Colten, Craig E. and Peter N. Skinner. The Road to Love Canal: Managing Industrial Waste Before EPA. Austin: University of Texas Press, 1996.

1980 Passage of Superfund law
- Congressman Eckhardt of Texas chaired the Congressional Committee that surveyed chemical waste disposal methods previous to Superfund
  - Most chemical disposals were in the form of landfills, Pits, ponds or lagoons
  - "It is precisely these techniques that have produced the persistent dilemmas associated w/ hazardous wastes (p. xi)."

Potential Source: The Hazardous Waste Research and Information Center, a division of the Illinois Department of Energy and Natural Resources

Before the passage of the 1970 National Environmental Protection Act, "there was no uniform regulation of chemical waste disposal (p. 2)."
- There were National organizations that provided guidance for waste disposal
- Local regulations generally were centered around solid waste and wastewater disposal

"The increasing volume of chemical wastes during the twentieth century created increasing pressure on waste generators to find inoffensive and secure means of disposal. Likewise, the development of ever more toxic and

persistent by-products called for a higher degree of control. Waste treatment technologies evolved in response to, although somewhat behind, the demands of both industry and society. Treatment options involved isolation, chemical alteration, destruction, and recovery were selected on the basis of a multitude of variables: local environmental conditions, scientific understanding of both chemical and environmental processes, and management's consideration of these factors (p. 3)."

Comprehensive Environmental Response, Compensation, and Liability Act (1980), a.k.a. Superfund

- No statute of limitations
- Holds any and all former owners or operators of severely contaminated sites responsible for cleanup costs and damages
- Requires "an unusual amount of historical research"
  - ID former owners/occupants (PRP's)
  - Documentation regarding contemporary production of hazardous substances
  - Determination of each substance's contribution to the site's contamination
  - Determine past owner's waste disposal methods

Joel Tarr → emphasis before Superfund was on biological wastes and potentially harmful bacteria rather than toxic materials

Samuel Hayes → Concerns for toxic wastes are generally post-1945.

Christopher Sellers → industry turned to toxicology experts to formulate waste disposal policy and technique.

"Despite the public's belated concern with this subject, industry vigorously sought to maintain exclusive dominion over topics and waste mangement expertise (p. 5; see Note 8)."

Most waste was manageable up until the 1930's (p. 5).

1930's - 1940's — organic chemistry industry flourished creating new wastes which were not easy to dispose of (p. 5).

"Shot-term considerations" generally dictated the methods chosen for waste disposal (p. 7).

"The decision maker's thinking can be pushed one way or the other by various factors and can be sensitized by still others. Knowledge of a wastes endangerment potential is the foremost consideration in choosing an appropriate waste disposal method. If the decision makers believed the waste innocuous, they would give little thought to protecting the public from exposure to it (p. 7)."

The final choice of disposal method reflected practical realities of cost, external power forces, and ethical considerations (p. 9)

"In short, decision makers could in the past and can today engineer a blend of disposal technologies, institutional arrangements, and site enhancements to reduce long-term public exposure and thereby achieve a chosen level of waste control. All of these control/enhancement mechanisms reflect a degree of trusteeship (p. 10)."

"... low control often characterized land disposal practices of the period [1940s - 1950s] (p. 10)."

Some decision makers were oblivious to the Toxic Nature of their wastes (p. 10). Others knew.

Chapter Two: Recognizing Dangers

Early disposal methods began with isolation (quarantine) as "Out of Sight - Out of Mind" reasoning prevailed (p. 13)

"A wide range of scientific specialists and public policy participants had come to recognize the potential for hazardous chemical transmission to human and animal populations throughout much of this century. Although hydrological, biological, sanitary, and toxicological investigations repeatedly acknowledged the risks posed by toxic releases, seldom did waste disposal methods reflect this kind of knowledge (p. 22)."

Before 1900 biologists and legislative bodies recognized that industrial by-products could damage the environment (p. 23).

Polluters generally followed the cheapest treatment options unless the law required them to do otherwise (p. 24).

By the 1950s, Biologists found ~~that~~ previous studies of the effects of chemicals vastly underestimated the toxicity of chemicals (p. 28).

"In sum, by the early 1950s biologists had joined the researchers familiar with indirect environmental impacts of chemical products and by-products (p. 28)."

"Contamination of public drinking water supplies by nonbiological wastes had become a chronic concern by the early 1940s (p. 37)."

Chapter Three: Accommodating Hazards

"In practice, chemical waste management during the 1940s and 1950s was an amalgam of science and engineering mixed with heavy doses of convenience and expediency. This mixture produced a national landscape sprinkled with thousands of known hazardous wastes disposal sites, to say nothing of the thousands of as yet ~~discovered~~ undetected sites (p. 43)."