response costs.

- a. First Baptist, Cheyenne, Georgia
- b. Congregational Church, Yonkers, New York
- c. Church of Christ, Carrizozo, New Mexico
- d. Church of Scientology, Racine, Wisconsin
- e. Church of God, Moody, Alabama

18. During the cleanup of what NPL site did the authorities cause a railroad tank car of oleum to release a cloud of toxic gas (sulfur trioxide and sulfuric acid) damaging 500 automobiles, an airplane, and several buildings in the neighborhood?

- a. San Gabriel Valley—Area 1, El Monte, California
- b. Montana Pole & Treating, Butte, Montana
- c. Big D Campground, Kingsville, Ohio
- d. Drake Superfund Site, Lock Haven, Pennsylvania
- e. Waste, Inc. Landfill, Michigan City, Indiana

19. What metaphor has *not* been invoked by the courts to describe CERCLA and its legislative history?
- King Minos' Labrynth
 - Monopoly
 - bowl of spaghetti
 - statutory maze
20. Identify the site that is listed on both the National Priority List and eligible for the National Register of Historic Places.
- Pijak Farm, Plumsted Township, New Jersey
 - Higgins Farm, Franklin Township, New Jersey
 - Boarhead Farms, Bridgeton Township, Pennsylvania
 - Sarney Farm, Armenia, New York
 - Shenendoah Stables, Moscow Mills, Missouri
21. What percentage Superfund monies have been paid to contractors?
- 100%
 - 80%
 - 60%
 - 40%
 - 20%
22. What NPL site was taken over by state authorities as a "crime scene"?
- Vega Alta Public Supply Wells, Vega Alta, Puerto Rico
 - Marathon Battery Co., Cold Spring, New York
 - Wildcat Landfill, Dover, Delaware
 - Southern Maryland Wood Treating, Hollywood, Maryland
 - Ambler Asbestos Piles, Amber, Pennsylvania
23. Who is Evelyn?
- Coconspirator with John Ward
 - Harry Seidenburg's niece
 - One of the bankruptcy petitioners in the Supreme Court's *Midlantic* case
 - A dog guarding the Charles Macon Lagoon & Drum Storage Site, Cordova, North Carolina
 - Wife of Russell Bliss

24. What facility is *not* among the top ten in pounds of toxics released into the air according to EPA's 1987 Toxic Release Inventory compiled under EPCRA?

- a. Amax, Inc.'s Amax Magnesium plant in Rowley, Utah?
- b. The Agrico Chemical plant (parent Freeport McMoRan, Inc.) in Donaldsville, Louisiana?
- c. Eastman Kodak's Tennessee Eastman Plant in Kingsport, Tennessee?
- d. Eastman Kodak's plant in Rochester, New York?
- e. Avtex Fibers Front Royal plant in Front Royal, Virginia?

25. How many PRP letters have been served by EPA in the history of CERCLA?

- a. 3,000
- b. 8,000
- c. 15,000
- d. 21,000
- e. 114,000

26. What percentage of the \$2.6 billion expended on Superfund through September 1988 had been recaptured by the United States in cost recovery actions?

- a. 2%
- b. 9%
- c. 12%
- d. 18%
- e. 44%

27. What Superfund site suffered a catastrophic leak *after* it had officially been declared one of six sites that had been "cleaned up" in the first five years of the CERCLA program?

- a. Golden Strip Septic Tank, Simpsonville, South Carolina
- b. Butler Tunnel, Pennsylvania
- c. Seymour Recycling Corp., Seymour, Indiana
- d. Anaconda Co. Smelter, Anaconda, Montana
- e. Distler Brickyard, West Point, New York

28. How many years of pumping and treating the groundwater at the Caldwell Trucking site in Fairfield Township, New Jersey would be required to bring the water into compliance with state drinking water standards?

- a. 10 years
- b. 50 years
- c. 100 years
- d. 1,000 years
- e. 10,000 years

29. How many miles of roadsides in North Carolina were sprayed with PCBs by the mobil-disposal invention of Robert J. Burns and his sons?

- a. 20
- b. 60
- c. 120
- d. 180
- e. 210

30. What site, listed as number two on the NPL, began its life as a well-advertised "model" landfill?

- a. Tybouts Corner Landfill, Wilmington, Delaware
- b. Old Southington Landfill, Southington, Connecticut
- c. Auburn Road Landfill, Londonberry, New Hampshire
- d. Hertel Landfill, Plattskill, New York

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Fall Quarter 1990

Superfund Trivia Test ANSWERS

Professor Rodgers

1. - e. Jerry-Russell Bliss, Inc. v. Hazardous Waste Management Comm'n, 702 S.W. 2d 77 (Mo. 1986).
2. - e. PHILLIP L. FRADKIN, FALLOUT: AN AMERICAN NUCLEAR TRAGEDY 2-3 (1989).
3. - b. Hazard Ranking System (HRS) for Uncontrolled Hazardous Substance Releases, 53 Fed. Reg. 51,962, 51,964 (1988); *see also* 40 C.F.R. pt. 300 app. A (1990) (mathematical formula).
4. - c. Timothy B. Atkeson et al., *An Annotated Legislative History of the Superfund Amendments and Reauthorization Act of 1986*, 16 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,363, 10,367 n.62 (Dec. 1986).
5. - b. This was the result of a LEXIS search, Genfed library, Courts file (Grad w/25 Colu! w/20 superfund).
6. - d. *See* OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, SUPERFUND STRATEGY: SUMMARY 21-26 (1985).
7. - b. *See* 1989 GUIDE TO SUPERFUND SITES 712 (Jane Glass & Dalal Musa eds. 1989) [hereinafter 1989 GUIDE TO SUPERFUND SITES].
8. - d. *See* JAN PAUL ACTON, RAND CORPORATION, UNDERSTANDING SUPERFUND: A PROGRESS REPORT 16-17 (1989) (figure 3.3 shows that these eight years contain 119 months). The average time for an RI/FS may grow, as the program had only been in existence eight years at the time of this study.
9. - a. It was not amended in 1968 because that was the year it was first issued. *See* Joseph Freedman, *Proposed Amendments to the National Contingency Plan: Explanation and Analysis*, 19 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,103, 10,105 (Mar. 1989).

10. - b. *Cf.* United States v. New Castle County, 769 F. Supp. 591 (D. Del. 1991); *see also* STUDIES AND ANALYSIS GROUP OF THE MAJORITY STAFF OF SENATE COMM. ON THE BUDGET, 101ST CONG., 2D SESS., MANAGEMENT OF SUPERFUND 7 (Comm. Print 1990) [hereinafter SASSER REPORT].
11. - a. Personal Communication, U.S. EPA (1991) (report of audit by EPA Office of the Inspector General).
12. - e.
 - a. RAT = Radiological Assistance Team
 - b. CRP = Community Relations Plan
 - c. LUST = Leaking Underground Storage Tank
 - d. LOIS = Loss of Interim Status (under RCRA)
 - f. SITE = Superfund Innovative Technology Evaluation
13. - c. Compare EPCRA § 329, 42 U.S.C. § 11049(3) (1988); *id.* § 302, 42 U.S.C. § 11002(a)(2), with CERCLA § 102(a), 42 U.S.C. § 9602(a) (1988).
14. - b. This is based on a count in the 1989 GUIDE TO SUPERFUND SITES, *supra* answer 7.
15. - a. *See* Eloise Shumacher, *Hurry Hanford Controls, EPA Says—Agency Sees Danger in Liquid Waste Dumping*, SEATTLE TIMES, Feb. 26, 1991, at C5.
16. - f. Matthew L. Wald, *The Adventures of the Toxic Avengers Have Barely Begun*, N.Y. TIMES, Sept. 15, 1991, § 4, at 5.
17. - e. U.S. EPA, SUPERFUND EMERGENCY RESPONSE ACTIONS (1987) (\$397,000 spent to clean up a midnight dumping incident).
18. - d. United States Fidelity & Guar. Co. v. United States, 837 F.2d 116 (3d Cir.), *cert. denied*, 487 U.S. 1235 (1988).
19. - c. United States v. M. Genzale Plating, Inc., 723 F. Supp. 877, 882 (E.D.N.Y. 1989) (statutory maze); Allied Corp. v. Acme Solvents Reclaiming, Inc., 691 F. Supp. 1100, 1105 (N.D. Ill. 1988) (Monopoly); *In re Acushnet River & New Bedford Harbor*, 675 F. Supp. 22, 26 (D. Mass. 1987) (King Minos' labyrinth).

20. - c. *Boarhead Corp. v. Erickson*, 923 F.2d 1011, 1014 & n.5 (3d Cir. 1991).
21. - b. See *SASSER REPORT*, *supra* answer 10, at 9.
22. - b. For details on the site, see 1989 *GUIDE TO SUPERFUND SITES*, *supra* answer 7, at 161.
23. - e. See *Jerry-Russell Bliss, Inc. v. Hazardous Waste Management Comm'n*, 702 S.W. 2d 77 (Mo. 1986).
24. - b. See *NORMAN L. DEAN ET AL., NATIONAL WILDLIFE FED'N, THE TOXIC 500: THE 500 LARGEST RELEASES OF TOXIC CHEMICALS IN THE UNITED STATES 1987*, at 1-1 tab. 1 (1989).
- | | |
|-------------|---------------------|
| AMAX | (68,112,950 pounds) |
| AVTEX | (50,990,000 pounds) |
| Tenn. East. | (39,484,508 pounds) |
| Rochester | (22,617,600 pounds) |
| Agrico | (14,679,605 pounds) |
25. - c. *Cf. In re Combustion Equipment Association, Inc.*, 838 F.2d 35, 40 (2d Cir. 1988) (10,000 letters outstanding).
26. - b. See *ACTON*, *supra* answer 8, at 57.
27. - b. See *ENVIRONMENTAL DEFENSE FUND ET AL., RIGHT TRAIN, WRONG TRACK: FAILED LEADERSHIP IN THE SUPERFUND CLEANUP PROGRAM 20-21* (1988).
28. - c. See *OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, U.S. EPA, ROD ANNUAL REPORT: FY 1989*, at 48 (1990).
29. - e. *Regional News: North Carolina*, UPI, May 23, 1981, available in LEXIS, Nexis library, UPI file; see also *United States v. Ward*, 14 *Envtl. L. Rep. (Envtl. L. Inst.)* 20,804 (E.D. N.C. 1984).
30. - a. Compare *United States v. New Castle County*, 727 F. Supp. 854, 862 (D. Del. 1989), with 1989 *GUIDE TO SUPERFUND SITES*, *supra* answer 7, at 199.